# YEDITEPE UNIVERSITY FACULTY OF MEDICINE PHASE II ACADEMIC PROGRAM BOOK 2024 – 2025

Student'	s;
Name	:
Number	•

# YEDITEPE UNIVERSITY FACULTY OF MEDICINE PHASE II

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### COORDINATION COMMITTEE (TEACHING YEAR 2024 – 2025)

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#### **ACADEMIC CALENDAR 2024 – 2025**

#### **MED 203 BASIC MEDICAL SCIENCES II**

#### **COMMITTEE I CARDIOVASCULAR SYSTEM (6 Weeks)**

Beginning of Committee: September 09, 2024, Monday

End of Committee: October 18, 2024, Friday

Committee Exam: October 14-18, 2024 (Theoretical and Practical Exams)

Committee Exam Discussion: October 18, 2024, Friday

**COMMITTEE II RESPIRATORY SYSTEM (6 Weeks)** 

Beginning of Committee: October 21, 2024, Monday

End of Committee: November 29, 2024, Friday

Committee Exam: November 25-29, 2024 (Theoretical and Practical Exams)

Committee Exam Discussion: November 29, 2024, Thursday

National Holiday: October 29, 2024, Tuesday

Commemoration of Atatürk: November 10, 2024 Sunday

**COMMITTEE III GASTROINTESTINAL SYSTEM (7 Weeks)** 

Beginning of Committee: December 2, 2024, Monday

End of Committee: January 17, 2025, Friday

Committee Exam: January 13-17, 2025 (Theoretical and Practical Exams)

Committee Exam Discussion: January 17, 2025

New Year: January 1, 2025, Wednesday

**MIDTERM BREAK: JANUARY 20-31, 2025** 

**COMMITTEE IV NERVOUS SYSTEM (8 Weeks)** 

Beginning of Committee: February 3, 2025, Monday

End of Committee: March 28, 2025, Friday

Committee Exam: March 24-28, 2025 (Theoretical and Practical Exams)

Committee Exam Discussion: March 28, 2025, Friday

Physicians' Day: March 14, 2025, Friday

#### **COMMITTEE V ENDOCRINE and UROGENITAL SYSTEMS (9 Weeks)**

Beginning of Committee: April 2, 2025, Wednesday

End of Committee: May 30, 2025, Friday

Committee Exam: May 26-30, 2025 (Theoretical and Practical Exams)

Committee Exam Discussion: May 30, 2025, Friday

Feast of Ramadan: March 29- April 1, 2025

National Holiday: April 23, 2025, Wednesday

Labor's Day: May 1, 2025, Thursday

National Holiday: May 19, 2025, Monday

Make-up Exam: June 10-13, 2025 Tuesday-Friday

Final Exam: June 25, 2025, Wednesday

Incomplete Exam: July 17, 2025, Thursday

#### FREE ELECTIVE COURSES-Spring 2024-2025

Introduction to Elective Courses: January 10, 2025, Friday 14:00-16:00 (Online)

Beginning of Elective Courses: February 14, 2025, Friday

Midterm Exam: April 11, 2025, Friday

End of Elective Courses May 23, 2025, Friday

Make-up Exam: May 26-30, 2025 Monday-Friday

Final Exam: June 10-18, 2025 Tuesday- Wednesday

Incomplete Exam: July 4 -11, 2025 Friday-Friday

#### MED 202 INTRODUCTION to CLINICAL PRACTICE II (ICP-II)

Beginning of Course: September 12, 2024, Thursday

End of Course: May 8, 2025, Thursday

Midterm Exam: February 6-7, 2025, Thursday- Friday

Make-up Exam: March 13, 2025, Thursday

Final Exam: June 11-12, 2025, Wednesday-Thursday

Incomplete Exam: July 1, 2025, Tuesday

#### **THE COORDINATION COMMITTEE MEETINGS**

1st Coordination Committee Meeting: October 17, 2024, Thursday

2<sup>nd</sup> Coordination Committee Meeting: January 10, 2025, Friday (With student participation)

3<sup>rd</sup> Coordination Committee Meeting: May 14, 2025, Wednesday (With student participation)

4<sup>th</sup> Coordination Committee Meeting: July 9, 2025, Wednesday

#### **PROGRESS TEST**

1<sup>st</sup> Progress Test: 28 December 2024 Saturday (ONLINE)

2<sup>nd</sup> Progress Test: 10 May 2025 Saturday (ONLINE)

<sup>\*</sup>Participation in the Progress Test (PT) is compulsory. Students who do not complete the PT will not be eligible to progress to the next phase.

## UNDERGRADUATE MEDICAL EDUCATION PROGRAM YEDİTEPE UNIVERSITY FACULTY OF MEDICINE

#### AIM OF MEDICAL EDUCATION PROGRAM

\*"Consensus Commission Report" based on draft compiled at "Workshop for Revision of Aim and Outcomes of Medical Education Program at Yeditepe University Faculty of Medicine"

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#### **AIM**

The aim of medical education program is to graduate physicians who

- 1.0. are aware of the local and global health issues
- 2.0. **have acquired competence** in knowledge, skills and attitudes to manage and provide primary health care service
- 3.0. know, apply, and care for ethical principles of the medical profession
- 4.0. **keep up with** current knowledge at national and international level
- 5.0. are capable of systematical thinking
- 6.0. are investigative and questioning
- 7.0. continually **renovate** and **improve** themselves
- 8.0. are capable of teamwork
- 9.0. use technology competently in medicine and related areas
- 10.0. have effective communication skills
- 11.0. have community leadership qualifications

#### YEDITEPE UNIVERSITY FACULTY OF MEDICINE

#### PROGRAM OUTCOMES OF MEDICAL EDUCATION

YUTF - Undergraduate Medical Education Program was designed to provide our graduates with the competencies that are specified in the National Competencies List of medical graduates (UYYB)\*.

UYYB is a national document that indicates the expected/required competencies of the students who are at the stage of graduating from Medical Schools in Turkey.

You can find UYYB from the link: <a href="https://www.yok.gov.tr/Documents/Kurumsal/egitim\_ogretim\_dairesi/Ulusal-cekirdek-egitimi-programlari/mezuniyet-oncesi-tip-egitimi-cekirdek-egitimi-programi.pdf">https://www.yok.gov.tr/Documents/Kurumsal/egitim\_ogretim\_dairesi/Ulusal-cekirdek-egitimi-programlari/mezuniyet-oncesi-tip-egitimi-cekirdek-egitimi-programi.pdf</a>

#### **COMPETENCY AREA-1 / Professional Practices**

#### **COMPETENCY 1.1. Health Service Provider**

**Competence 1.1.1.** Integrates knowledge, skills, and attitudes acquired from basic and clinical medical sciences, behavioral sciences, and social sciences to provide health services.

**Competence 1.1.2.** Demonstrates a biopsychosocial approach that considers the individual's sociodemographic and sociocultural background without discrimination based on language, religion, race, or gender in patient management.

**Competence 1.1.3.** Prioritizes the protection and improvement of individuals' and community's health in the delivery of healthcare services.

**Competence 1.1.4.** Performs the necessary actions in the direction of maintaining and improving the state of health as considering the individual, social, social and environmental factors affecting health.

**Competence 1.1.5.** Provides health education to healthy/ill individuals and their families, as well as to other healthcare professionals, by recognizing the characteristics, needs, and expectations of the target audience.

**Competence 1.1.6.** Demonstrates a safe, rational, and effective approach in the processes of protection, diagnosis, treatment, follow-up, and rehabilitation in health service delivery.

**Competence 1.1.7.** Performs interventional and/or non-interventional procedures safely and effectively for the patient in the processes of diagnosis, treatment, follow-up, and rehabilitation.

**Competence 1.1.8.** Provides healthcare services considering patient and employee health and safety.

**Competence 1.1.9.** Considers changes related to the physical and socio-economic environment at both regional and global scales that affect health, as well as changes in the individual characteristics and behaviors of those who seek healthcare services.

#### **COMPETENCY AREA-2 / Professional Values and Approaches**

#### **COMPETENCY 2.1. Adopting Professional Ethics and Principles**

Competence 2.1.1. Considers good medical practices while performing the profession.

**Competence 2.1.2.** Fulfills duties and obligations within the framework of ethical principles, rights, and legal responsibilities required by the profession.

**Competence 2.1.3.** Demonstrates determined behavior in providing high-quality healthcare while considering the patient's integrity.

**Competence 2.1.4.** Evaluates own performance in professional practices by considering own emotions and cognitive characteristics.

#### **COMPETENCY 2.2. Health Advocate**

**Competence 2.2.1.** Advocates for the improvement of healthcare service delivery by considering the concepts of social accountability and social responsibility in the protection and enhancement of community health.

**Competence 2.2.2.** Plans and implements service delivery, education, and counseling processes related to individual and community health, in collaboration with all stakeholders, for the protection and improvement of health.

Competence 2.2.3. Evaluates the impact of health policies and practices on individual and community health indicators and advocates for the improvement of healthcare quality.

Competence 2.2.4. Gives importance to protecting and improving own physical, mental and social health

#### **COMPETENCY 2.3. Leader-Manager**

and takes necessary actions for it.

**Competence 2.3.1.** Demonstrates exemplary behavior and leadership within the healthcare team during service delivery.

**Competence 2.3.2.** Utilizes resources in a cost-effective, socially beneficial, and compliant manner with regulations in the planning, implementation, and evaluation processes of healthcare services as the manager in the healthcare institution.

#### **COMPETENCY 2.4. Team Member**

**Competence 2.4.1.** Communicates effectively within the healthcare team and takes on different team roles as necessary.

**Competence 2.4.2.** Displays appropriate behaviors while being aware of the duties and responsibilities of healthcare workers within the healthcare team.

**Competence 2.4.3.** Works collaboratively and effectively with colleagues and other professional groups in professional practice.

#### **COMPETENCY 2.5. Communicator**

**Competence 2.5.1.** Communicates effectively with patients, their families, healthcare professionals, and other occupational groups, institutions and organizations.

**Competence 2.5.2.** Communicates effectively with individuals and groups who require a special approach and have different sociocultural characteristics.

Competence 2.5.3. Demonstrates a patient-centered approach that involves the patient in decisionmaking mechanisms during the diagnosis, treatment, follow-up, and rehabilitation processes. **COMPETENCY AREA-3 / Professional and Personal Development COMPETENCY 3.1. Scientific and Analytical Approach** Competence 3.1.1. Plans and implements scientific research, as necessary, for the population it serves, and utilizes the results obtained, as well as those from other research, for the benefit of the community. **Competence 3.1.2.** Accesses and critically evaluates current literature related to their profession. Competence 3.1.3. Applies evidence-based medicine principles in the clinical decision-making process. Competence 3.1.4. Uses information technologies to enhance the effectiveness of healthcare, research, and education activities. **COMPETENCY 3.2. Lifelong Learner** Competence 3.2.1. Manages effectively individual study processes and career development. Competence 3.2.2. Demonstrates skills in acquiring, evaluating, integrating new information with existing knowledge, applying to professional situations, and adapting to changing conditions throughout professional career. Competence 3.2.3. Selects the right learning resources to improve the quality of health care and organizes the learning process.

#### **INSTRUCTIONAL DESIGN of PRECLINICAL YEARS**

In Phase I, II and III, the formation of committees is based on a thematic structure. This structure corresponds to organizational levels of human body such that macromolecule, organelle, cell, tissue, organ systems and finally introduction to pathogenesis.

- Phase I: Normal structure and function of human body at molecular, cellular, tissue and organ level.
- Phase II: Normal structure and function of human body at system and multi-system level, and introduction to pathogenesis.
- Phase III: Physiopathological and pathological processes in human body.

Besides this thematic structure, there is a continuous clinical skills education in Phase I, II and III, as "Introduction to Clinical Practice -I, -II and -III" courses.

Therefore, the core medical courses are;

- Phase I: MED 104 Basic Medical Sciences I, MED 102 Introduction to Clinical Practice I, MED 103
  Anatomical Drawing,
- Phase II: MED 203 Basic Medical Sciences II, MED 202 Introduction to Clinical Practice II,
- Phase III: MED 302 Introduction to Clinical Sciences, MED 303 Introduction to Clinical Practice III.

The learning objectives of the phase include learning objectives of core courses. The learning objectives of committees include learning objectives of core courses' components for the committee.

#### 2024-2025 CURRICULUM OF PHASE II

#### YEDITEPE UNIVERSITY FACULTY OF MEDICINE

CODE		SECOND YEAR	W	T	Α	L	Υ	E
MED	203	Basic Medical Sciences II	38	597		87		53
MED	202	Introduction to Clinical Practice II	35	5	12	18		5
MED	XXX	Free Elective Course <sup>1</sup> (SS)	14	28				2
Total Credits								60

The curriculum applies to 2024-2025 educational term. The duration of educational term for each year is shown in the table as total number of weeks. ECTS credits are the university credits of the courses in Yeditepe University Faculty of Medicine Undergraduate Medical Education Program. 1 ECTS=30 hours of workload including independent study hours per average student. GPA and cGPA calculations are based on ECTS credits.

Free Elective Courses. At least one free elective course offered by the Faculty of Medicine or other faculties must be selected in an academic year. Free elective courses provided by Faculty of Medicine in the first three years: MED 611 Medical Anthropology, MED 612 Creative Drama I, MED 613 Medical Humanities, MED 614 Personal Trademark Development, MED 615 Innovation Management, MED 616 Medical Management and New Services Design Skills, MED 619 Entrepreneurship and Storytelling Techniques for Business Purposes, MED 620 Art, Culture and Life Styles, MED 621 Epidemiological Research and Evidence-Based Medicine, MED 622 Applications of Economics in Health Care, MED 623 Visual Presentation in Medicine, MED 627 Presentation of Medicine on Media, MED 628 Healthy Living: The Milestones of the Life for Performance Management, MED 629 Music and Medicine, MED 630 Health Law, MED 631 Creative Drama II, MED 632 Music Appreciation, MED 633 Communication with Hearing Impaired Patients in Turkish Sign Language, MED 634 Case Based Forensic Science, MED 635 Advanced Level Communication with Hearing Impaired Patients in Turkish Sign Language, MED 636 Art Project, MED 637 Artistic Photography and Composition... <sup>2</sup>Common Courses. These courses are obligatory in all programs of the university. The university credit values of the common courses are as stated by the University Senate. Except for HUM 103, these courses are not to be included in the GPA and cGPA calculations. Courses on Turkish Language and Culture for Foreigners (AFYA). Based on the result of Turkish Language Proficiency Exam, instead of TKL 201 (FS) and TKL 202 (SS) courses, international students will be requested to take the required ones from the AFYA 101 (FS), AFYA 102 (SS), AFYA 201 (FS) and AFYA 202 (SS) courses, designed for them. Each of these courses have credits as Y=3 and E=5. These courses are not to be included in the GPA and cGPA calculations.

T: Theoretical, A: Application, L: Laboratory, Y: Yeditepe University Credit, E: ECTS Credit

NC: Non-Credit Course, FS: Fall Semester, SS: Spring Semester, W: Weeks.

<sup>\*</sup>Please see <a href="https://med.yeditepe.edu.tr/sites/default/files/curriculum 2023-24 tr.docx">https://med.yeditepe.edu.tr/sites/default/files/curriculum 2023-24 tr.docx</a> for total curriculum of Faculty of Medicine.

#### **DESCRIPTION and CONTENT of PHASE II**

Normal structure and function at system and multi-system level, introduction to pathology.

Cardiovascular System, Respiratory System, Gastrointestinal System, Nervous System, Endocrine and Urogenital System, Introduction to Clinical Practice- II (ICP- II), Scientific Research and Project, Problem-Based Learning, Elective Courses

Anatomy, Physiology, Biochemistry, Histology & Embryology, Microbiology, Immunology, Biophysics, Medical Biology, Pathology, Pharmacology, Biostatistics, Family Medicine, Medical Education, Elective Courses, Scientific Research and Project Course-II.

#### AIM and LEARNING OBJECTIVES of PHASE II

#### **AIMS**

- 1. to convey knowledge on biophysical, biological, anatomical, embryological, histological, physiological, biochemical, microbiological and immunological conditions of systems, introductory information on tissue damage and neoplasis related to systems, and basic knowledge at the introductory level for clinics, to equip with basic clinical skills (interventional or non-interventional) required for the practice of medical profession, and skills for making scientific research presentation
- **2. to convey** complementary educational experiences by improving biopsychosocial approach medical practice

#### **LEARNING OBJECTIVES**

At the end of this phase, student should be able to:

#### **KNOWLEDGE**

- 1.0. explain basic medical knowledge for cardiovascular system, respiratory system, circulation, hemodynamics, urogenital system, gastrointestinal system, nervous system, endocrine system, immune system and immunologic response, biostatistics subjects and elective courses.
- 2.0. explain the operational principles, interactions and relation of the systems in the body.
- 3.0. of clinical conditions;
  - 3.1. explain mechanisms of damages formed at molecular, cell, tissue, organ, system and multi-system levels,
  - 3.2. describe the structural changes caused,
  - 3.3. list developmental progress in time.
- 4.0. Among factors that pose risk-to individual and community health;
  - 4.1. list biological agents,
  - 4.2. explain their mechanisms of action and outcomes.
- 5.0. explain basic principles of evidence-based medicine applications.
- 6.0. know how to discuss scientific articles in the view of literature
- 7.0. comprehend the biopsychosocial approach in medicine.
- 8.0. know how to make presentation of a scientific research.

#### **SKILLS**

- 1.0. apply basic interventional and non-interventional processes for taking individual preventive measures, drug application and diagnosis or treatment.
- 2.0. apply basic laboratory technics and use equipment.
- 3.0. prepare a presentation of a scientific research

## AIM and LEARNING OBJECTIVES of BASIC MEDICAL SCIENCES II (BMS-II) (MED 203)

#### AIM

**To convey** knowledge on biophysical, biological, anatomical, embryological, histological, physiological, biochemical, biostatistics, microbiological and immunological conditions of systems, introductory information on tissue damage and neoplasis related to systems, and basic knowledge at the introductory level for clinics, skills for scientific article presentation

#### **LEARNING OBJECTIVES**

At the end of this course, student should be able to:

#### **KNOWLEDGE**

- 1.0. explain basic medical knowledge for cardiovascular system, respiratory system, circulation, hemodynamics, urogenital system, gastrointestinal system, nervous system, endocrine system, immune system and immunologic response, biostatistics subjects.
- 2.0. explain the operational principles, interactions and relation of the systems in the body.
- 3.0. of clinical conditions;
  - explain mechanisms of damages formed at molecular, cell, tissue, organ, system and multisystem level.
  - 3.2. describe the structural changes caused,
  - 3.3. list developmental progress in time.
- 4.0. Among factors that pose risk to individual and community health;
  - 4.1.list biological agents,
  - 4.2. explain their mechanisms of action and outcomes.
- 5.0. explain basic principles of evidence-based medicine applications.
- 6.0. know how to discuss scientific articles in the view of literature
- 7.0. know how to make presentation of a scientific research.
- 8.0. comprehend the biopsychosocial approach in medicine.

#### **SKILLS**

- 1.0. apply basic interventional and non-interventional processes for taking individual preventive measures, drug application and diagnosis or treatment.
- 2.0. apply basic laboratory technics and use equipment.
- 3.0. prepare a presentation of a scientific research

## DESCRIPTION of INTRODUCTION to CLINICAL PRACTICE I, II, and III (ICP-I,-II,-III)

(MED 102, MED 202, MED 303)

#### **AIM of ICP PROGRAM**

The aim of Introduction to Clinical Practice Program is to equip the students with basic medical skills and attitudes, in areas such as history taking regarding to systems and in general, physical and mental examination in simulated environments in pre-clinical period and to give the students opportunity to develop skills by applying non –invasive or invasive procedures on the mannequins before encountering with real patients.

#### **Description**

ICP is a three year longitudinal course that aims to introduce students to the concepts and main elements of medical practice. It will also be an introduction to the medical profession as a whole and will provide a foundation for clinical practice. The course provides knowledge, cognitive and motor skills and experience in fundamental processes and aspects of medical practice. It involves the application of scientific theory, quality assurance and evidence-based best practice protocols.

#### **Credit Facility**

This course has 5 ECTS credits for each of the first three years and all of the students are required to pass this course in order to pass the year.

#### Content of the ICP I-II-III

First-year medical students gain knowledge on First Aid approaches, Basic Knowledge on Infection Control and Standard Precautions, develop skills in Basic Life Support, Patient/Casualty Transportation and Bandaging Techniques regarding First Aid and handwashing, wearing sterile gloves, wearing masks, assessing vital signs. They also acquire basic knowledge on communication and experience patient-doctor encounter with simulated patients (SP's)\*.

The second year's ICP Program consist of modules like nasogastric intubation; bladder catheterization; intramuscular, subcutaneous, intradermal and intravenous injections; intravenous catheterization as well as intraarterial blood sampling.

In the third year medical students practice with SP's clinical skills like history taking and physical examination focused on body systems and in general and also mental examination. They also gain clinical skills such as suturing techniques and Advanced Cardiac Life Support.

#### **Clinical Skills Laboratory**

The Clinical Skills Laboratory is designed for teaching and assessing students at undergraduate level (during the preclinical period from first-year to third year). The lab provides learners with the ideal setting to practice the clinical skills of history taking, physical examination, communication, and gives opportunities to practice invasive and non invasive procedural skills on mannequins.

Each OSCE room is equipped with video cameras and microphones to record the encounter. An observation area at the center of the lab allows faculty and students to observe the encounters live or view digital recordings for subsequent analysis.

#### \*Simulated Patients (SPs)

The simulated patient encounters fascilitate transfer of the gained theoretical knowledge to practice in simulated environments. SPs are usually, but not necessarily, lay people who are trained to portray a patient with a specific condition in a realistic way, sometimes in a standardized way (where they give a consistent presentation which does not vary from student to student). SPs are used for teaching and assessment of consultation and clinical/physical examination skills, in simulated teaching environments or in situ. (Cleland JA, Abe K, Rethans JJ. The use of simulated patients in medical education: AMEE Guide No 42. Med Teach. 2009 Jun;31(6):477-86. doi: 10.1080/01421590903002821. PMID: 19811162.)

#### Assessment

The Assessment procedure of ICP is given in the Assessment Table in this booklet.

#### **Rules for Attendance of the Students**

Students are grouped into 4 or 5 and group lists are announced to the class and also displayed in the ICP Lab announcement board at the beginning of the year. Any changes to practical groups on a week by week basis, will only be considered in exceptional situations such as a medical one. Any changes must be requested by a petition along with relevant documentation to the deanary. Any change in sessions will only be accepted interchangeably with another student in another group based on availability of work spaces and course coordinator's discretion (based on evidence provided).

Students are required to follow the rules of professional ethics in the laboratory at any time.

#### **Program Evaluation**

Each Semester students are required to fill out a feedback form according the ICP Program. When an OSCE is conducted both students and faculty members complete a written evaluation of the event for the improvement of the course and OSCE.

## AIM and LEARNING OBJECTIVES of INTRODUCTION to CLINICAL PRACTICE II (ICP-II) (MED 202)

#### AIM

1. **To equip with** basic interventional skills (nasogastric tube and urinary catheter application; intramuscular, intradermal and subcutaneous injection, intravenous cannulation, intraarterial Blood Sampling).

#### **LEARNING OBJECTIVES**

At the end of this phase, student should be able to:

#### **KNOWLEDGE**

- 1. **count** nasogastric tube types, application indications, contraindications and the steps in application procedure.
- 2. **count** urinary catheter types, application indications, contraindications and the steps in application.
- 3.**count** application indications, contraindications and the steps in application procedure of intramuscular, intradermal and subcutaneous injections.
- 4. **count** application indications, contraindications and the steps in application procedure of intravenous injections and intravenous cannulation.
- 5. **count** application indications, contraindications and the steps in application procedure of intraarterial blood sampling

#### **SKILLS**

- 1. perform nasogastric tube application on an adult model in accordance with the skill procedure.
- 2. **perform** urinary catheter application in an adult female and male model in accordance with the skill procedure.
- **3. perform** intramuscular, intradermal, subcutaneous and intravenous injection as well as intravenous cannulation applications in an adult model in accordance with the skill procedure.
- **4. perform** intramuscular, intradermal, subcutaneous and intravenous injection in an adult model in accordance with the skill procedure.
- **5. perform** intravenous injection and intravenous cannulation applications in an adult model in accordance with the skill procedure.
- **6. perform** intraarterial blood sampling in an adult model in accordance with the skill procedure.
- 7. **describe** the process to be carried out to the patient before any intervention.

#### **ATTITUDE**

- 1. value the importance of informed consent
- 2. pay attention to patient privacy
- 3. value the importance of not exceeding the limits of his/her own competency level.
- 4. pay attention to follow laboratory rules
- **5. pay** attention to keep patient records regularly and properly
- 6. apply hand hygiene before and after each procedure
- 7. apply standard precaution before, during and after each procedure

#### **EARLY CLINICAL EXPOSURE**

#### **Description:**

The training program includes Phase II students' learning activities in clinical settings including primary care during the Spring semester.

#### Aim:

The aim of "Early Clinical Exposure" Educational Program is the observation of doctor-patient communication on the job in the clinical settings as well as in primary care by Phase II students, and after interviewing a patient.

#### **Learning Environment:**

- 1. Yeditepe University Hospital (Kozyatağı)
  - a. Outpatient Clinic
  - b. Inpatient Clinic
  - c. Emergency Department
- 2. Yeditepe University Student Health Center (SHC)
- 3. Family Health Center (FHC)

#### **Duration:**

The education program is spread over a total of 5 weeks.

#### Objectives of the Training:

Students who complete the training program will be able to;

#### Knowledge:

- explain the steps of the patient-doctor interview.
- explain the history taking steps from the patients.
- explain the examination of vital signs and systemic examination.
- explain the role of clinical settings in daily functioning and health personnel, including primary care.
- list the administrative units in hospitals (consultant, hospital director, nursing director, quality management, patient safety unit) and function.
- explain the components of medical records.

#### Skills:

- start the interview with the patient.
- ask the patient's socio-demographic characteristics and record.
- question the main complaint and records.
- take a medical history from the patient.
- keep medical records on patients' files.
- inform the patient about the basic steps of patient-physician interview.

#### Attitude:

• develop awareness to act respectful and attentive to patients, their relatives and healthcare providers.

#### Content:

- Meeting with the patient, learning problems, giving information about the process
- Observing the history taking and physical examination
- Observing the planning of tests for diagnosis
- Observing the planning stages of treatment
- Observing the process of admission to the hospital
- Observing the Clinical process
- Observing the work area of health care workers in the hospital
- Observing certain units and functions on-site in the hospital

#### **Instructional Methods:**

Living an Experience-Field Trip-Clinical Setting (each student should encounter at least four patients in being presence twice in the clinical setting)

#### **Educational Materials:**

Checklists for the patient-physician interview (to be used during student observation)

#### Assessment

These assessments are made by the Coordinators of Early Clinical Experience.

#### The effect of ECE educational program will be considered as 10% of the ICP score.

#### **Organization of Student Groups:**

The student cycle of Phase II will be in synchronization with the ICP program.

Phase II coordinator will send the student list for the scheduled hours of training a week before the training to ECE coordinators.

Students should be in the clinical setting on the day of training during the ICP II Program.

	Group A	Group B	Group C	Group D	Group E
10 APR 2025	FHC	ICP	SRPC	Yeditepe University Hospital, Kozyatağı	SHC
17 APR 2025	Yeditepe University Hospital, Kozyatağı	FHC	ICP	SRPC	FHC
24 APR 2025	SHC	Yeditepe University Hospital, Kozyatağı	FHC	ICP	SRPC
2 MAY 2025				SHC	
8 MAY 2025	SRPC	SHC	Yeditepe University Hospital, Kozyatağı	FHC	ICP
15 MAY 2025			SHC		Yeditepe University Hospital, Kozyatağı

#### MED 202 ICP II COURSE 2024-2025 ACADEMIC PROGRAM

DAY	HOUR	SUBJECT	LECTURER
12-SEP-2024 THURSDAY	14:00-17:50	CSL: Intramuscular Injection / Intradermal / Subcutaneous Injection Group A	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
19-SEP-2024 THURSDAY	14:00-17:50	CSL: Intramuscular Injection / Intradermal / Subcutaneous Injection Group B	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
26-SEP-2024 THURSDAY	14:00-17:50	CSL: Intramuscular Injection / Intradermal / Subcutan Injection Group C	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
03-OCT-2024 THURSDAY	14:00-17:50	CSL: Intramuscular Injection / Intradermal / Subcutaneous Injection Group D	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
10-OCT-2024 THURSDAY	14:00-17:50	CSL: Intramuscular Injection / Intradermal / Subcutaneous Injection Group E	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
24-OCT-2024 THURSDAY	14.00-17.50	Intravenous Cannulation Group A	Dr. Gökhan Gencer / Dr.Atakan Gültekin

31-OCT-2024 THURSDAY	14.00-17.50	Intravenous Cannulation Group B	Dr. Cem Şimşek / Dr.Dijan Tav Şimşek
07-NOV-2024 THURSDAY	14.00-17.50	Intravenous Cannulation Group C	Dr. Mustafa Yazıcıoğlu / Dr.Rabia Sarıyıldız
14-NOV-2024 THURSDAY	14.00-17.50	Intravenous Cannulation Group D	Dr. Alev Eceviz / Dr.Atakan Gültekin
21-NOV-2024 THURSDAY	14.00-17.50	Intravenous Cannulation Group E	Dr. Hande Candemir Ercan / Dr.Rabia Sarıyıldız
	-		
05-DEC-2024 THURSDAY	14.00-17.50	CSL: Nasogastric Tube Administration Group A	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
12-DEC-2024 THURSDAY	14.00-17.50	CSL: Nasogastric Tube Administration Group B	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
19-DEC-2024 THURSDAY	14.00-17.50	CSL: Nasogastric Tube Administration Group C	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
P.			

26-DEC-2024 THURSDAY	14.00-17.50	CSL: Nasogastric Tube Administration Group D  Dr. Tümay Sadıkoğlu / Dr. Duygu Altıpa	
09-JAN-2025 THURSDAY	14.00-17.50	CSL: Nasogastric Tube Administration Group E	Dr. Tümay Sadıkoğlu / Dr. Duygu Altıparmak
05-FEB-2025 MONDAY	09.00-11.50	REVIEW LAB	
06-07-FEB- 2025 THURSDAY, FRIDAY	09:00-17:50	os	CE-II MIDTERM
13-FEB-2025 THURSDAY	14:0-17:50	Intraarterial Blood Sampling Group A	Dr. Ezgi Aytaç
20-FEB-2025 THURSDAY	14:00-17:50	Intraarterial Blood Sampling Group B	Dr. Ezgi Aytaç
27-FEB-2025 THURSDAY	14:00-17:50	Intraarterial Blood Sampling Group C  Dr. Ezgi Aytaç	
06-MAR-2025 THURSDAY	14:00-17:50	Intraarterial Blood Sampling Group D	Dr. Ezgi Aytaç

13-MAR-2025 THURSDAY	14:00-17:50	Intraarterial Blood Sampling Group E	Dr. Ezgi Aytaç
20-MAR-2025 THURSDAY	14:00-17:50	Bladder Catheterization Group A	Dr. Alev Eceviz / Dr.Atakan Gültekin
10-APR-2025 THURSDAY	14:00-17:50	Bladder Catheterization Group B	Dr. Cem Şimşek / Dr.Dijan Tav Şimşek
17-APR-2025 THURSDAY	14:00-17:50	Bladder Catheterization Group C	Dr. Erman Uygun / Dr.Atakan Gültekin
24-APR-2025 THURSDAY	09:00-13:00	Bladder Catheterization Group D	Dr. Alev Eceviz / Dr.Rabia Sarıyıldız
	ı		
8-MAY-2025 THURSDAY	14:00-17:50	Bladder Catheterization Group E	Dr. Hande Candemir Ercan / Dr.Rabia Sarıyıldız
	<u>,                                      </u>		
15-MAY-2025 THURSDAY	14:00-17:50	ICP REVIEW Lab	

Midterm Exam: February 06-07, 2025 Thursday-Friday Make-up Exam: March 13, 2025 Thursday Final Exam: June 11-12, 2025 Wedneyday-Thursday Incomplete Exam: July 1, 2025 Tuesday

## AIM and LEARNING OBJECTIVES of SCIENTIFIC RESEARCH and PROJECT COURSE—II

#### AIM

The aim of the Scientific Research and Project Course— II (SRPC) is to equip second-year medical students to convey basic knowledge of scientific research and methodology, to equip them with skills in searching scientific literature from different reliable sources, and then convey students' knowledge and skills to write a scientific review paper and present it as a poster.

#### **LEARNING OBJECTIVES**

At the end of this phase, students should be able to:

#### **KNOWLEDGE**

- 1.0. find reliable scientific research articles and literature from different sources
- 2.0. decide on a topic of interest related to scientific research
- 3.0. explain the structure of a scientific review paper
- 4.0. Explain the different types of review papers
- 5.0. explain the basic structure of the poster presentation
- 6.0. present a review or research paper as a poster

#### **SKILLS**

- 1.0. decide on the topic of scientific research interest
- 2.0. browse reliable sources to find reliable scientific literature
- 3.0. write a review paper
- 4.0. prepare poster

#### The Scientific Research and Project Course (SRPC)

#### Aim, objectives, and explanation of the course

The Scientific Research and Project Course (SRPC) is crafted to offer medical students the chance to dive into research that is based on hypotheses, aiming to boost their analytical thinking abilities, increase their intellectual sharpness, and encourage a deeper sense of curiosity. It is designed to nurture top-notch skills in research, clinical, and teaching scholars. Students will explore various topics across different fields, including the biomedical sciences, clinical sciences, humanities, arts, and more. Additionally, students will learn and implement key professional values, ethical standards, communication strategies, and teamwork skills throughout their research journey.

The purpose of the course is to introduce students to the scientific inquiry process, showing them how to pose questions that can be answered and the methods needed to find the right answers. The SRPC is integrated into the medical school education and curriculum. The program is implemented along the longitudinal corridor, covering the first three phases/classes of the school. The objectives of the course include:

- Identify a significant scientific or clinical question to explore.
- Review, analyze, and use scientific literature related to the selected question.
- Create a project hypothesis based on the latest research and theories in the scientific area.
- Discover suitable methods to tackle the question, following established standards in the relevant disciplines.
- Plan, carry out, and analyze the outcomes of their projects, focusing on the question and hypothesis.
- Determine how the project connects to medicine and healthcare.
- Express ideas clearly through speaking and writing.
- Uphold ethical standards and professionalism throughout the project.

The SRPC is designed to ignite curiosity, enhance understanding, and encourage research activities among students in their undergraduate medical studies. To accomplish these objectives, the SRPC program is structured into three main parts:

- 1. A classroom-based part that includes lectures, small group study & discussions, and collaborative learning activities,
- 2. Guidance from teachers in acquiring the abilities needed to create and articulate a research question, a related hypothesis, and the approach to carry out the research,
- 3. A student project.

#### Instructional methods

Team-based learning (TBL) will be used as an active learning strategy for SRPC to promote critical thinking, knowledge application, teamwork, and collaboration. Each TBL session should include prereading materials for students to review before attending the class. These materials should help students grasp the fundamental ideas of the session. Instructors will outline the goals of the session before or during the readings and create tests to assess these goals. When students arrive for the TBL session, they will take an Individual Readiness Assurance Test (IRAT). This test ensures each student has understood the assigned readings and is usually a true/false/multiple-choice quiz (20% of final grade). Students may also have a Team Readiness Assurance Test (TRAT) at the start of class to address any misunderstandings or issues (20% of final grade). The instructor will look for any misunderstandings and promote discussions but will not provide answers or solutions, instead focusing on explaining complex concepts as necessary. Students will be responsible for their own homework (60% of final grade), as their individual scores will be factored into their final score for SRPC.

#### **ASSESSMENT PROCEDURE**

For the assessments of the medical students for the SRPC, it is calculated out of 100 points; 60% of the total grade will be on enlarged abstract writing (600 words) and drawing a graphical abstract by the end of the first semester (Jan 17, 2025) and 60% will be on poster presentation at the end of the second semester (Jun 13, 2025).

	Percentage of final grade
Individual Readiness Assurance Test (IRAT)	20%
Team Readiness Assurance Test (TRAT)	20%
Homework	60%

Any assignments, including enlarged abstract writing, drawing graphical abstract, and poster presentation, should be done by the student herself or himself and should not be "copied and pasted" by others. Similarities of more than 35% in Turnitin or a similar search engine will be considered plagiarism, and students (the ones who give and the ones who receive) will get zero (0) points for the total score for the SRP course.

Students are strongly encouraged to attend the small group meetings and discussions since it will help them to complete the tasks on time. Students could attend only in their small groups. Attending with other small groups will be considered absent.

The constraints of the Assignments will be discussed in Small Group Study hours. During these sessions, students can discuss related issues and ask questions.

The Scientific Research and Projects I has 3% contribution to Term Score (TS).

Please note that you may only attend Small Group Study hours in the assigned group hours. A list of groups will be published during the first week of the term. There will be no acceptance of assignments after the pre-scheduled dates.

Turning in assignments on time: Any assignments given by the instructor should be turned in on the date and time decided by the instructor. Assignments turned in after the deadline will not be accepted, and students will receive zero points.

Note: The instructor has the right to change the assignments and assessment portions of the assignments.

#### ASSESSMENT PROCEDURE

The Assessment Procedure of Phase II covers exams and scores and their abbreviations shown below.

- 1. Exams:
  - Committee Exam (CE)
  - Mid-term Exam (MTE)
  - Final Exam (FE)
  - Incomplete Exam (ICE)
  - Make-up Exam (MUE)
- 2. Scores\*:
  - Committee Score (CS)
  - Committees Mean Score (CMS)
  - Introduction to Clinical Practice Score (ICPS)
  - Anatomical Drawing Score (ADS)
  - Common Compulsory Course Score (CCCSs)
  - Elective Course Score (ECSs)
  - Scientific Research and PROJECT Score (SRPCS)
  - Final Exam Score (FES)
  - Incomplete Exam Score (ICES)
  - Term Score (TS)

Assessment approaches, assessment methods and assessment tools, that related with the exam and score types, are shown below table.

Assessment Approaches	ssessment Methods	Question Types / Assessment Tools	Exams	Derived Scores
		MCQ: Multiple Choice Questions	CE, MTE, FE, ICE	CS, ICPS, FES, ICES, ECSs, SRPCS
Knowledge- based Assessment	WE: Written Examination	SbMCQ: Scenario-based MCQs	CE, MTE, FE, ICE	CS, ICPS, FES, ICES
		FSAQ: Fill-in-the- Blank Short Answer Questions	MUE	CS
Competency– based Assessment	OSCE: Objective Structured Clinical Examination	OSCE Checklist		ICPS
	OSPE: Objective Structured Practical Examination	OSPE Checklist		cs
	LPE: Laboratory Practical Exam	LPE Checklist FSAQ: Fill-in-the- Blank Short Answer Questions* MCQ: Multiple Choice Questions* SEQ: Short Essay Questions*		cs
Performance-	PWPE: Review Writing and Presenting Evaluation	PWPE Checklist		ECSs
based Assessment	AID: Anatomical Images Drawing			ADS

	PBL-P: Evaluation of PBL Student's Performance	PBL Student Evaluation Form	cs			
	Exams Information (MED 202, MED 203)					
CE	For the proportional corresponding committee's assessment ma		g objectives, pl	ease see the		
MTEICP	MTEICP consists of MCQs that assess the theoretical part of the ICP program.					
FE	FE consists of 200 MCQs.  For the proportional contribution of each committee, please see the committee's question distribution table/page.					
ICE	ICE consists of 200 MCQs.  For the proportional contribution of each committee, please see the committee's question distribution table/page.					
MUE <sub>iBS</sub>	MUE will be held only twice in a term.  MUE consists of FSAQs.  The number of FSAQs is half of the relevant exam.  MUE content will be developed by the coordination committees.					

(MED 202,	Scores Information (MED 202, MED 203, MED 103, HUM 103, TKL 201, TKL 202, HTR 301, HTR 302, Elective Courses)			
cs	The committee score is based on various question types/numbers and/or assessment tools (MCQ, SbMCQ, or Checklists).  Please see the committee's assessment matrix table/page for the specifications. The contribution of students' performance during PBL sessions to CSs of Committee II, III, IV, and V is 5%.			
CMS	= Average of CSs			
ICPS	= 10% ECE+45% MT OSCE + 45% Final OSCE			
ADS	= (70% AIDAD) + (30% FEAD)			
CCCSs	= Score information will be announced by the Course Coordinator.			
ECSs	= Score information is shown on pages of Elective Courses in the APB.			
SRPCS	= Score information is shown on the assessment page of Scientific Research and Projects			
FES	= Final Exam Score			
ICES	= Incomplete Exam Score			
TS for students who are exempted from FE	= 97% of CMS + 3% of SRPCS			
TS for students <u>who</u> <u>are not exempted</u> from FE	= 97% of (60% of CMS + 40% of FES or ICES) + 3% of SRPCS			

Pass or Fail Calculations of the Courses	
Basic Medical Sciences II (MED 203)	

**Pass**; TS ≥ **60** 

Fail; FES < 50 (barrier point), ICES < 50 (barrier point), or/and TS < 60 The student is exempted from FE, if the CMS is  $\geq$  80 and all CSs are  $\geq$  60

The FE and ICE <u>barrier point is not applied</u> to the students whose all CSs are ≥ 60

#### **Introduction to Clinical Practice II (MED 202)**

Pass; ICPS ≥ 60

Fail; ICPS < 60

#### **Anatomical Drawing (MED 103)**

Pass; ADS ≥ 60

Fail; ADS < 60

#### **Common Compulsory Courses**

(HUM 103, TKL 201, TKL 202, HTR 301, HTR 302, AFYA 101, AFYA 102)

Pass; CCCSs ≥ 50

Fail; CCCSs < 50

#### **Elective Courses**

(MED 611, MED 612, MED 613, MED 614, MED 615, MED 616, MED 619, MED 620, MED 621, MED 622, MED 623, MED 627, MED 628, MED 629, MED 630, MED 631, MED 632, MED 633, MED 634, MED635, MED 636, **MED637)** 

The Assessment Procedure of the Phase II will be announced and explained in the introductory session at the beginning of the academic year.

<sup>\*</sup> All scores have a range of 0-100 points.

#### **Definitions of the Assessment Methods and Question Types**

**MCQ** consists of a question followed by five plausible alternative responses from which the student has to select the correct one.

**SbMCQ** is a kind of multiple-choice question. They test knowledge in a far more applied, in-depth sense. SbMCQ is based on a clinical, research, or daily life scenario.

**SEQ** is a written examination that requires an answer in a sentence, paragraph, or short composition.

**FSAQ**, Fill-in-the-Blank Short Answer Questions are typically composed of a brief prompt that demands a written answer that varies in length from one or two words to a sentence.

**OE** is a practice in many schools of medicine and disciplines where an examiner poses questions to the student in spoken form. The student has to answer the question in such a way as to demonstrate sufficient knowledge of the subject to pass the exam.

**OSCE** describes a form of competency-based assessment used to measure a student's clinical competence. During an OSCE, students are observed and evaluated as they go through a series of stations in which they perform professional skills on mannequins or interview, examine, and treat simulated patients who present with some type of medical problem.

**OSPE** is used as an objective instrument for the assessment of laboratory exercises in preclinical sciences.

It was adapted from the objective structured clinical examination (OSCE). OSPE has implemented in similarly conditions with OSCE.

**LPE** is included as it has been a traditional assessment format in many schools of medicine – particularly in disciplines such as anatomy, physiology, pathology and biology. Various local terms are used to describe this Assessment method including 'Spot', 'Steeplechase', 'Timed stations' or 'Bellringer'.

#### **Grades**

A letter grade is given to the students as a success grade, from the numerical values of the grades given by the relevant teaching staff for each course they take, taking into account the practice, laboratory and similar studies in the semester and examinations and academic activities.

Grades and Letter grades are shown for MED-coded courses\* in the following table:

Grades	Letter Grades
90-100	AA
80-89	ВА
70-79	ВВ
65-69	СВ
60-64	СС
59 or less	FF (Fail in the context of "Pass or Fail Calculations of the Courses" table pp.31)
0	FA (Fail due to nonattendance to the courses)

<sup>\*</sup> Please see <a href="https://med.yeditepe.edu.tr/tr/mezuniyet-oncesi-tip-egitimi">https://med.yeditepe.edu.tr/tr/mezuniyet-oncesi-tip-egitimi</a> for more information.

#### **RULES FOR COURSE ATTENDANCE OF THE STUDENTS**

#### **General Rules:**

Students must attend all theoretical and practical sessions such as laboratory work, discussions, seminars, and area and clinical studies of courses for the term they are enrolled in. Students whose absenteeism in the theoretical and/or practical sessions exceeds 20% are not admitted to term final and incomplete examinations of the courses.

#### Phase I, II, and III:

#### BMS I, BMS II, and ICS course committees

It is mandatory for Phase I, II, and III students to attend theoretical and/or practical (laboratory work) courses in all committees during the academic year they are registered. Students who do not attend more than 20% of the committee courses with or without an excuse will not be admitted to the Committee exams (practical and theoretical).

If a student whose absences exceed 20% notifies the Deanry with a petition, the situation is evaluated by the Faculty of Medicine Board of Directors and if he/she has a legitimate and valid excuse, the relevant board grants the right to take a make-up exam at the end of the academic year, provided that the total absences during the year do not exceed 20%. These students must make up for their missing practices until the end of the academic year, within the possibilities of the relevant department, on the day and time indicated by the instructor.

Students who cannot attend the laboratory/practical practices included in the committee due to an excuse must make up for the laboratory/practical practices they missed, within the possibilities of the relevant department, on the day and time indicated by the faculty member, provided that their absence does not exceed 20% on a discipline basis. Students who do not make up for the compensatory work will not be admitted to the relevant committee theoretical/practical exams.

**For more information:** https://yeditepe.edu.tr/sites/default/files/2023-02/yeditepe\_university\_faculty\_of\_medicine\_training-instruction\_and\_examination\_regulation.pdf

#### **EXAM RULES**

- **Seating-** Students will be seated by the exam observers or proctors. Students are not allowed to change their seats without permission.
- Electronics During examinations or tests, students are prohibited from using electronic devices or
  any other means of communication and recording that have not been approved beforehand. All
  electronic devices are prohibited. Anyone who fails to comply with these regulations may be charged
  with academic fraud.
- Absence No additional time will be given to students who are absent for part of the exam, regardless
  of the reason for their absence.
- Scratch Paper Students are not allowed to bring scratch paper into the exam room.
- Meaning of Questions Students may not consult the supervisor as to the meaning of any question.
- Signature Students must sign their multiple-choice answer sheets and/or written-answer sheets.
- · Other activities requiring disciplinary action
  - o Students must not give or receive assistance of any kind during the exam.
  - Gaining access to exam questions before the exam.
  - Using an unauthorized calculator or other mechanical aid that is not permitted.
  - Looking in the exam book before the signal to begin is given.
  - Marking or otherwise writing on the exam book or answer sheet before the signal to begin is given.
  - Making any changes, additions, deletions or other marking, erasing or writing on the exam book or answer sheet after the time for the exam has expired.
  - Having access to or consulting notes or books during the exam.
  - Looking at or copying from another student's paper.
  - Enabling another student to copy from one's paper.
  - o Talking or otherwise communicating with another student during the exam or during the read through period.
  - Disturbing other students during the exam.
  - Consulting other persons or resources outside the exam room during the exam.
  - Copying questions or answers either on paper or with an electronic device to take from the exam room.
  - o Taking an exam book or other exam materials from the exam room.
  - Taking an exam in place of another student.
  - o Arranging to have another person take an exam for the student.
  - Disobeying to the conduct of supervisor during the exam.
  - o Disclosing the contents of an exam to any other person.
  - Failing to remain in the exam room for a given period of time by the supervisors.
  - Failing to follow other exam instructions.

Those students found to have committed academic misconduct will face administrative sanctions imposed by the administration of Yeditepe University Faculty of Medicine according to the disciplinary rules and regulations of the Turkish Higher Education Council (YÖK) for students (published in the Official Journal on August 18th, 2012). The standard administrative sanctions include, the creation of a disciplinary record which will be checked by graduate and professional life, result in grade "F" on the assignment, exams or tests or in the class. Students may face suspension and dismissal from the Yeditepe University for up to one school year. In addition, student may lose any academic and nonacademic scholarships given by the Yeditepe University for up to four years. The appropriate sanctions are determined by the Yeditepe University administration according to egregiousness of the Policy violation.

#### **PROGRESS TEST**

Progress test (PT) assesses students on topics from all medical disciplines. As an assessment tool in medical education, the PT offers some distinctive characteristics that set it apart from other types of assessment. It is administered to all students in the medical program at the same time and at regular intervals (usually twice a year) throughout the entire academic program. The test samples the complete knowledge domain expected that a student to have on graduation, regardless of which grade the student is at. The scores provide beginning-to-end and curriculum-independent assessments of the objectives for the entire medical program. The purpose of the PT as a formative or summative test is variably used across institutions.

In YUTF, PT is applied according to the following principles and rules.

#### **Purpose**

- In YUTF, PT is used for formative purposes.
- PT is conducted to allow students to see their progress in knowledge levels throughout their medical education.

#### **Obligation**

• PT is mandatory for all students.

#### **Frequency and Timing**

- PT is performed twice a year.
- Each student will have received a total of 12 PTs by the end of the Phase 6.
- In a year; the first PT is done in the middle and the second PT is done at the end of the term.
- PT dates are announced by the Phase Coordinator.

#### Implementation

PT is performed online via EYS.

#### Content

- PT consists of 200 multiple-choice questions.
- 100 of them are related to the preclinical period and the rest 100 are related to the clinical period.
- The ratio of the questions to be asked according to the disciplines is announced to the students
   before PT
- All students from 1st to 6th Phase are to answer the same questions.

#### **Feedback**

- A report is sent to each student after each PT.
- The report includes how many questions the student answered correctly in each discipline and their progress against the previous PT.
- Students can also view their ranking within their class and within the entire school.

#### **Benefits**

- PT gives students the opportunity to see their progress throughout their medical education.
- PT provides opportunities for students to prepare for other exams (Committee, Clerkship, TUS, USMLE, etc.).
- As questions are often enhanced with a real-life problem, PT contributes to students' problemsolving skills. This question type is preferred in TUS, especially USMLE and other similar exams.

# A SHORT GUIDE for STUDENTS to PROBLEM-BASED LEARNING (PBL)

In Phase II besides the lectures, Problem Based Learning Sessions are implemented in the education program.

The principal idea behind PBL is that the starting point for learning should be a problem, a query, or a puzzle that the learner wishes to solve.

PBL is a learning method where students perceive their knowledge gaps, decide on learning issues and achieve these, while working in small groups on a case to solve a patient's problems.

So, PBL starts by a clinical case of a patient. While working on the patient's problems you will identify your learning needs and study these. During this whole process you will work with a group of 8-12 students and a tutor.

### How it works?

You will be presented a patient case (scenario) that has some problems and will be asked to proceed according to the information and instructions that you will receive. You will not be informed about the topic of the case in advance but will face the problem when given to you in your first session- just like a doctor does not know what patients he/she will see when starting the day.

Scenarios will be given to you one page at a time. When you finish discussing a page you will be given the following page with additional information about the patient.

Each PBL case will be discussed over 3 sessions, 2 hours each. You will work in a group of 8-12 students with a tutor. One student elected by the group will work as the "scribe" (person who will write the discussed topics on the board). The scribe may change at every session, by group decision.

Each group will be given the same scenario but will work independently from each other.

The tutor working with you will NOT TEACH you but will only guide to on this exciting trip. He/she will ask you questions to guide you to the problems to be solved.

Your aim will be to find out the reasons, and in some cases, the solutions of the problems presented.

It is clear (and we know) that <u>you do not have enough knowledge to understand and solve all the problems presented to you</u>.

Here comes the aim of PBL: you will thus recognize WHAT YOU DO NOT KNOW and WHAT YOU SHOULD LEARN. In other words, you will identify your knowledge gaps and try to learn them. These are called "learning objectives".

In order to facilitate and direct discussions and learning process all relevant points should be written on the board by the scribe. The board should be used as below (with examples):

Problems	Hypotheses	Additional (Required) information	Learning issues (Learning objectives)
Example	Example	Example	Example
Fever Cough Pallor	Throat infection Pneumonia Anemia	Throat examination Chest examination Chest X-ray Blood count	Causes of fever How is body temperature controlled? Anatomy of the throat Anatomy of lungs What is anemia?

The patient's problems will be listed under "Problems" column.

The possible causes/reasons/mechanisms of the patient's problems will be listed under "**Hypotheses**". You can suggest and write anything that comes to your mind- you will then try to find any facts or information that can support these hypotheses. Do not be shy to suggest anything. You will not be judged for those things that you suggest.

As you will not be provided with all information about the patient you will need more information (such as, the patient's fever, physical examination findings, laboratory data, etc.). You will thus ask the scribe to write down these on the board under "**Required Information**" heading. This means information that you want to learn about this particular patient.

During the course of these discussions you will recognize that you do not know and thus need to study and learn some topics/issues, which are called "learning objectives". The learning objectives will be written on the fourth column under this heading. These are the topics that you will study until the next session and present by then.

This will lead you to the second stage of PBL: learning the facts that *you* have decided to. You will have to **find and reach the required learning resources** (textbooks, journal articles, reliable internet sources, etc.) and **study** these in your **independent study time**. You will be given a list of possible learning resources for every discipline but you can find other sources in addition to them. However, make sure that these are reliable sources- especially web sources need cautiousness.

When you meet with your group and tutor in your second (and third) session, you will be asked to summarize the previous session, list the learning objectives and then present the knowledge that you had learned.

In this way every group member (students) will study and learn the objectives and these will be discussed during the session. There may be disagreements among students for some information reached. The group will discuss and come to a conclusion about it. The tutor will guide and moderate the group through this process- BUT WILL NOT TEACH. The tutor will not be a resource person but a faculty member who will facilitate your search for correct knowledge. It is YOU who will reach and learn the required topics- the topics that you have identified as your learning objectives or knowledge gaps.

The ultimate aim of a PBL case is NOT to diagnose the patient but to learn the topics that you discover that you do not know. Although the case is a clinical problem, at this stage of your studies, you will have to focus on basic sciences. In other words, you will need/want to learn basic science topics (anatomy, physiology, biochemistry, microbiology, etc.) related to the patient's problems. So you will learn basic sciences starting from a clinical case and thus appreciate why and where basic sciences are necessary and relevant.

Other benefits of PBL that you gain are to:

- learn "how to learn"
- develop lifelong learning skills
- improve your communications skills
- state and defend positions with evidence and sound argument
- become more flexible in processing information and meeting obligations
- practice skills that you will need after your education
- improve your information literacy

**Assessment:** Your participation and contributions to the sessions will be assessed by your tutor. This will NOT be assessment of your knowledge but your participation in the sessions, taking part in discussions, suggesting hypotheses, contributions by making presentations, etc. The assessment form is given below. This will comprise 5 % of that committee score.

#### PBL First Session Flow

. Introducing activity

(For the first session of the term)

B. Determination of group rules

(For the first session of the term)

(Group rules will be written on the Flipchart.)

C. Introducing the PBL Student Assessment Form to students

(For the first session of the term)

(This form will be filled in electronically via EYS by the tutors after the second session of the scenario.)

1. Review of the Group Rules

(The group rules created in the first session of the term will be remembered.)

- 0. Warmup game
- 0. Selecting the reader and writer

(The reader's task is to read the scenario step by step, together with the questions on the box, to the group.) (The writer's task is to write the answers to all the questions in the scenario, especially! hypotheses and learning objectives on the flipchart.)

Reading the scenario step by step

(The tutors will distribute the student copies of the scenario that came out of the session envelope to the students.)

(The next page will not be passed until the students have finished reading a page and answering the related questions.)

Using Dorland's Medical Dictionary for unknown medical terms.
 (Printed Dorland's Medical Dictionary will be in the PBL room.)

(Also, Electronic Dorland's Medical Dictionary can be accessed as Yeditepe University Website Academic Drop-Down Menu Information Center Tab Electronic Library Drop-Down Menu Off-Campus Access Tab OBS user Login with username and password Finding Dorland's Medical Dictionary among resources) (Direct link https://login.lproxy.yeditepe.edu.tr/login)

0. Discussion

(Writing the hypotheses on the Flipchart, bringing the prior knowledge into the learning environment, reviewing the hypotheses, etc.)

- 0. The tutor asks questions that lead students to learning objectives during the discussion
- Determination of learning objectives by students (The learning objectives determined by the student group will be written on the Flipchart by the writer.)
- Feedback (Each group member's thoughts on him/herself, the group, the scenario, the tutor, the PBL flow, the environment, etc.)
- Attendance (Students will sign the student list on the session envelope.)

#### PBL Second Session Flow

- 1. Warmup game
- Discussion of the learning objectives obtained in the previous session (Reading the learning objectives on the Flipchart they were written in the previous session □ putting the objectives in order for discussion □ in-depth discussion of all objectives by the student group.) (Important note: The second session of the scenario will not proceed until the following requirements are met. For each learning objective; it should be discussed in depth, the students' work should be shared, these discussions should be supported by the flowcharts drawn on the flipchart, the discussion of the learning objectives should not be superficial.)
- 0. Selecting the reader (The reader's task is to read the scenario step by step, together with the questions on the box, to the group.)
- Reading the scenario of the second session (The tutors will distribute the student copies of the scenario from the session envelope to the students.)
- 0. Discussing the psychosocial dimension of the scenario
- Feedback (Each group member's thoughts on him/herself, the group, the scenario, the tutor, the PBL flow, the environment, etc.)
- Attendance (Students will sign the student list on the session envelope.)
- 0. After the session, the Tutor Evaluation Form is filled by the students on the EYS.

# PRI STUDENT ASSESSMENT FORM\*

	I DE OTODE	-INI AOO		AILI		IVI		
Stu	dent Name							
Pha	ase/Committee							
РВІ	L Scenario Name							
Tut	or Name							
		1						
	ERACTION WITH GROUP / PARTICIPATION TO OUP	Not observed	Poor	Fair	Average	Good	Excellent	Total Point of the Part
GR	our	0	1	2	3	4	5	
1.	Starts discussion							
0.	Contribute with valid questions and ideas							
0.	Balances listening and speaking roles							
0.	Communicates effectively in group work							
GA	INING KNOWLEDGE	Not observed	Poor	Fair	Average	Good	Excellent	Total Point of the Part
		0	1	2	3	4	5	
0.	Determines valid learning issues							
0.	Finds valid sources							
0. lear	Makes independent research on ning issues							
0.	Shows understanding of the concepts and relationships							
СО	MMUNICATION/SHARING KNOWLEDGE	Not observed	Poor	Fair	Average	Good	Excellent	Total Point of the Part
		0	1	2	3	4	5	
0.	Selects data valid for discussion and presentation							
0.	Expresses ideas and knowledge clearly and in an understandable way							
0.	Draws figures, diagrams clearly and in an understandable way							
0.	Has always some additional information or data to present whenever needed							
PROBLEM SOLVING AND CRITICAL THINKING		Not observed	Poor	Fair	Average	Good	Excellent	Total Point of the Part
		0	1	2	3	4	5	
0.	Generates hypotheses independently							
٥	Reviews hypotheses critically							

sessions Attend ( )		) / Not attend	l()	Atten	nd()/ Not	attend	( ) Atten	d()/Not attend()
		Session 1	ession 1 Session 2			Session 3		
	<u>'</u>							
	Total Score of the Student □							
0.	Provides proper feedback to group members							
0.	Accepts feedback properly							
Treats all group members as colleagues								
0. patie	Is sensitive to psychosocial factors affecting ents							
		0	1	2	3	4	5	
PRO	DFESSIONAL ATTITUDE	Not observed	Poor	Fair	Average	Good	Excellent	Total Point of the Part
0.	Describes the difference between normal and pathological conditions							
Integrates basic science and clinical concepts								

ı	
	If you have any other interpretation, or
	thought about the student's performance
	in PBL sessions that you want to say PBL
	Coordinators, please write here. □
	,,

Signature of the tutor	

<sup>\*</sup>Assessment form should be filled in at the end of

# **AIM OF FREE ELECTIVE COURSES**

Free Elective courses aim to add complementary educational experiences to the medical school curriculum in order to improve comprehension of biopsychosocial approach of medical students, besides offering an opportunity to extend knowledge of interest in specific domains.

The following courses (2 ECTS credits each) will be offered in spring semester. Each student has to choose one of these elective courses. The selection and enrollment procedure will be announced by the phase coordinator.

# **List of Free Elective Courses**

Code	Subject	
MED 611	Medical Anthropology	
MED 612	Creative Drama	
MED 613	Medical Humanities	
MED 614	Personal Trademark Development	
MED 615	Innovation Management	
MED 616	Medical Management and New Services Design Skills	
MED 619	Entrepreneurship and Storytelling Techniques for Business Purposes	
MED 620	Art, Culture, and Life Styles	
MED 621	Epidemiological Research and Evidence-Based Medicine	
MED 622	Application of Economics in Health Care	
MED 623	Visual Presentation in Medicine	
MED 627	Presentation of Medicine on Media	
MED 628	Healthy Living: The Milestones of the Life for Performance Management	
MED 629	Music and Medicine	
MED 630	Health Law	

MED 631	Creative Drama II
MED 632	Music Appreciation
MED 633	Communication with Hearing Impaired Patients in Turkish Sign Language
MED 634	Case-Based Forensic Sciences
MED 635	Advanced Level Communication with Hearing Impaired Patients in Turkish Sign Language
MED 636	Art Project
MED 637	Artistic Photography and Composition

See details from "Elective Courses Guideline: <a href="https://med.yeditepe.edu.tr/en/academic-program-booklets">https://med.yeditepe.edu.tr/en/academic-program-booklets</a>

# SPECIFIC SESSIONS / PANELS INTRODUCTORY SESSION

#### Aim of the session:

The session provides basic information about Yeditepe University Faculty of Medicine Undergraduate Medical Education Program (YUFM/UG-ME) and the educational phase relevant to the students. This session orients the students to the program and the phase.

### **Objectives of the Session:**

- 1. To provide basic information about the YUFM/UG-ME.
- 2. To provide basic information about the phase.
- 3. To provide essential information on social programs and facilities.

## Rules of the Session:

- 1. The session will be held in two types, conducted by Phase Coordinator and Committee Coordinator, respectively.
- 0. The first type will be held once in the first week of the educational phase. The second type will be held at the beginning of each committee/.
- 0. Students should attend the session.

# Implementation of the Session:

In the first type, Phase Coordinator will present brief information on the following topics:

- Organizational Chart of Yeditepe University Faculty of Medicine Undergraduate Medical Education Program (YUFM/UG-ME), Work Descriptions and Introduction of Committees/s/Members,
- Directives on YUFM/UG-ME.
- YUFM/UG-ME Program Outcomes
- Learning Objectives of the Phase
- Academic Program of the Phase
- Teaching and Learning Methods
- Learning Environments and Sources/Resources
- Attendance
- Elective Courses
- Assessment Procedure
- Grade Point Average, Cumulative Grade Point Average (GPA, cGPA) Calculation
- Pass/Fail Conditions
- Feedback of the Previous Year and Program Improvements
- Social Programs and Facilities

In the second type, Committee / Coordinator will present brief information on the following topics:

- Learning Objectives of the Committee
- Academic Program of the Committee
- Teaching and Learning Methods
- Learning Environments and Sources / Resources, References
- Attendance
- Assessment Methods and Question Distribution Table
- Committee / Score Calculation Method
- Pass / Fail Conditions
- Feedback of the Previous Year and Program Improvements
- Social Programs and Facilities

# **COMMITTEE EVALUATION SESSION**

# Aim of the Session:

The aim of the session is to evaluate the committee educational program, with all its components, by the students and the committee coordinators. This session will contribute to the improvement of the educational program in general by giving the opportunity to identify the strengths of the committee educational program and revealing the areas which need improvement.

## Objectives of the Program Evaluation Session are to;

- establish a platform for oral feedbacks in addition to the systematically written feedback forms
- give the opportunity to the students and the coordinators to discuss the committee period face to face.
- allow the students to review the committee exam questions together with faculty members.

# **Process:**

The total duration of the session is 90 minutes and the session consists of two parts. The first part (30 minutes) is dedicated to oral feedback by the students. All of the oral feedback will be recorded and reported by the committee coordination team. In the second part (60 minutes) committee exam questions will be reviewed and discussed by students and faculty.

# Rules of the Committee/ Evaluation Session:

- The <u>Committee/ Evaluation Session</u> will be held on the last day of each committee after the committee/ exam.
- 2. Students are required to attend the session.
- 3. The Committee/ coordinator will lead the session.
- 4. The faculty members who had contributed questions in the committee exam should attend the session.
- 5. Students must comply with the feedback rules while giving verbal feedback and all participants shall abide by rules of professional ethics.

# PROGRAM IMPROVEMENT SESSION

#### Aim:

The aim of this session is sharing the program improvements based on the evaluation of the educational program data, with the students and the faculty members.

# Objectives:

- 1. To share the improvements within educational program with the students and the faculty members.
- 2. To inform the students and the faculty members about the processes of the program improvement
- **3.** To encourage student participation in the program improvement processes.

#### Rules:

- 1. Program improvement sessions will be implemented once a year. The implementation will be performed at the beginning of the spring semester.
- 2. Students are required to attend the session.
- 3. The phase coordinator will monitor the session. If necessary, the dean, vice deans and heads of the educational boards will attend to the session.
- 4. All faculty members will be invited to the session.

### Implementation:

#### **Before the Session**

- 1. Phase coordinator will report the results of the improvements of the educational program.
- The program improvements report has three parts. The first part of the report includes improvements that have been completed, and those that are currently in progress. The second part of the report includes, improvements that are planned in medium term, and the third part of the report includes, improvements that are planned in long term.
- 3. The program improvements report also includes the program evaluation data (student feedbacks, faculty feedbacks, results of the educational boards meetings etc.) in use of improvements.

## **During the Session**

- The phase coordinator will present the program improvements report to the students and the faculty members.
- 0. Students can ask questions about, and discuss, the results of the program improvement.

**Process:** The total period of session is 30 minutes and has two parts. The first part (15 minutes) covers, presenting of the program improvement report. The second part (15 minutes) covers, students' questions and discussion.

# After the Session

0. The program improvement brief will be published on the website of Yeditepe University Faculty of Medicine (<a href="http://med.yeditepe.edu.tr">http://med.yeditepe.edu.tr</a>).

# INDEPENDENT LEARNING

## **Description:**

"Independent learning" is a process, a method and a philosophy of education in which a student acquires knowledge by his or her own efforts and develops the ability for inquiry and critical evaluation. It includes freedom of choice in determining one's learning objectives, within the limits of a given project or program and with the aid of a faculty adviser. It requires freedom of process to carry out the objectives, and it places increased educational responsibility on the student for the achieving of objectives and for the value of the goals (1).

### Aim:

The aim of this instructional strategy is to develop the students' ability, to learn individually, so they are prepared for the classroom lessons, lectures, laboratory experiences and clinical practices, exams, professional life and have the abilities needed for lifelong learning.

## Objectives:

With this instructional strategy, students will develop;

- the skills that will help them to learn independently.
- self-discipline in their work habits.
- their evidence-based research skills by using reliable resources.
- their teamwork skills by studying together.
- their clinical skills as self-directed working in the clinical skills laboratory.

# Rules:

- 1. All of the students will define independent learning process according to below algorithm.
- 2. All of the students will be required to fill out a form, which is a self-assessment form for the independent learning (methodology: timing, sources, strategy, etc.).
- 3. The students' academic performance and independent learning methodology will be analyzed comparatively, and feed-back on further improvements will be provided.

# What a student should do for learning independently?

- 1. **Analyzing:** First you will need to analyze carefully, what your problems and weaknesses are. For example, if you are studying anatomy, is your weak area broadly upper limb, lower limb, or what?
- 2. **Addressing:** Once you've decided your specific problems, you can list them. Which one needs to be addressed urgently? Work out your priorities. Whatever your subject area is, don't be afraid to return to the basics if necessary. It may give you more confidence in the long run to ensure you have a proper understanding of basic concepts and techniques.
- 3. Accessing: If you need reliable information, or if you need to read about a subject and put it into context, a textbook may be the best place to start. However, the Internet may be helpful if you need very up-to-date information, specific facts, or an image or video etc. If you need an academic research article, reports or case studies for your topic, then a database (Pubmed etc.) would be the best option.
- 4. **Timing:** In the weekly syllabus you will see, a specific time called "independent learning hour" for your independent work. In addition to these hours, the students should also have their own time schedule for their study time at home.
- 5. **Planning:** Your next step will be to work out a realistic study-plan for your work. What goals could you literally set for yourself? Don't make them too ambitious but set minor goals or targets that you know you will be able to achieve without having to spend a very long time working on them. How many hours will you need to achieve them? How will you know when you've achieved them?
- 6. Recording: When you work independently, it's a good idea to keep a written record of the work you've done. This can help with further planning and also give a sense of achievement as well as provide something to include in a progress file. As time goes by you may surprise yourself with what you've been able to achieve. This could motivate you to keep going, as could increase your confidence, and even improve your results
- 7. **Reflecting:**\_Reflecting on what you've done can help you decide whether the activity was really effective, whether an alternative approach might be better on another occasion, whether you spent the right amount of time and whether you have achieved the target you'd set yourself.
- 8. **Improving:** Once you've achieved the target, the process of planning can start again. Your needs and priorities may have changed, so think about them and then set yourself to another target.

**<u>Reminder:</u>** For further information about the independent learning, please contact the Department of Medical Education.

# Reference:

1. Candy, P. (1991) Self-direction for lifelong learning: a comprehensive guide to theory and practice. San Francisco: Jossey Bass.

# For further reading useful resources to recommend to students:

- Burnapp, D. (2009). Getting Ahead as an International Student. London: Open University Press.
- Marshall, L. & Rowland, F. (1998) A Guide to learning independently. London: Open University Press.
- University of Southampton / UKCISA online resource 'Prepare for Success'

# WEEKLY COURSE SCHEDULE and LOCATIONS

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
09:00-09:50	MED 203	MED 203	MED 203	MED 203	MED 203
	(4E03)	(4E03)	(4E03)	(4E03)	(4E03)
10:00-10:50	MED 203	MED 203	MED 203	MED 203	MED 203
	(4E03)	(4E03)	(4E03)	(4E03)	(4E03)
11:00-11:50	MED 203	MED 203	MED 203	MED 203	MED 203
	(4E03)	(4E03)	(4E03)	(4E03)	(4E03)
12:00-12:50	MED 203	MED 203	MED 203	MED 203	MED 203
	(4E03)	(4E03)	(4E03)	(4E03)	(4E03)
13:00-13:50			LUNCH		
14:00-14:50	MED 203	MED 203	MED 203	MED 202	Elective Course
	(4E03)	(4E03)	(4E03)	(Ground Floor CSL	(SPRING)
15:00-15:50	MED 203	MED 203	MED 203	MED 202	Elective Course
	(4E03)	(4E03)	(4E03)	(Ground Floor CSL)	(SPRING)
16:00-16:50	MED 203	MED 203	MED 203	MED 202	Elective Course
	(4E03)	(4E03)	(4E03)	(Ground Floor CSL)	(SPRING)
17:00-17:50	MED 203	MED 203	MED 203	MED 202	Elective Course
	(4E03)	(4E03)	(4E03)	(Ground Floor CSL)	(SPRING)

# COURSE CODES COURSES and LOCATIONS

MED 203 Basic Medical Sciences II (4E03) or Laboratories\*\*

MED 202 Introduction to Clinical Practice II (CSL)\*\*\* or (4E03)

**CLASSES** 

4E03 Ground Floor

Elective Course Classes Will be announced later

Physiology Laboratory: Room Number 448, Ground Floor, and Room Number 934, 5th Floor,

Histology and Embryology Laboratory: Room Number 929-930, 5th Floor Anatomy Laboratory: C0547 and 3108 Cadaver Room, Ground Floor (-1)

Microbiology Laboratory: Room Number: 934, 5th Floor,

Pathology Laboratory: Room Number: 929-930, 5th Floor, Medical Faculty Block

<sup>\*\*</sup> MED 203 Laboratory sessions will be held at the laboratories of related departments:

<sup>\*\*\*</sup> MED 202 Practical Lectures will be held at Clinical Skills Laboratory (CSL) 442, Ground Floor.

<sup>\*\*\*\*</sup> CSL will be held on Thursdays during the Fall and Spring semesters.

# **RECOMMENDED TEXTBOOKS**

NO	DEPARTMENT	техтвоок	AUTHOR	PUBLISHER
		Gray's Anatomy for Students	R.L. Drake et al, 3rd Edition, 2014	Churchill Livingstone
	ANATONO	Last's Anatomy: Regional and Applied	Chummy S. Sinnatamby, 12th Edition	Churchill Livingstone
1	ANATOMY	A Textbook of Neuroanatomy	Maria Patestas, Leslie P. Gartner, 2nd Edition, 2016	Wiley-Blackwell
		Hollinshead's Textbook of Anatomy	Cornelius Rosse, Penelope Gaddum-Rosse, 5th Edition, 1998	Lippincott Williams & Wilkins
		Textbook of Biochemistry with Clinical Correlations	Thomas M. Devlin	Wiley-Liss Publishing Company
2	BIOCHEMISTRY	Harper's Illustrated Biochemistry	Robert K. Murray et al	Mc-Graw-Hill Companies
		Lehninger Principles of Biochemistry	David L. Nelson, Michael M. Cox	W.H. Freeman Publishing Company
3	BIOPHYSICS	Introductory Biophysics: Perspectives on the Living State	J.R. Claycomb, J.P. Tran	Jones & Bartlett Publishers
4	BIOSTATISTICS	Primer of Biostatistics	Stanton Glantz	Mc-Graw-Hill Companies
5	HISTOLOGY	Junqueira's Basic Histology: Text and Atlas 13 <sup>a</sup> Ed.	Anthony Mescher	Mc-Graw-Hill Companies
	EMBRYOLOGY	The Developing Human: Clinically Oriented Embryology, 10- Ed.	Keith L. Moore & T. V. N. Persaud	Saunders
6	IMMUNOLOGY	Basic Immunology: Functions and Disorders of the Immune System	Abul K. Abbas, Andrew H. H. Lichtman, Shiv Pillai, 5th edition,.2015	Elsevier
7	MEDICAL BIOLOGY	Molecular Biology of the Cell	Bruce Alberts et al	Garland Science
8	MEDICAL MICROBIOLOGY	Medical Microbiology: with Student Consult	P. R. Murray et al	Saunders
9	PATHOLOGY	Basic Pathology, 10e	Vinay Kumar MBBS MD et al. 2017 (ISBN-13: 978-0323353175)	Elsevier
		Goodman & Gilman's The Pharmacological Basis of Therapeutics	L.L. Brunton ed.	McGraw-Hill, New York,
10	PHARMACOLOGY	Basic and Clinical Pharmacology	B. G. Katzung	McGraw-Hill, New York
		Principles of Pharmacology	Golan, D.E et al	Lippincott Williams & Wilkins
		Guyton and Hall Textbook of Medical Physiology	John E. Hall, 13th Edition, 2016	Saunders
11	PHYSIOLOGY	Medical Physiology	Walter F. Boron, Emile L. Boulpaep 3rd Edition, 2016	Elsevier
		Human Physiology	Stuart Ira Fox, 14th Edition, 2015	McGraw-Hill Education

# MED - 203 - COMMITTEE I - CARDIOVASCULAR SYSTEM

# DISTRIBUTION of LECTURE HOURS September 11 - October 20, 2023 COMMITTEE DURATION: 6 WEEKS

COURSES	BASIC MEDICAL SCIENCES II	THEORETICAL	PRACTICAL	SMALL GROUP DISCUSSION	TOTAL
	DISCIPLINE / COMPONENTS				
	ANATOMY	15	2GX4H	0	19
	BIOCHEMISTRY	12	4GX2H	0	14
	BIOPHYSICS	10	0	0	10
	BIOSTATISTICS	2	0	0	2
	HISTOLOGY & EMBRYOLOGY	12	2GX4H	0	16
	IMMUNOLOGY	2	0	0	3
MED 203	MEDICAL BIOLOGY	2	0	0	2
	MEDICAL MICROBIOLOGY	8	4GX1H	0	9
	PATHOLOGY	7	0	0	7
	PHYSIOLOGY	34	4GX5H	0	39
	SCIENTIFIC RESEARCH and PROJECT - II	2	0	5GX3H	5
	PBL	0	0	6	6
	TOTAL	107	16	9	132
MED 202	INTRODUCTION to CLINICAL PRACTICE- II	5H	5GX3H	0	8
INDEPE	INDEPENDENT LEARNING HOURS		88	3	•

	Head	Burcu GEMİCİ BAŞOL, PhD Prof.
Coordination Committee	Secretary	Alev CUMBUL, PhD Assoc. Prof.
Coordination Committee	Member	Mehtap KAÇAR, MD PhD Prof.
	Member	Akif MEHERREM, PhD Assist. Prof.

# COMMITTEE I - CARDIOVASCULAR SYSTEM LECTURERS

MED 203 BA	SIC MEDICAL SCIENCES II
DISCIPLINE	LECTURERS
ANATOMY	Erdem SÖZTUTAR, MD, Assist. Prof. Aikaterini PANTELİ, MD, Assist. Prof. Paria SHOJAOLSADATI, PhD. Lecturer LAB: Edibe BİLİŞLİ KARA, DVM, PhD. Lecturer LAB: Ahmet SAÇ, MD, Instructor
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. Yeşim ÖZARDA MD Prof. LAB: Jale ÇOBAN, MD Prof. LAB: Müge KOPUZ ALVAREZ NOVAL, PhD Assist. Prof.
BIOPHYSICS	Akif MEHERREM, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assoc. Prof.
BIOSTATISTICS	E. Çiğdem KELEŞ, PhD Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Aylin YABA UÇAR, PhD Prof.  Alev CUMBUL, PhD Assoc. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMİREL, MD PhD Prof. Latife Arzu ARAL, MD PhD Prof.
MEDICAL BIOLOGY	Ayşe ÖZER, PhD Prof. Deniz KIRAÇ, PhD Prof. Seda GÜLEÇ YILMAZ PhD Assoc. Prof.
MEDICAL MICROBIOLOGY	Güner SÖYLETİR, MD PhD Prof. Pınar ÇIRAGİL, MD Prof. Aynur EREN TOPKAYA, MD Prof. Nilgün ÇERİKÇİOĞLU, MD Prof. LAB: Zehra KİPRİTÇİ, PhD LAB: Selvi DUMAN BAKIREZER, PhD
PATHOLOGY	Aydın SAV MD Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Prof. Burcu GEMİCİ BAŞOL, PhD Prof.
SCIENTIFIC RESEARCH AND PROJECT-II	Aylin YABA UÇAR, PhD Prof. (Responsible Faculty Member) Soner DOĞAN, PhD Prof.

# **OTHER COURSES**

MED 202 INTRODUCTION TO CLINICAL PRACTICE II				
DISCIPLINE	LECTURERS			
CLINICAL SKILLS LAB	Tümay Sadıkoğlu, MD, Assist. Prof. Duygu Altıparmak, MD, Specialist			

## COMMITTEE I - CARDIOVASCULAR SYSTEM

## AIM and LEARNING OBJECTIVES

## **AIMS**

- 1. To convey knowledge about biophysical, biological, anatomical, embryological, histological, physiological and biochemical properties of cardiovascular system,
- 2. To convey knowledge on hemodynamics of cardiovascular system,
- 3. To convey information about electrical activity and functional activity of heart by defining all basic parameters.
- 4. To convey information about cardiovascular system anatomy
- 5. To convey basic, general knowledge about immunology,
- 6. To convey basic, general knowledge about microbiology and information about the structural/biological features and pathogenesis of fungi,
- 7. To convey basic knowledge about biostatistics.

# **LEARNING OBJECTIVES**

At the end of this committee, students should be able to:

For cardiovascular systems;

- 1.1. explain biophysical changes,
- 1.2. associate with the clinical reflections.
- 1.3. to convey basic knowledge about biostatistics
- 2.0. For cardiovascular system;
  - 2.1. explain biological characteristics of the system,
  - 2.2. associate with the clinical reflections.
- 3.0. For cardiovascular system;
  - 3.1. describe their anatomy,
  - 3.2. associate with adjacent tissues and organs,
  - 3.3. explain their functional and clinical reflections.
- 4.0. For thorax and diaphragm
  - 4.1. describe their anatomy,
  - 4.2. associate with adjacent tissue and organs,
  - 4.3. explain their functional and clinical reflections.
- 5.0. Explain the development of Head; Splanchnocranium, Neurocranium
  - 5.1. Describe of development of Neck and Pharyngeal Arches and Anomalies
- 6.0. Explain the developmental stages of heart,
  - 6.1. explain developmental stages of arteries, veins and capillaries,
  - 6.2. associate the relation between major birth abnormalities and developmental process.
- 7.0. Explain the histological properties of heart
  - 7.1. Explain the histological features of arteries, veins and capillaries
  - 7.2. Explain the histological properties of Lymph organs
  - 7.3. explain the histological features of Blood
- 8.0. Explain hemodynamics of cardiovascular system and electrical activity of heart by biophysical mechanisms.
- 9.0. Describe the structure, functions, synthesis and degradation of hemoglobin.
- 10.0. Describe erythrocyte-specific metabolisms.
- 11.0. Describe formation, differentiation and functions of blood cells.
- 12.0. Describe physiopathology of diseases, such as anemia, leukemia, hemophilia.
- 13.0. Describe heart rhythm, cardiac output and cardiac cycle.
- 14.0. Describe nervous (autonomous) control of the cardiovascular system.
- 15.0. Explain functions of the cardiovascular system.
- 16.0. Explain functions and dynamics of the circulatory system.
- 17.0. Explain measurements of hematocrit, blood group analysis, blood pressure and ECG methods.

- 18.0. For immune system;
  - 18.1. explain development and differentiation of immune cells,
  - 18.2. relate changes with diseases,
  - 18.3. describe the properties of immune response.
- 19.0. For hemodynamic changes;
  - 19.1. explain mechanisms of development,
  - 19.2. describe mechanisms for cellular damage,
  - 19.3. describe pathologies occurring due to cell and tissue damage.
- 20.0. Describe the factors that determine pathology as a basic science.
- 21.0. Explain the factors of tissue damage
- 22.0. Describe the pathological consequences and interactions of cellular injury on the cell and tissue morphology with examples.
- 23.0. Describe examples of pathological consequences of immune response.
- 24.0. Explain the factors that affect the clinical course and outcome of cell injury
- 25.0. List disorders resulting from hemodynamic changes.
- 26.0. Describe how to discuss scientific articles in the view of literature
- 27.0. Prepare a presentation of scientific research
- 28.0. For statistical decision
  - 28.1. lists the types of the statistical hypothesis.
  - 28.2. lists the types of errors in statistical decision making
  - 28.3. explain the steps of a statistical hypothesis test
- 29.0 Explain the importance of microbiology in medicine
- 30.0 Describe how to cultivate and identify microorganisms in laboratory
- 31.0 Describe microbial population in human body and their environment
- 32.0 Explain the host and parasite interaction during infection
- 33.0 Explain case scenarios related to basic medical science topics in a clinical context.

# **COMMITTEE I - CARDIOVASCULAR SYSTEM COMMITTEE I ASSESSMENT MATRIX**

DISCIPLINE LECTURER/INSTRUCTOR		DI	STRIBU	TION	of MCQs
DISCH LINE	DISCIPLINE LECTURER/INSTRUCTOR		FE	IE	TOTAL
ANATOMY	Dr. A. Panteli	15	5	5	24
BIOCHEMISTRY	Dr. Y. Özarda	11	4	4	19
BIOPHYSICS	Dr. A. Meherrem	8	4	4	17
BIOSTATISTICS	Dr. Ç. Keleş	2	1	1	4
HISTOLOGY &	Dr. A. Yaba Uçar	6	2	2	10
EMBRYOLOGY	Dr. A. Cumbul	6	2	2	8
IMMUNOLOGY	Dr. G. Yanıkkaya Demirel Dr. L. Arzu Aral	3	1	1	5
MEDICAL BIOLOGY	Dr. S.Güleç Yılmaz	2	1	1	6
MEDICAL MICROBIOLOGY	Dr. G. Söyletir Dr. N. Çerikçioğlu Dr. P. Çıragil	8	3	3	14
PATHOLOGY	Dr. A. Sav	6	3	3	12
	Dr. B. Yılmaz				
PHYSIOLOGY	Dr. M. Kaçar	32	12	12	56
	Dr. B. Gemici Başol				
PBL		1	0	0	1
	TOTAL	100	38/200#	38/2 00#	176
DISTRIBUTION of LAB POINT					AB POINTS
	BIOCHEMISTRY BIOPHYSICS BIOSTATISTICS HISTOLOGY & EMBRYOLOGY IMMUNOLOGY MEDICAL BIOLOGY MEDICAL MICROBIOLOGY PATHOLOGY PHYSIOLOGY	ANATOMY  Dr. A. Panteli  BIOCHEMISTRY  Dr. Y. Özarda  BIOPHYSICS  Dr. A. Meherrem  BIOSTATISTICS  Dr. Q. Keleş  Dr. A. Yaba Uçar  Dr. A. Cumbul  IMMUNOLOGY  Dr. G. Yanıkkaya Demirel Dr. L. Arzu Aral  MEDICAL BIOLOGY  Dr. S.Güleç Yılmaz  MEDICAL MICROBIOLOGY  Dr. A. Sav  Dr. A. Sav  Dr. B. Yılmaz  Dr. B. Yılmaz  Dr. M. Kaçar Dr. B. Gemici Başol  PBL	DISCIPLINE   LECTURER/INSTRUCTOR   CE	DISCIPLINE   LECTURER/ INSTRUCTOR   CE   FE	CE   FE   IE

		DISTRIBUTION of LAB POINTS		
LEARNING OBJECTIVES	DISCIPLINE	LPE	Quiz	
3.0-4.0	ANATOMY	30		
8.0-10.0	BIOCHEMISTRY	5		
5.0-7.0	HISTOLOGY & EMBRYOLOGY	20		
29.0-32.0	MEDICAL MICROBIOLOGY	5		
8.0- 17.0	PHYSIOLOGY	40		
	TOTAL	10	0	

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).

Total value of LPE is equal to 100 points

Committee Score (CS) = 95% of [90% CE (MCQ and SbMCQ) + 10% (LPE)] + 5% of PBL-P

Committee Score (CS) = 95% of [90% CE (MCQ and SbMCQ) + 10% (LPE)] + 5% of PBL-P

Abbreviations:
MCQ: Multiple Choice Questions

SbMCQ: Scienario-based Multiple Choice Questions

LPE: Laboratory Practical Exam

CE: Committee Exam

CS: Committee Score

FE: Final Exam

ICE: Incomplete Exam

Pts.: Points

# In FE and ICE, 38 out of 200 FE and ICE MCQs and SbMCQ will be from Committee I (Each question is 0.5 pt, equal value

# COMMITTEE I - CARDIOVASCULAR SYSTEM I WEEK / 09-13 Sep 2024

			***EER7 00 10 00p 202+		
	Monday 09-Sep-2024	Tuesday 10-Sep-2024	Wednesday 11-Sep-2024	Thursday 12-Sep-2024	Friday 13-Sep-2024
09.00- 09.50		Lecture Molecular Basis of Cardiovascular System Seda Güleç Yılmaz	Lecture Introduction to Medical Microbiology <i>Pınar Çıragil</i>	Lecture Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin Yeşim Özarda	Lecture Platelets and Coagulation Mehtap Kaçar
10.00- 10.50	PBL	Lecture Molecular Basis of Cardiovascular System Seda Güleç Yılmaz	Lecture Cultivation and identification of bacteria <i>Pınar Çıragil</i>	Lecture Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin Yeşim Özarda	Lecture Platelets and Coagulation Mehtap Kaçar
11.00- 11.50		Lecture Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin Yeşim Özarda	Lecture Sampling, Data Collection and Data Processing E. Çiğdem Keleş	Lecture Leukocytes & Lymphocytes Burcu Gemici Başol	Lecture Histology of Circulatory Systems; Gn Spec. Arteries Aylin Yaba Uçar
12.00- 12.50	Introductory Session Introduction to Phase II Phase II Coordination Committee/ Introduction to Committee I Secretary of Committee	Lecture Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin Yeşim Özarda	Lecture Statistical Decision Theory, Test of Hypothesis and Significance E. Çiğdem Keleş	Lecture Leukocytes & Lymphocytes <i>Burcu Gemici Başol</i>	Lecture Histology of Circulatory Systems: Capillaries, Veins & Heart Aylin Yaba Uçar
13.00- 13.50			Lunch Break		
14.00- 14.50	Lecture Functions of Blood Burcu Gemici Başol	Lecture Biophysics of Hemodynamics: Measurements of Different Hemodynamic Parameters Akif Meherrem	Lecture Erythrocyte Burcu Gemici Başol		Lecture Immunology of Heart and Vessels Gülderen Yanıkkaya Demirel & Latife Arzu Aral
15.00- 15.50	Independent Learning	Lecture Biophysics of Hemodynamics: Measurements of Different Hemodynamic Parameters Akif Meherrem	Lecture Erythrocyte Burcu Gemici Başol	ICP / CSL: Intramuscular/Intradermal/ Subcutaneous Injection ICP Lecturer Group A	Lecture Immunology of Heart and Vessels Gülderen Yanıkkaya Demirel & Latife Arzu Aral
16.00- 16.50	Independent Learning	Independent Learning	Independent Learning		Independent Learning
17.00-17.50	Independent Learning	Independent Learning	Independent Learning		Independent Learning

# COMMITTEE I - CARDIOVASCULAR SYSTEM II. WEEK / 16- 20 Sep 2024

	Monday 16-Sep-2024	Tuesday 17-Sep-2024	Wednesday 18-Sep-2024		rsday ep-2024	Friday 20-Sep-2024
09.00- 09.50		Lecture Pericardium and Outer Surface of the Heart Aikaterini Panteli	Lecture Regulation of Cardiac Function <i>Mehtap Kaçar</i>	Coronary arteries Cardiac Cond	cture , Cardiac Veins, and duction System ini Panteli	Lecture Introduction to Lymphatic System Aikaterini Panteli
10.00- 10.50	PBL	Lecture Pericardium and Outer Surface of the Heart Aikaterini Panteli	Lecture Regulation of Cardiac Function <i>Mehtap Kaçar</i>	Coronary arteries Cardiac Cond	cture , Cardiac Veins, and duction System ini Panteli	Lecture Circulation of Lymph <i>Aikaterini Panteli</i>
11.00- 11.50		Lecture Chambers of the Heart <i>Aikaterini Panteli</i>	Lecture Great Vessels of the Heart <i>Aikaterini Panteli</i>	Pericardium, Oute of th <i>Aikaterini Panteli &amp;</i> <i>Ahm</i>	y / Anatomy r Surface, Chambers e heart & Edibe Bilişli Kara & eet Saç oup 2	Lecture Development of Circulatory Systems; Endocardial Tube Formation & Looping Alev Cumbul
12.00- 12.50	Independent Learning	Lecture Chambers of the Heart <i>Aikaterini Pantel</i>	Lecture Major Vessels of the Body <i>Aikaterini Panteli</i>	Group 1		Lecture Development of Circulatory Systems; Septation Alev Cumbul
13.00- 13.50			Lunch Break			
14.00- 14.50	Lecture Introduction to Cardiovascular System Aikaterini Panteli	Lecture Blood Types and Transfusion Reactions Mehtap Kaçar	Lecture Rhythmical Excitation of the Heart Burcu Gemici Başol	Intradermal/ Subo	ntramuscular/ cutaneous Injection ecturer oup B	Lecture Bacterial pathogenicity Güner Söyletir
15.00- 15.50	Lecture Thoracic Cavity & Mediastinum <i>Aikaterini Panteli</i>	Lecture Blood Types and Transfusion Reactions Mehtap Kaçar	Lecture Rhythmical Excitation of the Heart Burcu Gemici Başol			Lecture Microbial toxins <i>Güner Söyletir</i>
16.00- 16.50	Lecture Thoracic Cavity & Mediastinum <i>Aikaterini Panteli</i>	Laboratory / Anatomy Thoracic wall, Cavity & Mediastinum <i>Aikaterini Panteli &amp; Edibe Bilişli Kara &amp;</i> <i>Ahmet Saç</i> Group 1	Lecture Degradation of Hemoglobin <u>Yeşim Özarda</u>	Group B	SRPC SGS Group C Soner Doğan	Lecture Functions of Hemoglobin Yeşim Özarda
17.00-17.50	Independent Learning	Group 2	Lecture Degradation of Hemoglobin Yeşim Özarda			Lecture Functions of Hemoglobin Yeşim Özarda

# COMMITTEE I - CARDIOVASCULAR SYSTEM III. WEEK / 23- 27 Sep 2024

	Monday 23-Sep-2024	Tuesday 24-Sep-2024	Wednesday 25-Sep-2024	Thurso 26-Sep-	•	Friday 27-Sep-2024	
09.00- 09.50	Lecture Histology of Lymph Organs; General Aspects, Thymus and Lymph Node Aylin Yaba Uçar	Lecture Introduction to Bioelectromagnetics Electric Field Akif Meherrem	Lecture Adaptations Aydın Sav	Laboratory / Histology &Embryology Histology of CVS (Aort, Heart, Vena Cava, Muscular	Independent Learning	Lecture Host-Parasite interactions Güner Söyletir	
10.00- 10.50	Lecture Histology of Lymph Organs; Spleen and MALT (Tonsils) Aylin Yaba Uçar	Lecture Introduction to Bioelectromagnetics Electric Field Akif Meherrem	Lecture Adaptations <i>Aydın Sav</i>	arteries) Alev Cumbul & Aylin Yaba Uçar Group 1	Laboratory / Anatomy Lymphatic System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2	Lecture Viral Pathogenicity Güner Söyletir	
11.00- 11.50	Independent Learning	Lecture Congenital Heart Anomalies <i>Alev Cumbul</i>	Independent Learning	Group 2	Group 1	Lecture Development of Circulatory Systems; Arteries and Anomalies Alev Cumbul	
12.00- 12.50	Lecture Introduction to Pathology Aydın Sav	Lecture Development of Circulatory Systems; Arteries and Anomalies Alev Cumbul	Independent Learning	·	Independent Learning	Lecture Development of Circulatory Systems; Veins and Anomalies Alev Cumbul	
13.00- 13.50			Lunch Break				
14.00- 14.50	Independent Learning	Lecture Microcirculation and the Lymphatic System Burcu Gemici Başol	Lecture Hemorheology Akif Meherrem	Injecti <i>ICP</i> Lect	ICP / CSL: Intramuscular/Intradermal/ Subcutaneous Injection ICP Lecturer Group C		
15.00- 15.50	Independent Learning	Lecture Fetal Circulation <i>Aikaterini Panteli</i>	Lecture Hemorheology Akif Meherrem			Lecture Principles of Hemodynamics Burcu Gemici Başol	
16.00-16.50	Independent Learning	Laboratory / Anatomy Coronary arteries, Cardiac Veins, Great Vessels, Cardiac Conduction System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1	Lecture / SRPC-II Abstract Writing Soner Doğan	Group C	SRPC SGS Group D Soner Doğan	Lecture Principles of Hemodynamics Burcu Gemici Başol	
17.00-17.50	Independent Learning	Group 2	Lecture / SRPC - II Drawing Graphical Abstract Soner Doğan			Independent Learning	

# COMMITTEE I - CARDIOVASCULAR SYSTEM IV. WEEK / 30 Sep- 04 Oct 2024

	Monday 30-Sep-2024		uesday Oct-2024	Wednesday 02-Oct-2024	Thursday 03-Oct-2024	Frida 04-Oct-	,	
09.00- 09.50	Lecture Human microbiota Nilgün Çerikçioğlu	Gün	cture / Microbiology er Söyletir o A, B, C, D	Lecture Ischemia, infarction and shock Aydın Sav	Lecture Regulation of Blood Pres Mehtap Kaçar	Laboratory/ Physiology Blood Pressure - Heart	Laboratory / Biochemistry Peripheral Blood	
10.00- 10.50	Lecture Microbiology of air, water, and milk <i>Nilgün Çerikçioğlu</i>	Laboratory / Physiology Hematocrit Determination and Blood Typing & Bleeding Time Bayram Yılmaz & Mehtap Kaçar & Burcu Gemici Başol Group D	Laboratory / Microbiology Safety in microbiology laboratory and Use of microscope Güner Söyletir, Pınar Çiragil,Aynur Eren Topkaya,Zehra Kipritçi & Selvi Duman Bakırezer Group C	Lecture Ischemia, infarction and shock Aydın Sav	Lecture Regulation of Blood Pres <i>Mehtap Kaçar</i>	Sounds Bayram Yılmaz & Mehtap Kaçar & Burcu Gemici Başol Group A	Smear Jale Çoban & Yeşim Özarda Müge Kopuz Alvarez Noval Group C	
11.00- 11.50	Lecture Vascular Distensibility and Functions of Arterial and Venous Systems Burcu Gemici Başol	Group C	Group D	Lecture Disorders Concerning Hemoglobin Metabolism Yeşim Özarda	rders Concerning Bioelectromagnetics. globin Metabolism Electromagnetic Field		Group A	
12.00- 12.50	Lecture Vascular Distensibility and Functions of Arterial and Venous Systems Burcu Gemici Başol	Group A	Group B	Lecture Blood Coagulation, Primary Hemostatsis Yeşim Özarda	d Coagulation, or the Heart Akif Meherrem			
13.00- 13.50		•	Luncl	n Break		•		
14.00- 14.50	Lecture Review of Cardiovascular Anatomy <i>Aikaterini Panteli</i>	Group B	Group A	Lecture Cardiac Output, Venos Return and Regulation <i>Burcu Gemici Başol</i>	ICP / CSL: Intramuscular/Intraderr Subcutaneous Injection ICP Lecturer Group D		Group D	
15.00- 15.50	Lecture Local and Humoral Control of Blood Flow by the Tissues Burcu Gemici Başol	Indepen	dent Learning	Lecture Cardiac Output, Venos Return and Regulation Burcu Gemici Başol	SRPC SO	s		
16.00- 16.50	Lecture Local and Humoral Control of Blood Flow by the Tissues Burcu Gemici Başol	AFYA for International Students	Independent Learning for Turkish Students	AFYA for Independent Learning for al Turkish	Group D Group Soner  Doğan	Group D	Group B	
17.00-17.50	Independent Learning			Students Students				

# COMMITTEE I - CARDIOVASCULAR SYSTEM V. WEEK / 07 – 11 Oct 2024

V. WEER/07 = 11 Oct 2024												
	Monday 07-Oct-2024	Tues 08-Oct-20	-	Wednes	•		rsday :t-2024	Friday 11-Oct-2024				
09.00- 09.50	Lecture Hyperemia & Congestion <i>Aydın Sav</i>	Laboratory / Histology &Embryology Histology of Lymphoreticular System (Thymus, Lymph Node, Spleen,	Laboratory / Physiology ECG I-ECG II Bayram Yılmaz &	Laboratory / Physiology ECG I-ECG II Bayram Yılmaz & Mehtap Kaçar		Lecture Introduction to Bioelectromagnetics: Magnetic Field Akif Meherrem		Independent Learning				
10.00- 10.50	Lecture Hyperemia & Congestion <i>Aydın Sav</i>	Tonsils)  Alev Cumbul & Aylin  Yaba Uçar  Group 2	Mehtap Kaçar & Burcu Gemici Başol Group A		emici Başol oup D	Lecture Introduction to Bioelectromagnetics: Magnetic Field Akif Meherrem		Lecture Coronary Circulation Mehtap Kaçar				
11.00- 11.50	Lecture Heart Valves and Heart Sounds <i>Mehtap Kaçar</i>	Group 1	Group C	Group B			ecture tion of the Circulation tap Kaçar	Lecture Cardiac Failure <i>Mehtap Kaçar</i>				
12.00- 12.50	Lecture Heart Valves and Heart Sounds <i>Mehtap Kaçar</i>					Lecture Nervous Regulation of the Circulation Mehtap Kaçar		Lecture Circulatory Shock and Physiology of Its Treatment Mehtap Kaçar				
13.00- 13.50				Lunch Break								
14.00-14.50	Lecture Blood Coagulation, Primary Hemostasis Yeşim Özarda	Lect Development of Heac Neuroc <i>Aylin Ya</i>	l; Splanchocranium, ranium	Lecture Cardiac Arrhythmias Bayram Yılmaz & Mehtap Kaçar		ICP / CSL: Intramuscular/Intradermal/ Subcutaneous Injection ICP Lecturer Group E		Independent Learning				
15.00- 15.50	Secondary Hemostasis, Procoagulation, Anticoagulation, Fibrinolysis Yeşim Özarda	Lect Development of Neck; F Anom Aylin Ya	Pharyngeal Arches and lalies	Lecture Cardiac Arrhythmias Bayram Yılmaz & Mehtap Kaçar		Cardiac Arrhythmias		Cardiac Arrhythmias				Independent Learning
16.00- 16.50	Lecture Principles of Electrocardiography Bayram Yılmaz	AFYA for International	Independent	AFYA for	Independent	Group E	SRPC SGS Group A Soner Doğan	Independent Learning				
17.00-17.50	Lecture Electrocardiographic Interpretation of Cardiac Abnormalities Bayram Yılmaz	Students	Learning for Turkish Students	International Students  Learning for Turkish Students				Independent Learning				

# COMMITTEE I - CARDIOVASCULAR SYSTEM VI. WEEK / 14 – 18 Oct 2024

	Monday 14-Oct-2024	Tueso 15-Oct-			nesday ct-2024	Thursday 17-Oct-2024	Friday 18-Oct-2024		
09.00- 09.50						Independent Learning		Assessment Session (Anatomy, Physiology, Histology&Embryology, Microbiology, Biochemisrty Practical Exams)	
10.00- 10.50	Independent Learning	Independent Learning		Independent Learning	Independent Learning				Independent Learning
11.00- 11.50									
12.00- 12.50									
13.00- 13.50		Lunc	h Break			Program Evaluation Session Evaluation of the Committee I Program Secretary of the Committee			
14.00- 14.50		Independent Learning		Independent Learning		Independe	ent Learning		
15.00- 15.50	Independent Learning					Independent Learning	Independent Learning		
16.00- 16.50		AFYA for International	Independent	AFYA for International	Independent				
17.00-17.50		Students	Learning	Students	Learning				

# MED - 203 - COMMITTEE II - RESPIRATORY SYSTEM DISTRIBUTION of LECTURE HOURS October 23-December 1, 2023 COMMITTEE DURATION: 6 WEEKS

COURSES	BASIC MEDICAL SCIENCES II	THEORETICAL	PRACTICAL	SMALL GROUP DISCUSSION	TOTAL
	DISCIPLINE / COMPONENTS				
	ANATOMY	11	2GX3H	0	14
	BIOPHYSICS	4	0	0	4
	BIOSTATISTICS	4	0	0	4
	HISTOLOGY & EMBRYOLOGY	6	2GX2H	0	8
	IMMUNOLOGY	7	0	0	7
MED 203	MEDICAL BIOLOGY	2	0	0	2
WIED 203	MEDICAL GENETICS	17	0	0	18
	MEDICAL MICROBIOLOGY	19	4GX6H	0	25
	PATHOLOGY	9	0	0	9
	PHYSIOLOGY	17	4GX2H	0	19
	SCIENTIFIC RESEARCH and PROJECT-II	0	0	5GX3H	3
	PBL	0	0	6	6
	TOTAL	96	13	9	119
MED 202	INTRODUCTION to CLINICAL PRACTICE- II	5H	5GX3H		8
INDEPENDEN	IT LEARNING HOURS		74	ı	•

	Head	Burcu GEMİCİ BAŞOL, PhD Prof.
Coordination Committee	Secretary	Edibe BİLİŞLİ KARA, DVM, PhD Lecturer
	Member	Alev CUMBUL, MD Assoc. Prof.
	Member	Deniz KIRAÇ, PhD Prof.

# COMMITTEE II - RESPIRATORY SYSTEM LECTURERS

MED 203 BASIC MEDICAL SCIENCES II					
DISCIPLINE	LECTURERS				
ANATOMY	Erdem SÖZTUTAR, MD, Assist. Prof. Aikaterini PANTELİ, MD, Assist. Prof. Paria SHOJAOLSADATI, PhD. Lecturer LAB: Edibe BİLİŞLİ KARA, DVM, PhD. Lecturer LAB: Ahmet SAÇ, MD, Instructor				
BIOPHYSICS	Akif MEHERREM, PhD, Assist. Prof. Bilge GÜVENÇ TUNA, PhD, Assoc. Prof.				
BIOSTATISTICS	E. Çiğdem KELEŞ, PhD, Assist. Prof.				
HISTOLOGY & EMBRYOLOGY	Aylin YABA UÇAR, PhD, Prof. Alev CUMBUL, PhD, Assoc. Prof.				
IMMUNOLOGY	Gülderen YANIKKAYA DEMİREL, MD PhD, Prof. Latife Arzu ARAL, MD PhD Prof.				
MEDICAL BIOLOGY	Deniz KIRAÇ, PhD, Prof.				
MEDICAL GENETICS	Didem SEVEN, PhD, Instructor				
MEDICAL MICROBIOLOGY	Aynur EREN TOPKAYA, MD, Prof. Güner SÖYLETİR, MD PhD, Prof. Pınar ÇIRAGİL, MD, Prof. LAB: Zehra KİPRİTÇİ, PhD LAB: Selvi DUMAN BAKIREZER, PhD				
PATHOLOGY	Aydın SAV, MD Prof.				
PHYSIOLOGY	Bayram YILMAZ, PhD, Prof. Mehtap KAÇAR, MD, PhD, Prof. Burcu GEMİCİ BAŞOL, PhD, Prof				
SCIENTIFIC RESEARCH AND PROJECT-II	Aylin YABA UÇAR PhD, Prof. (Responsible Faculty Member) Soner DOĞAN, PhD, Prof.				

# OTHER COURSES

MED 202 INTRODUCTION to CLINICAL PRACTICE II							
DISCIPLINE	LECTURERS						
CLINICAL SKILLS LAB	Gökhan Gencer, MD, Assist. Prof. Cem Şimşek, MD, Assist. Prof. Hande Candemir Ercan, MD, Assist. Prof. Mustafa Yazıcıoğlu, MD, Assist. Prof. Dijan Tav Şimşek, MD, Specialist Alev Eceviz, MD, Specialist Atakan Gültekin, MD, Research Assistant Rabia Sarıyıldız, MD,Research Assistant						

# **COMMITTEE II - RESPIRATORY SYSTEM**

# **AIM and LEARNING OBJECTIVES**

# **AIMS**

- 1. To convey information about biophysical, biological, anatomical, embryological, histological, and physiological properties of respiratory system,
- 2. To convey information about functional activity of lungs by defining all basic parameters,
- 3. To convey information about respiratory system anatomy,
- 4. To convey basic, general knowledge about immunology,
- 5. To convey basic, general knowledge and information about the structural/biological features and pathogenesis of bacteria.
- 6. To convey information about good laboratory and clinical practices in research projects,
- 7. To convey basic knowledge about biostatistics.

## **LEARNING OBJECTIVES**

At the end of this committee, student should be able to:

#### KNOWLEDGE

- 1.0. For respiratory system;
  - 1.1. explain biophysical changes,
  - 1.2. associate with the clinical reflections.
- 2.0. For nose, paranasal sinus, pharynx, larynx, and lung;
  - 2.0. describe their anatomy,
  - 2.1. associate with adjacent tissues and organs,
  - 2.2. explain their functional and clinical reflections.
- 3.0. Explain developmental stages and list embryological origins of organs,
  - 3.1. Associate the relation between major birth abnormalities and developmental process.
  - 3.2. Explain histological properties of upper respiratory system
  - 3.3. Explain histological properties of lower respiratory system
- 4.0. Explain functions of the pulmonary system.
- 5.0. Explain mechanisms of oxygen and carbon dioxide exchange and transportation.
- 6.0. Describe dynamics of microcirculation together with general and pulmonary circulation.
- 7.0. Describe nervous (autonomous) control of the pulmonary system.
- 8.0. Describe dynamics and control of pulmonary circulation.
- 9.0. Describe the measurement of the spirometry method.
- 10.0. Explain basics of exercise physiology and the effects of exercise on the cardiovascular and respiratory
- 11.0. Explain the adaptive changes in the respiratory system in extreme conditions and basic information about pathophysiology of respiratory system disorders.
- 12.0. For immune system;
  - 12.1. describe the properties of pulmonary immune response
  - 12.2. relate changes with infection diseases.
- 13.0. Explain inherited and non-inherited genetic mechanisms in neoplasia.
- 14.0. Describe the structural/biological features of medically important bacteria.
- 15.0. Describe the medically important Respiratory viruses
- 16.0. Explain the action and resistance mechanism of antimicrobial agents.
- 17.0. For endogenous and exogenous harmful agents:
  - 17.1. Describe their mechanisms of cell and tissue damage,
  - 17.2. Describe the adaptation process of cells.
- 18.0. List pathologies resulting from endogenous and exogenous harmful agents and consequently emerging diseases.
- 19.0. Explain the molecular mechanism of lung cancer
- 20.0. Describe how to prepare a scientific research presentation.
- 21.0. Prepare a research article presentation
- 22.0. Explain the steps of a statistical hypothesis test according to the properties of a given data.
- 23.0. For statistical hypothesis,
  - 23.1. list the statistical hypothesis test according to the properties of given date.
  - 23.2. choose the appropriate statistical hypothesis test according to the properties of given data.
- 24.0. Explain case scenario related basic medical science topics in a clinical context.

# **COMMITTEE II - RESPIRATORY SYSTEM COMMITTEE II ASSESSMENT MATRIX**

LEARNING	DISCIPL	INE	LECTUR		DIST	RIBUT	ΓΙΟΝ	of MCQs and	d SbMCQ
OBJECTIVES			INSTRUC	IOR	CE	FE	<b>E</b>	ΙE	TOTAL
2.0, 24.0	ANATOMY		Dr. A. Panteli		11	5		5	21
1.0	BIOPHYSICS		Dr. A. Meherrem	n	4	2		2	8
22.0-23.0	BIOSTATISTIC	S	Dr. Ç. Keleş		4	2		2	8
3.0, 24.0	HISTOLOGY &		Dr. A. Yaba Uça	ır	2	1		1	12
3.0, 24.0	EMBRYOLOGY		Dr. A. Cumbul		4	2		2	12
12.0	IMMUNOLOGY		Dr. G. Yanıkkayı Dr. L. Arzu Aral	a Demirel	7	4		4	15
19.0	MEDICAL BIOL	.OGY	Dr. D. Kıraç		2	1		1	4
13.0	MEDICAL GENETICS		Dr. D. Seven	Dr. D. Seven		9		9	36
14.0-16.0, 24.0	MEDICAL MICROBIOLOGY		Dr. G. Söyletir		20	10	)	10	40
17.0-18.0, 24.0	PATHOLOGY		Dr. A. Sav		9	5		5	19
				B. Yılmaz		6		6	
4.0-11.0, 24.0	PHYSIOLOGY		Dr. M. Kaçar		4	2		2	36
			Dr. B. Gemici Başol		2	1		1	
24.0	PBL				1	0		0	1
			TOTAL		100	35/20	00#	35/200#	200
LEADUNG C	D IFOTN/FO	5.5	OIDLINE	DISTI	RIBUTION	of LA	B AS	SESSMENT	POINTS
LEARNING O	BJECTIVES	אוט	CIPLINE	I	LPE			QUIZ	:
2.0, 4.0, 7.0	2.0, 4.0, 7.0 ANATOMY				40				
3.0 HISTOLOG EMBRYOLO				10					
14.0	14.0 MEDICAL MICROBIO				14		6		
5.0, 8.0-11.0		PHYSIOLO	OGY		30				
		TOTAL		100					

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).
Total value of LPE is equal to 100 points
Committee Score (CS) = 95% of [90% CE (MCQ and SbMCQ) + 10 % (LPE)] + 5% of PBL-P
Abbreviations:
MCQ: Multiple Choice Questions
SbMCQ: Scenario-based Multiple Choice Questions
LPE: Laboratory Practical Exam
CE: Committee Exam
CE: Committee Exam
CE: Committee Score
FE: Final Exam
ICE: Incomplete Exam
Pts.: Points
# In FE and ICE. 35 out of 200 FE and ICE MCQs and SbMCQ will be from Committee II (Each of

# In FE and ICE, 35 out of 200 FE and ICE MCQs and SbMCQ will be from Committee II (Each question is 0.5 pt, equal value

# COMMITTEE II - RESPIRATORY SYSTEM I. WEEK / 21 - 25 Oct 2024

	Monday 21-Oct-2024	Tuesda 22-Oct-2	•	Wednesday 23-Oct-2024			Thursd 24-Oct-2	•	Friday 25-Oct-2024	
09.00- 09.50		Independent Learning		Lecture Histology of the Upper Respiratory Tract Alev Cumbul					Independent Learning	
10.00- 10.50	PBL	Independent Learning		Lecture Histology of the Upper Respiratory Tract Alev Cumbul			Lectur Infection and I Ideren Yanıkkaya De		Independent Learning	
11.00- 11.50		Lecture Gram Positive Cocci Güner Söyletir		Lecture Gram Negative Cocci <i>Güner Söyletir</i>		Gül	Lectur Infection and I Ideren Yanıkkaya De		Lecture Test of Hypothesis: Chi-Square E. Çiğdem Keleş	
12.00- 12.50	Introduction to Committee II Secretary of Committee	Lec Gram Posi <i>Güner</i> S	tive Cocci	Lecture Gram Negative Cocci <i>Güner Söyletir</i>		Gül	Lecture Infection and Immunity Gülderen Yanıkkaya Demirel & L. Arzu Aral		Lecture Test of Hypothesis: Chi-Square <i>E. Çiğdem Kele</i> ş	
13.00- 13.50										
14.00- 14.50	Lecture Introduction to Respiratory System Aikaterini Panteli	Lec Patterns of Single <i>Didem</i>	Gene Inheritance	Lecture The Pharynx <i>Aikaterini Panteli</i>			ICP / CSL: IV ICP Le Gro	ecturer	Lecture Gram Negative Small Non-enteric Bacilli I Güner Söyletir	
15.00- 15.50	Lecture Nasal Anatomy and Paranasal Sinuses Aikaterini Panteli	Lec Patterns of Single <i>Didem</i>		The Pl	Lecture The Pharynx <i>Aikaterini Panteli</i>				Lecture Gram Negative Small Non-enteric Bacilli II Güner Söyletir	
16.00- 16.50	Lecture Introduction to Medical Genetics Didem Seven	AFYA for	Independent	AFYA for International	Independent Learning for		Group A	SRPC SGS Group B Soner Doğan	Lecture Gram Negative Small Non-enteric Bacilli III Güner Söyletir	
17.00-17.50	Lecture Introduction to Medical Genetics Didem Seven	cal Genetics	Turkish Students	Students	Turkish Students				Independent Learning	

# COMMITTEE II - RESPIRATORY SYSTEM II. WEEK / 28 Oct - 1 Nov 2024

		II. WEER / 20 OCT - 1 NOV 2024							
	Monday 28-Oct-2024	Tuesday 29-Oct-2024	Wednes 30-Oct-	•	Thurs 31-Oct-		Friday 1-Nov-2024		
09.00- 09.50	Independent Learning		Independent Learning  Laboratory Lecture / Microbiology  Güner Söyletir  Group A, B, C, D  Laboratory / Microbiology  Laboratory Identification of Gr (+) cocci and Gr (-) cocci - I  Güner Söyletir & Pınar Çıragil & Aynur Eren  Topkaya & Zehra Kipritçi & Selvi Duman  Bakırezer  Group A  Group B		cocci and Gr (-) cocci - II  Independent Learning  Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra		Laboratory Identification of Gr (+) cocci and Gr (-) cocci - II Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer	Independent Learning	
10.00- 10.50	Independent Learning	NATIONAL HOLIDAY			Group D	Laboratory / Anatomy Upper Respiratory System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1	PBL		
11.00- 11.50	Independent Learning				Group A	Group 2			
12.00- 12.50	Independent Learning				Group B	Independent Learning	Independent Learning		
13.00- 13.50				Lun	ch Break				
14.00- 14.50			Group	o C	ICP / CSL: IV C ICP Led Group	turer	Lecture Pulmonary Ventilation <i>Burcu Gemici Başol</i>		
15.00- 15.50			Group	D D			Lecture Pulmonary Ventilation Burcu Gemici Başol		
16.00- 16.50	NATIONAL HOLIDAY	NATIONAL HOLIDAY	International Learning	Independent	Group B	SRPC SGS Group C Soner Doğan	Lecture Histology of The Respiratory Systems: Conducting Part Alev Cumbul		
17.00-17.50				Learning for Turkish Students	Learning for			Lecture Histology of The Respiratory Systems; Respiratory Part Alev Cumbul	

# COMMITTEE II - RESPIRATORY SYSTEM III. WEEK / 4 - 8 Nov 2024

	Monday 4-Nov-2024		esday v-2024	Wedne 6-Nov	•		sday ⁄-2024	Friday 8-Nov-2024
09.00- 09.50	Lecture Pulmonary Circulation, Pulmonary Edema, Pleural Fluid Mehtap Kaçar	Developmental Gene	cture etics and Birth Defects n Seven	Independer	t Learning	Lectur Hemodyna <i>Aydı</i> ı	amics	Lecture The Trachea Aikaterini Panteli
10.00- 10.50	Lecture Pulmonary Circulation, Pulmonary Edema, Pleural Fluid Mehtap Kaçar	Developmental Gene	cture etics and Birth Defects n Seven	Lect Development of the Ro Anom Aylin Ya	Lectur Hemodyna <i>Aydı</i> ı		Lecture The Lungs <i>Aikaterini Panteli</i>	
11:00-11:50	Lecture Cytogenetics and Chromosomal Disorders Didem Seven	Diffusion of	cture Blood Gases emici Başol	Lect Development of the R Anom Aylin Ya	espiratory Systems & alies	Lec Cancer Genetic Didem Se	s and Genomics	Lecture Hemorrhage and Thrombosis Aydın Sav
12:00-12:50	Lecture Cytogenetics and Chromosomal Disorders Didem Seven	Lecture Diffusion of Blood Gases <i>Burcu Gemici Başol</i>		Lect Gram Positive Güner S	Aerobic Bacilli	Lec Cancer Genetics Didem Se		Lecture Hemorrhage and Thrombosis Aydın Sav
13.00- 13.50				Lunch Bre	eak			
14.00- 14.50	Lecture The Larynx <i>Aikaterini Panteli</i>	Pleura and	cture d Diaphragm ini Panteli	Lectu Cellular Injury <i>Aydır</i>	and Necrosis	ICP Le	Cannulation ecturer up C	Lecture Mycobacteria <i>Güner</i> Söyletir
15.00- 15.50	Lecture The Larynx <i>Aikaterini Panteli</i>	Pleura and	cture d Diaphragm ini Panteli	Lectu Cellular Injury <i>Aydır</i>	and Necrosis			Lecture Mycobacteria Güner Söyletir
16.00- 16.50	Lecture Pulmonary Innate Immune Response Gülderen Yanıkkaya Demirel & L. Arzu Aral	AFYA for International	Independent Learning	AFYA for	Independent Learning for Turkish	Group C	SRPC SGS Group D Soner Doğan	Lecture Actimomycetes- Nocardia Güner Söyletir
17.00-17.50	Lecture Pulmonary Innate Immune Response Gülderen Yanıkkaya Demirel & L. Arzu Aral	Students	for Turkish Students	International Students	Learning for Turkish Students			Independent Learning

# COMMITTEE II - RESPIRATORY SYSTEM IV. WEEK / 11 – 15 Nov 2024

	İ	T		I	- 13 NOV 2024			
	Monday 11-Nov-2024	Tueso 12-Nov-	•	Wedne 13-Nov			rsday ov-2024	Friday 15-Nov-2024
09.00- 09.50	Lecture Transport of Blood Gases Burcu Gemici Başol	Lectu Respiratory <i>Güner S</i> o	/ viruses	Aviation, High-Altitude,	Lecture		/ Laboratory / Microbiology of Gr (+) and (-) non-enteric ycobacteria – II ragil & Aynur Eren Topkaya ielvi Duman Bakırezer pup A	Physiology of Deep-Sea Diving and
10.00- 10.50	Lecture Transport of Blood Gases Burcu Gemici Başol	Lectu Respiratory <i>Güner Se</i>	/ viruses	Güner S	Laboratory Lecture / Microbiology Güner Söyletir Group A, B, C, D		oup B	Lecture Physiology of Deep-Sea Diving and Hyperbaric Conditions Bayram Yılmaz & Mehtap Kaçar
11.00- 11.50	Lecture Molecular Basis of Genetic Diseases <i>Didem Seven</i>	Lecture Regulation of Respiration Burcu Gemici Başol		Laboratory / Microbiology Laboratory Identification of Gr (+) and (-) non-enteric bacilli and mycobacteria – I Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Group C	Independent Learning	Group C		Independent Learning
12.00- 12.50	Lecture Tools of Human Molecular Genetics <i>Didem Seven</i>	Lecture Regulation of Respiration Burcu Gemici Başol		Group D	Laboratory / Anatomy Larynx-Pleura and Diaphragm Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1	Group D		Lecture Modeling in Circulatory & Respiratory Systems Akif Meherrem
13.00- 13.50					Lunch Break			
14.00- 14.50	Lecture Mycoplasma-Chlamydia-Rickettsia Güner Söyletir	Lectu Antimicrobial Agent Actio <i>Güner</i> So	ts: Mechanism of on	Group A	Group 2	ICP / CSL: IV Cannulation ICP Lecturer Group D		Lecture Modeling in Circulatory & Respiratory Systems Akif Meherrem
15.00- 15.50	Lecture Mycoplasma-Chlamydia-Rickettsia Güner Söyletir	Lecture Antimicrobial Agents: Mechanism of Action Güner Söyletir		Group B				Lecture Principle of Surface Tension & Alveolar Mechanic Akif Meherrem
16.00- 16.50	Lecture Pulmonary Adaptive Immune Response Gülderen Yanıkkaya Demirel & L. Arzu Aral	AFYA for	Independent Learning for	AFYA for International	Independent Learning for	Group D	SRPC SGS Group E Soner Doğan	Lecture Principle of Surface Tension & Alveolar Mechanic Akif Meherrem
17.00-17.50		Students	Students Turkish Students			Independent Learning		

# COMMITTEE II - RESPIRATORY SYSTEM V. WEEK / 18 – 22 Nov 2024

	TITLETT, IV BETTY AVET								
	Mond 18-Nov-	•	Tuesday 19-Nov-202		Wedne 20-Nov	•	Thursday 21-Nov-2024		Friday 22-Nov-2024
09.00- 09.50	Genetics of Com	Lecture Genetics of Complex Diseases <i>Didem Seven</i>		spiratory nteli	Independent Learning		Laboratory / Microbiology Antibacterial susceptibility testing and interpretation II Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Group C	Laboratory /Histology& Embryology Histology of RS (Trachea, Lung)	Lecture Treatment of Genetic Disease - Introduction to Gene Therapy Didem Seven
10.00- 10.50	Lecture Genetics of Complex Diseases Didem Seven		Lecture Injury by Endoge Substances <i>Aydın Sav</i>	S	Laboratory Lecture / Microbiology <i>Güner Söyletir</i> Group A, B, C, D		Group D	Alev Cumbul, Aylin Yaba Uçar Group 1	Lecture Treatment of Genetic Disease - Introduction to Gene Therapy Didem Seven
11.00- 11.50	Lectu Test of Hypothes E. Çiğden	sis: Chi-Square	Lecture Injury by Toxic Subst Pneumoconio <i>Aydın Sav</i>	osis	Laboratory / Microbiology Antibacterial susceptibility testing and interpretation I Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Grup A	Laboratory / Physiology Exercise and Metabolism Bayram Yılmaz & Mehtap Kaçar & Burcu Gemici Başol Group C	Group A	Group 2	Lecture Molecular Basis of Lung Cancer Deniz Kıraç
12.00- 12.50	Lectu Test of Hypothes E. Çiğden	sis: Chi-Square	Lecture Injury by Toxic Substances Pneumoconiosis Aydın Sav		Grup B	Group D	Group B		Lecture Molecular Basis of Lung Cancer Deniz Kıraç
13.00- 13.50					Lunch I	Break			
14.00- 14.50	Laboratory / Physiology Spirometry Bayram Yılmaz & Mehtap Kaçar & Burcu Gemici Başol Group A	Independent Learning	Lecture Antimicrobial Ag Mechanisms of Re Güner Söyle	sistance	Grup C	Group A	ICP / CSL: IV Cannulation ICP Lecturer Group E		Lecture Sports Physiology <i>Mehtap Kaçar</i>
15.00- 15.50	Group B	Laboratory / Anatomy Lower Respiratory System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2	Lecture Antimicrobial Ag Mechanisms of Re <i>Güner Söyle</i>	sistance	Grup D	Group B	Group E	SRPC SGS Group A Soner Doğan	Lecture Sports Physiology <i>Mehtap Kaçar</i>
16.00- 16.50	Group C	Group 1	AFYA for International Students	Independen t Learning for Turkish Students	AFYA for International	Independent Learning for Turkish Students		Soner Doğan	

17.00- 17.50	Group D	Independent Learning				Lecture Introduction to Pathophysiology of Respiratory System <i>Mehtap Kaçar</i>

# COMMITTEE II - RESPIRATORY SYSTEM VI. WEEK / 25 - 29 Nov 2024

	Monday 25-Nov-2024	Tuesday 26-Nov-2024	4		Wednesday 27-Nov-2024	Thursday 28-Nov-2024	Friday 29-Nov-2024
09.00- 09.50							Assessment Session (Anatomy, Physiology and Histology&Embryology, MicrobiologyPractical Exams)
10.00- 10.50	Independent Learning	Independent Lea	arning	lı	ndependent Learning	Independent Learning	
11.00- 11.50							Assessment Session Committee II (MCQ)
12.00- 12.50							
13.00- 13.50			Program Evaluation Session Review of the Exam Questions, Evaluation of the Committee II Program Secretary of the Committee				
14.00- 14.50							
15.00- 15.50		Independent Lea	nrning	lı	ndependent Learning		
16.00- 16.50	Independent Learning					Independent Learning	Independent Learning
17.00- 17.50		AFYA for International Students	Independent Learning for Turkish Students	AFYA for International Students	Independent Learning for Turkish Students		

# MED - 203 - COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM

# DISTRIBUTION of LECTURE HOURS December 2, 2024– January 17, 2025 COMMITTEE DURATION: 7 WEEKS

MED 203	DISCIPLINE / COMPONENTS	THEORETICAL	PRACTICAL	SMALL GROUP DISCUSSION	TOTAL		
	ANATOMY	21	2GX6H	0	27		
	BIOCHEMISTRY	32	1GX2H 4GX1H	0	35		
	BIOPHYSICS	10	0	0	10		
	BIOSTATISTICS	4	0	0	4		
	HISTOLOGY & EMBRYOLOGY	12	2GX4H	0	16		
	IMMUNOLOGY	2	0	0	2		
	MEDICAL BIOLOGY	4	0	0	4		
	MEDICAL MICROBIOLOGY	17	1GX2H 4GX2H	0	22		
	PATHOLOGY	6	0	0	6		
	PHYSIOLOGY	17	4GX1H	0	18		
	SCIENTIFIC RESEARCH and PROJECT-II	0	0	5GX3H	3		
	PBL	0	0	6	6		
	TOTAL	125	18	9	153		
MED 202	INTRODUCTION to CLINICAL PRACTICE- II	5	5GX4H		9		
INDEPEN	DENT LEARNING HOURS	104					

	Head	İnci ÖZDEN, PhD Prof.
Coordination Committee	Secretary	Müge KOPUZ ALVAREZ NOVAL, PhD Assist. Prof
Coordination Committee	Member	Mehtap KAÇAR, MD PhD Prof.
	Member	Aikaterini PANTELİ, MD Lecturer

### **COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**

### **LECTURERS**

MED 203 BA	ASIC MEDICAL SCIENCES II
DISCIPLINE	LECTURERS
ANATOMY	Erdem SÖZTUTAR, MD Assist. Prof. Aikaterini PANTELİ, MD Lecturer Paria SHOJAOLSADATI, PhD. Lecturer LAB: Edibe BİLİŞLİ KARA, DVM, PhD. Lecturer LAB: Ahmet SAÇ, MD
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. LAB: Jale ÇOBAN, MD Prof. LAB: Yeşim ÖZARDA, MD, Prof. LAB: Müge KOPUZ ALVAREZ NOVAL, PhD Assist. Prof.
BIOPHYSICS	Akif MEHERREM, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assoc. Prof.
BIOSTATISTICS	E. Çiğdem KELEŞ, PhD Assist. Prof.
LUCTOLOGY & FMRRYOLOGY	Aylin YABA UÇAR, PhD Prof.
HISTOLOGY & EMBRYOLOGY	Alev CUMBUL, PhD Assoc. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMİREL, MD PhD Prof. Latife Arzu ARAL, MD PhD Prof.
MEDICAL BIOLOGY	Ayşe ÖZER, PhD Prof. Soner DOĞAN, PhD Prof. Deniz KIRAÇ, PhD Prof. Seda GÜLEÇ YILMAZ, PhD Assoc. Prof
MEDICAL MICROBIOLOGY	Aynur EREN, MD Prof. Güner Söyletir, MD PhD Prof. Pınar ÇIRAGİL, MD Prof. Sibel Ergüven, MD Prof. LAB: Zehra KİRPİTÇİ, PhD LAB: Selvi DUMAN BAKIREZER, PhD
PATHOLOGY	Aydın SAV MD Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Prof. Burcu GEMİCİ BAŞOL, PhD. Prof.
SCIENTIFIC RESEARCH AND PROJECT-II	Aylin YABA UÇAR PhD Prof. (Responsible Faculty Member) Soner DOĞAN, PhD Prof.

#### OTHER COURSES

THER COURSES							
MED 202 INTRODUCTION TO CLINICAL PRACTICE II							
DISCIPLINE LECTURERS							
CLINICAL SKILLS LAB	Tümay Sadıkoğlu, MD, Assist. Prof. Duygu Altıparmak, MD, Specialist						

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM AIM and LEARNING OBJECTIVES

### **AIMS**

- 1. To convey information about biophysical, biological, anatomical, embryological, histological, physiological and biochemical properties of gastrointestinal system,
- 2. To convey knowledge on metabolic events in human organism and their clinical reflections.
- 3. To convey information about the structural/biological features and pathogenesis of parasites.
- 4. To convey basic, general knowledge about immunology,
- 5. To convey information about good laboratory and clinical practices in research projects.
- 6. To convey basic knowledge about biostatistics.

### LEARNING OBJECTIVES

At the end of this committee, student should be able to:

#### **KNOWLEDGE**

- 1.0. Describe metabolic events in human organisms, using concepts of internal energy, work, temperature, entropy, free energy and enthalpy.
- 2.0. Describe gastrointestinal system biology,
  - 2.1 to be able to explain communication of major organs at the molecular level
  - 2.2 to be able to define the molecular basis of nutrigenomics
  - 2.3 to be able to explain the molecular basis of colorectal cancer
- 3.0. For oral cavity, temporomandibular joint, chewing muscles, pharynx, esophagus, stomach, small intestine, large intestine, liver, gall bladder and tracts, pancreas, spleen and peritoneum;
  - 3.1. describe the anatomy,
  - 3.2. associate with adjacent tissue and organs,
  - 3.3. explain their functional and clinical reflections.
- 4.0. For abdominal wall, inguinal canal and portal system;
  - 4.1. describe anatomy,
  - 4.2. associate with adjacent tissue and organs,
  - 4.3. explain their functional and clinical reflections.
- 5.0. For digestive system and related glands;
  - 5.1. classify embryological origins and developmental stages Gastrointestinal Tract
  - 5.2. classify embryological origins and developmental stages Gastrointestinal System Glands
  - 5.3. associate the relation between birth abnormalities and developmental process
  - 5.4. explain the histological properties of Upper Gastrointestinal tract
  - 5.5. explain the histological properties of Lower Gastrointestinal tract
  - 5.5. explain the histological properties of gland associated with Gastrointestinal system
- 6.0. For lipid, protein and carbohydrate metabolisms:
  - 6.1. describe physiological mechanisms,
  - 6.2. the relation to each other,
  - 6.3. associate the changes of these relations at fasting and postprandial phase.
- 7.0. In digestive system;
  - 7.1. list exocrine glands secreting acid-neutralizing fluids,
  - 7.2. explain their secretion mechanisms,
  - 7.3. explain hormonal and neural factors.
- 8.0. Classify the roles of enzymes and hormones in digestion and absorption of lipids and proteins.
- 9.0. Explain types and roles of lipoproteins.
- 10.0. Explain metabolisms of fatty acids, cholesterol, ketone bodies.
- 11.0. Explain amino acid metabolisms, synthesis of urea and control mechanism of the synthesis.
- 12.0. Describe the structural/biological features of medically important microorganisms affecting gastrointestinal system.
- 13.0. Describe the properties of mucosal immunity
- 14.0. Describe how to prepare a scientific research presentation.
- 15.0. Prepare a research article presentation
- 16.0. Explain the steps of a statistical hypothesis test according to the properties of a given data count biostatistical sampling methods.
- 17.0. For statistical hypothesis,
  - 17.1. list the statistical hypothesis test according to the properties of given data
  - 17.2. choose the appropriate statistical hypothesis test according to the properties of given data
- 18.0. Explain case scenario related basic medical science topics in a clinical context.
- 19.0. Explain inflammatory processes, termination pathways, effects on tissues and mechanisms for inducing diseases.

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM COMMITTEE ASSESSMENT MATRIX

LEARNING	DIGGIBLINE	LECTURER/	DIST	RIBUTION	of MCQs an	d SbMCQ
OBJECTIVES	DISCIPLINE	INSTRUCTOR	CE	FE	IE	TOTAL
3.0-4.0	ANATOMY	Dr. E.Söztutar	17	7	7	31
6.0, 8.0-11.0, 18.0	BIOCHEMISTRY	Dr. İ. Özden	26	12	12	50
1.0, 18.0	BIOPHYSICS	Dr. A. Meherrem	8	3	3	14
16.0-17.0	BIOSTATISTICS	Dr. E.Ç. Keleş	3	1	1	5
5.0	HISTOLOGY & EMBRYOLOGY	Dr. A. Yaba Uçar Dr. A. Cumbul	10	5	5	20
13.0	IMMUNOLOGY	Dr. G. Yanıkkaya Demirel Dr.L. Arzu Aral	1	1	1	3
2.0	MEDICAL BIOLOGY	Dr. S. Doğan Dr. Ayşe Özer	2	2	2	6
12.0	MEDICAL MICROBIOLOGY	Dr. Sibel Ergüven Dr. Güner Söyletir Dr. Pınar Çıragil	14	6	6	25
19.0	PATHOLOGY	Dr. A. Sav	4	2	2	9
7.0, 18.0	PHYSIOLOGY	Dr. B. Yilmaz Dr. M. Kaçar Dr. B. Gemici Başol	14	6	6	26
18.0	PE	SL .	1	0	0	1
		TOTAL	100	45/200#	45/200#	
		T				
LEARNING	DISCIPLINE	DISTRIBUTION of	f LAB	ASSESSMI	ENT POINT	S
OBJECTIVES	DISCH LINE	LPE			QUIZ	
3.0-4.0	ANATOMY	60				
6.0, 8.011.0.	BIOCHEMISTRY	5				
5.0.	HISTOLOGY & EMBRYOLOG	Y 20				
12.0.	MICROBIOLOGY	4			1	
7.0.	PHYSIOLOGY	10				
	TOTA	L	10	00		

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).

Total value of LPE is equal to 100 points

Committee Score (CS) 95% of [90% CE (MCQ) + 10% (LPE)] + 5% of PBL-P Abbreviations:

MCQ: Multiple Choice Questions LPE: Laboratory Practical Exam

CE: Committee Exam
CS: Committee Score
FE: Final Exam
ICE: Incomplete Exam

Pts.: Points # In FE and ICE, 41 out of 200 FE and ICE MCQs will be from Committee III (Each question is 0.5 pt, equal value.)

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM I. WEEK / 02 - 06 Dec 2024

	Monday 02-Dec-2024	Tuesday 03-Dec-2024	Wednesday 04-Dec-2024	Thursday 05-Dec-202		Friday 06-Dec-2024	
09.00- 09.50		Lecture Bio-thermodynamics, Laws of Thermodynamics Akif Meherrem	Lecture Enterobacterales Güner Söyletir	Laboratory / Histology & Embryology Histology of GIS I (Tongue, Lip, Esophaus, Stomach) Aylin Yaba Uçar Alev Cumbul Group 2		Independent Learning	
10.00- 10.50	PBL	Lecture Bio-thermodynamics, Laws of Thermodynamics <i>Akif Meherrem</i>	Lecture Enterobacterales <i>Güner Söyletir</i>			Independent Learning	
11.00- 11.50		Lecture Oral Cavity <i>Erdem Söztutar</i>	Lecture Histology of Upper Gastrointestinal Tract; Oral Cavity Alev Cumbul	Laboratory / Histology & Embryology Histology of GIS I (Tongue, Lip, Esophaus, Stomach) Aylin Yaba Uçar Alev Cumbul Group1		Lecture Test of Hypothesis: z test for comparing proportions E. Çiğdem Keleş	
12.00- 12.50	Introduction to Committee III Secretary of Committee	Lecture Oral Cavity Erdem Söztutar	Lecture Histology of Alimentary Canal; Tongue, Esophagus Alev Cumbul			Lecture Test of Hypothesis: z test for comparing proportions E. Çiğdem Keleş	
13.00- 13.50			Lunch Br	reak			
14.00- 14.50	Lecture GIT Development <i>Erdem Söztutar</i>	Lecture Anaerobes <i>Pınar Çıragil</i>	Lecture Esophagus & Stomach <i>Erdem Söztutar</i>	ICP / CSL: Nasogastric Tube Administration  ICP Lecturer  Group A		Lecture Digestion and Absorption of Lipids <i>İnci Özden</i>	
15.00- 15.50	Lecture GIT Development Erdem Söztutar	Lecture Anaerobes <i>Pınar Çıragil</i>	Lecture Esophagus & Stomach <i>Erdem Söztutar</i>			Lecture Digestion and Absorption of Lipids İnci Özden	
16.00- 16.50	Independent Learning	AFYA for Independent Learning for Turkish Students	AFYA for Independent Learning for Turkish Students Students	Group A	SRPC SGS Group B Soner Doğan	Independent Learning	
17.00-17.50	Independent Learning					Independent Learning	

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM II. WEEK /09 – 13 Dec 2024

	Monday 09-Dec-2024	Tuesd 10-Dec-2		Wednes		Thursday 12-Dec-2024		Friday 13-Dec-2024
09.00- 09.50		Lecture Histology of Alimentary Canal; Small Intestine Aylin Yaba Uçar		Lectu Small Inte Erdem Sö	estine	Lecture Gland Associated with th System; Salivary Gl Aylin Yaba Uça	ands	Lecture Lipolysis İnci Özden
10.00- 10.50	PBL	Histology of Alim Large Intestine	Lecture stology of Alimentary Canal; arge Intestine & Appendix Aylin Yaba Uçar		re estine iztutar	Lecture Gland Associated with th System; Liver Aylin Yaba Uça	. 3	Lecture Lipolysis İnci Özden
11.00- 11.50		Lectu Gastrointestina <i>Burcu Gemi</i>	al Functions	Lectu Test of Hypothesi sampl E. Çiğdem	s: t-tests (one le)	Laboratory / Anatomy Oral Cavity <i>Erdem Söztutar &amp; Edibe Bilişli &amp; Ahmet</i> <i>Saç</i> Group 1		Lecture Nonfermenters <i>Güner Söyletir</i>
12.00- 12.50	Independent Learning	Lectu Gastrointestina <i>Burcu Gemi</i>	al Functions	Lecture Test of Hypothesis: t-tests (one sample) E. Çiğdem Keleş		Group 2		Lecture Gram (-) curved bacilli <i>Güner Söyletir</i>
13.00- 13.50					Lunch Break	•		
14.00- 14.50	Lecture Transport of Lipids in Plasma <i>İnci Özden</i>	Lectu Duoder <i>Erdem</i> Sö	num	Lipogenesis, Tri Synthe	Lecture Lipogenesis, Triacylglycerol Synthesis Inci Özden  ICP / CSL: Nasogastric Tu Administration ICP Lecturer Group B			Lecture The Theory and First Laws of Thermodynamics. Energy Transformation Akif Meherrem
15.00- 15.50	Lecture Transport of Lipids in Plasma İnci Özden	Lectu Duoder <i>Erdem Sö</i>	num	Lectu Lipogenesis, Tri Synthe <i>İnci Öz</i> e	acylglycerol esis			Lecture The Theory and First Laws of Thermodynamics. Energy Transformation Akif Meherrem
16.00- 16.50	Lecture Histology of Alimentary Canal; Stomach <i>Alev Cumbul</i>	AFYA for International Students	Independent Learning for Turkish	AFYA for International Students	Independent Learning for Turkish	Group B	SRPC SGS Group C Soner Doğan	Independent Learning
17.00-17.50	Independent Learning		Students		Students Students			Independent Learning

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM III. WEEK / 16 - 20 Dec 2024

	Monday 16-Dec-2024	Tues 17-Dec	sday c-2024		esday c-2024	Thurs		Friday 20-Dec-2024
9.00- 09.50	Lecture Inflammation Aydın Sav	Lecture Enteroviruses Güner Söyletir		Cholesterol M	Lecture Cholesterol Metabolism <i>İnci Özden</i>		re Absorption eins den	Lecture Metabolisms of Individual Amino Acids İnci Özden
10.00- 10.50	Lecture Wound Healing <i>Aydın Sav</i>	Lecture Viruses of diarrhea <i>Güner Söyletir</i>		Lecture a Cholesterol Metabolism <i>İnci Özden</i>		Lecture Digestion and Absorption of Proteins İnci Özden		Lecture Metabolisms of Individual Amino Acids İnci Özden
11:00-11:50	Lecture Propulsion and Mixing Movements in the GI Tract Burcu Gemici Başol	Lecture Ketone Bodies <i>İnci Özden</i>		Secretory Functions of	eture of the Alimentary Tract emici Başol	Lecture Large Intestine Erdem Söztutar		Laboratory / Anatomy The stomach & Duodenum Erdem Söztutar Edibe Bilişli Ahmet Saç Group 2
12:00-12:50	Lecture Propulsion and Mixing Movements in the GI Tract Burcu Gemici Başol	Lecture Ketone Bodies <i>İnci Özden</i>		Lecture Secretory Functions of the Alimentary Tract Burcu Gemici Başol		Lectu Large Int <i>Erdem Sö</i>	estine	Group 1
13.00- 13.50				Lunch Break				
14.00- 14.50	Lecture Oxidation of Fatty Acids İnci Özden	Energetics and	Lecture Energetics and Metabolic Rate <i>Mehtap Kaçar</i>		Lecture Gland Associated with the Digestive System; Pancreas and APUD Aylin Yaba Uçar		gastric Tube ration turer o C	Lecture Development of Gastrointestinal Tract; Alimentary Canal Alev Cumbul
15.00- 15.50	Lecture Oxidation of Fatty Acids <i>İnci Özden</i>	Lecture Energetics and Metabolic Rate Mehtap Kaçar		Interrelationship of Bio	ture blogy of Major Organs <u>Doğan</u>		SRPC SGS	Lecture Development of Gastrointestinal Tract; Glands Alev Cumbul
16.00- 16.50	Lecture Nutrigenomics Soner Doğan	AFYA for	Independent Learning	AFYA for International	Independent Learning	Group C	Group D Soner Doğan	Lecture Body Temperature and Its Regulation <i>Mehtap Kaçar</i>
17.00-17.50	Lecture Nutrigenomics Soner Doğan	Students	for Turkish Students	Students	for Turkish Students			Lecture Body Temperature and Its Regulation <i>Mehtap Kaçar</i>

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM IV. WEEK / 23 - 27 Dec 2024

		1V. VVLLN / 23 - 21 Dec 2024						
	Monday 23-Dec-2024	Tues 24-Dec		Wedno 25-Dec		Thurs 26-Dec		Friday 27-Dec-2024
09.00- 09.50	Lecture Digestion and Absorption in the Gastrointestinal Tract Burcu Gemici Başol	Lecture Regulation of Feeding and Obesity Burcu Gemici Başol		Independent Learning		Lecture Citric Acid Cycle <i>İnci Özden</i>		Lecture Citric Acid Cycle <i>İnci Özden</i>
10.00- 10.50	Lecture Digestion and Absorption in the Gastrointestinal Tract Burcu Gemici Başol	Lecture Regulation of Feeding and Obesity Burcu Gemici Başol		Regulation of Feeding and Obesity Liver as Organ		Lecture The Pancreas and Spleen <i>Erdem Söztutar</i>		Lecture Citric Acid Cycle <i>İnci Özden</i>
11.00- 11.50	Lecture Urea Cycle İnci Özden	Lecture Metabolic Interrelationships and Provision of Tissue Fuels İnci Özden		tionships and Applications of the First Law to Isothermal and Ideobatic Processes		Lecture Physiology of Gastrointestinal Disorders Mehtap Kaçar		Lecture The Second Law of Thermodynamics Akif Meherrem
12.00- 12.50	Lecture Urea Cycle İnci Özden	Lect Metabolic Interre Provision of <i>İnci</i> Ö	elationships and Tissue Fuels	Lecture Applications of the First Law to Isothermal and Ideobatic Processes Akif Meherrem		Lecture Physiology of Gastrointestinal Disorders <i>Mehtap Kaçar</i>		Lecture Entropy and Free Energy Distribution in Bio- molecular Systems Akif Meherrem
13.00- 13.50		Lunch Break						
14.00- 14.50	Lecture Hepatitis viruses <i>Güner Söyletir</i>	Liv	Lecture Liver Erdem Söztutar  Laboratory / Anatomy Small and Large Intestine Erdem Söztutar Edibe Bilişli Ahmet Saç Group 1		ICP / CSL: Nas Adminis ICP Le Grou	stration ecturer	Laboratory / Anatomy Liver and Biliary System Erdem Söztutar/Edibe Bilişli Ahmet Saç Group 2	
15.00- 15.50	Lecture Hepatitis viruses <i>Güner Söyletir</i>	Lec Biliary <i>Erdem</i> S	System	Group 2				Group 1
16.00- 16.50	Lecture Applications of the First Law to Isochoric, Isobaric Processes, Enthalpy Akif Meherrem	AFYA for	Independent Learning	AFYA for	Independent Learning	Group D	SRPC SGS Group E Soner	Independent Learning
17.00-17.50	Lecture Applications of the First Law to Isochoric, Isobaric Processes, Enthalpy Akif Meherrem	International Students	for Turkish International for Tur	for Turkish Students		Doğan -	Independent Learning	

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM V.WEEK / 30 Dec - 03 Jan 2025

	Monday 30-Dec-2024	Tues 31-Dec		Wednesday 01-Jan-2025	Thursday 02-Jan-2025	Friday 03-Jan-2025	
09.00- 09.50	Lecture Gastrointestinal and urogenital protozoa Sibel Ergüven	Independen	t Learning		Independent Learning	Lecture Nematodes Sibel Ergüven	
10.00- 10.50	Lecture Gastrointestinal and urogenital protozoa Sibel Ergüven	Independent Learning		contestinal and enital protozoa Independent Learning Cestods		Cestods	Lecture Nematodes Sibel Ergüven
11:00-11:50	Lecture Acute Inflammation Aydın Sav	Independen	t Learning	NEW YEAR	Lecture Trematodes Sibel Ergüven	Laboratory / Microbiology Laboratory Methods in Parasitology Sibel Ergüven	
12:00-12:50	Lecture Acute Inflammation Aydın Sav	Independent Learning		Acute Inflammation Independent Learning Congenital anomalies of Gastrointestinal Tract		Group A, B, C, D	
13.00- 13.50				Lunc	h Break		
14.00- 14.50	Lecture Peritoneal and Abdominal Cavity Erdem Söztutar	Independen	t Learning		Lecture Xenobiotic Metabolism <i>İnci Özden</i>	Lecture Nerves and Vessels of the GIT <i>Erdem Söztutar</i>	
15.00- 15.50	Lecture Abdominal Wall Topographic Anatomy <i>Erdem Söztutar</i>	Independen	t Learning		Lecture Xenobiotic Metabolism İnci Özden	Lecture Nerves and Vessels of the GIT Erdem Söztutar	
16.00- 16.50	Lecture Molecular Basis of Colorectal Cancer Ayşe Özer	Independent	Independent	NEW YEAR	Laboratory / Anatomy The Pancreas and Spleen Erdem Söztutar/Edibe Bilişli Ahmet Saç Group 1	Lecture Medical Entomology Sibel Ergüven	
17.00-17.50	Independent Learning	Learning	Learning		Group 2	Independent Learning	

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM VI. WEEK / 06 – 10 Jan 2025

	Monday 06-Jan-2025		uesday Jan-2025		nesday n-2025	Thursday 09-Jan-2025		Friday 10-Jan-2025
09.00- 09.50	Laboratory / Anatomy Abdominal Cavity, Peritoneum, Nerves and Vessels Erdem Söztutar/Edibe Bilişli Ahmet Saç Group 2	Indepen	dent Learning	Independe	Embry Histology	/ Histology & yology y of GIS II n, Colon,	Lecture Chronic Inflammation Aydın Sav	
10.00- 10.50	Group 1	Laboratory / Microbiology Identification of Gram (-) enteric and nonfermenter bacilli Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Groups A,B,C,D		Laboratory Lecture Lipid Determination in Blood Jale Çoban & Yeşim Özarda & Müge Kopuz Alvarez Noval Group A, B, C, D		Salivary Aylin Ya Alev C	n, Colon, Gl, Liver) aba Uçar Cumbul up 2	Lecture Chronic Inflammation Aydın Sav
11:00-11:50	Lecture Overview of Metabolism İnci Özden	Laboratory / Physiology Digestive System Bayram Yılmaz & Mehtap Kaçar & Burcu Gemici Başol Group A	Laboratory / Microbiology Identification of Gram (-) enteric and nonfermenter bacilli- I Güner Söyletir & Pinar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Group D	Laboratory / Microbiology Identification of Gram (-) enteric and nonfermenter bacilli - II Güner Söyletir & Pınar Çıragil & Aynur Eren Topkaya & Zehra Kipritçi & Selvi Duman Bakırezer Group B	Laboratory / Biochemistry Lipid Determination in Blood Jale Çoban & Yeşim Özarda & Müge Kopuz Alvarez Noval Group C	Embry Histology (Jejunun Salivary Aylin Ya	/ Histology & yology y of GIS II n, Colon, GI, Liver) hab Uçar Cumbul	Lecture Review of the Digestive System Erdem Söztutar
12:00-12:50	Lecture Overview of Metabolism İnci Özden	Group B	Group C	Group A	Group D	Group 1		Lecture Review of the Digestive System Erdem Söztutar
13.00- 13.50			Li	unch Break		•		
14.00- 14.50	Lecture Mucosal Immunity Gülderen Yanıkkaya Demirel & L. Arzu Aral	Group D	Group D Group A		Group B	ICP / CSL: Nasogastric Tube Administration ICP Lecturer Group E		Introduction to Elective
15.00- 15.50	Lecture Mucosal Immunity Gülderen Yanıkkaya Demirel & L. Arzu Aral	Group C	Group B	Group D	Group A		SRPC SGS	Courses
16.00- 16.50	Independent Learning	AFYA for International Students	Independent Learning for Turkish Students	AFYA for International Students	Independent Learning for Turkish Students	Group E	Group A Soner Doğan	Independent Learning
17.00-17.50	Independent Learning							Independent Learning

# COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM VII. WEEK / 13 – 17 Jan 2025

	Monday 13-Jan-2025	Tues 14-Jan	day -2025	Wedı 15-Ja	nesday ın-2025	Thursday 16-Jan-2025	Friday 17-Jan-2025		
09.00- 09.50				Independent Learning			Assessment Session (Anatomy, Physiology, Biochemistry, Microbiology and Histology & Embryology Practical Exams)		
10.00- 10.50	Independent Learning	Independer	nt Learning			Independent Learning		Independent Learning	
11.00- 11.50							Assessment Session Committee III (MCQ)		
12.00- 12.50									
13.00- 13.50				Lunch Break			Program Evaluation Session Review of the Exam Questions, Evaluation of the Committee III Program Secretary of the Committee		
14.00- 14.50									
15.00- 15.50		Independer	nt Learning	Independe	ent Learning				
16.00- 16.50	Independent Learning	AFYA for	Independent	AFYA for Independent		Independent Learning	Independent Learning		
17.00-17.50		AFYA for International Students	Learning for Turkish Students	AFYA for International Students	Learning for Turkish Students				

MIDTERM BREAK: JANUARY 20 – 31, 2025

# MED - 203 - COMMITTEE IV - NERVOUS SYSTEM DISTRIBUTION of LECTURE HOURS FEBRUARY 3 - MARCH 27, 2025 COMMITTEE DURATION: 8 WEEKS

COURSES	BASIC MEDICAL SCIENCES II	THEORETICAL	PRACTICAL	SMALL GROUP DISCUSSION	TOTAL
	DISCIPLINE				
	ANATOMY	42	2GX14H	0	56
	BIOPHYSICS	3	0	0	3
	BIOSTATISTICS	4	0	0	4
	HISTOLOGY & EMBRYOLOGY	13	2GX2 H	0	15
	IMMUNOLOGY	2	0	0	2
MED 203	MEDICAL BIOLOGY	2	0	0	2
	PHARMACOLOGY	9	2GX1 H	0	10
	PHYSIOLOGY	34	4GX6 H	0	40
	SCIENTIFIC RESEARCH and PROJECT-II	0	0	5GX3H	3
	PBL	0	0	6	6
	TOTAL	109	23	9	141
MED 202	INTRODUCTION to CLINICAL PRACTICE- II	7	5GX3H	0	23
MED 614-631	ELECTIVE COURSES	14	0	0	14

INDEPENDENT LEARNING HOURS	146
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	Head	Bayram YILMAZ, PhD Prof.			
	Secretary	Burçin Tuvana Us, MD PhD			
Coordination Committee	Member	Mehtap KAÇAR, MD PhD Prof.			
	Member	Alev CUMBUL, MD Assoc. Prof.			

# COMMITTEE IV- NERVOUS SYSTEM LECTURERS

	MED 203 BASIC MEDICAL SCIENCES II
DISCIPLINE	LECTURERS
ANATOMY	Erdem SÖZTUTAR MD Assist. Prof. Aikaterini PANTELİ, MD Lecturer Paria SHOJAOLSADATI, PhD. Lecturer LAB: Edibe BİLİŞLİ KARA, DVM, PhD. Lecturer LAB: Ahmet SAÇ, MD
BIOPHYSICS	Akif MEHERREM, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assoc.Prof.
BIOSTATISTICS	Çiğdem KELEŞ, PhD, Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Aylin YABA UÇAR PhD Prof. Alev CUMBUL, PhD Assoc. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMİREL, MD PhD Prof. Latife Arzu ARAL, MD PhD Prof.
MEDICAL BIOLOGY	Ayşe ÖZER, PhD Prof. Soner DOĞAN, PhD Prof. Deniz KIRAÇ, PhD Prof. Seda GÜLEÇ YILMAZ, PhD Assoc. Prof.
PHARMACOLOGY	Ece GENÇ, PhD Prof. Emine Nur ÖZDAMAR, MD Assist. Prof. Cenk Andaç, PhD Assist. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Prof. Burcu GEMİCİ BAŞOL, PhD Prof.
SCIENTIFIC RESEARCH AND PROJECT COURSE-II	Aylin YABA UÇAR PhD Prof. (Responsible Faculty Member) Soner DOĞAN, PhD Prof.

### OTHER COURSES

MED 202 INTRODUCTION TO CLINICAL PRACTICE II							
DISCIPLINE	LECTURERS						
CLINICAL SKILLS LAB	Özkan Erarslan, MD, Specialist Atakan Gültekin, MD, Research Assistant						

# COMMITTEE IV - NERVOUS SYSTEM AIM and LEARNING OBJECTIVES

#### **AIMS**

- 1. To convey basic knowledge on biophysical, biological, anatomical, embryological, histological, physiological and biochemical properties of nervous system,
- 2. To convey knowledge on histology and development of central and peripheral nervous system and special senses,
- 3. To convey knowledge on biological basics of vision, hearing and taste,
- 4. To convey development mechanisms of inflammatory processes,
- 5. To convey general knowledge about neuroimmunology,
- 6. To convey basic knowledge about pharmacology,
- 7. To convey knowledge about the drugs effecting nervous system,
- 8. To convey information about good laboratory and clinical practices in research projects.
- 9. To convey basic knowledge about biostatistics.

#### **LEARNING OBJECTIVES**

At the end of this committee, student should be able to:

#### **KNOWLEDGE**

- 1.0. Describe biophysical basis of nervous system.
- 2.0. Describe biology of nervous system.
- 3.0. In nervous system;
  - 3.1. describe the anatomy of cerebrum, cerebellum, meninges, brain stem, cranial nerves and spinal cord.
  - 3.2. describe limbic and autonomic nervous system, describe the anatomy of structures forming eyes and ears,
  - 3.3. describe the anatomy of skin and its derivatives and the mammary glands
  - 3.4. describe descending and ascending pathways,
  - 3.5. associate with adjacent tissue and organs,
  - 3.6. explain functional and clinical reflections.
- 4.0. For central and peripheral nervous system and special senses,
  - 4.1. classify embryological origins and developmental stages Nervous System
  - 4.2. classify embryological origins and developmental stages Eye and Ear
  - 4.3. classify embryological origins and developmental stages Skin
  - 4.4. explain of the histological properties Nervous System
  - 4.5. explain of the histological properties Eye and Ear
  - 4.6. describe histological properties of Skin
- 5.0. Explain nervous conduction, ion channels and intracellular, extracellular ion concentration differences.
- 6.0. Describe neuron, neuroglia, neurotransmitters and nerve fibers.
- 7.0. Explain the synthesis and inactivation of neurotransmitters.
- 8.0. Describe the energy mechanisms of brain.
- 9.0. In the nervous system;
  - 9.1. explain parts and functions of brain cortex,
  - 9.2. describe sensorial transmission pathways and special senses,
  - 9.3. describe control of motor function (cortex, cerebellum, basal ganglions and brain stem)
  - 9.4. describe functions of hypothalamus.
- 10.0. Explain the relationship of learning-memory with hippocampus.
- 11.0. For brain waves and reflexes;
  - 11.1. describe,
  - 11.2. explain how they are measured in clinics.
- 12.0. Explain biochemical basics of vision, hearing and taste senses
- 13.0. In drug metabolism;
  - 13.1. explain mechanisms and factors affecting absorption, explain mechanisms and factors affecting distribution,
  - 13.2. explain mechanisms and factors affecting excretion.
- 14.0. For drug pharmacokinetics;
  - 14.1. explain clinical importance,
  - 14.2. analyze examples.
- 15.0. Describe the properties of neuroimmunology
- 16.0. Describe how to prepare a scientific research presentation
- 17.0. Prepare a research article presentation
- 18.0. Explain the steps of a statistical hypothesis test according to the properties of a given data.
- 19.0. For statistical hypothesis,
  - 19.1. list the statistical hypothesis test according to the properties of given data
  - 19.2. choose the appropriate statistical hypothesis test according to the properties of given data.
- 20.0. Explain case scenario related basic medical science topics in a clinical context.

### **COMMITTEE IV - NERVOUS SYSTEM COMMITTEE ASSESSMENT MATRIX**

LEARNING OBJECTIVES	DISCII	PLINE	LECTURE	R/	DISTRIBUTION	ON of MCG	s and Sb	MCQ		
			INSTRUCT		CE	FE	IE	TOTAL		
3.0, 20.0	ANATOMY		Dr. A. Panto	eli	38	15	15	68		
1.0	BIOPHYSICS		Dr. B. Güve	enç Tuna	3	1	1	5		
18.0-19.0	BIOSTATISTICS	S	Dr. E.Ç. Ke	leş	4	2	2	8		
4.0, 20.0	HISTOLOGY &		Dr. A. Yaba	ı Uçar	40	_		20		
	EMBRYOLOGY		Dr. A. Cuml	bul	12	5	5	22		
15.0	IMMUNOLOGY		Dr. G. Yanı Demirel	kkaya	2	1	1	4		
			Dr.L. Arzu Aral							
2.0	MEDICAL BIOL	OGY	Dr. S. Güleç Yılmaz		2	1	1	4		
13.0-14.0			Dr. E. Genç		8					
	PHARMACOLO	GY	Dr. Emine N Özdamar	Dr. Emine Nur Özdamar		3	3	14		
			Dr. B. Yılmaz							
5.0-12.0,20.0	PHYSIOLOGY		Dr. M. Kaça	ar	30	12	12	54		
			Dr. B. Gemici Başol							
20.0	PBL				1	0	0	1		
				TOTAL	100	40/200°	40/200*			
LEARNING (	OBJECTIVES	DISCIPLI	INE		POINTS of AS	SESSMEN	T METHO	DS		
						LPE				
3.0.		ANATOMY				60				
4.0. HISTOLOGY & EMBRYOLOGY						10				
13.0-14.0 PHARMACOLOGY					5					
5.0-12.0.		PHYSIOLOGY			25					
			TOTAL		10	00				

Total value of LPE is equal to 100 points

Committee Score (CS) = 95% of [90% CE (MCQ and SbMCQ) + 10% (LPE)] + 5% of PBL-P

Abbreviations:

MCQ: Multiple Choice Questions

LPE: Laboratory Practical Exam

CE: Committee Exam

CS: Committee Score

FE: Final Exam

ICE: Incomplete Exam

Pts.: Points#

In FE and ICE, 41 out of 200 FE and ICE MCQs will be from Committee IV (Each question is 0.5 Pts., equal value.

# COMMITTEE IV- NERVOUS SYSTEM I. WEEK / 3-7 February 2025

	Monday 3-Feb-2025	Tues 4-Feb	sday -2025	Wedr 5-Fel	nesday o-2025	Thursday 6-Feb-2025	Friday 7-Feb-2025	
09.00-09.50		Independer	nt Learning	ICP REVIEW Group A				
10.00-10.50	PBL	Lecture Brainstem <i>Aikaterini Panteli</i>		ICP REVIEW Group B				
11.00-11.50		Lec Brain <i>Aikaterir</i>		ICP REVIEW Group C		MIDTERM OSCE EXAM	MIDTERM OSCE EXAM	
12.00-12.50	Introduction to Committee IV Secretary of Committee	Lec Brain <i>Aikaterir</i>	stem	ICP REVIEW Group D				
13.00-13.50				L	unch Break			
14.00-14.50	Program Improvement Sessions	Lec Organization of <i>Mehtap</i>	Nervous System	Laboratory/ Anatomy Spinal Cord Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1				
15.00-15.50	Lecture Introduction to Neuroanatomy Aikaterini Panteli	Lec Neuron and <i>Mehtar</i>	d Neuroglia	Gro	oup 2			
16.00-16.50	Lecture Spinal Cord Aikaterini Panteli	AFYA for	Independent Learning	AFYA for	Independent Learning	MIDTERM OSCE EXAM	MIDTERM OSCE EXAM	
17.00-17.50	7.00-17.50  Lecture Spinal Cord Aikaterini Panteli	Lecture Spinal Cord  International Students Students Students		International Students	for Turkish Students			

# COMMITTEE IV- NERVOUS SYSTEM II. WEEK / 10-14 February 2024

	Monday 10-Feb-2025		esday eb-2025	Wedn 12-Feb			ırsday eb-2025	Frid 14-Feb		
09.00-09.50		Crania	cture al Nerves ini Panteli	Cutaneou	ture us Senses u Yılmaz	Dienc	ecture ephalon rini Panteli	Physiology	Lecture Physiology of Pain <i>Mehtap Kaçar</i>	
10.00-10.50	PBL	Crania	Lecture Cranial Nerves Aikaterini Panteli		Lecture Cutaneous Senses Bayram Yılmaz		ecture ephalon <i>ini Panteli</i>	Lecture Physiology of Pain <i>Mehtap Kaçar</i>		
11.00-11.50		Crania	cture Il Nerves ini Panteli	Laboratory / Anatomy Cranial Nerves <i>Aikaterini Panteli &amp; Edibe Bilişli Kara &amp;</i> <i>Ahmet Saç</i> Group 2		Lecture Diencephalon <i>Aikaterini Panteli</i>		Lecture Drug Distribution Ece Genç		
12.00-12.50	Independent Learning	Crania	cture al Nerves ini Panteli	Gro	up 1	Lecture Scope of Pharmacology and Passage of Drugs Across Membranes Ece Genç		Lecture Drug Distribution <i>Ece Genç</i>		
13.00-13.50					Lunch Break					
14.00-14.50	Lecture Synapse and Neurotransmitters Burcu Gemici Başol	Brai Aikaterini Panteli & Ahm	y / Anatomy n stem & Edibe Bilişli Kara & net Saç oup 1	Lecture Cerebellum <i>Aikaterini Panteli</i>		ICP / CSL: Intraarterial Blood Sampling ICP Lecturer Group A		Elective Courses Week I	Independent Learning	
15.00-15.50	Lecture Synapse and Neurotransmitters Burcu Gemici Başol	Gre	oup 2	Lecture Cereb <i>Aikaterin</i>						
16.00-16.50	Lecture Sensory Receptors and Pathways Bayram Yilmaz	AFYA for International	Independent	AFYA for International	Independent Learning for	Group A	SRPC SGS Group B Soner Doğan	Independent Learning	Elective Courses	
17.00-17.50	Lecture Peripheral Nervous System Bayram Yılmaz	Students	I Learning for Lurkich	Students Turkish Students				maspendent Learning	Courses Week I	

# COMMITTEE IV- NERVOUS SYSTEM III. WEEK / 17-21 February 2025

				-Zirebiualy		l			1
	Monday 17-Feb-2025		esday eb-2025		Wednesday 19-Feb-2025		sday o-2025		riday eb-2025
09.00-09.50	Lecture Histology of CNS; PNS, Meninges, and Spinal Cord <i>Aylin Yaba Uçar</i>	Independ	lent Learning	Laboratory / Physiology Reflexes- Electroencephalography Bayram Yılmaz & Mehtap Kaçar & Burcu G.Başol Group A					
10.00-10.50	Lecture Histology of CNS; PNS, Meninges, and Spinal Cord Aylin Yaba Uçar	Independ	lent Learning						
11.00-11.50	Lecture Basal Ganglia <i>Aikaterini Panteli</i>	Development of Co Earl	ecture entral Nervous System; ly Stages ı Yaba Uçar	Group B					
12.00-12.50	Lecture Basal Ganglia <i>Aikaterini Panteli</i>	Development o System;	ecture of Central Nervous Late Stages Yaba Uçar						
13.00-13:50				Lunch Break					
14.00-14.50	Lecture Motor Functions of Spinal Cord Bayram Yılmaz	Cortical and Brains	Lecture Cortical and Brainstem Control of Motor Function Bayram Yılmaz			ICP / CSL: Intraarterial Blood Sampling ICP Lecturer Group B		Elective	
15.00-15.50	Lecture Motor Functions of Spinal Cord Bayram Yılmaz	Cortical and Brains	ecture stem Control of Motor nction um Yılmaz	Grou	p C			Courses Week II	Independent Learning
16.00-16.50	Laboratory / Anatomy Cerebellum and Diencephalon Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1	AFYA for International	Independent Learning	AFYA for International	Crown D	Group B	SRPC SGS Group C Soner Doğan	Independent	Elective
17.00-17.50	Group 2	Students	for Turkish Students	Students	Group D			Learning	Courses Week II

# COMMITEE IV- NERVOUS SYSTEM IV. WEEK / 24 - 28 February 2025

IV. WEER/ 24 - 26 Febluary 2025											
	Monday 24-Feb-2025	Tues 25-Feb		Wedn 26-Feb-	•		ırsday eb-2025	Friday 28-Feb-2025			
09.00-09.50	Lecture Telencephalon Aikaterini Panteli	Laboratory / Anatomy Basal Ganglia & Telencephalon Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2		Independe	Independent Learning		ecture re of the CNS rini Panteli	Lecture Physiology of Vision <i>Mehtap Kaçar</i>			
10.00-10.50	Lecture Telencephalon Aikaterini Panteli	Group 1		Lecture Dopamine and Drugs Affecting Dopaminergic System <i>Emine Nur Özdamar</i>		Lecture Vasculature of the CNS Aikaterini Panteli		Lecture Physiology of Vision <i>Mehtap Kaçar</i>			
11.00-11.50	Lecture Telencephalon Aikaterini Panteli	Lecture Limbic System Aikaterini Panteli		Lecture Meninges and Dural Venous Sinuses Aikaterini Panteli		Laboratory / Anatomy Limbic system <i>Aikaterini Panteli &amp; Edibe Bilişli Kara</i> <i>&amp; Ahmet Saç</i> Group 2		Lecture Test Hypotheses and Significance- Z-Test Çiğdem Keleş			
12.00-12.50	Lecture Congenital Anomalies of Nervous System Aylin Yaba Uçar	Lecture Limbic System Aikaterini Panteli		Lecture Meninges and Dural Venous Sinuses Aikaterini Panteli		Group 1		Test Hypotheses Z-1	ture and Significance- est n Keleş		
13.00-13:50				Lunch Bre	ak						
14.00-14.50	Lecture States of Brain Activity- Sleep and Brain Waves Mehtap Kaçar		ture y of Vision o Kaçar	Histology of Sens Fibrous and V	Lecture Histology of Sensory Organs; Eye; Fibrous and Vascular Coat Alev Cumbul		ICP / CSL: Intraarterial Blood Sampling ICP Lecturer Group C		Independent		
15.00-15.50	Lecture States of Brain Activity- Sleep and Brain Waves Mehtap Kaçar		ture y of Vision o Kaçar	Histology of Sen	ture sory Organs; Eye; and Appendix umbul			Week III	Learning		
16.00-16.50	Lecture Functions of Cerebellum and Basal Ganglia in motor control Bayram Yılmaz	AFYA for International Students	Independent Learning for Turkish	AFYA for International Students	Independent Learning for	Group C	SRPC SGS Group D Soner Doğan	Independent Learning	Elective Courses Week III		
17.00-17.50	Lecture Functions of Cerebellum and Basal Ganglia in Motor Control Bayram Yılmaz		Students		Turkish Students				Week III		

### COMMITTEE IV – NERVOUS SYSTEM V. WEEK / 3-7 March 2025

			V. VVLLIX/	V. WEEK/ 5-7 March 2025												
	Monday 3-Mar-2025		esday ur-2025	Wedn 5-Mar		Thurs 6-Mar-		Frid 7-Mar-								
09.00-09.50	Lecture Drug Metabolism Ece Genç	Ascending Pat	cture hways of the CNS ini Panteli		ture rvous System eç <i>Yılma</i> z	Laboratory / Vasculatur Aikaterini Panteli Kara & Ah Grou	e of CNS & Edibe Bilişli met Saç	Lecture Serotonin and Drugs Effecting seratonergic System <i>Emine Nur Özdamar</i>								
10.00-10.50	Lecture Eye and Orbit Aikaterini Panteli	Descending Pat	cture thways of the CNS ini Panteli	Lect Biology of Net Seda Güld	vous System	Grou	p 2	Drug applicat pharmaceutical	Lecture Drug application routes and pharmaceutical forms of drugs Emine Nur Özdamar							
11.00-11.50	Lecture Eye and Orbit <i>Aikaterini Panteli</i>	Meninges and Du Aikaterini Panteli t Ahm	y / Anatomy Iral Venous Sinuses & Edibe Bilişli Kara & net Saç Dup 1	Lecture Chemical Senses: Taste and Smell Burcu Gemici Başol		Lecture Taste and Smell Pathways <i>Aikaterini Panteli</i>		Lecture Physiology of Hearing <i>Burcu Gemici Başol</i>								
12.00-12.50	Lecture Eye and Orbit <i>Aikaterini Panteli</i>	Gro	Group 2		Lecture Chemical Senses: Taste and Smell Burcu Gemici Başol		ıre ell Pathways Panteli	Lecture Physiology of Hearing <i>Burcu Gemici Başol</i>								
13.00-13.50				Lunch Break												
14.00-14.50	Lecture Histology of Sensory Organs; Ear Alev Cumbul	Drug M Ece Genç & Emine Ö	Pharmacology etabolism <mark>Özdamar &amp; Cenk Andaç</mark> oup 1	Lec Development of Se Alev C	nsory Organs: Eye	ICP / CSL: Intra Samp ICP Lec Grou	ling <u>turer</u>	Elective Courses Week IV	Independent Learning							
15.00-15.50	Lecture Histology of Sensory Organs; Ear Alev Cumbul	Gro	oup 2	Lec Development of Se Alev C												
16.00-16.50	Lecture Cerebral Cortex, Intellectual Functions of the Brain Bayram Yılmaz	AFYA for		AFYA for		0	SRPC SGS									
17.00-17.50	Lecture Learning and Memory Bayram Yılmaz	International Students	Independent Learning for Turkish Students	International Students	Group C	Group D	Group E Soner Doğan	Independent Learning	Elective Courses Week IV							

### COMMITTEE IV- NERVOUS SYSTEM VI.WEEK / 10-14 March 2025

	Monday 10-Mar-2025	Tues 11-Mar			esday r-2025		ursday lar-2025	Friday 14-Mar-2025	
09.00-09.50	Independent Learning	Independe	Laboratory / Anatomy Ear and Auditory Pathways Independent Learning  Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2						
10.00-10.50	Lecture Ear Aikaterini Panteli	Lect Introduction to Au Syst <i>Aikaterin</i>	tonomic Nervous tem	Auditory Syste		Gr	oup 1	PHYSICIANS DAY	
11.00-11.50	Lecture Ear <i>Aikaterini Panteli</i>	Lect Sympathetic Ne <i>Aikaterin</i>	ervous System	Parasympath Sys	ture netic Nervous etem ni Panteli	Neuroir	ecture nmunology a Demirel & L. Arzu Aral	PHYSICIANS DAY	
12.00-12.50	Lecture Auditory Pathways <i>Aikaterini Panteli</i>	Lect Sympathetic Ne Aikaterin	ervous System	Lecture Parasympathetic Nervous System Aikaterini Panteli		Neuroir	ecture nmunology a Demirel & L. Arzu Aral		
13.00-13.50			Lui	nch Break					
14.00-14.50	Laboratory / Physiology Visual Examination Bayram Yilmaz & Mehtap	Laboratory Eye and Visu <i>Aikaterini Panteli &amp; I</i> <i>Ahme</i> Grou	al Pathways Edibe Bilişli Kara & t Saç	Limbic Sys Hypoth	eture tem and the nalamus n Yilmaz	ICP I	terial Blood Sampling Lecturer roup E		
15.00-15.50	Kaçar & Burcu G. Başol Group B	Grou	Group 1		Lecture Limbic System and the Hypothalamus Bayram Yılmaz			PHYSICIANS DAY	
16.00-16.50	Laboratory / Physiology Visual Examination Bayram Yılmaz & Mehtap	AFYA for International	Independent Learning for	AFYA for International	Independent Learning for	Group E	SRPC SGS Group A		
17.00-17.50	Kaçar & Burcu G. Başol Group C	Students	Turkish students	Students	Turkish students	Soner Doğan			

### COMMITTEE IV- NERVOUS SYSTEM VII.WEEK / 17-21 March 2025

	T	1				1		1	
	Monday 17-Mar-2025	1	Tuesday 18-Mar-2025		Wednesday 19-Mar-2025		nursday Mar-2025		Friday 21-Mar 2025
09.00-09.50	Lecture Electrical Activity of Cortex and Evoked Potentials. Neural Coding Bilge Güvenç Tuna	Laboratory/ Physiology Hearing test /Galvanized Skin Response Group C Bayram Yilmaz & Mehtap Kaçar & Burcu Gemici Başol Group C		App	Lecture stology of Skin and pendage: Epidermis, ermis, Appendage Aylin Yaba Uçar	Laboratory / Histology& Embryology Histology of CNS and	Laboratory / Physiology Visual Examination Bayram Yılmaz & Mehtap	Skin A Aikaterin	oratory / Anatomy nd Mammary Glands ii Panteli & Edibe Bilişli ara & Ahmet Saç Group 1
10.00-10.50	Lecture Electrical Activity of Cortex and Evoked Potentials. Neural Coding Bilge Güvenç Tuna			Dev	Lecture relopment of Skin and Appendage <i>Aylin Yaba Uçar</i>	Skin Alev Cumbul & Aylin Yaba Uçar Group 1	Kaçar & Burcu G. Başol Group D		Group 2
11.00-11.50	Lecture Autonomic Nervous System Burcu Gemici			Ceret	Lecture prospinal Fluid and Brain Metabolism Mehtap Kaçar	Laboratory / Histology& Embryology	Laboratory / Physiology	ı	Lecture Drug Excretion Ece Genç
12.00-12.50	Lecture Autonomic Nervous System <i>Burcu Gemici</i>	Group D	Laboratory / Anatomy Parasympathetic Nervous System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 1	Cerek	Lecture prospinal Fluid and Brain Metabolism Mehtap Kaçar	Histology of CNS and Skin Alev Cumbul & Aylin Yaba Uçar Group 2	Visual Examination Bayram Yılmaz & Mehtap Kaçar & Burcu G. Başol Group A	Lecture Drug Excretion <i>E</i> ce Genç	
13.00-13.50				Lunch Break					
14.00-14.50	Lecture Test Hypotheses and Significance- t-Test Çiğdem Keleş	Group A	Laboratory / Anatomy Parasympathetic Nervous System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2	SKIN,	Lecture its derivatives, and the Mammary Glands <i>Aikaterini Panteli</i>	ICP	dder Catheterization P Lecturer Froup A	Elective Courses Week V	Independent Learning
15.00-15.50	Lecture Test Hypotheses and Significance- t-Test Çiğdem Keleş			Rev	Lecture riew to Neuroanatomy Aikaterini Panteli				
16.00-16.50	Laboratory / Anatomy Sympathetic Nervous System Aikaterini Panteli & Edibe Bilişli Kara & Ahmet Saç Group 2	AFYA for International Students	Group B	AFYA for Intern ational Stude nts	Independent Learning for Turkish students	Group A	SRPC SGS Group B Soner Doğan	Independe nt Learning	Elective Courses Week V
17.00-17.50	Group 1								

### COMMITTEE IV- NERVOUS SYSTEM VIII.WEEK / 24-28 March 2025

	Monday 24-Mar-2025	Tue 25-Ma	esday ar-2025		nesday lar-2025	Thursday 27-Mar-2025	Fri 28-Mar	iday rch-2025	
09.00-09.50							(Physiology, Histology&Embryology	ent Session Pharmacology, ,, and Anatomy Practical ams)	
10.00-10.50	Independent Learning Independent Learning			Independ	lent Learning	Independent Learning			
11.00-11.50							Assessment Session Committee IV Exam (MCQ)		
12.00-12.50									
13.00-13.50				Lunch Break			Exam Questions Comm	Session Review of the , Evaluation of the nitteelV gram mmittee IV	
14.00-14.50		Independe	ent Learning	Independ	lent Learning		Elective Courses Week	Independent Learning	
15.00-15.50	Independent Learning					Independent Learning			
16.00-16.50		AFYA for International	Independent Learning for Turkish	AFYA for International	Independent Learning for Turkish		Independent Learning	Elective Courses Week	
17.00-17.50		Students	students	Students	Students			VI	

# MED - 203 - COMMITTEE V - UROGENITAL and ENDOCRINE SYSTEMS DISTRIBUTION of LECTURE HOURS

April 1<sup>st</sup> – May 31<sup>th</sup>, 2024 COMMITTEE DURATION: 8 WEEKS

COURSES	BASIC MEDICAL SCIENCES II	THEORETICAL	PRACTICAL	SMALL GROUP DISCUSSION	TOTAL
	DISCIPLINE /COMPONENTS				
	ANATOMY	15	2GX5H	0	20
	BIOCHEMISTRY	24	4GX1H 1GX1H	0	26
	BIOPHYSICS	3	0	0	3
	BIOSTATISTICS	4	1GX2H	0	6
	HISTOLOGY & EMBRYOLOGY	12	2GX2H	0	16
	IMMUNOLOGY	2	0	0	1
MED 203	MEDICAL BIOLOGY	5	0	0	5
	MEDICAL MICROBIOLOGY	2	0	0	2
	PATHOLOGY	7	1GX1H	0	8
	PHARMACOLOGY	13	2GX1H	0	14
	PHYSIOLOGY	28	1GX2H 4GX2H	0	32
	SCIENTIFIC RESEARCH and PROJECT-II	0	0	5GX3H	3
	PBL	0	0	6	6
	TOTAL	115	17	9	141
MED 202	INTRODUCTION TO CLINICAL PRACTICE- II	5	5GX3H	0	8
MED 614-631	ELECTIVE COURSES	14	0	0	14

INDEPENDENT LEARNING HOURS 143	
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	Head	Burcu Gemici BASOL, PhD Prof.
Coordination Committee	Secretary	Paria SHOJAOLSADATI, PhD .
	Member	Bilge Guvenc TUNA, Ph.D., Assoc. Prof.
	Member	Akif MEHERREM, Ph.D., Assist. Prof.

# COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS LECTURERS

MED 203 BASIC MEDICAL SCIENCES II							
DISCIPLINE	LECTURERS						
ANATOMY	Erdem SÖZTUTAR, MD, Assist. Prof. Aikaterini PANTELİ, MD, Lecturer Paria SHOJAOLSADATI,PhD, Lecturer LAB: Edibe BİLİŞLİ KARA, DVM, PhD. Lecturer LAB: Ahmet SAÇ, MD, Instructor						
BIOCHEMISTRY	İnci ÖZDEN, PhD, Prof. LAB: Yeşim ÖZARDA, MD, Prof. LAB: Jale ÇOBAN, MD, Prof. LAB: Müge KOPUZ, PhD, Assist. Prof.						
BIOPHYSICS	Akif MEHERREM, PhD, Assist. Prof. Bilge GÜVENÇ TUNA, PhD, Assoc. Prof.						
BIOSTATISTIC	E. Çiğdem KELEŞ, PhD, Assist. Prof.						
HISTOLOGY & EMBRYOLOGY	Aylin YABA UÇAR, PhD, Prof. Alev CUMBUL, PhD, Assoc. Prof.						
IMMUNOLOGY	Gülderen YANIKKAYA DEMiREL, MD, PhD Prof. Latife Arzu ARAL, MD, PhD Prof.						
MEDICAL BIOLOGY	Ayse Ozer, PhD, Prof. Soner Dogan, PhD, Prof. Deniz KIRAÇ, PhD, Prof.						
MICROBIOLOGY	Güner SÖYLETİR, MD,PhD, Prof. Pınar ÇIRAGİL, MD, Prof.						
PATHOLOGY	Aydın SAV, MD, Prof.						
PHARMACOLOGY	Ece GENÇ, PhD, Prof. Emine Nur ÖZDAMAR, MD, Assist. Prof. Cenk ANDAÇ PhD, Assist. Prof.						
PHYSIOLOGY	Bayram YILMAZ, PhD, Prof. Mehtap KAÇAR, MD PhD, Prof. Burcu GEMİCİ BAŞOL, PhD, Prof.						
SCIENTIFIC RESEARCH AND PROJECT COURSE-II	Soner DOĞAN, PhD, Prof. Aylin YABA UÇAR, PhD, Prof.						
ELECTIVE COURSES							

MED 202 INTRODUCTION TO CLINICAL PRACTICE II								
DISCIPLINE	LECTURERS							
CLINICAL SKILLS LAB	Cem Şimşek, MD, Assist. Prof. Hande Candemir Ercan, MD, Assist. Prof. Erman Uygun, MD, Specialist Dijan Tav Şimşek, MD, Specialist Alev Eceviz, MD, Specialist Atakan Gültekin, MD, Research Assistant Rabia Sarıyıldız, MD,Research Assistant							

### COMMITTEE V-UROGENITAL AND ENDOCRINE SYSTEMS

### AIM AND LEARNING OBJECTIVES

### **AIMS**

- To convey knowledge about biological, anatomical, embryological, histological, physiological, immunological and biochemical properties of urogenital and endocrine systems.
- 2. To convey general knowledge about interrelationship of hormones and immunology,
- 3. To convey knowledge about structural/biological features and pathogenesis of viruses.
- 4. To convey development mechanisms of neoplasia and its effects and consequences on organism.
- 5. To convey information about good laboratory and clinical practices in research projects.
- 6. To convey basic knowledge about biostatistics.

### **LEARNING OBJECTIVES**

At the end of this committee, student should be able to:

#### **KNOWLEDGE**

- 1.0. Describe biology of endocrine system and molecular signal transduction pathways.
- 2.0. In urogenital system, for male and female genital system organs, kidney, ureter, bladder, urethra, pelvis and perineum;
  - 2.1. Describe its anatomy,
  - 2.2. Associate with adjacent tissue and organs,
  - 2.3. Explain their functional and clinical reflections.
- 3.0. In endocrine system, for thyroid, parathyroid, suprarenal gland and thymus,
  - 3.1. Describe its anatomy,
  - 3.2. Associate with adjacent tissue and organs,
  - 3.3. Explain their functional and clinical reflections.
- 4.0. Explain the Histology of Endocrine System;
  - 4.1. general Aspect, Hypothalamus, Epiphysis
  - 4.2. explain the Histology of Endocrine System; Hypophysis
  - 4.3. explain the Histology of Endocrine System; Thyroid and Parathyroid and Suprarenal Glands
  - 4.4. classify embryological origins and explain developmental stages of Endocrine Organs
- 5.0. Explain the histological properties of Urinary System; General Aspect, Kidney Nephron
  - 5.1. explain the histological properties of Urinary System; Excreatory Passage
  - 5.2. explain the Histology of The Male Genital System; Testis
  - 5.3. explain the Histology of The Male Genital System; Excreatory Parts
  - 5.4. explain the Histology of The Female Genital System; Ovaries
  - 5.5. explain the Histology of The Female Genital System; Conducting Part
  - 5.6. Classify embryological origins and explain developmental stages of urinary system organs
  - 5.7. Classify embryological origins and explain developmental stages of male system organs
  - 5.8. Classify embryological origins and explain developmental stages of female system organs
  - 5.9. Associate the relation between birth anomalies and developmental processes of urogenital organs
- 6.0. In endocrine system;
  - 6.1. Describe endocrine, paracrine and neuroendocrine secretion,
  - 6.2. Explain the regulatory role of hypothalamus and pituitary gland,
  - 6.3. List secretions and functions of endocrine glands and organs.
- 7.0. In urinary system;
  - 7.1. Explain renal function and structure of nephrons,
  - 7.2. Explain renal blood flow and mechanisms of urine production,
  - 7.3. Explain liquid-electrolyte and acid-base equilibrium.
- 8.0. In genital system;

- 8.1. Explain reproductive hormones and their functions in men and women,
- 8.2. Describe changes in the maternal body in pregnancy and lactation.
- 9.0. For hormones;
  - 9.1. Classify according to mechanisms of action,
  - 9.2. Explain their effects and relation to each other.
- 10.0. Explain biochemical functions of vitamins and minerals.
- 11.0. Describe factors causing neoplasia, formation, mechanisms of occurrence, and neoplastic diseases in organism, classification and staging of neoplasia.
- 12.0. Distinguish mechanisms of actions of drugs and explain toxicity of drugs.
- 13.0. Analyze events developing in response to drug receptor interactions.
- 14.0. Describe general principles of antimicrobial chemotherapy.
- 15.0. Describe general principles of cancer chemotherapy.
- 16.0. Describe pharmacology of inflammation and immunomodulation.
- 17.0. Describe the structural/biological features of microorganisms affecting urogenital tract
- 18.0. Describe the interrelationship of hormones and immunology
- 19.0. Describe the general principles of magnetic resonance imaging
- 20.0. For correlations between two continuous variables
  - 20.1. Explain linear correlations using scatter plot and correlation coefficients
  - 20.2. Classify the interpretations of the correlation coefficient
- 21.0. Explain linear regression equation and its features
- 22.0. Explain case scenario related basic medical science topics in a clinical context.
- 23.0. Define the prenatal diagnosis and teratology

### COMMITTEE V - UROGENITAL and ENDOCRINE SYSTEMS

	COMMIT	TTEE ASSESSMENT	MATRIX				
LEARNING OBJECTIVES	DISCIPLINE	LECTURER/	DISTRIBUTION of MCQs and SbMCQ				
OBJECTIVES		INSTRUCTOR	INSTRUCTOR CE FE		IE	TOTAL	
2.0-3.0,22.0	ANATOMY	Dr. P. Shojaolsadati	13	6	6	25	
9.0-10.0	BIOCHEMISTRY	Dr. İ. Özden	20	9	9	38	
19.0	BIOPHYSICS	Dr. B.G. Tuna	3	1	1	5	
20.0-21.0	BIOSTATISTICS	Dr. E.Ç. Keleş	3	1	1	5	
4.0-5.0,23.0	HISTOLOGY & EMBRYOLOGY	Dr. A. Yaba Uçar Dr. A. Cumbul	11	5	5	21	
18.0	IMMUNOLOGY	Dr. G. Yanıkkaya Demirel Dr.L. Arzu Aral	1	1	1	3	
1.0	MEDICAL BIOLOGY	Dr. A. Ozer Dr. S. Doğan Dr.D. Kıraç	4	2	2	8	
17.0	MEDICAL MICROBIOLOGY	Dr. Güner Söyletir Dr. Pınar Çıragil	2	1	1	4	
11.0	PATHOLOGY	Dr. A. Sav	6 2 2		2	10	
12.0-16.0	PHARMACOLOGY	Dr. E. Genç Dr. E. N. Özdamar Dr. C. Andaç	11	4	4	19	
6.0-8.0, 22.0	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar Dr. B. Gemici Başol	25	10	10	45	
22.0	PBL		1	0	0	1	
	TOTAL		100	42/200#	42/200#		
LEARNING		POINTS of ASSESSMENT METHODS					
OBJECTIVES	DISCIPLINE	LPE	QUIZ				

LEARNING	DIGGIDI INT	POINTS of ASSESSMENT METHODS				
OBJECTIVES	DISCIPLINE	LPE QUIZ  35  5  5	QUIZ			
2.0-3.0	ANATOMY	35				
8.0-9.0	BIOCHEMISTRY	5				
20.0-21.0	BIOSTATISTICS	5				
4.0.	HISTOLOGY & EMBRYOLOGY	10				
10.0.	PATHOLOGY	5				
11.0-15.0.	PHARMACOLOGY	5				
5.0-7.0	PHYSIOLOGY	35				
	TOTAL		100			

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.). Total value of LPE is equal to 100 points Committee Score (CS) 95% of [90% CE (MCQ) + 10% (LPE)] + 5% of PBL-P Abbreviations:

MCQ: Multiple Choice
Questions LPE: Laboratory
Practical Exam CE:
Committee Exam
CS: Committee Score
FE: Final Exam
ICE: Incomplete Exam
Pts.: Points
# In FE and ICE, 46 out of 200 FE and ICE MCQs will be from Committee I (Each question is equal value)

# COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS I- WEEK / 2 – 4 April 2024

	Monday 31-March-2025	Tuesday 1-April-2025	Wedn	esday I-2025	Thursday 3-April-2025	Friday 4-April-2025
09.00-09.50						
10.00-10.50	NATIONAL HOLIDAY	NATIONAL HOLIDAY	Independe	nt Learning	Independent Learning	Independent Learning
11.00-11.50						
12.00-12.50						
13.00-13.50			_	Lunch Break		
14.00-14.50						
15.00-15.50	NATIONAL	NATIONAL	Independer	Independent Learning		Independent Learning
16.00-16.50	HOLIDAY	HOLIDAY	AFYA for International Students	Independent Learning for Turkish Students		macportacine Education
17.00-17.50						

# COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS II. WEEK / 7-11 April 2025

	Monday 7-April-2025		sday II-2025	Wedne	Wednesday 9-April-2025		sday il-2025	Frio 11-Apr	day il-2025
09.00-09.50		Lecture The Kidneys <i>Erdem Söztutar</i>		Lecture Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors İnci Özden		Independent Learning		Surface F	of Hormone ellular and Cell
10.00-10.50	PBL Session-I	Lecture The Kidneys <i>Erdem Söztutar</i>		The Kidneys Actions, Intracellular and Cell		Independent Learning		Lect Mechanisms Actions, Intrac Surface F <i>İnci</i> Č	of Hormone ellular and Cell Receptors
11.00-11.50		Lecture Body Fluids and Functions of Kidneys Burcu Gemici Başol		Lecture Histology of Urinary System: General Aspect, Kidney Nephron Aylin Yaba Uçar		Lecture Urine Formation and Renal Blood Flow Burcu Gemici Başol		Laboratory/ Anatomy Urinary System Erdem Söztutar & Edibe Biliş Kara & Ahmet Saç Group 1	
12.00-12.50	Independent Learning	Lecture Micturition Burcu Gemici Başol		Lecture Histology of Urinary System: Excretory Passage Aylin Yaba Uçar		Lecture Urine Formation and Renal Blood Flow Burcu Gemici Başol		Group 2	
13.00-13.50				Lunch Break					
14.00-14.50	Introduction to Committee V Secretary of Committee		ure f Drug Action 1 Genç	Papilloma and p	Lecture Papilloma and polyoma viruses <i>Güner Söyletir</i>		.: Bladder rization ecturer up B	Elective Courses	Independent Learning
15.00-15.50	Lecture Introduction to Urinary System <i>Erdem Söztutar</i>	Mechanism of	ture f Drug Action 2 Genç	Lecture Spirochete Pınar Çıragil			2000 200	Midterm Exam	
16.00-16.50	Lecture Urinary Tracts and Suprarenal Glands Erdem Söztutar	AFYA for International Students	Independent Learning for Turkish Students	AFYA for International Students	Independent Learning for Turkish Students	Group B	SRPC SGS Group C Soner Doğan	Independent Learning	Elective Courses Midterm Exam
17.00-17.50	Independent Learning				Oludents				

# COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS III. WEEK / 14-18 April 2025

III. WEEK / 14-16 April 2023											
	Monday 14-April-2025		sday ril-2025	Wednesday 16-April-2025			hursday April-2025	Frid 18-Apr			
09.00-09.50	Lecture Urine Formation: Tubular Processing Burcu Gemici Başol		Glomerula <i>Mehtap Kaçar</i> &	/ Physiology or Filtration Burcu G.Başol up A	Independent Learning		Lecture Hormones of Hypothalamus and Pituitary Inci Özden				
10.00-10.50	PBL Session-II	Urine Formation:	Lecture  Line Formation: Tubular Processing		/ Physiology ir Filtration Burcu G.Başol ip B	Independent Learning		Lecture Hormones of Hypothalamus and Pit İnci Özden			
11.00-11.50		Lect Histology of Endocri Asp Hypothalamu <i>Aylin</i> Ya	ne System: General ect, is, Epiphysis	Glomerular Filtration  Mohtan Kacar & Burgu G Basel  Biology of Endocr		Lecture Biology of Endocrine System Deniz Kıraç		iltration  Biology of Endocrine System  Boology of Endocrine System  Regula		Lec Regulation of Ac <i>Burcu Ge</i> l	
12.00-12.50	Independent Learning	Lect Histology of End Hypop <i>Aylin</i> Y	ocrine System:	Laboratory / Physiology Glomerular Filtration <i>Mehtap Kaçar &amp; Burcu G.Başol</i> Group D		Lecture Biology of Endocrine System Deniz Kıraç		Lecture Regulation of Acid-Base Balance <i>Burcu Gemici Başol</i>			
13.00-13.50				Lu	nch Break						
14.00-14.50	Lecture Introduction to Genital Systems Erdem Söztutar	Ahme		Lecture Fluid and Electrolyte Balance <i>Burcu Gemici Başol</i>		Cath IC	CSL: Bladder neterization P Lecturer Group C	Elective Courses Week VIII	Independent Learning		
15.00-15.50	Lecture Male Genital Organs Erdem Söztutar	Gro	up 1	Lecture Fluid and Electrolyte Balance Burcu Gemici Başol				VIII			
16.00-16.50	Lecture Male Genital Organs Erdem Söztutar	AFYA for	Independent	AFYA for	Independent	Group C	SRPC SGS Group D Soner Doğan		Elective		
17.00-17.50	Lecture Hormone Signal Transduction (Insulin) Ayse Ozer	International Students	Learning	International Students	Learning			Independent Learning	Course Week VIII		

# COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS IV. WEEK / 21-25 April 2025

	IV. WEEK / 21-25 April 2025									
	Monday 21-April-2025		esday pril-2025	Wednesday 23-April-2025	Thursday 24-April-2025		Frid 25-Apri			
09.00-09.50	Lecture Hormones of Hypothalamus and Pituitary İnci Özden	Female Ge Erdem Söztut Kara & A	ry / Anatomy enital Organs ar & Edibe Bilişli Ahmet Saç oup 1		Lecture Hormones and Immunity Gülderen Yanıkkaya Demirel & L. Arzı Aral  Lecture Hormones and Immunity Gülderen Yanıkkaya Demirel & L. Arzı Aral  Lecture Hormones of Adrenal Cortex and Adrenal Medulla İnci Özden		Lecture Introduction to Endocrinology <i>Mehtap Kaçar</i>			
10.00-10.50	Lecture Thyroid Hormones İnci Özden	Gr	roup 2	NATIONAL HOLIDAY			Pituitary Gland a Coi	ecture and Hypothalamic ntrol p Kaçar		
11.00-11.50	Lecture Female Genital Organs Erdem Söztutar	Histology of T System	octure The Male Genital n; Testis Cumbul				Lect Linear Re <i>Çiğdem</i>	gression		
12.00-12.50	Lecture Female Genital Organs <i>Erdem Söztutar</i>	Histology of System; Ex	ecture The Male Genital xcretory Parts Cumbul		Lecture Hormones of Adrenal Cortex and Adrenal Medulla İnci Özden		Lect Linear Re <i>Çiğdem</i>	gression		
13.00-13.50				Lu	ınch Break					
14.00-14.50	Lecture Histology of Endocrine System: Thyroid and Parathyroid and Suprarenal Glands Aylin Yaba Uçar	Cor	ecture relation em Keleş		ICP L	er Catheterization ecturer up D	Elective Course Week IX	Independent Learning		
15.00-15.50	Lecture Hormone Signal Transduction (Estrogen) Soner Dogan	Cor	ecture relation em Keleş	NATIONAL HOLIDAY		2222				
16.00-16.50	Lecture Hormone Signal Transduction (Estrogen) Soner Dogan	AFYA for Internationa I Students	Independent Learning		Group D	SRPC SGS Group E Soner Doğan	Independent Learning	Elective Courses Week IX		
17.00-17.50	Independent Learning									

# COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS V. WEEK / 28 April - 2 May 2025

	Monday 28-April-2025	Tuesda 29-April-2	ay	Wedne 30-Apri	esday	Thursday 1-May-2025	Fri 2-May-	day 2025
09.00-09.50	Lecture PTH, Calcitonin, Calcitriol İnci Özden	Insulin, Glu	Lecture Insulin, Glucagon inci Özden  Lecture Adrenocortical Hormones Mehtap Kaçar  Lecture Adrenocortical Hormones Group		ssels of the Pelvis  dibe Bilişli Kara & t Saç			
10.00-10.50	Lecture PTH, Calcitonin, Calcitriol İnci Özden	Lecture Insulin, Glucagon İnci Özden  Lecture Histology of The Female Genital System; Ovaries Alev Cumbul		Adrenocortical Hormones  Mehtap Kaçar  Tele  Lecture  Development of Male Genital System and Anomalies		NATIONAL	Grou	ıp 1
11.00-11.50	Lecture Nerves of the Pelvis <i>Erdem Söztutar</i>					Development of Male Genital System and Anomalies		HOLIDAY
12.00-12.50	Lecture Vasculature of the Pelvis Erdem Söztutar	Lecture Histology of The Femal Conducting Aley Cun	lle Genital System; g Part	Part and Anomalies			Early Clinical Ex	posure (Group D)
13.00-13.50				Lunch Break	[			
14.00-14.50	Laboratory / Histology Histology of ES & US (Kidney, Hypophysis, Thyroids, Pancreas)	Posterior Pituitar	Lecture Posterior Pituitary Hormones <i>Mehtap Kaçar</i>		Lecture Introduction to Neoplasia and Biologic Behaviors of Neoplasm Aydın Sav		Elective Courses Week X	Independent Learning
15.00-15.50	Alev Cumbul & Alev Cumbul & Aylin Yaba Uçar Group 1	Lec Thyroid Metaboli Mehtap K		Lecture Introduction to Neoplasia and Biologic Behaviors of Neoplasm Aydın Sav		NATIONAL HOLIDAY		
16.00-16.50	- Group 2	AFYA for International Students	Independent Learning	AFYA for International	Independent Learning		Independent Learning	Elective Courses Week
17.00-17.50	·	Students	Learning	Students	Learning			*

# COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS VI. WEEK / 5-9 May 2025

VI. WEEK 75-5 May 2025										
	Monday 5-May-2025	Tuesday 6-May-2025		Wednesday 7-May-2025		Thursday 8-May-2025		Friday 9-May-2025		
09.00-09.50	Lecture Pharmacogenetics & Pharmacogenomics Ece Genç	Lecture Drug Toxicity-1 Cenk Andaç		Lecture Introduction to Rational Pharmacotherapy <i>Emine Nur Özdamar</i>		Lecture Perineum and Ischiorectal Fossa <i>Erdem Söztutar</i>		Lecture Female Reproductive Physiology <i>Mehtap Kaçar</i>		
10.00-10.50	Lecture Pharmacogenetics & Pharmacogenomics Ece Genç	Drug To	cture oxicity-2 Andaç	Lecture Eicosanoids <i>Emine Nur Özdamar</i>		Lecture Prenatal Diagnosis, Teratology, and Congenital Anomalies <i>Alev Cumbul</i>		Lecture Female Reproductive Physiology <i>Mehtap Kaçar</i>		
11.00-11.50	Lecture Insulin, Diabetes Mellitus Mehtap Kaçar	Lecture Development of Biopharmaceuticals Cenk Andaç		Lecture Regulation of Calcium & Phosphate Metabolism and Bone Formation Mehtap Kaçar		Lecture Insulin, Glucagon İnci Özden		Laboratory / Anatomy Perineum and Ischiorectal Fossa Erdem Söztutar & Edibe Bilişli Kara & Ahmet Saç Group 1		
12.00-12.50	Lecture Insulin, Diabetes Mellitus Mehtap Kaçar	Lecture Seeing with Sound: Images from Echoes (Diagnostic Ultrasound Imaging) Bilge Güvenç Tuna		Lecture Regulation of Calcium & Phosphate Metabolism and Bone Formation Mehtap Kaçar		Lecture Insulin, Glucagon <i>İnci Özden</i>		Group 2		
13.00-13:50	Lunch Break									
14.00-14.50	Lecture Basics of MRI Bilge Güvenç Tuna	Lecture Regulation of Calcium & Phosphate Metabolism and Bone Formation Mehtap Kaçar		Lecture Male Reproductive Physiology <i>Mehtap Kaçar</i>		ICP / CSL: Bladder Catheterization ICP Lecturer Group E		Elective Courses Week XI	Independent	
15.00-15.50	Lecture Basics of MRI Bilge Güvenç Tuna	Regulation of Cal Metabolism and	cture cium & Phosphate Bone Formation o Kaçar	Lecture Male Reproductive Physiology Mehtap Kaçar				Week Al	Learning	
16.00-16.50	Lecture Post-receptor Events and Second Messengers Cenk Andaç	AFYA for International	Independent	AFYA for	Independent	Group E	SRPC SGS Group A Soner Doğan	Independent	Elective Courses	
17.00-17.50	Lecture Introduction to Drug Development Cenk Andaç	Students	Learning	International Students	Learning			Learning	Week XI	

# COMMITEE V- UROGENITAL and ENDOCRINE SYSTEMS VII. WEEK / 12-16 May 2025

VII. WEER 7 12-10 may 2023											
	Monday 12-May-2025	Tuesday 13-May-2025		Wednesday 14-May-2025		Thursday 15-May-2025		Friday 16-May-2025			
09.00-09.50	Lecture Hormones Regulating Calcium Metabolism İnci Özden	Vasoactive	cture e Compounds ur Özdamar	Lecture Pregnancy and Lactation Mehtap Kaçar		Lecture Oncogenesis, Incidence and Distribution of Cancer <i>Aydın Sav</i>		Laboratory / BIOCHEMISTRY Urine Analyses Jale Çoban & Müge Kopuz Alvarez Noval & Yeşim Özarda Group A	Laboratory / Physiology Metabolic Rate Mehtap Kaçar & Burcu G.Başol Group D		
10.00-10.50	Lecture Hormones Regulating Calcium Metabolism İnci Özden	Hista Antihi	cture Imine and Istamines ur Özdamar	ine and Lecture Pregnancy and Lactation		Lecture Oncogenesis, Incidence and Distribution of Cancer <i>Aydın Sav</i>		Laboratory / BIOCHEMISTRY Urine Analyses Jale Çoban & Müge Kopuz Alvarez Noval & Yeşim Özarda Group D	Laboratory / Physiology Metabolic Rate Mehtap Kaçar & Burcu G.Başol Group A		
11.00-11.50	Laboratory/ Biostatistics Computer Applications of Tests of Significance Çiğdem Keleş Group B	Lecture Physiology of Growth Hormones <i>Mehtap Kaçar</i>		Fetal and Physi	Laboratory Urine An Jale Çoban & Müg Noval & Yeşi Group A,		nalyses ge Kopuz Alvarez şim Özarda	Laboratory / BIOCHEMISTRY Urine Analyses Jale Çoban & Müge Kopuz Alvarez Noval & Yeşim Özarda Group B	Laboratory / Physiology Metabolic Rate Mehtap Kaçar & Burcu G.Başol Group C		
12.00-12.50	Group D	Pineal Gland	cture d & Melatonin pp Kaçar	Lecture Endocrine Distruptors Bayram Yılmaz & Mehtap Kaçar		Lecture Review of the Urinary System <i>Erdem Söztutar</i>		Laboratory / BIOCHEMISTRY Urine Analyses Jale Çoban & Müge Kopuz Alvarez Noval & Yeşim Özarda Group C	Laboratory / Physiology Metabolic Rate <i>Mehtap Kaçar &amp; Burcu G.Başol</i> Group B		
13.00-13:50	0-13:50 Lunch Break										
14.00-14.50	Laboratory / Histology Histology of Genital Systems (Testis, Vas Defferentes, Ovary, Uterus) Aley Cumbul &	Dissection and Endocrit Bayram Yılmaz	/ Physiology I Examination of ne System & Mehtap Kaçar	Laboratory / PHARMACOLOGY Efficacy and Potency Concepts Ece Genç & Emine Nur Özdamar&Cenk Andaç Group 1				Elective Courses Week XII	ICP review Group A-B-C-D-E		
15.00-15.50	<i>Aylin Yaba Uçar</i> Group 2	Group A,B,C,D		Group 2		Early Clinical Exposure (Group C-E)	SRPC SGS Group B Soner Doğan				
16.00-16.50	Group 1	AFYA for International Students	Independent Learning	AFYA for International Independent Students Learning		· · · · · ·		ICP review Group A-B-C-D-E	Elective Courses Week XII		
17.00-17.50											

# COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS VIII. WEEK / 19-23 May 2025

	Monday 19-May-2025		sday y-2025	Wednesday 21-May-2025		Thursday 22-May-2025	Friday 23-May-2025				
09.00-09.50		Endocrine	Lecture Indocrine Organs Erdem Söztutar  Lec Tissue Damag Disorders and Di Aydın		Diabetes Mellitus						
10.00-10.50	- NATIONAL HOLIDAY	Lecture Endocrine Organs <i>Erdem Söztutar</i>		Laboratory/Pathology Inflammation and Neoplasia <i>Aydın Sav</i>			Independent Learning				
11.00-11.50		Lecture Histogenesis and Nomenclature <i>Aydın Sav</i>		Laboratory/ Biostatistics Computer Applications of Tests of Significance Çiğdem Keleş Group A		Independent Learning					
12.00-12.50		Lecture Histogenesis and Nomenclature <i>Aydın Sav</i>		Group C							
13.00-13:50	Lunch Break										
14.00-14.50		Lecture Minerals <i>İnci Özden</i>		Lecture Vitamins <i>İnci Özden</i>			Elective Courses Week XIII	Independent			
15.00-15.50	NATIONAL HOLIDAY	Lecture Minerals İnci Özden		Lecture Vitamins İnci Özden		Independent Learning		Learning			
16.00-16.50		AFYA for International Students	Independent	AFYA for International Students	Independent		Independent Learning	Elective Courses Week XIII			
17.00-17.50		Students Learning			Learning						

### COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS IX. WEEK / 26-30 May 2025

	Monday 26-May-2025	Tuesday 27-May-2025	Wednesday 28-May-2025	Thursday 29-May-2025	Friday 30-May-2025	
09.00- 09.50						, Pathology, liostatistics and
10.00- 10.50	Independent Learning	Independent Learning	Independent Learning	Independent Learning		
11.00- 11.50					Assessment Session Theoretical Exam Committee V (MCQ)	
12.00- 12.50						
13.00- 13.50		Program Evaluation Session Review of the Exam Questions, Evaluation of the Committee V Program Secretary of the Committee				
14.00- 14.50					Elective Courses Week	Independent Learning
15.00- 15.50	Independent Learning	Independent Learning	Independent Learning	Independent Learning		
16.00- 16.50					Independent Learning	Elective Courses Week
17:00-17:50						

### STUDENT COUNSELING

Student counseling is a structured development process established between the student and the consultant that aims to maximize student success by focusing the student to her/his target. Although the major component of this relationship is the student, the faculties also take part by bringing the requirements of this interaction to their systems. The targeted outcomes of the consultant-student interaction are success in the exams, success in the program, and preparation for the professional life. The aim of counseling is to help students to solve their problems, to give professional guidance, to provide coaching, to contribute to adopting the habit of lifelong learning, to provide information about the University and Faculty, to follow their success and failure and to help them select courses.

The consultants selected among Basic Medical Sciences instructors for the first three years transfer the students to Clinical Sciences instructors for the following three years.

### The topics that will be addressed by the consultants are as follows:

- a) Inform students about the university, faculty and surrounding facilities
- b) Inform students about the courses and help them select courses
- c) Inform students about the education and assessment regulations
- d) Follow students' attendance to lectures and success
- e) In case of failure, investigate the causes and cooperate with the students to overcome them
- f) Help students in career planning
- g) Contribute to students adapting the habit of lifelong learning
- h) Guide students to counseling services of the university
- i) Set a role model as long as the professional susceptibility, professional guidance, intellectual responsibility, interaction with peers, ethics, professional values are concerned
- j) Contribute to cultivation of professional and intellectual development in a rapidly changing world
- k) Inform the coordinator when there are unsolved problems of the students
- I) Consultant-student relationship is a dynamic and mutual process carried out within the campus and the hospital. It is recommended that the consultant and the student meet at least twice during a semester.

### The expectations from the student are as follows:

- a) Contribute to improvement of satisfaction level in the problem areas
- b) Report the social and economic conditions that require consultant's help
- c) Specify expectations from the education and the department from which this training is taken
- d) Give feedback on the counseling services regarding their satisfaction level

Student counsellors will be appointed after finalization of the class list and will be announced to the students.

After the announcement of the counsellors on the information board, each student is expected to contact his/her counsellor until the end of the current committee.

\* Student counseling is conducted through the Yeditepe University Faculty of Medicine Education Management System (EYS). The names of the assigned advisors can be accessed via the EMS platform."

### **CONTACT**

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