

**YEDİTEPE UNIVERSITY**  
**FACULTY of MEDICINE**  
**PHASE II**  
**ACADEMIC PROGRAM BOOK**  
**2015 – 2016**

**Student's**

**Name :.....**

**Number :.....**



**YEDİTEPE UNIVERSITY**  
**FACULTY OF MEDICINE**  
**PHASE II**

**Contents**

AIM and OUTCOMES OF MEDICAL EDUCATION PROGRAM .....	1
COORDINATION COMMITTEE .....	4
DESCRIPTION AND CONTENT .....	5
AIM and LEARNING OBJECTIVES of PHASE II .....	6
INTRODUCTION to CLINICAL PRACTICE II (ICP-II) (MED 202) .....	7
EARLY CLINICAL EXPOSURE .....	8
SPECIFIC SESSIONS/PANELS .....	10
INDEPENDENT LEARNING .....	13
ASSESSMENT PROCEDURE .....	15
WEEKLY COURSE SCHEDULE and LOCATIONS .....	20
ACADEMIC CALENDAR 2015 – 2016 .....	21
RECOMMENDED TEXTBOOKS .....	23
COMMITTEES .....	24
COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS .....	25
COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM .....	40
COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS .....	50
COMMITTEE IV - NERVOUS SYSTEM .....	60
COMMITTEE V - TISSUE DAMAGE and NEOPLASM .....	71
STUDENT COUNSELING .....	82
Contact .....	86



**YEDİTEPE UNIVERSITY FACULTY OF MEDICINE\*, \*\***  
**AIM and OUTCOMES 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*”

\*\*© 2011, Yeditepe University Faculty of Medicine

**AIM**

The aim of medical education program ***is to graduate physicians*** who

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

**OUTCOMES**

**Graduate should be able to:**

**1) *practice* as a physician,**

- **oriented towards**
  - **individual and non-individual factors affecting health**
  - **sustainment and improvement of healthy condition**
  - **clinical conditions which**
    - **are frequent in community****and/or**
  - **pose high risk for individual or community health****and/or**
  - **life-threatening or constitute an emergency**
- **at a competency level appropriate to deliver primary health care services compatible with surrounding context of health determinants.**

- 1.1 ***explain*** normal structural components of human body, their functions and operational mechanisms at organismal, multisystem, system, organ, tissue, cellular and molecular levels.
- 1.2 ***explain*** healthy condition and factors affecting health.
- 1.3 ***explain*** and ***relates*** causes of clinical conditions, courses of effect and outcomes.
- 1.4 ***explain*** changes (*i.e. physiological and pathological*) in structural components of body, their functions and operational mechanisms under healthy and clinical conditions.
- 1.5 ***explain*** most frequently occurring or most important clinical complaints (*i.e. chief complaint*), symptoms, signs, laboratory and imaging findings and their emergence mechanisms in clinical conditions.
- 1.6 ***explain*** current medical and surgical methods used in interventions directed towards health conditions.
- 1.7 ***use*** contextually appropriate medical history taking method, out of different types (*e.g. comprehensive, focused or hypothetico-deductive*) and systematically, to gather medical information from healthy individual, patient or patient's companions (*i.e. heteroanamnesis*), in case of an encounter with a healthy person or a patient who seeks health care service for a health condition.
- 1.8 ***employ*** physical examination methods for systems in case of an encounter with a healthy person or a patient who seeks health care service for a health condition.

- 1.9 accurately **interpret** findings in medical history and physical examination, in case of an encounter with a healthy person or a patient who seeks health care service for a health condition.
- 1.10 **implement** diagnostic procedures (e.g. *point of care testing, physician office testing*) required for primary health care, in case of an encounter with a healthy person or a patient who seeks health care service for a health condition.
- 1.11 **select (utilize)** tests shown to be highly effective in clinical decision making by evidence-based medicine from the aspects of reliability, practicality and outcome measures, in case of an encounter with a healthy person or a patient who seeks health care service for a health condition, and **interpret** results.
- 1.12 **make** clinical decisions (e.g. *benefit estimation, risk estimation, prevention, screening, test requisition, diagnosis, triage, staging, consultation, prognosis, watchful-waiting, intervention, monitoring, end of intervention, discharge, control, end of follow-up*) shown to be highly effective from the aspects of outcome measures by evidence-based medicine, in case of an encounter with a healthy person or a patient who seeks health care service for a health condition.
- 1.13 accurately **perform** interventional procedures (i.e. *interventional clinical skills, competencies and proficiencies*) required for primary health care, in case of an encounter with a healthy person or a patient who seeks health care service for a clinical condition.
- 1.14 **coordinate** referral or transport of patient, when necessary and with patient-centered approach, to secondary health care institution, without posing any risk to patient's health, security and confidentiality, in case of an encounter with a patient who seeks health care service for a clinical condition.
- 1.15 **manage** request or symptom, healthy or clinical condition, and healthy individual or patient, with beneficiary-centered approach, and with clinical decisions made by analytical and critical thinking, clinical reasoning and problem solving methods, in case of an encounter with a patient who seeks health care service for a health condition.
- 1.16 **execute** protective and therapeutic medical practices that are individual, family and community-oriented, easily accessible, integrated and coordinated, continuous, comprehensive, and based on the principles of confidentiality, in primary health care services.
- 1.17 **identify** factors that pose a high risk to individual and community health, and **determine** individuals or populations at risk in advance or at an early stage and implement the necessary measures.
- 1.18 **value** preventive health services, **offer** primary prevention (i.e. *prevention of diseases for the protection of health*), secondary prevention (i.e. *early diagnosis and treatment*) and tertiary prevention (i.e. *rehabilitation*) services, and **provide** consultancy on these issues.
- 1.19 **provide** life-style consultancy and design services to sustain and improve individual and community health.

## 2) **manage** primary health care services.

- 2.1 **manage** health care team in primary health care organization.
- 2.2 **lead** community with sense of responsibility, good behavior and manners in consideration of individual behaviors and social dynamics of community, and if there is a necessity, **develop** projects directed towards health care services.
- 2.3 **define** health management and economics principles, models for organization and finance of health care services.
- 2.4 **use** health care resources with cost-effective manners.

## 3) **advocate** individual and community health under all circumstances.

- 3.1. **provide** consultancy services to sustain and promote the health of individual and community.
  - 3.2. **explain** epidemiology of clinical conditions, and **define** measures to reduce frequencies.
  - 3.3. **describe** completely all high risk factors for the community health (e.g. *natural disasters, nuclear accidents, fire, war, bio-terrorism, etc.*), and **implement** necessary measures in order to prevent effects on health.
  - 3.4. **explain** health determinants completely (e.g. *physical environment, social environment, genetic background, individual response -behavior, biology-, health care services, welfare, etc.*), including conditions that prevent access to health care.
- ## 4) **perform** medical practices according to regulatory and ethical principles and in consideration of behavioral sciences, social sciences, and humanities.

- 4.1 **recognize** determinants affecting individual behaviors and attitudes, and social dynamics.
- 4.2 **recognize** basic ethical principles completely, and **distinguish** ethical and legal problems.
- 4.3 **recognize** regulations concerning national and international health systems.
- 4.4 **employ** safety, security and confidentiality principles completely for beneficiaries of health care services, companions and visitors, and health care workers.
- 4.5 **use** medical record and information systems according to regulations and ethical principles.
- 4.6 **value** informed consent taking in the framework of patients' rights, and **employ** fully.
- 4.7 **interpret** historical, anthropological and philosophical evolution of medicine, health and disease concepts, and **relate** to current medical practice
- 5) establish** correct and effective communication with all stakeholders of health care services and collaborate.
- 5.1. **communicate** by using problem solving abilities during all of professional life with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals and organizations.
- 5.2. **collaborate** with related organizations and institutions, with other professionals and health care workers as a team member through using problem solving abilities.
- 5.3. **communicate** with all stakeholders with consideration of socio-cultural differences.
- 6) promote self medical knowledge and skills in view of the current scientific developments throughout own career.**
- 6.1. **adopt** and **implement** the importance of lifelong self-learning.
- 6.2. **recognize** importance of updating knowledge and skills; **search** current advancements and improve own knowledge and skills.
- 6.3. **speak** at least one foreign language at advanced level to follow the international literature and communicate with colleagues.
- 6.4. **recognize** methods to reach current scientific knowledge, and **use** available technology.
- 6.5. **recognize** principles of evidence-based medicine, and **implement** in health care services.
- 6.6. **develop** and **present** research projects.
- 7) manage own postgraduate career.**
- 7.1. **recognize** and **investigate** postgraduate work domains and job opportunities.
- 7.2. **determine** postgraduate work domains, job opportunities and requirements for application, **distinguish** and **plan** requirements for further training and work experience.
- 7.3. **prepare** a resume, and **recognize** job interview methods.
- 7.4. **recognize** health technologies expected to be implemented in near future and emerging work areas.

**COORDINATION COMMITTEE**  
**(TEACHING YEAR 2015 – 2016)**

Mehtap KAÇAR, MD, Ph.D, Assoc. Prof. (Coordinator)  
Deniz KIRAÇ, Ph.D, Assist. Prof. (Co-Coordinator)  
Alev CUMBUL, Ph.D, Assist. Prof. (Co-Coordinator)  
E. Çiğdem KASPAR, Ph.D, Assist. Prof. (Co-Coordinator)

**ICP-II COORDINATION COMMITTEE**

Özlem TANRIÖVER, MD, Assoc. Prof. (Coordinator)  
A. Arzu AKALIN, MD, Assist. Prof. (Co-Coordinator)



## **DESCRIPTION AND CONTENT**

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

Cardiovascular System, Respiratory System, Gastrointestinal System, Endocrine and Urogenital System, Nervous System, Tissue Damage and Neoplasia, Introduction to Clinical Practice- II (ICP-II), Scientific Projects-II.

Anatomy, Physiology, Biochemistry, Histology & Embryology, Microbiology, Immunology, Biophysics, Medical Biology, Pathology, Pharmacology, Biostatistics, Family Medicine, Medical Education.

## **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,
2. **To convey** introductory information on tissue damage and neoplasia related to systems,
3. **To convey** basic knowledge at the introductory level for clinics,
4. **To equip with** basic clinical skills (interventional or non-interventional) required for the practice of medical profession,
5. **To equip with** skills for scientific project preparation.

### **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.
- 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 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. describe writing, reporting, presentation and submission to publication phases of a research project.

#### **SKILLS**

- 7.0. apply basic interventional and non-interventional processes for taking individual preventive measures, drug application and diagnosis or treatment.

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

### **Objectives**

This course aims to equip the students with basic medical skills 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 invasive procedures on the mannikins 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. ICP 1 has two components; in the Fall semester it starts with "First Aid" and in the Spring semester it continues with "Communication Skills in Medicine".

### **Credit facility:**

This course has 5 ECTS credits for the first and third year students while it is 4 ECTS for the second year students 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 learn how to take medical histories from simulated patients (SP's) as well as basic life support and transportation and bandaging techniques regarding to first aid. Second year students add procedural skills such as insertion of nasogastric tube, bladder catheterization, and intramuscular, subcutaneous, intradermal injections, while the third year medical students use SP's to learn their clinical skills like the physical and mental examination and add some procedural skills such as suturing techniques.

Clinical cases are created through research and extensive training of the patients portraying these roles. Each exam 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.

### **Clinical Skills Laboratory**

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 mannikins.

### **Simulated Patients (SPs)**

The simulated patient encounters provide transition of students from the classroom to standardized patient contact in safe environments. Encounters with specially trained individuals, known as simulated patients (SPs), simulate specific cases in outpatient and emergency settings. The pool of SPs consist of adults, from various backgrounds.

**Assessment:** The Assessment procedure of ICP, which is performed by the Objective Structured Clinical Examination (OSCE) shown under the heading "Assessment Procedure" in this Academic Program Book.

**Rules for attendance of the students:** Students are grouped into 4 and group lists are announced in the 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 course coordinator. Any change in sessions will only be accepted interchangeably with another student in an 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 lab at any time.

When an OSCE is completed both students and faculty members complete an evaluation of the event for the improvement of the course.

## 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 the primary care by Phase II students, and after interviewing a patient.

### Learning Environment:

- a) YÜ Hospital
  - 1. Outpatient clinic
  - 2. Inpatient clinic
  - 3. Emergency Department
- b) Bağdat Cad. Outpatient clinic
  - 1. Outpatient clinic
  - 2. Emergency Department
- c) Family Health Center (FHC)

1/5th of students will receive training in Bağdat Caddesi Outpatient clinic while, 4/5th will go to YÜ Hospital for their training. The other group will receive training in Family Health Center.

### Duration :

Education Program is spread over a total of 8 weeks.

### Objectives of the Training:

Students who complete the training program;

#### 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 the 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 medical history from the patient.
- Keep medical records on patients' files.
- Inform the patient about the basic steps of patient-physician interview.

#### Attitude :

- Develops awareness to act respectful and attentive to patients and their relatives.

### 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 hospital-
- Observing the Clinical functioning
- Observing the work area of health care workers in the hospital
- Observing the 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 20% of the ICP score.**

**Organization of Student Groups:**

ECE will be planned as maximum 25 students. Student cycle of Phase II will be in synchronization with the ICP program.

Phase 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
08.Jan.2016	Independent Learning	FHC	ECE	ICP
15.Jan.2016	ECE	Independent Learning	ICP	FHC
05.Feb.2016	FHC	ICP 1	Independent Learning	ECE
12.Feb.2016	ICP	ECE	FHC	Independent Learning
26.Feb.2016	Independent Learning	FHC	ECE	ICP
11.March.2016	ICP	Independent Learning	FHC	ECE
18.March.2016	ECE	ICP	Independent Learning	FHC
25.March.2016	FHC	ECE	ICP	Independent Learning

**Evaluation of the Training Program:**

Student feedback forms will be given to the coordinator, after collecting the forms, the coordinator will send them to the “Program Evaluation Commission”. In addition, the coordinator will write a report on the functioning of the ECE program to the “Early Clinical Exposure Commission”.

**Student Work Load:**

The duration of the educational program for each student; in the clinical settings face to face 6 hours, 6 hours for independent learning, 6 hours in primary care setting: a total of 18 hours.

**Requirements for the Educational Program:**

Student service bus should be allocated to ensure the transfer of students to the clinical settings.

**Responsible Faculty for the ECE:****Coordinator:**

Prof. Yaşar KÜÇÜKARDALI

**Co-coordinator:**

Assoc. Prof. Atakan YEŞİL

**Field-coordinator:**

Assoc. Prof. Hülya AKAN

**ICP II Coordinator:**

Assoc. Prof. Özlem TANRIÖVER

**Responsible Faculty on behalf of the curriculum committee:**

Assist. Prof. Serdar ÖZDEMİR

## **SPECIFIC SESSIONS/PANELS**

### **Introductory Session**

#### **Aim of the Session:**

The session provides basic information about Yeditepe Medical Faculty Undergraduate Program in Medicine (YMF-GPM) 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 YMF-GPM.
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/Clerkship Coordinator, respectively.
2. 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/clerkship.
3. 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 Medical Faculty Graduate Program in Medicine (YMF-GPM), Work Descriptions and Introduction of Committees/Clerkships/Members,
- Directives on YMF-GPM,
- YMF-GPM Program Outcomes
- Learning Objectives of the Phase
- Academic Program of the Phase
- Teaching and Learning Methods
- Learning Environments and Sources/Resources
- Attendance
- Elective Courses (only in Phase I)
- Assessment Procedure
- Grade Point Average (GPA, cGPA) Calculation
- Pass/Fail Conditions
- Feedback of the Previous Years and Program Improvements
- Social Programs and Facilities

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

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

## **Program 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 curriculum 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 three parts. In the first part (15 minutes) the students will complete the End of Committee Feedback Forms. Twice in a year also End of Midterm Questionnaires will be subjected to the same procedure. This forms have to be filled in with pencils and should be thrown in locked Feedback boxes, which will be provided by the committee coordinators. This forms should not be folded as this might cause difficulty during evaluation process. The second part (35 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 third part (40 minutes) committee exam questions will be reviewed and discussed by students and faculty.

### **Rules of the Program Evaluation Session:**

1. The program evaluation session will be held on the last day of each committee after the assessment session.
2. Students are required to attend the session.
3. The Committee coordinator will lead the session.
4. In the third part of the session the faculty members who had questions in the committee exam should attend the session.
5. Students must comply with the feedback rules when they are 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 improvements session 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.
2. 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 the 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**

4. The phase coordinator will present the program improvements report to the students and the faculty members.
5. 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**

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



## 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.

**Reminder:** 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'

## ASSESSMENT PROCEDURE

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

- Exams:
  - Committee Exam (CE)
  - Mid-term Exam (MTE)
  - Final Exam (FE)
  - Incomplete Exam (ICE)
  - Make-up Exams (MUE)
- Scores\*:
  - Committee Score (CS)
  - Committees Mean Score (CMS)
  - Introduction to Clinical Practice Score (ICPS)
    - Early Clinical Exposure Score (ECES)
  - Scientific Project Score (SPS)
  - Intern Score (ITS)
  - Final Exam Score (FES)
  - Incomplete Exam Score (ICES)
  - Term Score (TS)

\* All scores have a range of 0-100 points.

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

Assessment Approaches	Assessment Methods	Question Types / Assessment Tools	Exams	Derived Scores
Knowledge-based Assessment	WE: Written Examination	MCQ: Multiple Choice Questions	CE, MTE, FE, ICE	CS, ICPS, FES, ICES
		EMQ: Extended Matching Questions	CE	CS
		MEQ: Modified Essay Questions	CE	CS
			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		CS
Performance-based Assessment	PWPE: Project Writing and Presenting Evaluation	PWPE Checklist		SPS
	PA: Portfolio Assessment	PA Checklist		ECES (ICPS)
	DOPS: Direct Observation of Procedural Skills	DOPS Checklist		CS

<b>Exams Information (MED 201, MED 202)</b>	
<b>CE</b>	CE consists of 90% MCQs and 10% EMQs. For the proportional correspondence of individual learning objectives, please see the committee's assessment matrix table/page.
<b>MTE<sub>ICP</sub></b>	MTE <sub>ICP</sub> consists of MCQs to assess the theoretical part of the ICP program.
<b>FE</b>	FE consists of 200 MCQs. For the proportional contribution of each committee, please see the committee's assessment matrix table/page.
<b>ICE</b>	ICE consists of 200 MCQs. For the proportional contribution of each committee, please see the committee's assessment matrix table/page.
<b>MUE</b>	MUE will be held only twice in a term. MUE content will be developed by the coordination committees.

<b>Scores Information (MED 201, MED 202)</b>	
<b>CS</b>	The committee score is based on various question types/numbers and/or assessment tools (MCQ, EMQ, MEQ or Checklists). Please see the committee's assessment matrix table/page for the specifications.
<b>CMS</b>	= Average of CSs
<b>ICPS</b>	= (20% MTE <sub>ICP</sub> ) + (20% ECES) + (60% OSCE)
<b>ECES</b>	= Score information will be announced by Course Coordinator.
<b>SPS</b>	= Score information is shown in below Scientific Projects Assessment Table.
<b>ITS</b>	= (96 % of CMS) + (4 % of SPS)
<b>FES</b>	= Final Exam Score
<b>ICES</b>	= Incomplete Exam Score
<b>TS</b>	= (60% of ITS) + (40% of FES or ICES)

<b>Pass or Fail Calculations of the Courses</b>	
<b>Basic Medical Sciences II (MED 201)</b>	
<b>Pass; TS ≥ 50</b>	
<b>Fail; FES &lt; 50 (barrier point), ICES &lt; 50 (barrier point), or/and TS &lt; 50</b>	
<i>The student is <u>exempted from FE</u>, if the ITS is ≥ 75 and all CSs are ≥ 50</i>	
<i>The FE and ICE <u>barrier point is not applied</u> to the students whose all CSs are ≥ 50</i>	
<i>The <u>TS for students</u>, who are exempted from FE, is ITS.</i>	
<b>Introduction to Clinical Practise II (MED 202)</b>	
<b>Pass; ICPS ≥ 50</b>	
<b>Fail; ICPS &lt; 50</b>	

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

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

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

**EMQ** are similar to multiple choice questions but with one key difference, that they test knowledge in a far more applied, in depth, sense. EMQ is based on a single theme, two or more questions and has a long option list.

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

**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 in order to pass the exam.

**OSCE** describes a form of competency-based testing 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 interview, examine and treat simulated patients who present with some type of medical problem.

**OSPE** is used as an objective instrument for assessment of laboratory exercises in preclinical sciences. It was adapted from the objective structured clinical examination (OSCE). OSPE is implemented in similarly conditions with OSCE.

**LPE** is included as it has been a traditional assessment format in many school 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'.

**Portfolio** is a collection of work developed as a cumulative 'body of evidence' to demonstrate the student's learning and achievements. It is not an assessment method in its own right, rather a receptacle containing a mixture of materials. Each piece may be assessed individually and/or a mark or grade is awarded to the portfolio as a whole.

**DOPS** is designed specifically to assess practical skills in a workplace setting. A student is observed and scored via a checklist by an assessor while performing a routine practical procedures (i.e. microscopy).

## **SCIENTIFIC PROJECTS – II**

The purpose of Scientific Projects class is to teach the medical students how to write and run a scientific project. Throughout the year, each Phase Two student is expected to prepare a scientific project proposal. Students are free to choose their research area and advisor for their prospective research project. Students who wish to apply for a "TUBITAK 2209-A National Grant Program for University Students" has to send in their proposals before February 2016, the rest should hand in their proposals before the end of March. All projects will be presented as posters at Scientific Day of Yeditepe School of Medicine, during May, 2016. Scientific Projects course has 4% contribution to In-term Score (CMS).

**SCIENTIFIC PROJECTS ASSESSMENT TABLE**

<b>CRITERIA</b>	<b>Unsatisfactory</b>	<b>Below Expectations</b>	<b>Meets Expectations</b>	<b>Above Expectations</b>	<b>Clearly Outstanding</b>	<b>Not Addressed / Observed</b>
Is the question/ problem presented clearly?	1	2	3	4	5	0
Creativity/originality of the Project	1	2	3	4	5	0
Is set up of the Project suitable to obtain aims?	1	2	3	4	5	0
Presentation of aims in an easy to understand format	1	2	3	4	5	0
Review of project proposal in light of literature	1	2	3	4	5	0
Proposal presentation in correct format	1	2	3	4	5	0
Does proposal explain the project's significance and contributions well?	1	2	3	4	5	0
Project calendar presentation	1	2	3	4	5	0
<b>TOTAL POINTS</b>	<b>40 x 2,5=100 pts (if all criteria has 5 points)</b>					

## 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-**
  - 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.
  - 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.
  - Taking an exam book or other exam materials from the exam room.
  - Taking an exam in place of another student.
  - Arranging to have another person take an exam for the student.
  - Disobeying to the conduct of supervisor during the exam.
  - 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 non academic 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.

**WEEKLY COURSE SCHEDULE and LOCATIONS**  
(MED 201, MED 202)

	<b>MONDAY</b>	<b>TUESDAY</b>	<b>WEDNESDAY</b>	<b>THURSDAY</b>	<b>FRIDAY</b>
09:00-09:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)		MED 201 (B 310)
10:00-10:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)		MED 201 (B 310)
11:00-11:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)		MED 201 (B 310)
12:00-12:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)		MED 201 (B 310)
13:00-13:50					
14:00-14:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 202 (B 310)
15:00-15:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 202 (B 310)
16:00-16:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 202 (B 310)
17:00-17:50	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310)	MED 201 (B 310))	MED 202 (B 310)

**CODE**

**MED 201**

**MED 202**

**LECTURE**

Basic Medical Sciences II

Introduction to Clinical Practice II (ICP-II)

**CLASSES**

**B 310**

Base Floor

\* MED 201 Practical Lectures will be in Clinical Skills Laboratory (Base Floor)

\*\* WBAL = Practical Lectures will be announced later



## ACADEMIC CALENDAR 2015 – 2016

### **Basic Medical Sciences II**

#### **COMMITTEE I**

Beginning of Committee

End of Committee

Committee Exam

**Committee Exam Discussion**

**Commemoration of Atatürk**

**Religious Holiday**

**National Holiday**

#### **CARDIOVASCULAR and RESPIRATORY SYSTEM (9 Weeks)**

: September 7, 2015 Monday

: November 13, 2015 Friday

: November 12-13, 2015 (Theoretical, Biostatistics and Practical Exams)

: **November 13, 2015**

: **November 10, 2015 Tuesday**

: **September 23-27, 2015 Wednesday-Sunday**

: **October 28 (afternoon)-29, 2016 Wednesday-Thursday**

#### **COMMITTEE II**

Beginning of Committee

End of Committee

Committee Exam

**Committee Exam Discussion**

#### **GASTROINTESTINAL SYSTEM (6 Weeks)**

: November 16, 2015 Monday

: December 25, 2015 Friday

: December 24-25, 2015 (Theoretical, Biostatistics and Practical Exams)

: **December 25, 2015**

#### **COMMITTEE III**

Beginning of Committee

End of Committee

Committee Exam

**Committee Exam Discussion**

**New Year**

**MIDTERM BREAK**

#### **ENDOCRINE and UROGENITAL SYSTEMS (6 Weeks)**

: December 28, 2016 Monday

: February 17, 2016 Wednesday

: February 18-19, 2016 (Theoretical and Practical Exams)

: **February 19, 2016**

: **January 1, 2016 Friday**

: **18 JANUARY – 29 JANUARY, 2016**

#### **COMMITTEE IV**

Beginning of Committee

End of Committee

Committee Exam

**Committee Exam Discussion**

**Physicians' Day**

#### **NERVOUS SYSTEM (7 Weeks)**

: February 22, 2016 Monday

: April 08, 2015 Wednesday

: April 07-08, 2016 (Theoretical and Practical Exams)

: **April 08, 2016**

: **March 14, 2014, Monday**

**COMMITTEE V**

Beginning of Committee  
End of Committee  
Committee Exam  
**Committee Exam Discussion**  
**National Holiday**  
**Labor's Day**  
**National Holiday**  
**Make-up Exam**  
**Final Exam**  
**Incomplete Exam**

**TISSUE DAMAGE and NEOPLASM (7 Weeks)**

: April 11, 2016 Monday  
: May 27, 2016 Thursday  
: May 27, 2016 (Theoretical Exam)  
: May 27, 2016  
: **April 23, 2016 Saturday**  
: **May 1, 2016 Sunday**  
: **May 19, 2016 Thursday**  
: June 06-07, 2016 Monday, Thursday  
: June 20, 2016 Monday  
: July 18, 2016 Monday

**ICP II**

**Midterm Exam**  
**Make-up Exam**  
**Final Exam**  
**Incomplete Exam**

:  
: **February 12, 2016, Friday**  
: **June 08, 2016, Wednesday**  
: **June 23-24, 2016, Thursday-Friday**  
: **July 15, 2016, Friday**

**I.Coordination Committee Meeting**

: **October, 22, 2015 14:00 Thursday**

**II.Coordination Committee Meeting**

: **January, 7, 2016 14:00 Thursday (with student participant)**

**III.Coordination Committee Meeting**

: **May, 12, 2016 14:00 Thursday (with student participant)**

**IV.Coordination Committee Meeting**

: **July, 14, 2016 14:00 Thursday**

### RECOMMENDED TEXTBOOKS

NO	DEPARTMENT	TEXTBOOK	AUTHOR	PUBLISHER
1	ANATOMY	Gray's Anatomy for Students	R.L. Drake et al	Churchill Livingstone
		Last's Anatomy: Regional and Applied, 12 th Edition	Chummy S. Sinnatamby	Churchill Livingstone
		A Textbook of Neuroanatomy 1st Edition	Maria Patestas, Leslie P. Gartner	
		Hollinshead's Textbook of Anatomy Fifth Edition	Cornelius Rosse, Penelope Gaddum-Rosse	
2	BIOCHEMISTRY	Textbook of Biochemistry with Clinical Correlations	Thomas M. Devlin	Wiley-Liss Publishing Company
		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>th</sup> Ed.	Anthony Mescher	Mc-Graw-Hill Companies
	EMBRYOLOGY	The Developing Human: Clinically Oriented Embryology, 10 <sup>th</sup> Ed.	Keith L. Moore & T. V. N. Persaud	Saunders
6	MEDICAL BIOLOGY	Molecular Biology of the Cell	Bruce Alberts et al	Garland Science
7	MEDICAL ETICS	Clinical Bioethics: Theory and Practice in Medical-Ethical Decision Making	James E. Drane	Sheed & Ward
	MEDICAL HISTORY	Medical History for Students	John R. Green	Thomas
8	MICROBIOLOGY	Medical Microbiology: with Student Consult	P. R. Murray et al	Saunders
9	ORGANIC CHEMISTRY	Organic Chemistry	John E. McMurry	Cengage Learning
10	PATHOLOGY	Robbins Basic Pathology, 9th Edition	By Vinay Kumar, MBBS, MD, FRCPath, Abul K. Abbas, MBBS and Jon Aster, MD ISBN: 978-1-4377-1781-5	
11	PHARMACOLOGY	Goodman & Gilman's The Pharmacological Basis of Therapeutics	L.L. Brunton ed.	McGraw-Hill, New York,
		Basic and Clinical Pharmacology	B. G. Katzung	McGraw-Hill Companies, New York
		Principles of Pharmacology	Golan, D.E et al	Lippincott Williams & Wilkins
12	PHYSIOLOGY	Guyton Physiology	John E. Hall	Saunders
		Human Physiology	Stuart Fox	Mc-Graw-Hill Science

## **COMMITTEES**

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 201 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.

**COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS**  
**DISTRIBUTION of LECTURE HOURS**  
**September 7 - November 13, 2015**  
**COMMITTEE DURATION: 9 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 201</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>193</b>	<b>37</b>	<b>230</b>
	<b>DISCIPLINE</b>			
	ANATOMY	33	2Grx24H	45
	BIOCHEMISTRY	16	3Grx3H	21
	BIOPHYSICS	15	0	15
	BIOSTATISTICS	10	3Grx2H	12
	HISTOLOGY & EMBRYOLOGY	20	2Grx4H	25
	IMMUNOLOGY	25	0	25
	MEDICAL BIOLOGY	4	0	4
	PATHOLOGY	16	2H	18
	PHYSIOLOGY	47	3Grx15H	62
	SCIENTIFIC PROJECTS-II	2	0	2

<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	<b>8</b>	<b>16</b>	<b>24</b>
----------------	----------------------------------------------	----------	-----------	-----------

<b>Coordination Committee</b>	<b>Head</b>	Bayram YILMAZ, PhD Prof.
	<b>Secretary</b>	E.Çiğdem KASPAR, PhD Assist. Prof
	<b>Member</b>	Bilge GÜVENÇ TUNA, PhD Assist. Prof.
	<b>Member</b>	Mehtap KAÇAR, MD PhD Assoc. Prof

**COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS  
LECTURERS**

<b>MED 201 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
ANATOMY	Yüksel AYDAR, PhD Prof.* Kaan YÜCEL, MD PhD Assoc. Prof. LAB: Sinem GERGİN, MD
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. LAB: Jale ÇOBAN, MD Prof.
BIOPHYSICS	Akif MAHARRAMOV, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assist. Prof.
BIostatISTICS	E. Çiğdem KASPAR, PhD Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Ünal USLU, MD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof. Oya ALAGÖZ, MD Assist. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMİREL, MD PhD Assoc. Prof.
MEDICAL BIOLOGY	Turgay İSBİR, PhD Prof. Soner DOĞAN, PhD Assoc. Prof. Deniz KIRAÇ, PhD Assist. Prof.
PATHOLOGY	Ferda ÖZKAN, MD. Prof. Işın DOĞAN EKİCİ, MD. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Assoc. Prof.
SCIENTIFIC PROJECTS	Gülderen YANIKKAYA DEMİREL, MD PhD Assoc. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Güldal İZBIRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. A. Arzu AKALIN, MD Assist. Prof. Serdar ÖZDEMİR, MD, Ph.D, Assist. Prof.

## **COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS**

### **AIM and LEARNING OBJECTIVES**

#### **AIMS**

1. To convey knowledge about biophysical, biological, anatomical, embryological, histological, physiological and biochemical properties of cardiovascular and respiratory systems,
2. To convey knowledge on hemodynamics of cardiovascular system,
3. To convey information about electrical activity of heart and functional activity of lungs by defining all basic parameters,
4. To convey information about head-neck anatomy,
5. To convey basic, general knowledge about immunology,
6. To convey basic knowledge about biostatistics.

#### **LEARNING OBJECTIVES**

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

- 1.0. For cardiovascular and respiratory systems;
  - 1.1. explain biophysical changes,
  - 1.2. associate with the clinical reflections.
- 2.0. For cardiovascular system;
  - 2.1. explain biological characteristics of the system,
  - 2.2. associate with the clinical reflections.
- 3.0. For nose, paranasal sinus, heart, lung, pharynx, larynx;
  - 3.1. describe their anatomy,
  - 3.2. associate with adjacent tissues and organs,
  - 3.3. explain their functional and clinical reflections.
- 4.0. For nervous, vascular structures and the cavities surrounding these structures in head-neck anatomy;
  - 4.1. describe these structures,
  - 4.2. associate with their clinical reflections.
- 5.0. For thorax and diaphragm; including breasts
  - 5.1. describe their anatomy,
  - 5.2. associate with adjacent tissue and organs,
  - 5.3. explain their functional and clinical reflections.
- 6.0. For cardiovascular and respiratory system;
  - 6.1. explain developmental stages,
  - 6.2. list embryological origins of organs,
  - 6.3. associate the relation between major birth abnormalities and developmental process.
- 7.0. list lymphatic organs of cardiovascular system and histological properties 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. explain functions of pulmonary system.
- 15.0. explain mechanisms of oxygen and carbon dioxide exchange and transportation.
- 16.0. associate the relation between muscle contractions with the structures affecting contraction.
- 17.0. describe nervous (autonomous) control of cardiovascular and pulmonary systems.
- 18.0. describe dynamics of microcirculation together with general and pulmonary circulation.
- 19.0. describe measurements of hematocrit and blood pressure; blood group analysis; ECG and spirometry methods.
- 20.0. For immune system;
  - 20.1. explain development and differentiation of immune cells,

- 20.2. relate changes with diseases,
- 20.3. describe the properties of immune response.
- 21.0. For hemodynamic changes;
  - 21.1. explain mechanisms of development,
  - 21.2. describe mechanisms for cellular damage,
  - 21.3. describe pathologies occurring due to cell and tissue damage.
- 22.0. list disorders resulting from hemodynamic changes.
- 23.0. For endogenous and exogenous harmful agents;
  - 23.1. describe their mechanisms of cell and tissue damage,
  - 23.2. describe adaptation process of cells.
- 24.0. list pathologies resulting from endogenous and exogenous harmful agents and consequently emerging diseases.
- 25.0. count biostatistical sampling methods.
- 26.0. count significance tests in biostatistics.
- 27.0. choose significance tests according to the properties of biostatistical data.
- 28.0. prepare a research project draft.
- 29.0. explain hematocrit and blood pressure measurements; blood type analysis; ECG and spirometry methods.



## COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS COMMITTEE ASSESSMENT MATRIX

LEARNING OBJECTIVES	DISCIPLINE	LECTURER/ INSTRUCTOR	NUMBER of MCQs			
			CE	FE	IE	TOTAL
3.0-5.0	ANATOMY	Dr. Y. Aydar Dr. K. Yücel	16	9	9	34
9.0-11.0, 15.0-16.0, 29.0	BIOCHEMISTRY	Dr. İ. Özden	10	5	5	25
1.0, 8.0	BIOPHYSICS	Dr. A. Maharramov	9	4	4	17
25-28	BIostatISTICS	Dr. Ç. Kaspar	-	3	3	6
6.0,7.0	HISTOLOGY & EMBRYOLOGY	Dr. Ü. Uslu	3	5	5	13
		Dr. A. Cumbul	8	2	2	14
20	IMMUNOLOGY	Dr. G. Yanıkkaya Demirel	15	8	8	31
21	MEDICAL BIOLOGY	Dr. T. İşbir Dr. D. Kıraç	3	1	1	5
21-24	PATHOLOGY	Dr. F. Özkan	5	3	3	11
		Dr. İ. D. Ekici	4	2	2	8
1.0,2.0,11.0-14.0, 17.0-19.0	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar	27	16	16	59
TOTAL			100	58/200	58/200	226
LEARNING OBJECTIVES	DISCIPLINE	POINTS of EMQs and MEQs				
		CE				
		EMQ		MEQ		
3.0-5.0	ANATOMY	3		-		
9.0-11.0, 15.0-16.0, 29.0	BIOCHEMISTRY	1		-		
6.0, 7.0	HISTOLOGY & EMBRYOLOGY	1		-		
20	IMMUNOLOGY	1		-		
21-24	PHYSIOLOGY	4		-		
25-28	BIostatISTICS	-		5		
TOTAL		10		5		
LEARNING OBJECTIVES	DISCIPLINE	POINTS of ASSESSMENT METHODS				
		CE				
		LPE				
3.0-5.0	ANATOMY	3				
9.0-11.0, 15.0-16.0, 29.0	BIOCHEMISTRY	0.5				
6.0,7.0	HISTOLOGY & EMBRYOLOGY	1.5				
21-24	PHYSIOLOGY	5				
TOTAL		10				

Total number of MCQs are 100, equal to 100 pts,

Each MCQ has a value equal to 1 pt,

EMQs have value equal to 10 pts.

MEQs of Biostatistics has equal value 5 pts.

**MCQ:** Multiple Choice Question

**EMQ:** Extending Matching Question

**MEQ:** Modified Essay Questions

**LPE:** Laboratory Practical Exam

**CE:** Committee Exam

**CS:** Committee Score

**FE:** Final Exam

**ICE:** Incomplete Exam

**pts:** Points

**\*\*58** out of 200 FE and ICE MCQs will be from Committee I (Each question is of worth **0.5** pts).

**COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS**  
I. WEEK / 07 – 11 Sep 2015

	Monday 7-Sep-2015	Tuesday 8-Sep-2015	Wednesday 9-Sep-2015	Thursday 10-Sep-2015			Friday 11-Sep-2015
09.00- 09.50	<b>Introductory Session</b> Introduction to Phase II Phase II Coordination Committee Introduction to Committee I Head of Committee	<b>Lecture</b> Leukocytes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Porphin, Porphyrins, Heme, Hemoglobin <i>Inci Özden</i>	<b>Laboratory / Physiology</b> Hematocrit Determination <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Laboratory / Biochemistry</b> <i>Inci Özden &amp; Jale Çoban</i> Group A	<b>Lecture</b> Functions of Hemoglobin <i>Inci Özden</i>
10.00- 10.50	<b>Lecture</b> Functions of blood <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Leukocytes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Porphin, Porphyrins, Heme, Hemoglobin <i>Inci Özden</i>	Group C Independent Learning	Group B		<b>Lecture</b> Functions of Hemoglobin <i>Inci Özden</i>
11.00- 11.50	<b>Lecture</b> Erythrocytes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Lymphocytes and the Immune System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Haemopoiesis <i>Alev Cumbul</i>	Group C	Group B Independent Learning		<b>Lecture</b> Introduction to Bioelectromagnetics Magnetic Field <i>Akif Maharramov</i>
12.00- 12.50	<b>Lecture</b> Erythrocytes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lunch Break	Lunch Break			Group A Independent Learning	<b>Lecture</b> Introduction to Bioelectromagnetics: Electric Field <i>Akif Maharramov</i>
13.00- 13.50	Lunch Break	<b>Lecture</b> Major vessels of the body <i>Yüksel Aydar</i>	<b>Lecture</b> Histology of Lymph Organs; General Aspects, Thymus and Lymph Node <i>Ünal Uslu</i>	Lunch Break			Lunch Break
14.00- 14.50	<b>Lecture</b> Blood; RBC and Platelets <i>Alev Cumbul</i>	<b>Lecture</b> Thoracic Cavity & Mediastinum <i>Yüksel Aydar</i>	<b>Lecture</b> Histology of Lymph Organs; Spleen and MALT (Tonsills) <i>Ünal Uslu</i>	<b>Lecture</b> Structure of Hemoglobin <i>Inci Özden</i>			ICP / CSL: Hand Washing & Wearing Sterile Gloves <i>Özlem Tanrıöver &amp; Arzu Akalın</i>
15.00- 15.50	<b>Lecture</b> Blood WBC, Blood Smear <i>Alev Cumbul</i>	<b>Lecture</b> Thoracic Cavity & Mediastinum <i>Yüksel Aydar</i>	Group A Laboratory / Physiology Hematocrit Determination <i>Bayram Yılmaz &amp; Jale Çoban</i> Group B	Group C Independent Learning	<b>Lecture</b> Structure of Hemoglobin <i>Inci Özden</i>		
16.00- 16.50	<b>Lecture</b> Thoracic Wall <i>Yüksel Aydar</i>	<b>Laboratory / Anatomy</b> Thoracic Wall <i>Yüksel Aydar &amp; Sinem Gergin</i> Group A Group B Independent Learning			<b>Lecture</b> Introduction to Immunology <i>Gülderen Yanıkkaya Demirel</i>		
17.00-17.50	<b>Lecture</b> Thoracic Wall <i>Yüksel Aydar</i>	Group A Independent Learning Group B			Group A, C Independent Learning	<b>Lecture</b> Hematopoiesis and Development of Immune System <i>Gülderen Yanıkkaya Demirel</i>	

IL: Independent Learning, CSL: Clinical Skills Learning, YH: Yeditepe University Hospital. Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS**  
**II. WEEK / 14 – 18 Sep 2015**

	<b>Monday 14-Sep-2015</b>	<b>Tuesday 15-Sep-2015</b>	<b>Wednesday 16-Sep-2015</b>	<b>Thursday 17-Sep-2015</b>	<b>Friday 18-Sep-2015</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Pericardium Outer Surface of the Heart <i>Yüksel Aydar</i>	<b>Independent Learning</b>	<b>Lecture</b> Regulation of Cardiac Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Histology Assessment (DOPs)</b> Histology of Lymph Organs <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Rhythmical Excitation of the Heart <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Pericardium Outer Surface of the Heart <i>Yüksel Aydar</i>	<b>Lecture</b> Histology of Circulatory Systems; Gn Spec. Arteries <i>Ünal Uslu</i>	<b>Lecture</b> Regulation of Cardiac Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group A</b>	<b>Group B</b> Independent Learning
<b>11.00- 11.50</b>	<b>Lecture</b> Chambers and Great Vessels of the Heart <i>Yüksel Aydar</i>	<b>Lecture</b> Coronary Arteries, Cardiac Veins and Cardiac Conduction System <i>Yüksel Aydar</i>	<b>Lecture</b> Synthesis of Hemoglobin <i>İnci Özden</i>	<b>Group A</b> Independent Learning	<b>Group B</b>
<b>12.00- 12.50</b>	<b>Lecture</b> Chambers and Great Vessels of the Heart <i>Yüksel Aydar</i>	<b>Lecture</b> Coronary Arteries, Cardiac Veins and Cardiac Conduction System <i>Yüksel Aydar</i>	<b>Lecture</b> Disorders Concerning Hemoglobin Synthesis <i>İnci Özden</i>		<b>Lecture</b> Injury by Endogenous Substances <i>Işın D. Ekici</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Platelets and Coagulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Blood Types and Transfusion Reactions <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Circulatory Systems; Capillaries & Veins <i>Ünal Uslu</i>	<b>Laboratory / Physiology</b> Blood Typing & Bleeding Time <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Cellular Injury and Necrosis <i>Işın D. Ekici</i>
<b>15.00- 15.50</b>	<b>Lecture</b> Platelets and Coagulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Blood Types and Transfusion Reactions <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Introduction to Pathology <i>Ferda Özkan</i>	<b>Group A</b> Independent Learning	<b>Group B</b>
				<b>Group C</b> Independent Learning	<b>ICP / CSL: Hand Washing &amp; Wearing Sterile Gloves</b> <i>Özlem Tanrıöver &amp; Arzu Akalın</i>
<b>16.00-16.50</b>	<b>Laboratory / Anatomy</b> Pericardium and Heart& Chambers and Great Vessels of the Heart <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Laboratory / Anatomy</b> Pericardium and Heart& Chambers and Great Vessels of the Heart <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Laboratory / Physiology</b> Blood Typing & Bleeding Time <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group A</b>	<b>Group B</b>
<b>17.00-17.50</b>	<b>Group B</b>	<b>Group A</b> Independent Learning	<b>Group B</b> Independent Learning	<b>Group C</b> Independent Learning	<b>Group D</b> Independent Learning

**COMMITTEE I - CARDIOVASCULAR and RESPIRATORY SYSTEMS**  
**III. WEEK / 21 – 25 Sep 2015**

	Monday 21-Sep-2015	Tuesday 22-Sep-2015	Wednesday 23-Sep-2015	Thursday 24-Sep-2015	Friday 25-Sep-2015
09.00- 09.50	Independent Learning	Independent Learning	Independent Learning	RELIGIOUS HOLIDAY	RELIGIOUS HOLIDAY
10.00- 10.50					
11.00- 11.50					
12.00- 12.50					
13.00- 13.50	Lunch Break	Lunch Break	RELIGIOUS HOLIDAY		
14.00- 14.50	Independent Learning	Independent Learning			
15.00- 15.50					
16.00- 16.50					
17.00-17.50					

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**  
**IV. WEEK / 28 Sep – 02 Oct 2015**

	Monday 28-Sep-2015	Tuesday 29-Sep-2015	Wednesday 30-Sep-2015	Thursday 01-Oct-2015	Friday 02-Oct-2015
09.00- 09.50	<b>Lecture</b> Principles of Electrocardiography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hematopoiesis and Development of Immune System <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Introduction to Bioelectromagnetics: Electromagnetic Field <i>Akif Maharramov</i>	<b>Laboratory / Biochemistry</b> <i>Inci Özden &amp; Jale Çoban</i> Group C	<b>Lecture</b> Degradation of Hemoglobin <i>Inci Özden</i>
10.00- 10.50	<b>Lecture</b> Electrocardiographic Interpretation of Cardiac Abnormalities <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Innate Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Bioelectromagnetic Effects on the Heart <i>Akif Maharramov</i>		<b>Lecture</b> Degradation of Hemoglobin <i>Inci Özden</i>
11.00- 11.50	<b>Lecture</b> Histology of Circulatory System; Heart <i>Ünal Uslu</i>	<b>Lecture</b> Development of Circulatory Systems; Septation <i>Alev Cumbul</i>	<b>Lecture</b> Innate Immunity <i>Gülderen Yanıkkaya Demirel</i>		<b>Lecture</b> Neck <i>Kaan Yücel</i>
12.00- 12.50	<b>Lecture</b> Development of Circulatory System; Endocardial Tube Formation & Looping <i>Alev Cumbul</i>	<b>Lecture</b> Congenital Heart Anomalies <i>Alev Cumbul</i>	<b>Lecture</b> Adaptive Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Group C Independent Learning</b>	<b>Lecture</b> Neck <i>Kaan Yücel</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
14.00- 14.50	<b>Lecture</b> Fetal Circulation <i>Kaan Yücel</i>	<b>Group A</b> Laboratory/ Physiology Electrocardiography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B, C Independent Learning</b>	<b>Lecture</b> Adaptive Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>ICP / CSL: Hand Washing &amp; Wearing Sterile Gloves</b> <i>Güldal İzbirak/Serdar Özdemir</i>
15.00- 15.50	<b>Lecture</b> Lymphatic System and Circulation of Lymph <i>Kaan Yücel</i>		<b>LAB / Anatomy</b> Cardiac Nerves and Conduction System <i>Yüksel Aydar &amp; Sinem Gergin</i> Group B	<b>Lecture</b> Immune Cell Trafficking <i>Gülderen Yanıkkaya Demirel</i>	<b>Group A</b> Independent Learning <b>Group B</b> Independent Learning <b>Group C</b> <b>Group D</b> Independent Learning
16.00- 16.50	<b>Laboratory / Anatomy</b> Coronary Arteries and Veins <i>Yüksel Aydar &amp; Sinem Gergin</i>  <b>Group A</b> <b>Group B</b> Independent Learning	<b>Group C</b> Laboratory / Physiology Electrocardiography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>LAB / Anatomy</b> Cardiac Nerves and Conduction System <i>Yüksel Aydar &amp; Sinem Gergin</i> Group A	<b>Lecture</b> Biophysics of Cardiac Muscle Contraction <i>Akif Maharramov</i>	
17.00-17.50	<b>Group A</b> Independent Learning <b>Group B</b>		<b>Group A, B</b> Independent Learning <b>Group A, C</b> Independent Learning <b>Group B</b>	<b>Lecture</b> Biophysics of Blood Pressure <i>Akif Maharramov</i>	

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**  
**V. WEEK / 05 – 09 Oct 2015**

	Monday 5-Oct-2015	Tuesday 6-Oct-2015	Wednesday 7-Oct-2015	Thursday 8-Oct-2015		Friday 9-Oct-2015
09.00- 09.50	<b>Lecture</b> Cardiac Arrhythmias <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Development of Circulatory Systems; Arteries and Anomalies <i>Alev Cumbul</i>	<b>Lecture</b> Humoral Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Laboratory / Physiology</b> ECG-II <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group A</b>	<b>Group B Independent Learning</b>	<b>Lecture</b> Sampling, Data Collection and Data Processing <i>E. Çiğdem Kaspar</i>
10.00- 10.50	<b>Lecture</b> Cardiac Arrhythmias <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Development of Circulatory Systems; Veins and Anomalies <i>Alev Cumbul</i>	<b>Lecture</b> Humoral Immunity <i>Gülderen Yanıkkaya Demirel</i>		<b>LAB/ Anatomy</b> Nasal anatomy <i>Kaan Yücel&amp; Sinem Gergin</i> <b>Group B</b>	<b>Lecture</b> Statistical Decision Theory, Test of Hypothesis and Significance <i>E. Çiğdem Kaspar</i>
11.00- 11.50	<b>Lecture</b> Adaptations <i>Ferda Özkan</i>	<b>Lecture</b> Disorders Concerning Hemoglobin Metabolism <i>İnci Özden</i>	<b>Lecture</b> Principles of Hemodynamics <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Physiology</b> ECG-II <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group B</b>	<b>Group A Independent Learning</b>	<b>Lecture</b> Hyperemia & Congestion <i>Ferda Özkan</i>
12.00- 12.50	<b>Lecture</b> Adaptations <i>Ferda Özkan</i>	<b>Lecture</b> Disorders Concerning Hemoglobin Metabolism <i>İnci Özden</i>	<b>Lecture</b> Principles of Hemodynamics <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			<b>Lecture</b> Hyperemia & Congestion <i>Ferda Özkan</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>		<b>Lunch Break</b>
14.00- 14.50	<b>Lecture</b> Neck <i>Kaan Yücel</i>	<b>Lecture</b> Signal Transduction in Immune System <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Biophysics of Hemodynamics <i>Akif Maharramov</i>	<b>Lecture</b> Vascular Distensibility and Functions of Arterial and Venous Systems <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>ICP / CSL: Hand Washing &amp; Wearing Sterile Gloves</b> <i>Güldal İzbirak/ Serdar Özdemir</i>
15.00- 15.50	<b>Lecture</b> Neck <i>Kaan Yücel</i>	<b>Lecture</b> Nasal Anatomy and Paranasal Sinuses <i>Kaan Yücel</i>	<b>Lecture</b> Measurements of Different Hemodynamic Parameters <i>Akif Maharramov</i>	<b>Lecture</b> Vascular Distensibility and Functions of Arterial and Venous Systems <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		
16.00- 16.50	<b>Lecture</b> Introduction to Respiratory System <i>Kaan Yücel</i>	<b>Laboratory / Anatomy</b> Great vessels of the neck& cervical plexus <i>Kaan Yücel &amp; Sinem Gergin</i>  <b>Group B</b>	<b>Laboratory / Physiology</b> ECG-II <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>  <b>Group C</b>	<b>Laboratory / Anatomy</b> Nasal Anatomy <i>Kaan Yücel&amp; Sinem Gergin</i>  <b>Group A</b>	<b>Lecture</b> Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and CVS <i>Deniz Kıraç</i>	<b>Group A Independent Learning</b>  <b>Group B Independent Learning</b>  <b>Group C Independent Learning</b>  <b>Group D</b>
17.00-17.50	<b>Lecture</b> Nasal Anatomy and Paranasal Sinuses <i>Kaan Yücel</i>	<b>Group B Independent Learning</b>		<b>Group A Independent Learning</b>		

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**  
**VI. WEEK / 12 – 16 Oct 2015**

	Monday 12-Oct-2015	Tuesday 13-Oct-2015	Wednesday 14-Oct-2015	Thursday 15-Oct-2015	Friday 16-Oct-2015	
09.00- 09.50	<b>Lecture</b> Scalp and Face <i>Yüksel Aydar</i>	<b>Lecture</b> Regulation of Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Coronary Circulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Histology Assessment (DOPs)</b> Histology of the CVS & Respiratory System <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Local and Humoral Control of Blood Flow by the Tissues <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
10.00- 10.50	<b>Lecture</b> Scalp and Face <i>Yüksel Aydar</i>	<b>Lecture</b> Regulation of Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Microcirculation and the Lymphatic System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Group A Independent Learning</b>	<b>Lecture</b> Local and Humoral Control of Blood Flow by the Tissues <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
11.00- 11.50	<b>Lecture</b> Scalp and Face <i>Yüksel Aydar</i>	<b>Lecture</b> Hemodynamics <i>Ferda Özkan</i>	<b>Lecture</b> Trachea and Lungs <i>Kaan Yücel</i>	<b>Laboratory / Histology Assessment (DOPs)</b> Histology of the CVS & Respiratory System <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Laboratory / Pathology</b> Hemodynamics <i>Ferda Özkan &amp; Işın D. Ekici</i>	
12.00- 12.50	<b>Lecture</b> Scalp and Face <i>Yüksel Aydar</i>	<b>Lecture</b> Hemodynamics <i>Ferda Özkan</i>	<b>Lecture</b> Trachea and Lungs <i>Kaan Yücel</i>			<b>Group A</b>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	
14.00-14.50	<b>Lecture</b> Pharynx and Larynx <i>Kaan Yücel</i>	<b>Lecture</b> Suboccipital Region and Deep Muscles of the Back <i>Yüksel Aydar</i>	<b>Laboratory / Anatomy</b> Pharynx and Larynx <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Lecture</b> Capillary Fluid Exchange, Interstitial Fluid, and Lymph Flow <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>ICP</b> CSL: Vital Signs <i>Hülya Akan &amp; Güldal İzbrak</i>	
			<b>Group B</b>			<b>Group A Independent Learning</b>
15.00- 15.50	<b>Lecture</b> Pharynx and Larynx <i>Kaan Yücel</i>	<b>Lecture</b> Suboccipital Region and Deep Muscles of the Back <i>Yüksel Aydar</i>	<b>Group A Independent Learning</b>	<b>Group B</b>		<b>Group A</b>
				<b>Invited Speaker</b>		
16.00- 16.50	<b>Lecture</b> Hemorheology <i>Akif Maharramov</i>	<b>Lecture</b> Test Hypotheses and Significance in Large Samples <i>E. Çiğdem Kaspar</i>	<b>Laboratory / Anatomy</b> Trachea and Lungs <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Invited Speaker</b>	<b>Group C Independent Learning</b>	
			<b>Group A</b>		<b>Group B Independent Learning</b>	<b>Group D Independent Learning</b>
17.00-17.50	<b>Lecture</b> Hemorheology <i>Akif Maharramov</i>	<b>Lecture</b> Test Hypotheses and Significance in Large Samples <i>E. Çiğdem Kaspar</i>	<b>Group B Independent Learning</b>	<b>Group A</b>	<b>Independent Learning</b>	

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**  
**VII. WEEK / 19 – 23 Oct 2015**

	<b>Monday 19-Oct-2015</b>	<b>Tuesday 20-Oct-2015</b>	<b>Wednesday 21-Oct-2015</b>	<b>Thursday 22-Oct-2015</b>	<b>Friday 23-Oct-2015</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Pleura and Diaphragm <i>Kaan Yücel</i>	<b>Lecture</b> Cellular Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Erythrocytes <i>İnci Özden</i>	<b>Laboratory / Physiology</b> Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Pulmonary Ventilation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Pleura and Diaphragm <i>Kaan Yücel</i>	<b>Lecture</b> Cellular Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Erythrocytes <i>İnci Özden</i>	<b>Group A</b>	<b>Group B</b> <b>Independent Learning</b>
<b>11.00- 11.50</b>	<b>Lecture</b> Heart Valves and Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Cardiac Failure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Immunodeficiencies <i>Gülderen Yanıkkaya Demirel</i>	<b>Group A</b> <b>Independent Learning</b>	<b>Lecture</b> Histology of The Respiratory Systems; Respiratory Part <i>Alev Cumbul</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Heart Valves and Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Circulatory Shock and Physiology of Its Treatment <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Immunodeficiencies <i>Gülderen Yanıkkaya Demirel</i>		<b>Lecture</b> Development of Head; Splanchnocranium, Neurocranium <i>Alev Cumbul</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>ICP</b> CSL: Vital Signs <i>Hülya Akan &amp; Serdar Özdemir</i>	<b>Lecture</b> Histology of The Upper Respiratory Tract <i>Alev Cumbul</i>	<b>Lecture</b> Nervous Regulation of the Circulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hypersensitivity Reactions, Allergy <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Ischemia and Infarction <i>Ferda Özkan</i>
<b>15.00- 15.50</b>	<b>Group A</b> <b>Independent Learning</b>	<b>Lecture</b> Histology of The Respiratory Systems; Conducting Part <i>Alev Cumbul</i>	<b>Lecture</b> Nervous Regulation of the Circulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hypersensitivity Reactions, Allergy <i>Gülderen Yanıkkaya Demirel</i>	<b>Independent Learning</b>
<b>16.00- 16.50</b>	<b>Group B</b> <b>Independent Learning</b>	<b>Laboratory / Physiology</b> Blood Pressure <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Injury by Toxic Substances and Pneumoconiosis <i>İşin D: Ekici</i>	<b>Lecture</b> Principle of Surface Tension & Alveolar Mechanic <i>Akif Maharramov</i>	
<b>17.00-17.50</b>	<b>Group C</b> <b>Independent Learning</b>	<b>Group A, C</b> <b>Independent Learning</b>	<b>Lecture</b> Injury by Toxic Substances and Pneumoconiosis <i>İşin D: Ekici</i>	<b>Lecture</b> Surfactant and Its Effect on Surface Tension <i>Akif Maharramov</i>	



**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**

**VIII. WEEK / 26 – 30 Oct 2015**

	Monday 26-Oct-2015	Tuesday 27-Oct-2015	Wednesday 28-Oct-2015	Thursday 29-Oct-2015	Friday 30-Oct-2015			
09.00- 09.50	<b>Lecture</b> Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart <i>Turgay İşbir</i>	<b>Lecture</b> Infection and Immunity <i>Gülderen Yanıkkaya Demirel</i>	<b>Independent Learning</b>	<b>REPUBLIC DAY</b>	<b>Independent Learning</b>			
10.00- 10.50	<b>Lecture</b> Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart <i>Turgay İşbir</i>	<b>Lecture</b> Infection and Immunity <i>Gülderen Yanıkkaya Demirel</i>						
11.00- 11.50	<b>Lecture</b> Overview of CVS and the Respiratory System <i>Kaan Yücel</i>	<b>Lecture</b> Modeling in Circulatory & Respiratory Systems <i>Akif Maharramov</i>				<b>Lecture</b> Test Hypotheses and Significance in Large Samples <i>E. Çiğdem Kaspar</i>		
12.00- 12.50	<b>Lecture</b> Overview of CVS and the Respiratory System <i>Kaan Yücel</i>	<b>Lecture</b> Modeling in Circulatory & Respiratory Systems <i>Akif Maharramov</i>				<b>Lecture</b> Test Hypotheses and Significance in Large Samples <i>E. Çiğdem Kaspar</i>		
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>		<b>Lunch Break</b>			
14.00- 14.50	<b>Lecture</b> Cancer Immunology <i>Gülderen Yanıkkaya Demirel</i>	<b>Laboratory / Physiology</b> Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>			<b>Lecture</b> Development of Neck; Pharyngeal Arches and Anomalies <i>Alev Cumbul</i>			
15.00- 15.50	<b>Lecture</b> Cancer Immunology <i>Gülderen Yanıkkaya Demirel</i>	<b>Group A</b>	<b>Group B, Group C Independent Learning</b>		<b>ICP</b> CSL: Vital Signs <i>Hülya Akan &amp; Serdar Özdemir</i>	<b>Laboratory / Physiology</b> Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		
16.00- 16.50	<b>Laboratory / Anatomy</b> Pleura and Diaphragm <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Laboratory / Physiology</b> Heart Sounds <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>REPUBLIC DAY</b>		<b>Group A Independent Learning</b>	<b>Group B</b>	<b>Group C</b>	<b>Group D Independent Learning</b>
	<b>Group A</b>	<b>Group B</b>						
17.00-17.50	<b>Group A Independent Learning</b>	<b>Group B</b>	<b>Independent Learning</b>			<b>Independent Learning</b>		

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**

**IX. WEEK / 02 – 06 Nov 2015**

	<b>Monday 02-Nov-2015</b>	<b>Tuesday 03-Nov-2015</b>	<b>Wednesday 04-Nov-2015</b>	<b>Thursday 05-Nov-2015</b>	<b>Friday 06-Nov-2015</b>
<b>09.00-09.50</b>	<b>Lecture</b> Pulmonary Circulation, Pulmonary Edema, Pleural Fluid <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Diffusion of Blood Gases <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Transport of Blood Gases <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Anatomy</b> Review for CVS and Respiratory System <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Lecture</b> Aviation, High-Altitude and Space Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00-10.50</b>	<b>Lecture</b> Pulmonary Circulation, Pulmonary Edema, Pleural Fluid <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Diffusion of Blood Gases <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Transport of Blood Gases <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B</b>	<b>Group A</b> Independent Learning
<b>11.00-11.50</b>	<b>Lecture</b> Test Hypotheses and Significance in Small Samples <i>E. Çiğdem Kaspar</i>	<b>Lecture</b> Immunological Laboratory Tests <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Development of The Respiratory Systems <i>Alev Cumbul</i>	<b>Group B</b> Independent Learning	<b>Group A</b>
<b>12.00-12.50</b>	<b>Lecture</b> Test Hypotheses and Significance in Small Samples <i>E. Çiğdem Kaspar</i>	<b>Lecture</b> Immunological Laboratory Tests <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Congenital Anomalies of Respiratory Systems <i>Alev Cumbul</i>		
<b>13.00-13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Field Trip (GATA, Haydarpaşa) / Physiology</b> Visit to Hyperbaric Medicine Clinic & Seminar <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>14.00-14.50</b>	<b>Lecture</b> Functions of Hemoglobin <i>İnci Özden</i>	<b>Lecture</b> Test Hypotheses and Significance in Small Samples <i>E. Çiğdem Kaspar</i>	<b>Lecture</b> How to Write a Scientific Project <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Regulation of Respiration <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lunch Break</b>
<b>15.00-15.50</b>	<b>Lecture</b> Functions of Hemoglobin <i>İnci Özden</i>	<b>Lecture</b> Test Hypotheses and Significance in Small Samples <i>E. Çiğdem Kaspar</i>	<b>Lecture</b> How to Write a Scientific Project <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Regulation of Respiration <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>ICP</b> <b>CSL: Vital Signs</b> <i>Hülya Akan &amp; Güldal İzbirak</i>
<b>16.00-16.50</b>	<b>Laboratory / Physiology</b> Spirometry <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group B</b>	<b>Laboratory / Physiology</b> Spirometry <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hemorrhage and Thrombosis <i>Ferda Özkan</i>	<b>Laboratory / Histology Lab</b> <b>Make up Session</b> <i>Ünal Uslu &amp; Alev Cumbul</i> <b>Group A / Group B</b>	<b>Group B</b>
<b>17.00-17.50</b>	<b>Laboratory Biostatistics</b> <i>E. Çiğdem Kaspar</i> <b>Group C</b>	<b>Group C</b>	<b>Lecture</b> Hemorrhage and Thrombosis <i>Ferda Özkan</i>		<b>Group A, B, C</b> Independent Learning

**COMMITTEE I - CARDIOVASCULAR & RESPIRATORY SYSTEMS**  
**X. (EXAM) WEEK / 09 – 13 Nov 2015**

	<b>Monday 09-Nov-2015</b>	<b>Tuesday 10-Nov-2015</b>	<b>Wednesday 11-Nov-2015</b>	<b>Thursday 12-Nov-2015</b>	<b>Friday 13-Nov-2015</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Commemoration of Atatürk</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Independent Learning</b>
<b>10.00- 10.50</b>					<b>Assessment Session Committee I (MCQ-EMQ)</b>
<b>11.00- 11.50</b>					
<b>12.00- 12.50</b>					
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Assessment Session Biostatistics (MEQ)</b>
<b>15.00- 15.50</b>					<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Committee I Program <i>Head of Committee</i>
<b>16.00- 16.50</b>					
<b>17.00-17.50</b>					

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM****DISTRIBUTION of LECTURE HOURS****November 18 – December 25, 2015****COMMITTEE DURATION: 6 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 201</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>117</b>	<b>20</b>	<b>138</b>
	<b>DISCIPLINE</b>			
	ANATOMY	20	2Grx8H	28
	BIOCHEMISTRY	36	3Grx3H	39
	BIOPHYSICS	14	0	14
	BIOSTATISTICS	8	3Grx2H	10
	HISTOLOGY & EMBRYOLOGY	10	2Grx5H	15
	IMMUNOLOGY	2	0	2
	MEDICAL BIOLOGY	6	0	6
	PHYSIOLOGY	17	3Grx3H	20
	SCIENTIFIC PROJECTS-II	2	0	2

<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	<b>4</b>	<b>8</b>	<b>12</b>
----------------	----------------------------------------------	----------	----------	-----------

<b>Coordination Committee</b>	<b>Head</b>	İnci ÖZDEN, PhD Prof.
	<b>Secretary</b>	Alev CUMBUL, PhD Assist. Prof.
	<b>Member</b>	Deniz KIRAÇ, PhD Assist. Prof.
	<b>Member</b>	Kaan YÜCEL, MD PhD Assoc. Prof.

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**  
**LECTURERS**

<b>MED 201 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
ANATOMY	Yüksel AYDAR, PhD Prof.* Kaan YÜCEL, MD PhD Assoc. Prof. LAB: Sinem GERGIN, MD
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. LAB: Jale ÇOBAN, MD Prof.
BIOPHYSICS	Akif MAHARRAMOV, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assist. Prof.
BIostatISTICS	E.Çiğdem KASPAR, PhD Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Ünal USLU, MD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof. Oya ALAGÖZ, MD Assist. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMIREL, MD, PhD Assoc. Prof.
MEDICAL BIOLOGY	Turgay İSBİR, PhD Prof. Soner DOĞAN, PhD Assoc. Prof. Deniz KIRAÇ, PhD Assist. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Assoc. Prof.
SCIENTIFIC PROJECTS-II	Gülderen YANIKKAYA DEMIREL, MD, PhD Assoc. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Güldal İZDIRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. A.Arzu AKALIN, MD Assist. Prof. Serdar ÖZDEMİR, MD, Ph.D, Assist. Prof.

## **COMMITTEE II - 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 good laboratory and clinical practices in research projects.

#### **LEARNING OBJECTIVES**

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

#### **KNOWLEDGE**

- 1.0. describe metabolic events in human organism, using concepts of internal energy, work, temperature, entropy, free energy and enthalpy.
- 2.0. describe gastrointestinal system biology and basics of proper alimentation.
- 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, developmental stages and histological properties,
  - 5.2. associate the relation between birth abnormalities and developmental processes.
- 6.0. For lipid, protein and carbohydrate metabolisms;
  - 6.1. describe physiological mechanisms,
  - 6.2. explain 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. explain good laboratory (GLP) and clinical (GCP) practice for research projects.

## COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM

### COMMITTEE ASSESSMENT MATRIX

LEARNING OBJECTIVES	DISCIPLINE	LECTURER/ INSTRUCTOR	NUMBER of MCQs			
			CE	FE	IE	TOTAL
3.0, 3.1, 4.0 4.2	ANATOMY	Dr. Y. Aydar Dr. K. Yücel	17	7	7	31
2.0, 6.0-6.3, 8.0-11.0	BIOCHEMISTRY	Dr. İ. Özden	31	12	12	55
1	BIOPHYSICS	Dr. A. Maharramov	12	4	4	20
12	BIOSTATISTICS	Dr. Ç. Kaspar	-	2	2	4
5.0-5.2	HISTOLOGY & EMBRYOLOGY	Dr. Ü. Uslu	4	3	3	10
		Dr. A. Cumbul	5	1	1	7
3,3	IMMUNOLOGY	Dr. G. Yanikkaya Demirel	2	1	1	4
3.3,4.3	MEDICAL BIOLOGY	Dr. S.Doğan	5	2	2	9
7.0-7.3	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar	14	5	5	24
<b>TOTAL</b>			<b>90</b>	<b>37/200**</b>	<b>37/200**</b>	<b>164</b>
LEARNING OBJECTIVES	DISCIPLINE	POINTS of EMQs and MEQs				
		CE				
		EMQ	MEQ			
3.0, 3.1, 4.0-4.2	ANATOMY	3	-			
1	BIOPHYSICS	1				
2.0, 6.0-6.3, 8.0-11.0	BIOCHEMISTRY	4	-			
12	BIOSTATISTICS	-	5			
5.0-5.2	HISTOLOGY & EMBRYOLOGY	4	-			
7.0-7.3	PHYSIOLOGY	2	-			
<b>TOTAL</b>		<b>10</b>	<b>5</b>			
LEARNING OBJECTIVES	DISCIPLINE	POINTS of ASSESSMENT METHODS				
		CE				
		LPE				
3.0, 3.1, 4.0-4.2	ANATOMY	7				
2.0, 6.0-6.3, 8.0-11.0	BIOCHEMISTRY	2				
5.0-5.2	HISTOLOGY & EMBRYOLOGY	4				
7.0-7.3	PHYSIOLOGY	2				
<b>TOTAL</b>		<b>15</b>				

Total number of MCQs are **90**, equal to **90** pts,

Each MCQ has a value equal to **1** pt,

EMQs have value equal to **10** pts

MEQs of Biostatistics has equal value **5** pts

**MCQ:** Multiple Choice Question

**EMQ:** Extending Matching Question

**MEQ:** Modified Essay Questions

**LPE:** Laboratory Practical Exam

**CE:** Committee Exam

**CS:** Committee Score

**FE:** Final Exam

**ICE:** Incomplete Exam

**pts:** Points

**\*\*37** out of 200 FE and ICE MCQs will be from Committee II (Each question is of worth **0.5** pts).

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**

**I. WEEK / 16 – 20 Nov 2015**

	<b>Monday 16-Nov-2015</b>	<b>Tuesday 17-Nov-2015</b>	<b>Wednesday 18-Nov-2015</b>	<b>Thursday 19-Nov-2015</b>	<b>Friday 20-Nov-2015</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Lecture</b> Pharynx and Esophagus <i>Yüksel Aydar</i>	<b>Lecture</b> Transport of Lipids in Blood <i>Inci. Özden</i>	<b>Independent Learning</b>	<b>Lecture</b> Analysis of Variance and Multiple Comparisons <i>E. Çiğdem Kaspar</i>
<b>10.00- 10.50</b>	<b>Introductory Session</b> Introduction to Phase II <i>Phase II Coordination Committee</i> Introduction to Committee II <i>Head of Committee</i>	<b>Lecture</b> Pharynx and Esophagus <i>Yüksel Aydar</i>	<b>Lecture</b> Transport of Lipids in Blood <i>Inci. Özden</i>	<b>Laboratory / Biochemistry</b> <i>Inci Özden &amp; Jale Çoban</i>  <b>Group A</b>  <b>Group B, C Independent Learning</b>	<b>Lecture</b> Analysis of Variance and Multiple Comparisons <i>E. Çiğdem Kaspar</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Introduction to Digestive System and Oral Cavity <i>Yüksel Aydar</i>	<b>Lecture</b> Clinical & Topographic Anatomy of the Anterior Abdominal Wall <i>Kaan Yücel</i>	<b>Lecture</b> Bio-thermodynamics, Laws of Thermodynamics <i>Akif Maharramov</i>		<b>Lecture</b> Oxidation of Fatty Acids <i>Inci. Özden</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Introduction to Digestive System and Oral Cavity <i>Yüksel Aydar</i>	<b>Lecture</b> Abdominal Cavity & Peritoneum <i>Yüksel Aydar</i>	<b>Lecture</b> The Zeroth and First Laws of Thermodynamics <i>Akif Maharramov</i>		<b>Lecture</b> Oxidation of Fatty Acids <i>Inci. Özden</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Digestion and Absorptions of Lipids <i>Inci. Özden</i>	<b>Lecture</b> Synthesis of Triacylglycerols <i>Inci. Özden</i>	<b>Lecture</b> Propulsion and Mixing Movements in the GI tract <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of GI Tract; General Aspect <i>Ünal Uslu</i>	<b>Lecture</b> Histology of Alimentary Canal; Lower GIS; Stomach <i>Ünal Uslu</i>
<b>15.00- 15.50</b>	<b>Lecture</b> Fate of Absorbed Lipids <i>Inci. Özden</i>	<b>Lecture</b> Synthesis of Fatty Acids <i>Inci. Özden</i>	<b>Lecture</b> Gastrointestinal Motility and Nervous Control <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Alimentary Canal; Upper GIS <i>Ünal Uslu</i>	<b>ICP</b> <b>CSL: Nasogastric Administration</b> <i>Özlem Tannıöver &amp; Arzu Akalın</i>  <b>Group A</b>  <b>Group B Independent Learning</b>  <b>Group C Independent Learning</b>  <b>Group D Independent Learning</b>
<b>16.00- 16.50</b>	<b>Laboratory / Anatomy</b> Abdominal Muscles, Nerves, Vessels, and Inguinal Canal <i>Yüksel Aydar &amp; Sinem Gergin</i>  <b>Group A</b>  <b>Group B Independent Learning</b>	<b>Laboratory / Anatomy</b> Introduction to Digestive System and Oral Cavity <i>Yüksel Aydar &amp; Sinem Gergin</i>  <b>Group A Independent Learning</b>  <b>Group B</b>	<b>Lecture</b> Interrelationship of Biology of Major Organs <i>Soner Doğan</i>	<b>Lecture</b> Gastrointestinal Functions <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	
<b>17.00-17.50</b>	<b>Group A Independent Learning</b>  <b>Group B</b>	<b>Group A Independent Learning</b>  <b>Group B</b>	<b>Lecture</b> Interrelationship of Biology of Major Organs <i>Soner Doğan</i>	<b>Lecture</b> Gastrointestinal Functions <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	

IL: Independent Learning, CSL: Clinical Skills Learning, YH: Yeditepe University Hospital. Student groups for laboratory/practice sessions will be announced by coordinators.



**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**  
**II. WEEK / 23 – 27 Nov 2015**

	Monday 23-Nov-2015	Tuesday 24-Nov-2015	Wednesday 25-Nov-2015	Thursday 26-Nov-2015	Friday 27-Nov-2015
09.00- 09.50	<b>Lecture</b> Secretory Functions of the Alimentary Tract <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Good Laboratory Practice (GLP) and Good Clinical Practice (GCP) in Research Projects <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Cholesterol Homeostasis in Liver <i>İnci Özden</i>	<b>Independent Learning</b>	<b>Lecture</b> Reactions Involved in Catabolism of Amino Acids <i>İnci Özden</i>
10.00- 10.50	<b>Lecture</b> Secretory Functions of the Alimentary Tract <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Alimentary Canal; Intestines <i>Ünal Uslu</i>	<b>Lecture</b> Cholesterol Homeostasis in Liver <i>İnci Özden</i>	<b>Laboratory / Biochemistry</b> <i>İnci Özden &amp; Jale Çoban</i>	<b>Lecture</b> Catabolism of Amino Groups of Amino Acids <i>İnci Özden</i>
11.00- 11.50	<b>Lecture</b> Cholesterol Synthesis <i>İnci Özden</i>	<b>Lecture</b> Stomach and Small Intestine <i>Kaan Yücel</i>	<b>Lecture</b> Linear Regression and Correlation <i>Çiğdem Kaspar</i>	<b>Group A, C Independent Learning</b>	<b>Lecture</b> Digestion and Absorption in the Gastrointestinal Tract <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
12.00- 12.50	<b>Lecture</b> Lipolysis <i>İnci Özden</i>	<b>Lecture</b> Stomach and Small Intestine <i>Kaan Yücel</i>	<b>Lecture</b> Linear Regression and Correlation <i>Çiğdem Kaspar</i>		<b>Lecture</b> Digestion and Absorption in the Gastrointestinal Tract <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
14.00- 14.50	<b>Lecture</b> Abdominal Cavity & Peritoneum <i>Yüksel Aydar</i>	<b>Lecture</b> Synthesis of Triacylglycerols <i>İnci. Özden</i>	<b>Laboratory /Physiology</b> <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>  <b>Group B</b>	<b>Lecture</b> Digestion and Absorption of Proteins <i>İnci Özden</i>	<b>Independent Learning</b>
15.00- 15.50	<b>Lecture</b> Abdominal Cavity & Peritoneum <i>Yüksel Aydar</i>	<b>Lecture</b> Synthesis of Fatty Acids <i>İnci. Özden</i>		<b>Lecture</b> Digestion and Absorption of Proteins <i>İnci Özden</i>	<b>ICP</b> <b>CSL: Nasogastric Administration</b> <i>Özlem Tanrıöver &amp; Arzu Akalın</i>
16.00- 16.50	<b>Laboratory / Anatomy</b> Abdominal Cavity & Peritoneum <i>Yüksel Aydar &amp; Sinem Gergin</i>  <b>Group A</b>	<b>Laboratory / Anatomy</b> Pharynx and Esophagus <i>Yüksel Aydar &amp; Sinem Gergin</i>  <b>Group A</b>	<b>Laboratory/Physiology</b> <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group A</b>	<b>Lecture</b> Applications of the First Law to Isochoric Process <i>Akif Maharramov</i>	<b>Group A Independent Learning</b>
	<b>Group B Independent Learning</b>				
17.00-17.50	<b>Group A Independent Learning</b>	<b>Group A Independent Learning</b>	<b>LAB/Biostatistics</b> <i>Çiğdem Kaspar</i> <b>Group C</b>	<b>Lecture</b> Applications of the First Law to Isochoric Process <i>Akif Maharramov</i>	<b>Group B Independent Learning</b>
	<b>Group B</b>	<b>Group B</b>	<b>Group B Independent Learning</b>		<b>Group C Independent Learning</b> <b>Group D Independent Learning</b>

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**

**III. WEEK / 30 Nov – 04 Dec 2015**

	<b>Monday 30-Nov-2015</b>	<b>Tuesday 1-Dec-2015</b>	<b>Wednesday 2-Dec-2015</b>	<b>Thursday 3-Dec-2015</b>	<b>Friday 4-Dec-2015</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Individual Amino Acids (Metabolism, Features, etc) <i>Inci Özden</i>	<b>Lecture</b> Individual Amino Acids (Metabolism, Features, etc) <i>Inci Özden</i>	<b>Laboratory / Anatomy</b> Stomach and Small Intestine <i>Kaan Yücel &amp; Sinem Gergin</i> <b>Group B</b> Independent Learning <b>Group A</b>	<b>Laboratory / Histology</b> <b>Assessment (DOPs)</b> Histology of GIS I <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Overview of Metabolism <i>Inci Özden</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Individual Amino Acids (Metabolism, Features, etc) <i>Inci Özden</i>	<b>Lecture</b> Individual Amino Acids (Metabolism, Features, etc) <i>Inci Özden</i>	<b>Group B</b> <b>Group A</b> Independent Learning	<b>Group A</b> Independent Learning <b>Group B</b>	<b>Lecture</b> Citric Acid (TCA) Cycle <i>Inci Özden</i>
<b>11:00-11:50</b>	<b>Lecture</b> Applications of the First Law to Adiabatic Process <i>Akif Maharramov</i>	<b>Lecture</b> Large Intestine <i>Kaan Yücel</i>	<b>Lecture</b> Energetics and Metabolic Rate <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group A</b> <b>Group B</b> Independent Learning	<b>Lecture</b> Biological Energy-Mass Flow <i>Akif Maharramov</i>
<b>12:00-12:50</b>	<b>Lecture</b> Applications of the First Law to Adiabatic Process <i>Akif Maharramov</i>	<b>Lecture</b> Large Intestine <i>Kaan Yücel</i>	<b>Lecture</b> Energetics and Metabolic Rate <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Lecture</b> Diffusion and Electro- Diffusion <i>Akif Maharramov</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Evaluation of Scientific Research Projects <i>Gülderen Yanıkkaya Demirel</i>	<b>Lecture</b> Gland Associated with the Digestive System; Salivary Glands <i>Alev Cumbul</i>	<b>Invited Speaker</b>	<b>Lecture</b> Urea Cycle <i>Inci Özden</i>	<b>Lecture</b> Liver as Organ <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>15.00- 15.50</b>	<b>Laboratory / Biochemistry</b> <b>Group C</b> <i>Inci Özden &amp; Jale Çoban</i>	<b>Lecture</b> Glands Associated with the Digestive System; Liver <i>Alev Cumbul</i>	<b>Invited Speaker</b>	<b>Lecture</b> Regulation of Urea Cycle <i>Inci Özden</i>	<b>ICP</b> <b>CSL: Nasogastric Administration</b> <i>Özlem Tanrıöver &amp; Arzu Akalın</i>
<b>16.00- 16.50</b>	<b>Group A, B</b> Independent Learning <b>Group C</b>	<b>Group C</b> Laboratory /Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group A</b> Laboratory /Biostatistics <i>Çiğdem Kasper</i> <b>Group B</b> Independent Learning	<b>Lecture</b> Interrelationship of Biology of Major Organs <i>Soner Doğan</i>	<b>Lecture</b> The Second Law of Thermodynamics <i>Akif Maharramov</i>	<b>Group A</b> Independent Learning <b>Group B</b> Independent Learning <b>Group C</b> <b>Group D</b> Independent Learning
<b>17.00-17.50</b>			<b>Lecture</b> Interrelationship of Biology of Major Organs <i>Soner Doğan</i>	<b>Lecture</b> Entropy, Free Energy, Enthalpy, Boltzmann Distribution <i>Akif Maharramov</i>	

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**  
**IV. WEEK / 07 – 11 Dec 2015**

	<b>Monday 7-Dec-2015</b>	<b>Tuesday 8-Dec-2015</b>	<b>Wednesday 9-Dec-2015</b>	<b>Thursday 10-Dec-2015</b>	<b>Friday 11-Dec-2015</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Regulation of Feeding and Obesity <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Anatomy</b> Large Intestine <i>Kaan Yücel &amp; Sinem Gergin</i> <b>Group B</b> Independent Learning <b>Group A</b>	<b>Lecture</b> Body Temperature and Its Regulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Anatomy</b> Liver and Gall Bladder <i>Kaan Yücel &amp; Sinem Gergin</i> <b>Group B</b> <b>Group A</b> Independent Learning	<b>Lecture</b> Development of Gastrointestinal Tract; Glands <i>Alev Cumbul</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Regulation of Feeding and Obesity <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B</b> <b>Group A</b> Independent Learning	<b>Lecture</b> Body Temperature and Its Regulation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B</b> Independent Learning <b>Group A</b>	<b>Lecture</b> Congenital Anaomalies of Gastrointestinal Tract <i>Alev Cumbul</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Pancreas, Spleen and Portal System <i>Kaan Yücel</i>	<b>Lecture</b> Glands Associated with the Digestive System <i>Alev Cumbul</i>	<b>Lecture</b> Metabolic Interrelationships & Provision of Tissue Fuels <i>İnci Özden</i>	<b>Independent Learning</b>	<b>Lecture</b> Purine and Pyrimidine Metabolism <i>İnci Özden</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Pancreas, Spleen and Portal System <i>Kaan Yücel</i>	<b>Lecture</b> Development of Alimentary Canal <i>Alev Cumbul</i>	<b>Lecture</b> Xenobiotic Metabolism <i>İnci Özden</i>		<b>Lecture</b> Purine and Pyrimidine Metabolism <i>İnci Özden</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Citric Acid (TCA) Cycle <i>İnci Özden</i>	<b>Lecture</b> Clinical Anatomy of the Gastrointestinal System <i>Yüksel Aydar</i>	<b>Lecture</b> Liver and Gall Bladder <i>Kaan Yücel</i>	<b>Lecture</b> Xenobiotic Metabolism <i>İnci Özden</i>	<b>Independent Learning</b>
<b>15.00- 15.50</b>	<b>Lecture</b> Metabolic Interrelationships and Provision of Tissue Fuels <i>İnci Özden</i>	<b>Lecture</b> Clinical Anatomy of the Gastrointestinal System <i>Yüksel Aydar</i>	<b>Lecture</b> Liver and Gall Bladder <i>Kaan Yücel</i>	<b>Lecture</b> Xenobiotic Metabolism <i>İnci Özden</i>	<b>ICP</b> CSL: Nasogastric Administration Group III <i>Özlem Tanrıöver &amp; Arzu Akalın</i> <b>Group A</b> Independent Learning <b>Group B</b> Independent Learning <b>Group C</b> Independent Learning <b>Group D</b>
<b>16.00- 16.50</b>	<b>Laboratory / Anatomy</b> Pancreas, Spleen and Portal System <i>Kaan Yücel &amp; Sinem Gergin</i> <b>Group B</b> <b>Group A</b> Independent Learning	<b>Lecture</b> Vessels and Nerves of the Gastrointestinal System <i>Yüksel Aydar</i>	<b>Lecture</b> Photosynthesis and Respiration, Spectrum of Photo-biological Effects <i>Akif Maharramov</i>	<b>Lecture</b> Computer Applications of Tests of Significance <i>E.Çiğdem Kaspar</i>	
<b>17.00-17.50</b>	<b>Group B</b> Independent Learning <b>Group A</b>	<b>Lecture</b> Vessels and Nerves of the Gastrointestinal System <i>Yüksel Aydar</i>	<b>Lecture</b> Photosynthesis and Respiration, Spectrum of Photo-biological Effects <i>Akif Maharramov</i>	<b>Lecture</b> Selection of Statistical Tests to Use in a Study <i>E.Çiğdem Kaspar</i>	

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**  
**V. WEEK / 14 – 18 Dec 2015**

	Monday 14-Dec-2015	Tuesday 15-Dec-2015	Wednesday 16-Dec-2015	Thursday 17-Dec-2015	Friday 18-Dec-2015		
09.00- 09.50	Lecture Purine and Pyrimidine Metabolism <i>İnci Özden</i>	Lecture Physiology of Gastrointestinal Disorders <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Purine and Pyrimidine Metabolism <i>İnci Özden</i>	Laboratory / Histology Assessment (DOPs) Histologyof Gastrointestinal System II <i>Ünal Uslu &amp; Alev Cumbul</i>			
10.00- 10.50	Lecture Purine and Pyrimidine Metabolism <i>İnci Özden</i>	Lecture Physiology of Gastrointestinal Disorders <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Lecture Purine and Pyrimidine Metabolism <i>İnci Özden</i>			Group A	Group B Independent Learning
11.00- 11.50	Lecture Clinical Anatomy of the Gastrointestinal System <i>Yüksel Aydar</i>	Lecture Vessels and Nerves of the Gastrointestinal System <i>Kaan Yücel</i>	Lecture Overview of the Gastrointestinal System <i>Yüksel Aydar</i> Lecture Overview of the Gastrointestinal System <i>Yüksel Aydar</i>			Group A Independent Learning	Group B
12.00- 12.50	Lecture Clinical Anatomy of the Gastrointestinal System <i>Yüksel Aydar</i>	Lecture Vessels and Nerves of the Gastrointestinal System <i>Kaan Yücel</i>					
13.00- 13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break		
14.00- 14.50	Lecture Energy Transformation & Distribution in Bio-molecular Systems <i>Akif Maharramov</i>	Lecture Mucosal Immunity <i>Gülderen Yanıkkaya. Demirel</i>	Independent Learning	Group B-Group A Laboratory / Histology Lab Make up Session <i>Ünal Uslu &amp; Alev Cumbul</i>			
15.00- 15.50	Lecture Energy Transformation & Distribution in Bio-molecular Systems <i>Akif Maharramov</i>	Lecture Mucosal Immunity <i>Gülderen Yanıkkaya. Demirel</i>					
16.00- 16.50	Independent Learning	Laboratory / Biostatistics <i>E. Çiğdem Kaspar</i>		Lecture Nutrigenomics <i>Soner Doğan</i>			
17.00-17.50		Group A, C Independent Learning		Group B	Lecture Nutrigenomics <i>Soner Doğan</i>		

**COMMITTEE II - GASTROINTESTINAL SYSTEM and METABOLISM**  
**VI. WEEK / 21 – 25 Dec 2015**

	<b>Monday 21-Dec-2015</b>	<b>Tuesday 22-Dec-2015</b>	<b>Wednesday 23-Dec-2015</b>	<b>Thursday 24-Dec-2015</b>	<b>Friday 25-Dec-2015</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Independent Learning</b>
<b>10.00- 10.50</b>					<b>Assessment Session Committee II (MCQ-EMQ)</b>
<b>11.00- 11.50</b>					
<b>12.00- 12.50</b>					
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Assessment Session Biostatistics (MEQ)</b>
<b>15.00- 15.50</b>					
<b>16.00- 16.50</b>					<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Committee II Program <i>Head of Committee</i>
<b>17.00-17.50</b>					

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS****DISTRIBUTION of LECTURE HOURS****December 28, 2014 – February 19, 2015****COMMITTEE DURATION: 6 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 201</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>92</b>	<b>20</b>	<b>112</b>
	<b>DISCIPLINE</b>			
	PHYSIOLOGY	30	3GRX6H	36
	BIOCHEMISTRY	26	3GRX3H	29
	HISTOLOGY & EMBRYOLOGY	14	2GRX5H	20
	ANATOMY	13	2GRX6	19
	MEDICAL BIOLOGY	6	0	6
	SCIENTIFIC PROJECTS-II	2	0	2
<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	<b>3</b>	<b>6</b>	<b>9</b>

<b>Coordination Committee</b>	<b>Head</b>	Turgay İŞBİR, PhD Prof
	<b>Secretary</b>	Deniz KIRAÇ, PhD Assist. Prof.
	<b>Member</b>	Akif MAHARRAMOV, PhD Assist. Prof
	<b>Member</b>	Soner DOĞAN, PhD Assoc. Prof

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS****LECTURERS****December 28, 2015 – February 19, 2016**

<b>MED 201 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
ANATOMY	Yüksel AYDAR, PhD Prof. Kaan YÜCEL, MD PhD Assoc. Prof. LAB: Sinem GERGIN, MD
BIOCHEMISTRY	İnci ÖZDEN, PhD Prof. LAB: Jale Çoban, MD. Prof.
HISTOLOGY & EMBRYOLOGY	Ünal USLU, MD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof. Oya ALAGÖZ, MD Assist. Prof.
IMMUNOLOGY	Gülderen YANIKKAYA DEMIREL, PhD Assoc. Prof.
MEDICAL BIOLOGY	Turgay İŞBİR, PhD Prof. Soner DOĞAN, PhD Assoc. Prof. Deniz KIRAÇ, PhD Assist. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof Mehtap KAÇAR, MD PhD Assoc. Prof
SCIENTIFIC PROJECTS-II	Gülderen YANIKKAYA DEMIREL, MD, PhD Assoc. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Güldal İZBİRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. A.Arzu AKALIN, MD Assist. Prof. Serdar ÖZDEMİR, MD, Ph.D, Assist. Prof.

## **COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**

### **AIM and LEARNING OBJECTIVES**

#### **AIMS**

1. To convey knowledge about biological, anatomical, embryological, histological, physiological and biochemical properties of endocrine and urogenital system.

#### **LEARNING OBJECTIVES**

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

- 1.0. describe biology of gonadal development and genetic differentiation.
- 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 For endocrine and urogenital system;
  - 4.1 classify embryological origins,
  - 4.2 explain developmental stages,
  - 4.3 describe histological properties,
  - 4.4 associate the relation between birth abnormalities and developmental processes.
- 5.0 In endocrine system;
  - 5.1. describe endocrine, paracrine and neuroendocrine secretion,
  - 5.2. explain the regulatory role of hypothalamus and pituitary gland,
  - 5.3. list secretions and functions of endocrine glands and organs.
- 6.0. In urinary system;
  - 6.1. explain renal function and structure of nephrones,
  - 6.2. explain renal blood flow and mechanisms of urine production,
  - 6.3. explain liquid-electrolyte and acid-base equilibrium.
- 7.0. In genital system;
  - 7.1. explain reproductive hormones and their functions in men and women,
  - 7.2. describe changes in the maternal body in pregnancy and lactation.
- 8.0. For hormones;
  - 8.1. classify according to mechanisms of action,
  - 8.2. explain their effects and relation to each other.
- 9.0. explain biochemical functions of vitamins and elements.



**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**  
**COMMITTEE ASSESSMENT MATRIX**

LEARNING OBJECTIVES	DISCIPLINE	LECTURER / INSTRUCTOR	NUMBER OF MCQs			
			CE	FE	IE	TOTAL
3.0-5.0	ANATOMY	Dr. Y. Aydar Dr. K. Yücel	15	5	5	25
7.0- 9.0	BIOCHEMISTRY	Dr. İ. Özden	25	9	9	43
4	HISTOLOGY & EMBRYOLOGY	Dr. Ü. Uslu Dr. A. Cumbul	4 11	1 4	1 4	6 19
1	MEDICAL BIOLOGY	Dr. T. İşbir Dr. D. Kırac	6	1	1	8
5.0-7.0	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar	29	10	10	49
<b>TOTAL</b>			<b>90</b>	<b>30/200**</b>	<b>30/200**</b>	<b>150</b>
LEARNING OBJECTIVES	DISCIPLINE	POINTS of EMQs				
		CE				
3.0-5.0	ANATOMY	1				
7.0- 9.0	BIOCHEMISTRY	4				
4	HISTOLOGY & EMBRYOLOGY	1				
5.0-7.0	PHYSIOLOGY	4				
<b>TOTAL</b>		<b>10</b>				
LEARNING OBJECTIVES	DISCIPLINE	POINTS of ASSESSMENT METHODS				
		CE				
		LPE				
3.0-5.0	ANATOMY	3.5				
7.0- 9.0	BIOCHEMISTRY	0.5				
4	HISTOLOGY & EMBRYOLOGY	3				
5.0-7.0	PHYSIOLOGY	3				
<b>TOTAL</b>		<b>10</b>				

Total number of MCQs are **90**, equal to **90** pts,  
Each MCQ has a value equal to **1** pt,  
EMQs have value equal to **10** pts

**MCQ:** Multiple Choice Question

**EMQ:** Extending Matching Question

**LPE:** Laboratory Practical Exam

**CE:** Committee Exam

**CS:** Committee Score

**FE:** Final Exam

**ICE:** Incomplete Exam

**pts:** Points

**\*\*30** out of 200 FE and ICE MCQs will be from Committee III (Each question is of worth **0.5** pts).

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**  
**I. WEEK /28.Dec.2015-01.Jan.2016**

	Monday 28-Dec-2015	Tuesday 29-Dec-2015	Wednesday 30-Dec-2015	Thursday 31-Dec2015	Friday 1-Jan-2016	
09.00- 09.50	Introductory Session Introduction to Phase II Phase II Coordination Committee Introduction to Committee III Head of Committee	Lecture Micturition Bayram Yılmaz & Mehtap Kaçar	Lecture Urine Formation: Tubular Processing Bayram Yılmaz & Mehtap Kaçar	Independent Learning	NEW YEAR'S HOLIDAY	
10.00- 10.50	Lecture Body Fluids and Functions of Kidneys Bayram Yılmaz & Mehtap Kaçar	Lecture Urine Formation and Renal Blood Flow Bayram Yılmaz & Mehtap Kaçar	Lecture Urine Formation: Tubular Processing Bayram Yılmaz & Mehtap Kaçar			
11.00- 11.50	Lecture Kidneys Yüksel Aydar	Lecture Urine Formation and Renal Blood Flow Bayram Yılmaz & Mehtap Kaçar	Laboratory: Biochemistry İnci Özden&Jale Çoban			
12.00- 12.50	Lecture Kidneys Yüksel Aydar	Independent Learning	Group A      Group B, C Independent Learning			
13.00- 13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break		
14.00- 14.50	Lecture Ureter Urinary Bladder and Urethra Yüksel Aydar	Lecture Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors İnci Özden	Laboratory/Phisiology Glomerular Filtration (Interactive Simulation) Bayram Yılmaz & Mehtap Kaçar	Independent Learning		
15.00- 15.50	Lecture Ureter Urinary Bladder and Urethra Yüksel Aydar	Lecture Hormones of Hypothalamus and Pituitary İnci Özden	Group A      Group B,C Independent Learning			
16.00- 16.50	Laboratory/Anatomy Kidneys, Ureters, Urinary Bladder, and Urethra Yüksel Aydar & Sinem Gergin  Group A      Group B Independent Learning	Laboratory/ Physiology: Glomerular Filtration (Interactive Simulation) Bayram Yılmaz & Mehtap Kaçar  Group A,B Independent Learning      Group C	Group A,C Independent Learning      Group B			
17.00-17.50	Group A Independent Learning      Group B					

COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS

II. WEEK /04-08.Jan.2016

	Monday 04Jan-2016	Tuesday 05-Jan-2016	Wednesday 06-Jan-2016	Thursday 07-Jan-2016	Friday 08-Jan-2016				
09.00- 09.50	<b>Lecture</b> Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors <i>İnci Özden</i>	<b>Lecture</b> Hormones of Hypothalamus and Pituitary <i>İnci Özden</i>	<b>Lecture</b> Pituitary Gland and Hypothalamic Control <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory/Biochemistry</b> <i>İnci Özden &amp; Jale Çoban</i>	<b>Lecture</b> Histology of Endocrine System: Lower Part <i>Alev Cumbul</i>				
10.00- 10.50	<b>Lecture</b> Hormones of Hypothalamus and Pituitary <i>İnci Özden</i>	<b>Lecture</b> Hormones of Hypothalamus and Pituitary <i>İnci Özden</i>	<b>Lecture</b> Physiology of Growth Hormone <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Group A, C Independent Learning</b>	<b>Lecture</b> Thyroid Hormones <i>İnci Özden</i>			
11.00- 11.50	<b>Lecture</b> Fluid and Electrolyte Balance <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Introduction to Endocrinology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hormones of Hypothalamus and Pituitary <i>İnci Özden</i>			<b>Lecture</b> Thyroid Hormones <i>İnci Özden</i>			
12.00- 12.50	<b>Lecture</b> Fluid and Electrolyte Balance <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Regulation of Acid-Base Balance <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Hormones of Hypothalamus and Pituitary <i>İnci Özden</i>	<b>Laboratory/Anatomy</b> Anatomy of the Endocrine System <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Independent Learning</b>				
				<b>Group B</b>		<b>Group A Independent Learning</b>			
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>				
14.00- 14.50	<b>Lecture</b> Histology of Urinary System; Kidney; Nephron <i>Ünal Uslu</i>	<b>Lecture</b> Regulation of Acid-Base Balance <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Anatomy of the Endocrine System <i>Kaan Yücel</i>	<b>Lecture</b> Posterior Pituitary Hormones <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory/Anatomy</b> Anatomy of the Endocrine System <i>Kaan Yücel &amp; Sinem Gergin</i>				
					<b>Group B Independent Learning</b>	<b>Group A</b>			
15.00- 15.50	<b>Lecture</b> Histology of Urinary System; Kidney; Tubular System <i>Ünal Uslu</i>	<b>Independent Learning</b>	<b>Lecture</b> Anatomy and Clinical Anatomy of the Endocrine System <i>Kaan Yücel</i>	<b>Lecture</b> Histology of Endocrine System; General Aspect, Hypothalamus <i>Alev Cumbul</i>	<b>ICP</b> <b>CSL: Bladder Catheterization</b> <i>Hülya Akan / Özlem Tanrıöver</i>				
6.00- 16.50	<b>Independent Learning</b>		<b>Lecture</b> Histology of Urinary System; Excretory Passage <i>Ünal Uslu</i>	<b>Lecture</b> Histology of Endocrine System; Hypophysis <i>Alev Cumbul</i>		<b>Group A Independent Learning</b>	<b>Group B FHC</b>	<b>Group C ECE</b>	<b>Group D ICP</b>
17.00-17.50			<b>Independent Learning</b>	<b>Independent Learning</b>					

COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS

III. WEEK /11-15.Jan.2016

	Monday 11-Jan-2016	Tuesday 12-Jan-2016	Wednesday 13-Jan-2016	Thursday 14-Jan-2016	Friday 15-Jan-2016
09.00- 09.50	<b>Lecture</b> Pelvis Vessels and Nerves <i>Yüksel Aydar</i>	<b>Lecture</b> Male Genital Organs <i>Kaan Yücel</i>	<b>Lecture</b> Hormones, Regulating Calcium Metabolism <i>İnci Özden</i>	<b>Laboratory/ Hist.&amp; Embr.: Assessment (DOPs)</b> Histology of Urinary & Endocrine System <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Insulin, Glucagon <i>İnci Özden</i>
10.00- 10.50	<b>Lecture</b> Pelvis Vessels and Nerves <i>Yüksel Aydar</i>	<b>Lecture</b> Male Genital Organs <i>Kaan Yücel</i>	<b>Lecture</b> PTH, Calcitonin, Calcitriol <i>İnci Özden</i>	<b>Group A</b> <b>Group B</b> Independent Learning	<b>Lecture</b> Insulin, Glucagon <i>İnci Özden</i>
11.00- 11.50	<b>Lecture</b> Hormones of Adrenal Cortex, Mineralocorticoids, Glucocorticoids <i>İnci Özden</i>	<b>Lecture</b> Thyroid Metabolic Hormones <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Regulation of Calcium & Phosphate Metabolism and Bone Formation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>	<b>Lecture</b> Histology of the Male Genital System; Testis <i>Alev Cumbul</i>
12.00- 12.50	<b>Lecture</b> Hormones of Adrenal Cortex, Mineralocorticoids, Glucocorticoids <i>İnci Özden</i>	<b>Lecture</b> Thyroid Metabolic Hormones <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Regulation of Calcium & Phosphate Metabolism and Bone Formation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Lecture</b> Histology of the Male Genital System; Excretory Passage <i>Alev Cumbul</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
14.00- 14.50	<b>Lecture</b> Evidence Based Approach in Scientific Research <i>Gülderen Yanıkkaya Demirel</i>	<b>Laboratory/ Biochemistry</b> <i>İnci Özden Jale Çoban</i> <b>Group C</b> <b>Laboratory/Physiology</b> Metabolic Rate (Interactive Simulation) <i>Bayram Yılmaz &amp; Mehtap Kaçar</i> <b>Group A</b> <b>Group B</b> Independent Learning	<b>Laboratory/Physiology</b> Metabolic Rate (Interactive Simulation) <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Insulin, Glucagon <i>İnci Özden</i>	<b>ICP</b> <b>CSL: Bladder Catheterization</b> <i>Hülya Akan/ Arzu Akalın</i>
15.00- 15.50	<b>Lecture</b> Evidence Based Approach in Scientific Research <i>Gülderen Yanıkkaya Demirel</i>		<b>Group A, B</b> Independent Learning <b>Group C</b>	<b>Lecture</b> Insulin, Glucagon <i>İnci Özden</i>	
16.00- 16.50	<b>Laboratory/ Anatomy:</b> Pelvis Vessels and Nerves <i>Yüksel Aydar &amp; Sinem Gergin</i> <b>Group B</b> Independent Learning <b>Group A</b>		<b>Group B</b> <b>Group A,C</b> Independent Learning	<b>Independent Learning</b>	
17.00-17.50	<b>Group B</b> <b>Group A</b> Independent Learning		<b>Independent Learning</b>	<b>Independent Learning</b>	

MIDTERM BREAK 15 JAN 2016 - 1 FEB 2016

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**  
**IV. WEEK /1-5.Feb.2016**

	<b>Monday 1-Feb-2016</b>	<b>Tuesday 2-Feb-2016</b>	<b>Wednesday 3-Feb-2016</b>	<b>Thursday 4-Feb-2016</b>	<b>Friday 5-Feb-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Histology of Female Genital System; Ovaries <i>Alev Cumbul</i>	<b>Lecture</b> Female Genital Organs <i>Kaan Yücel</i>	<b>Lecture</b> Vitamins <i>İnci Özden</i>	<b>LAB/ Anatomy</b> Female & Male Genital Organs <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Lecture</b> Adrenocortical Hormones <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Histology of Female Genital System; Conducting Part <i>Alev Cumbul</i>	<b>Lecture</b> Female Genital Organs <i>Kaan Yücel</i>	<b>Lecture</b> Vitamins <i>İnci Özden</i>	<b>Group A</b>	<b>Lecture</b> Adrenocortical Hormones <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Perineum and Ischiorectal Fossa <i>Yüksel Aydar</i>	<b>Laboratory/ Physiology</b> Dissection & Examination of Endocrine <i>Bayram Yılmaz &amp; Mehtap</i>	<b>Lecture</b> Biology of Endocrine System <i>Deniz Kırac</i>	<b>Group A IL</b>	<b>Lecture</b> Development of Urinary System and Anomalies <i>Alev Cumbul</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Perineum and Ischiorectal Fossa <i>Yüksel Aydar</i>	<b>Group A,B Independent Learning</b>	<b>Lecture</b> Biology of Endocrine System <i>Deniz Kırac</i>	<b>Group B</b>	<b>Lecture</b> Development of Genital System; General Aspect <i>Alev Cumbul</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Vitamins <i>İnci Özden</i>	<b>Laboratory/ Physiology</b> Dissection & Examination of Endocrine <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Insulin, Diabetes Mellitus <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>	<b>ICP</b> <b>CSL: Bladder Catheterization</b> Group II <i>Hülya Akan / Özlem Tanrıöver</i>
<b>15.00- 15.50</b>	<b>Lecture</b> Vitamins <i>İnci Özden</i>	<b>Group A</b>	<b>Lecture</b> Insulin, Diabetes Mellitus <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Elements <i>İnci Özden</i>	<b>Group A FHC</b>
<b>16.00- 16.50</b>	<b>Laboratory/ Anatomy:</b> Perineum and Ischiorectal Fossa <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Group A,C Independent Learning</b>	<b>Independent Learning</b>	<b>Lecture</b> Elements <i>İnci Özden</i>	<b>Group B ICP</b>
	<b>Group A Independent Learning</b>				<b>Group C Independent Learning</b>
	<b>Group B</b>	<b>Group B</b>			<b>Group D ECE</b>
<b>17.00-17.50</b>	<b>Group A</b>	<b>Group B Independent Learning</b>		<b>Independent Learning</b>	<b>Independent Learning</b>

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**  
**V. WEEK /8-12.Feb.2016**

	<b>Monday 8-Feb-2016</b>	<b>Tuesday 9-Feb-2016</b>	<b>Wednesday 10-Feb-2016</b>	<b>Thursday 11-Feb-2016</b>	<b>Friday 12-Feb-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Elements <i>Inci Özden</i>	<b>Lecture</b> Female Reproductive Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Pregnancy and Lactation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Anatomy</b> Review for Urogenital System <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Independent Learning</b>
<b>10.00- 10.50</b>	<b>Lecture</b> Elements <i>Inci Özden</i>	<b>Lecture</b> Female Reproductive Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Pregnancy and Lactation <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B</b> <b>Group A</b> IL	<b>ICP Midterm Exam</b> Group A,B,C,D
<b>11.00- 11.50</b>	<b>Lecture</b> Development of Male Genital System and Anomalies <i>Alev Cumbul</i>	<b>Laboratory/ Hist. &amp; Embr. Assessment (DOPs)</b> Histology of Genital System <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Endocrine Disruptors <i>Bayram Yılmaz</i>	<b>Group A - Group B</b> <b>Laboratory/ Hist. &amp; Embr</b> Make Up Session <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Independent Learning</b>
<b>12.00- 12.50</b>	<b>Lecture</b> Development of Female Genital System and Anomalies	<b>Group A</b> <b>Independent Learning</b>	<b>Group B</b>		
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Pineal Gland and Melatonin <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory/ Hist. &amp; Embr. Assessment (DOPs)</b> Histology of Genital Sys <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Lecture</b> Biology of Sexual Differentiation and Development <i>Turgay İşbir</i>	<b>Invited Speaker</b>	<b>ICP</b> <b>CSL: Bladder</b> <b>Catheterization</b> <i>H. Akan/ A. Akalın</i>
<b>15.00- 15.50</b>	<b>Lecture</b> Male Reproductive Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group A</b>	<b>Group B</b> <b>Independent Learning</b>	<b>Invited Speaker</b>	<b>Group A</b> <b>ICP</b>
<b>16.00- 16.50</b>	<b>Lecture</b> Male Reproductive Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Biology of Sexual Differentiation and Development <i>Turgay İşbir</i>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Group B</b> <b>ECE</b>
<b>17.00-17.50</b>	<b>Independent Learning</b>	<b>Lecture</b> Biology of Sexual Differentiation and Development <i>Turgay İşbir</i>			<b>Group C</b> <b>FHC</b>
					<b>Group D</b> <b>Independent Learning</b>

**COMMITTEE III - ENDOCRINE and UROGENITAL SYSTEMS**  
**VI. WEEK /01-05.Feb.2016**

	<b>Monday 15-Feb-2016</b>	<b>Tuesday 16-Feb-2016</b>	<b>Wednesday 17-Feb-2016</b>	<b>Thursday 18-Feb-2016</b>	<b>Friday 19-Feb-2016</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Independent Learning</b>
<b>10.00- 10.50</b>					<b>Assessment Session Committee III (MCQ-EMQ)</b>
<b>11.00- 11.50</b>					
<b>12.00- 12.50</b>					
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Committee III Program
<b>15.00- 15.50</b>					<i>Head of Committee</i>
<b>16.00- 16.50</b>					<b>Independent Learning</b>
<b>17.00-17.50</b>					

**COMMITTEE IV - NERVOUS SYSTEM  
DISTRIBUTION of LECTURE HOURS**

**February 22 – April 08, 2016**

**COMMITTEE DURATION: 7 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 201</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>122</b>	<b>31</b>	<b>152</b>
	<b>DISCIPLINE</b>			
	ANATOMY	39	2Grx14H	53
	BIOPHYSICS	14	0	14
	HISTOLOGY & EMBRYOLOGY	14	2Grx3H	17
	MEDICAL BIOLOGY	4	0	4
	PHARMACOLOGY	11	2H	13
	PHYSIOLOGY	36	3Grx12H	48
	SCIENTIFIC PROJECTS-II	2	0	2

<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	<b>3</b>	<b>12</b>	<b>15</b>
----------------	----------------------------------------------	----------	-----------	-----------

<b>Coordination Committee</b>	<b>Head</b>	Ece GENÇ, PhD Prof.
	<b>Secretary</b>	E. Çiğdem KASPAR, PhD Assist. Prof.
	<b>Member</b>	Deniz KIRAÇ, PhD Assist. Prof.
	<b>Member</b>	Mehtap KAÇAR, MD PhD Assoc. Prof.



**COMMITTEE IV- NERVOUS SYSTEM****LECTURERS****February 22 – April 08, 2016**

<b>MED 201 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
ANATOMY	Yüksel AYDAR, PhD Prof.* Kaan YÜCEL, MD PhD Assoc. Prof. LAB. Sinem GERGIN, MD
BIOPHYSICS	Akif MAHARRAMOV, PhD Assist. Prof. Bilge GÜVENÇ TUNA, PhD Assist. Prof.
HISTOLOGY & EMBRYOLOGY	Ünal USLU, MD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof. Oya ALAGÖZ, MD Assist. Prof.
MEDICAL BIOLOGY	Turgay İŞBİR, PhD Prof. Soner DOĞAN, PhD Assoc. Prof. Deniz KIRAÇ, PhD Assist. Prof.
PHARMACOLOGY	Ece GENÇ, PhD Prof. Ferda KALEAĞASIOĞLU, MD Assoc. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Assoc. Prof.
SCIENTIFIC PROJECTS-II	Güleren YANIKKAYA DEMIREL, MD PhD Assoc. Prof.
<b>INTRODUCTION TO CLINICAL PRACTICE - II</b>	Güldal İZBİRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. Arzu AKALIN, MD Assist. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Güldal İZBİRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. A.Arzu AKALIN, MD Assist. Prof. Serdar ÖZDEMİR, MD, Ph.D, Assist. Prof.

## **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 basic knowledge about pharmacology,
5. To convey knowledge about the drugs effecting nervous system.

#### **LEARNING OBJECTIVES**

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

- 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,
  - 3.3. describe the anatomy of structures forming eyes and ears,
  - 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,
  - 4.2. explain developmental stages,
  - 4.3. describe histological properties.
- 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,
  - 13.2. explain mechanisms and factors affecting distribution,
  - 13.3. explain mechanisms and factors affecting excretion.
  - 13.4. For drug pharmacokinetics;
  - 13.5. explain clinical importance,
- 14.0. analyze examples.

## COMMITTEE IV - NERVOUS SYSTEM

### COMMITTEE ASSESSMENT MATRIX

LEARNING OBJECTIVES	DISCIPLINE	LECTURER/ INSTRUCTOR	NUMBER of MCQs				
			CE	FE	IE	TOTAL	
3.0,12.0	ANATOMY	Dr. Y. Aydar Dr. K. Yücel	31	14	14	59	
1	BIOPHYSICS	Dr. A. Maharramov	12	4	4	20	
4	HISTOLOGY & EMBRYOLOGY	Dr. Ü. Uslu	4	2	2	8	
		Dr. A. Cumbul	6	3	3	12	
2	MEDICAL BIOLOGY	Dr. T.İşbir	3	1	1	5	
13.0-14.0	PHARMACOLOGY	Dr. E. Genç	8	3	3	14	
		Dr. F. Kaleağasıoğlu	1	1	1	3	
5.0-11.0	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Kaçar	26	12	12	50	
	TOTAL		90	40/200**	40/200**	170	
LEARNING OBJECTIVES	DISCIPLINE	POINTS of EMQs					
		CE					
3.0,12.0	ANATOMY	4					
1	BIOPHYSICS	1					
4	HISTOLOGY & EMBRYOLOGY	1					
13.0-14.0	PHARMACOLOGY	1					
5.0-11.0	PHYSIOLOGY	3					
TOTAL			10				
LEARNING OBJECTIVES	DISCIPLINE	POINTS of ASSESSMENT METHODS					
		CE					
		LPE					
3.0,12.0	ANATOMY	4					
4	HISTOLOGY & EMBRYOLOGY	1					
13.0-14.0	PHARMACOLOGY	1					
5.0-11.0	PHYSIOLOGY	4					
TOTAL			10				

Total number of MCQs are **90**, equal to **90** pts,  
Each MCQ has a value equal to **1** pt,  
EMQs have value equal to **10** pts

**MCQ:** Multiple Choice Question  
**EMQ:** Extending Matching Question  
**LPE:** Laboratory Practical Exam  
**CE:** Committee Exam  
**CS:** Committee Score  
**FE:** Final Exam  
**ICE:** Incomplete Exam  
**pts:** Points

**\*\*40** out of 200 FE and ICE MCQs will be from Committee IV (Each question is of worth **0.5** pts).

**COMMITTEE IV - NERVOUS SYSTEM**  
**I. WEEK / 22 – 26 Feb 2016**

	<b>Monday 22-Feb-2016</b>	<b>Tuesday 23-Feb-2016</b>	<b>Wednesday 24-Feb-2016</b>	<b>Thursday 25-Feb-2016</b>	<b>Friday 26-Feb-2016</b>
<b>09.00- 09.50</b>	<b>Introductory Session</b> Introduction to Phase II <i>Phase II Coordination</i> <i>Committee</i> Introduction to Committee IV	<b>Lecture</b> Brainstem <i>Yüksel Aydar</i>	<b>Lecture</b> Peripheral Nervous System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>	<b>Lecture</b> Physiology of Pain <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Introduction to Neuroanatomy <i>Kaan Yücel</i>	<b>Lecture</b> Synapse and Neurotransmitters <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Sensory Receptors and Pathways <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Lecture</b> Physiology of Pain <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Introduction to Neuroanatomy <i>Kaan Yücel</i>	<b>Lecture</b> Synapse and Neurotransmitters <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Biophysical Modeling of Neurons & Synapses <i>Bilge G. Tuna</i>		<b>Lecture</b> Resting Membrane Potential: Ionic Balance Equations- (Nernst Equation, Goldman-Hodgkin Equation) <i>Bilge G. Tuna</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Spinal Cord <i>Yüksel Aydar</i>	<b>Program Improvements Sessions</b>	<b>Lecture</b> Biophysical Properties of Neuron Membrane & Ion Channels <i>Bilge G. Tuna</i>		<b>Lecture</b> Membrane Electrical Model: Impedance of Membrane, Gray Matter, White Matter and Cerebrospinal Fluid <i>Bilge G. Tuna</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Spinal Cord <i>Yüksel Aydar</i>	<b>Lecture</b> Histology of Central Nervous System; Meninges <i>Uenal Uslu</i>	<b>Lecture</b> Histology of Central Nervous System; Spinal Chord and PNS <i>Uenal Uslu</i>	<b>Lecture</b> Cutaneous Senses <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>
<b>15.00- 15.50</b>	<b>Lecture</b> Organization of the Nervous System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Central Nervous System; Brain, Cerebellum	<b>Lecture</b> Histology of Sensory Organs; Eye; Fibrous and Vascular Coat	<b>Lecture</b> Cutaneous Senses <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>ICP</b> <b>CSL:</b> Intramuscular / Intradermal / Subcutan Injection <i>Ö.Tanrıöver/ A. Akalın</i>
<b>16.00- 16.50</b>	<b>Lecture</b> Neuron and Neuroglia <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Anatomy</b> Spinal Cord <i>Yüksel Aydar &amp; Sinem Gergin</i> <b>Group B Independent Learning</b> <b>Group A</b>	<b>Lecture</b> Biology of Nervous System <i>Turgay İşbir</i>	<b>Lecture</b> Histology of Sensory Organs; Eye; Nervous Coat and Appendix <i>Alev Cumbul</i>	
<b>17.00-17.50</b>	<b>Independent Learning</b>	<b>Group B</b> <b>Group A Independent Learning</b>	<b>Lecture</b> Biology of Nervous System <i>Turgay İşbir</i>	<b>Lecture</b> Histology of Sensory Organs; Ear <i>Alev Cumbul</i>	

IL: Independent Learning, CSL: Clinical Skills Learning, YH: Yeditepe University Hospital. Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE IV - NERVOUS SYSTEM**  
**II. WEEK / 29 Feb – 4 March 2016**

	<b>Monday 29-Feb-2016</b>	<b>Tuesday 01-March-2016</b>	<b>Wednesday 02-March-2016</b>	<b>Thursday 03-March-2016</b>	<b>Friday 04-March</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Brainstem <i>Yüksel Aydar</i>	<b>Lecture</b> Physiology of Hearing <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Skin and Appendage <i>Alev Cumbul</i>	<b>Laboratory / Physiology</b> Hearing Test <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Physiology of Vision <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Brainstem <i>Yüksel Aydar</i>	<b>Lecture</b> Physiology of Hearing <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Histology of Skin and Appendage <i>Alev Cumbul</i>	<b>Group A, C Independent Learning</b>	<b>Lecture</b> Physiology of Vision <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Cranial Nerves I-VI <i>Yüksel Aydar</i>	<b>Lecture</b> Cranial nerves VII-XII <i>Yüksel Aydar</i>	<b>Lecture</b> Physiology of Vision <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group C</b>	<b>Lecture</b> Asymmetrical Distribution & Transportation of Ions <i>Bilge G. Tuna</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Cranial Nerves I-VI <i>Yüksel Aydar</i>	<b>Lecture</b> Cranial nerves VII-XII <i>Yüksel Aydar</i>	<b>Lecture</b> Physiology of Vision <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>		<b>Lecture</b> Asymmetrical Distribution & Transportation of Ions <i>Bilge G. Tuna</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Laboratory / Anatomy</b> Brainstem <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Lecture</b> Auditory System Biophysics and Functioning <i>Bilge G. Tuna</i>	<b>Lecture</b> Diencephalon <i>Kaan Yücel</i>	<b>Laboratory / Physiology</b> Hearing Test <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Telencephalon <i>Kaan Yücel</i>
<b>15.00- 15.50</b>	<b>Group A Independent Learning</b>	<b>Lecture</b> Waves, Energy, Intensity & Pressure of Sound Waves <i>Bilge G. Tuna</i>	<b>Lecture</b> Diencephalon <i>Kaan Yücel</i>	<b>Group B, C Independent Learning</b>	<b>Lecture</b> Telencephalon <i>Kaan Yücel</i>
<b>16.00- 16.50</b>	<b>Laboratory / Anatomy</b> Cranial Nerves I-VI <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Laboratory / Anatomy</b> Cranial Nerves VII-XII <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Laboratory / Anatomy</b> Diencephalon <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Lecture</b> Excitability, Rheobase (threshold), Chronaxie and Their Importance in Evaluation of Excitability <i>Bilge G. Tuna</i>	<b>Lecture</b> Functional Areas in the Brain <i>Kaan Yücel</i>
<b>17.00-17.50</b>	<b>Group A Independent Learning</b>	<b>Group A Independent Learning</b>	<b>Group A</b>	<b>Lecture</b> Brain Function and Electrical Activity-Electroencephalography. Biofeedback <i>Bilge G. Tuna</i>	<b>Independent Learning</b>

**COMMITTEE IV - NERVOUS SYSTEM**  
**III. WEEK / 7 –11 March 2016**

	Monday 07-March-2016	Tuesday 08-March-2016	Wednesday 09-March-2016	Thursday 10-March-2016	Friday 11-March-2016	
09.00- 09.50	Lecture Ascending Pathways of the Central Nervous System Yüksel Aydar	Lecture Basal Ganglia Kaan Yücel	Lecture How to Prepare a Scientific Report Gülderen Yanıkkaya Demirel	Laboratory / Anatomy Cerebellum and Basal Ganglia Kaan Yücel & Sinem Gergin	Lecture Spinal reflexes Bayram Yılmaz & Mehtap Kaçar	
10.00- 10.50	Lecture Ascending Pathways of the Central Nervous System Yüksel Aydar	Lecture Basal Ganglia Kaan Yücel	Lecture How to Prepare a Scientific Report Gülderen Yanıkkaya Demirel		Group B Independent Learning	Lecture Vestibular System Bayram Yılmaz & Mehtap Kaçar
11.00- 11.50	Lecture Descending Pathways of the Central Nervous System Yüksel Aydar	Lecture Scope of Pharmacology Ece Genç	Lecture Cerebellum Kaan Yücel	Group B	Group A Independent Learning	Lecture Development of Central Nervous System; Early Stages Alev Cumbul
12.00- 12.50	Lecture Descending Pathways of the Central Nervous System Yüksel Aydar	Lecture Taste and Smell Pathways Yüksel Aydar	Lecture Cerebellum Kaan Yücel			Lecture Development of Central Nervous System; Late Stages
13.00-13:50	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break	
14.00- 14.50	Lecture Chemical Senses: Taste and Smell Bayram Yılmaz & Mehtap Kaçar	Laboratory / Anatomy White Matter Tracts of the CNS Yüksel Aydar & Sinem Gergin	Field Trip (YÜ Göz Hastanesi Balmumcu) / Physiology Visual Examination & Tests Bayram Yılmaz & Mehtap Kaçar	Lecture Passage of Drugs Across Membranes, Absorption of Drugs Ece Genç	ICP CSL: Intramuscular / Intradermal / Subcutan Injection Ö.Tanrıöver/ A. Akalın	
15.00- 15.50	Lecture Chemical Senses: Taste and Smell Bayram Yılmaz & Mehtap Kaçar	Group A Independent Learning		Lecture Drug Administration Routes Ece Genç		
16.00- 16.50	Laboratory / Anatomy Telencephalon Kaan Yücel & Sinem Gergin	Group B		Lecture Development of Skin and Appendage Alev Cumbul		
	Group B Independent Learning	Group B Independent Learning				
17.00-17.50	Group B	Group A Independent Learning		Independent Learning		

**COMMITTEE IV - NERVOUS SYSTEM**  
**IV WEEK / 14 – 18 March 2016**

	<b>Monday 14-March-2016</b>	<b>Tuesday 15-March-2016</b>	<b>Wednesday 16-March-2016</b>	<b>Thursday 17-March-2016</b>	<b>Friday 18-March-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Motor Functions of the Spinal Cord <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>	<b>Lecture</b> Functions of Cerebellum and Basal Ganglia for Motor Control <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Physiology</b> Reflexes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Cerebral Cortex, Intellectual Functions of the Brain <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Motor Functions of the Spinal Cord <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Vasculature of the Brain <i>Yüksel Aydar</i>	<b>Lecture</b> Functions of Cerebellum and Basal Ganglia for Motor Control <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B Independent Learning</b>	<b>Group A</b> <b>Lecture</b> Learning and Memory <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Ventricles of the Brain <i>Yüksel Aydar</i>	<b>Lecture</b> Autonomic Nervous System <i>Yüksel Aydar</i>	<b>Lecture</b> Pharmaceutical Forms of Drug <i>Ece Genç</i>	<b>Group A</b>	<b>Group A Independent Learning</b> <b>Lecture</b> Drug Metabolism <i>Ece Genç</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Meninges <i>Yüksel Aydar</i>	<b>Lecture</b> Autonomic Nervous System <i>Yüksel Aydar</i>	<b>Lecture</b> Drug Distribution <i>Ece Genç</i>		<b>Lecture</b> Drug Metabolism <i>Ece Genç</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>PHYSICIAN'S DAY</b>	<b>Laboratory / Anatomy</b> Meninges Vasculature and Ventricles of the Brain <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Lecture</b> Limbic System <i>Kaan Yücel</i>	<b>Lecture</b> Cortical and Brain Stem Control of Motor Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Invited Speaker</b>
<b>15.00- 15.50</b>		<b>Group B Independent Learning</b>	<b>Group A</b>		
<b>16.00- 16.50</b>		<b>Group B</b>	<b>Group A Independent Learning</b>	<b>Lecture</b> Cortical and Brain Stem Control of Motor Function <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>ICP</b> <b>CSL: Intramuscular / Intradermal / Subcutan Injection</b> <i>H.Akan &amp; A. Akalın</i>
<b>17.00-17.50</b>		<b>Laboratory / Anatomy</b> Autonomic Nervous System <i>Yüksel Aydar &amp; Kaan Yücel Sinem Gergin</i>	<b>Lecture</b> Congenital Anomalies of Nervous System <i>Alev Cumbul</i>	<b>Laboratory / Physiology</b> Reflexes <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Group B ICP</b> <b>Group C Independent Learning</b> <b>Group D FHC</b>
		<b>Group A</b>	<b>Group B Independent Learning</b>		
		<b>Group A Independent Learning</b>	<b>Group B</b>	<b>Independent Learning</b>	<b>Group A, B Independent Learning</b>
				<b>Group C</b>	

**COMMITTEE IV - NERVOUS SYSTEM**  
**V. WEEK / 21 – 25 March 2016**

	<b>Monday 21-March-2016</b>	<b>Tuesday 22-March-2016</b>	<b>Wednesday 23-March-2016</b>	<b>Thursday 24-March-2016</b>	<b>Friday 25-March-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Autonomic Nervous System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>	<b>Lecture</b> Limbic System and the Hypothalamus <i>Bayram Yılmaz &amp; Mehtap</i>	<b>Laboratory / Physiology</b> Galvanized Skin Response <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> States of Brain Activity- Sleep and Brain Waves <i>Bayram Yılmaz &amp; Mehtap</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Autonomic Nervous System <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Eye <i>Yüksel Aydar</i>	<b>Lecture</b> Limbic System and the Hypothalamus <i>Bayram Yılmaz &amp; Mehtap</i>	<b>Group A</b>	<b>Lecture</b> States of Brain Activity- Sleep and Brain Waves <i>Bayram Yılmaz &amp;</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Ion Currents Through Neuron Membrane & Action Potential Spreading <i>Bilge G. Tuna</i>	<b>Lecture</b> Eye <i>Yüksel Aydar</i>	<b>Lecture</b> Functional Anatomy of the Nervous System <i>Kaan Yücel</i>	<b>Group A,C</b> <b>Independent Learning</b>	<b>Lecture</b> Development of Sensory Organs; Eye <i>Ünal Uslu</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Mathematical Description of Ion Current Kinetics <i>Bilge G. Tuna</i>	<b>Lecture</b> Visual pathways <i>Yüksel Aydar</i>	<b>Lecture</b> Drug Excretion <i>Ece Genç</i>	<b>Group B</b>	<b>Lecture</b> Development of Sensory Organs; Ear <i>Ünal Uslu</i>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Laboratory / Anatomy</b> Limbic System <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Laboratory / Anatomy</b> Eye <i>Yüksel Aydar &amp; Sinem Gergin</i>	<b>Lecture</b> Drug Excretion <i>Ece Genç</i>	<b>Laboratory / Pharmacology</b> Drug Metabolism <i>Ece Genç</i>	<b>Independent Learning</b>
<b>15.00- 15.50</b>	<b>Group B</b> <b>Independent Learning</b>	<b>Group A</b> <b>Independent Learning</b>	<b>Laboratory / Physiology</b> Galvanized Skin Response <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Laboratory / Pharmacology</b> Drug Metabolism <i>Ece Genç</i>	<b>ICP</b> <b>CSL:</b> Intramuscular / Intradermal / Subcutan Injection <i>H.Akan &amp; A. Akalın</i>
<b>16.00- 16.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Group A, B</b> <b>Independent Learning</b>	<b>Independent Learning</b>	<b>Group A</b> <b>FHC</b>
<b>17.00-17.50</b>			<b>Group C</b>		<b>Group B</b> <b>ECE</b>
			<b>Independent Learning</b>		<b>Group C ICP</b>
					<b>Group D Ind.L.</b>



**COMMITTEE IV - NERVOUS SYSTEM**  
**VI. WEEK / 28 March – 01 April 2016**

	<b>Monday 28-March-2016</b>	<b>Tuesday 29-March-2016</b>	<b>Wednesday 30-March-2016</b>	<b>Thursday 31-March-2016</b>	<b>Friday 01-April-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Cerebrospinal Fluid and Brain Metabolism <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Principles of X-Ray Imaging and Ultrasound in Medicine <i>Bilge G. Tuna</i>	<b>Laboratory / Histology Assessment (DOPs)</b> Histology of CNS and Skin <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Laboratory / Physiology</b> Electroencephalography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Biology of Nervous System <i>Turgay İşbir</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Cerebrospinal Fluid and Brain Metabolism <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Magnetic Resonance Imaging & Computerized Tomography <i>Bilge G. Tuna</i>	<b>Group A Independent Learning</b>	<b>Group A, C Independent Learning</b>	<b>Lecture</b> Biology of Nervous System <i>Turgay İşbir</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Clinical Anatomy of the Nervous System <i>Yüksel Aydar</i>	<b>Laboratory / Anatomy Ear</b> <i>Kaan Yücel &amp; Sinem Gergin</i>	<b>Independent Learning</b>	<b>Group C</b>	<b>Independent Learning</b>
<b>12.00- 12.50</b>	<b>Lecture</b> Clinical Anatomy of the Nervous System <i>Yüksel Aydar</i>	<b>Group A Independent Learning</b>			
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Lecture</b> Discussion <i>Yüksel Aydar</i>	<b>Lecture</b> Dopamine and Drugs Effecting Dopaminergic System <i>Ece Genç</i>	<b>Laboratory / Histology Assessment (DOPs)</b> Histology of CNS and Skin <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Laboratory / Physiology</b> Electroencephalography <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>
<b>15.00- 15.50</b>	<b>Lecture</b> Ear <i>Kaan Yücel</i>	<b>Lecture</b> Serotonin and Drugs Effecting Serotonergic System of CNS <i>Ferda Kaleağasıoğlu</i>	<b>Group A</b>	<b>Group A</b>	
<b>16.00- 16.50</b>	<b>Lecture</b> Ear <i>Kaan Yücel</i>	<b>Lecture</b> Auditory Pathways <i>Kaan Yücel</i>	<b>Group B Independent Learning</b>	<b>Group B, C Independent Learning</b>	
<b>17.00-17.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Group B-Group A Laboratory / Histology Make Up Session</b> <i>Ünal Uslu &amp; Alev Cumbul</i>	<b>Independent Learning</b>	

**COMMITTEE IV - NERVOUS SYSTEM**  
**VII. WEEK / 04 – 08 April 2016**

	<b>Monday 04-April-2016</b>	<b>Tuesday 05-April-2016</b>	<b>Wednesday 06-April-2016</b>	<b>Thursday 07-April-2016</b>	<b>Friday 08-April-2016</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Independent Learning</b>
<b>10.00- 10.50</b>					<b>Assessment Session Committee IV (MCQ-EMQ)</b>
<b>11.00- 11.50</b>					
<b>12.00- 12.50</b>					
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Committee IV Program <i>Head of Committee</i>
<b>15.00- 15.50</b>					
<b>16.00- 16.50</b>					<b>Independent Learning</b>
<b>17.00-17.50</b>					

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**DISTRIBUTION of LECTURE HOURS**  
**April 11 - May 27, 2016**  
**COMMITTEE DURATION: 6 WEEKS**

		THEORETICAL	PRACTICAL	TOTAL
<b>MED 201</b>	<b>BASIC MEDICAL SCIENCES II</b>	<b>113</b>	<b>23</b>	<b>136</b>
	<b>DISCIPLINE</b>			
	HISTOLOGY & EMBRYOLOGY	2	0	2
	MEDICAL GENETICS	16	0	16
	MICROBIOLOGY	57	3Grx12H	69
	PATHOLOGY	15	5H	20
	PHARMACOLOGY	17	2Grx4H	21
	PHYSIOLOGY	4	3GrX2H	6
	SCIENTIFIC PROJECTS-II	2	0	2

<b>MED 202</b>	<b>INTRODUCTION TO CLINICAL PRACTICE- II</b>	0	8	8
----------------	----------------------------------------------	---	---	---

<b>Coordination Committee</b>	<b>Head</b>	Ferda ÖZKAN, MD Prof.
	<b>Secretary</b>	Alev CUMBUL, PhD Assist. Prof.
	<b>Member</b>	Yeşim GÜROL, MD Assoc. Prof.
	<b>Member</b>	Ayşegül KUŞKUCU, MD PhD Assist. Prof.

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**LECTURERS**  
**April 11 - May 27, 2016**

<b>MED 201 BASIC MEDICAL SCIENCES II</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
HISTOLOGY & EMBRYOLOGY	Ünal USLU, MD Assoc. Prof. Alev CUMBUL, PhD Assist. Prof. Oya ALAGÖZ, MD Assist. Prof.
IMMUNOLOGY	Gülderen Yanıkkaya Demirel, MD PhD Assoc. Prof.
MICROBIOLOGY	Güliden ÇELİK, MD Prof. Yeşim GÜROL, MD Assoc. Prof. Çağatay ACUNER, MD Assoc. Prof.
MEDICAL GENETICS	Ayşegül KUŞKUCU, MD PhD Assist. Prof. Ömer FARUK BAYRAK, PhD Assoc. Prof.
PATHOLOGY	Ferda ÖZKAN, MD Prof. Işın DOĞAN EKICI, MD Prof.
PHARMACOLOGY	Ece GENÇ, PhD Prof. Ferda KALEAĞASIOĞLU, MD Assoc. Prof.
PHYSIOLOGY	Bayram YILMAZ, PhD Prof. Mehtap KAÇAR, MD PhD Assist. Prof.
SCIENTIFIC PROJECTS-II	Gülderen YANIKKAYA DEMIREL, MD PhD Assoc. Prof.

<b>MED 202 INTRODUCTION TO CLINICAL PRACTICE III</b>	
<b>DISCIPLINE</b>	<b>LECTURERS</b>
CLINICAL SKILLS LAB	Güldal İZBİRAK, MD Assoc. Prof. Hülya AKAN, MD Assoc. Prof. Özlem TANRIÖVER, MD Assoc. Prof. A.Arzu AKALIN, MD Assist. Prof. Serdar ÖZDEMİR, MD, Ph.D, Assist. Prof.

## **COMMITTEE V - TISSUE DAMAGE and NEOPLASM AIM and LEARNING OBJECTIVES**

### **AIMS**

1. To convey knowledge on basic properties of biological, embryological, histological, physiological and biochemical properties of tissue damage and neoplasia
2. To convey knowledge about biological factors, mechanisms of action and their consequences.
3. To convey development mechanisms of inflammatory processes and neoplasia and their effects and consequences on organism.

### **LEARNING OBJECTIVES**

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

- 1.0 explain inherited and non-inherited genetic mechanisms in neoplasia.
- 2.0 associate the relation with congenital abnormalities and developmental processes.
- 3.0 explain basics of sports physiology.
- 4.0 explain chemical structure of components and mechanisms of anabolism and catabolism in connective tissue.
- 5.0 list major transitional phases in bone cycle.
- 6.4. For human flora;
  - 6.5. describe the flora,
  - 6.6. explain its relation to clinical conditions.
- 7.0. describe properties of microorganisms causing disease .
- 8.0. list methods used in protection from microorganisms.
- 9.0. explain inflammatory processes, termination pathways, effects on tissues and mechanisms for inducing diseases.
- 10.0. describe factors causing neoplasia, formation , mechanisms of occurrence, neoplastic diseases in organism, classification and staging of neoplasia.
- 11.0. distinguish mechanisms of actions of drugs and explain toxicity of drugs.
- 12.0. analyze events developing in response to drug receptor interactions.
- 13.0. describe general principles of antimicrobial chemotherapy.
- 14.0. describe general principles of cancer chemotherapy.
- 15.0. describe pharmacology of inflammation and immunomodulation.

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**COMMITTEE ASSESSMENT MATRIX**

LEARNING OBJECTIVES	DISCIPLINE	LECTURER/ INSTRUCTOR	NUMBER of MCQs			
			CE	FE	IE	TOTAL
2	HISTOLOGY & EMBRYOLOGY	Dr. Ü. Uslu	1	1	1	3
	MEDICAL GENETICS	Dr. A. Kuşkucu Dr. Ö. F. Bayrak	4 8	1 4	1 4	6 16
6.0-8.0,13.0, 14.0	MICROBIOLOGY	Dr. G. Çelik Dr. Y. Gürol Dr. Ç. Acuner	17 17 15	6 6 5	6 6 5	29 29 25
1.0,9.0,10.0	PATHOLOGY	Dr. F. Özkan Dr. I. D. Ekici	7 5	3 2	3 2	13 9
11.0, 12.0	PHARMACOLOGY	Dr. E. Genç Dr. F. Kaleagasioğlu	13 5	4 2	4 2	21 9
3	PHYSIOLOGY	Dr. B. Yılmaz Dr. M. Koçak	3	1	1	5
	<b>TOTAL</b>		<b>90</b>	<b>35/200**</b>	<b>35/200**</b>	<b>150</b>
LEARNING OBJECTIVES	DISCIPLINE	POINTS of EMQs				
		CE				
2	MEDICAL GENETICS	1				
6.0-8.0,13.0	MICROBIOLOGY	7				
1.0,9.0,10.0	PATHOLOGY	1				
11.0,12.0, 14.0, 15.0	PHARMACOLOGY	1				
<b>TOTAL</b>		<b>10</b>				
LEARNING OBJECTIVES	DISCIPLINE	POINTS of ASSESSMENT METHODS				
		CE				
		LPE				
6.0-8.0,13.0	MICROBIOLOGY	5				
1.0,9.0,10.0	PATHOLOGY	2				
11.0,12.0, 14.0, 15.0	PHARMACOLOGY	2				
3	PHYSIOLOGY	1				
<b>TOTAL</b>		<b>10</b>				

Total number of MCQs are **90**, equal to **90** pts,  
Each MCQ has a value equal to **1** pt,  
EMQs have value equal to **10** pts

**MCQ:** Multiple Choice Question

**EMQ:** Extending Matching Question

**LPE:** Laboratory Practical Exam

**CE:** Committee Exam

**CS:** Committee Score

**FE:** Final Exam

**ICE:** Incomplete Exam

**pts:** Points

**\*\*35** out of 200 FE and ICE MCQs will be from Committee V (Each question is of worth **0.5** pts).

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**I. WEEK / 11 – 15 April 2016**

	Monday 11-April - 2016	Tuesday 12-April-2016	Wednesday 13-April-2016	Thursday 14-April-2016	Friday 15-April-2016
09.00- 09.50	<b>Introductory Session</b> Introduction to Phase II <b>Phase II Coordination Committee</b> Introduction to Committee V <b>Head of Committee</b>	<b>Lecture</b> Bacterial Pathogenesis <i>Çağatay Acuner</i>	<b>Lecture</b> Mycobacteria <i>Çağatay Acuner</i>	<b>Laboratory / Microbiology</b> Principles and Procedures of Laboratory Safety <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> How to Write a Scientific Article <i>Gülderen Yanıkkaya Demirel</i>
10.00- 10.50	<b>Lecture</b> Introduction to Medical Microbiology <i>Gülden Çelik</i>	<b>Lecture</b> Bacterial Pathogenesis <i>Çağatay Acuner</i>	Aerobic Actinomycetes <i>Çağatay Acuner</i>		<b>Lecture</b> How to Write a Scientific Article <i>Gülderen Yanıkkaya Demirel</i>
11.00- 11.50	<b>Lecture</b> Sterilization and Disinfection <i>Çağatay Acuner</i>	<b>Lecture</b> Growth and Cultivation of Bacteria <i>Çağatay Acuner</i>	Gram Negative Cocci <i>Yeşim Gürol</i>		<b>Lecture</b> Other Gram Negative Bacilli-I <i>Yeşim Gürol</i>
12.00- 12.50	<b>Lecture</b> Bacterial Classification <i>Yeşim Gürol</i>	<b>Lecture</b> Microbiome <i>Çağatay Acuner</i>	<b>Lecture</b> Gram Negative Cocci <i>Yeşim Gürol</i>	<b>Independent Learning</b>	<b>Lecture</b> Other Gram Negative Bacilli-I <i>Yeşim Gürol</i>
13.00- 13.50	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
14.00- 14.50	<b>Lecture</b> Bacterial Classification <i>Yeşim Gürol</i>	<b>Lecture</b> Gram Positive Cocci <i>Gülden Çelik</i>	<b>Lecture</b> Non-Fermenters <i>Gülden Çelik</i>	<b>Lecture</b> Introduction to Medical Genetics <i>Ömer Faruk Bayrak</i>	<b>Laboratory / Microbiology</b> Collection, Storage and Transport of Specimens <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>
15.00- 15.50	<b>Lecture</b> Bacterial Genetics <i>Çağatay Acuner</i>	<b>Lecture</b> Gram Positive Cocci <i>Gülden Çelik</i>	<b>Lecture</b> Enterobacteriaceae <i>Çağatay Acuner</i>	<b>Lecture</b> Introduction to Medical Genetics <i>Ömer Faruk Bayrak</i>	
16.00- 16.50	<b>Lecture</b> Bacterial Genetics <i>Çağatay Acuner</i>	<b>Lecture</b> Gram Positive Aerobic Bacilli <i>Yeşim Gürol</i>	<b>Lecture</b> Enterobacteriaceae <i>Çağatay Acuner</i>	<b>Independent Learning</b>	
17.00-17.50	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>		<b>Independent Learning</b>

IL: Independent Learning, CSL: Clinical Skills Learning, YH: Yeditepe University Hospital. Student groups for laboratory/practice sessions will be announced by coordinators.

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**II. WEEK / 18 – 22 April 2016**

	<b>Monday 18-April-2016</b>	<b>Tuesday 19-April-2016</b>	<b>Wednesday 20-April-2016</b>	<b>Thursday 21-April-2016</b>	<b>Friday 22-April-2016</b>
<b>09.00-09.50</b>	<b>Lecture</b> Anaerobic Bacteria <i>Çağatay Acuner</i>	<b>Lecture</b> Antibacterial Agents: Mechanisms of Effect <i>Çağatay Acuner</i>	<b>Lecture</b> DNA Viruses I <i>Gülden Çelik</i>	<b>Laboratory / Microbiology</b> Microscopy and Culture Methods for Diagnosis of Mycobacteria <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> RNA Viruses II <i>Gülden Çelik</i>
<b>10.00-10.50</b>	<b>Lecture</b> Anaerobic Bacteria <i>Çağatay Acuner</i>	<b>Lecture</b> Antibacterial Agents: Mechanisms of Resistance <i>Çağatay Acuner</i>	<b>Lecture</b> DNA Viruses II <i>Gülden Çelik</i>		<b>Lecture</b> RNA Viruses III <i>Gülden Çelik</i>
<b>11.00-11.50</b>	<b>Lecture</b> Mycoplasma, Chlamydia, Rickettsia <i>Gülden Çelik</i>	<b>Lecture</b> Congenital Malformations and Teratology <i>Ünal Uslu</i>	<b>Lecture</b> DNA Viruses III <i>Gülden Çelik</i>		<b>Lecture</b> RNA Viruses IV <i>Gülden Çelik</i>
<b>12.00-12.50</b>	<b>Lecture</b> Mycoplasma, Chlamydia, Rickettsia <i>Gülden Çelik</i>	<b>Lecture</b> Prenatal Diagnosis <i>Ünal Uslu</i>	<b>Lecture</b> The Human Genome and Chromosomal Basis of Heredity <i>Ömer Faruk Bayrak</i>		<b>Independent Learning</b>
<b>13.00-13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00-14.50</b>	<b>Lecture</b> Diagnostic Methods in Bacteriology <i>Çağatay Acuner</i>	<b>Lecture</b> Introduction to Viruses <i>Gülden Çelik</i>	<b>Lecture</b> Cytogenetics and Chromosomal Disorde <i>Ömer Faruk Bayrak</i>	<b>Lecture</b> DNA Viruses IV <i>Gülden Çelik</i>	<div> <b>ICP</b>  <b>CSL: ICP-II Review</b>  <i>Arzu Akalın</i> </div> <div> <b>Group A</b>  <b>Group B</b> IL  <b>Group C</b> IL  <b>Group D</b> IL </div>
<b>15.00-15.50</b>	<b>Laboratory / Microbiology</b> Microscopy Methods in Diagnostic Microbiology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Laboratory / Microbiology</b> Culture Methods in Diagnostic Microbiology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Laboratory / Microbiology</b> Identification Methods in Diagnostic Microbiology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> DNA Viruses V <i>Gülden Çelik</i>	
<b>16.00-16.50</b>				<b>Lecture</b> RNA Viruses I <i>Gülden Çelik</i>	
<b>17.00-17.50</b>				<b>Independent Learning</b>	<div> <b>ICP</b>  <b>CSL: ICP-II Review</b>  <i>Özlem Tanrıöver</i> </div> <div> <b>Group A</b> IL  <b>Group B</b>  <b>Group C</b> IL  <b>Group D</b> IL </div>



**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**III. WEEK / 25 – 29 April 2016**

	Monday 25-April-2016	Tuesday 26-April-2016	Wednesday 27-April-2016	Thursday 28-April-2016	Friday 29-April-2016
09.00- 09.50	Lecture Slow Viruses <i>Gülden Çelik</i>	Lecture Opportunistic Mycoses-I <i>Yeşim Gürol</i>	Lecture Introduction to Parasitology <i>Yeşim Gürol</i>	Independent Learning	Lecture Tissue Damage by Eating Disorders and Diabetes Mellitus <i>Ferda Özkan</i>
10.00- 10.50	Lecture Viral Oncogenesis <i>Gülden Çelik</i>	Lecture Opportunistic Mycoses-II <i>Yeşim Gürol</i>	Lecture Sporozoons-I <i>Yeşim Gürol</i>		Lecture Inflammation <i>Ferda Özkan</i>
11.00- 11.50	Lecture Antiviral Agents <i>Gülden Çelik</i>	Lecture Mycotoxins/Laboratory Methods of Mycology <i>Yeşim Gürol</i>	Lecture Sporozoons-II <i>Yeşim Gürol</i>		Lecture Patterns of Single Gene Inheritance <i>Ömer Faruk Bayrak</i>
12.00- 12.50	Lecture Diagnostic Methods in Virology <i>Gülden Çelik</i>	Lecture Mechanism of Drug Action 1 <i>Ece Genç</i>	Independent Learning		Lecture Patterns of Single Gene Inheritance <i>Ömer Faruk Bayrak</i>
13.00- 13.50	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14.00- 14.50	Lecture Introduction to Mycology <i>Yeşim Gürol</i>	Lecture Mechanism of Drug Action 2 <i>Ece Genç</i>	Laboratory / Microbiology VII Antibacterial Susceptibility Testing for Bacteria <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	Lecture Fetal and Neonatal Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	ICP CSL: ICP-II Review <i>Hülya Akan</i>
15.00- 15.50	Lecture Superficial/Subcutaneous Mycosis <i>Yeşim Gürol</i>	Laboratory / Microbiology Microscopy and Culture Methods for Diagnosis in Mycobacteria <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>		Lecture Fetal and Neonatal Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	Group A IL Group B IL Group C Group D IL
16.00- 16.50	Lecture Systemic Mycoses <i>Yeşim Gürol</i>			ICP CSL: ICP-II Review <i>Güldal İzbirak &amp; Serdar Özdemir</i>	
17.00-17.50	Independent Learning		Independent Learning	Independent Learning	Group A IL Group B IL Group C IL Group D

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**IV. WEEK / 02 – 06 May 2016**

	<b>Monday</b> <b>02-May-2016</b>	<b>Tuesday</b> <b>03-May-2016</b>	<b>Wednesday</b> <b>04-May-2016</b>	<b>Thursday</b> <b>05-May-2016</b>	<b>Friday</b> <b>06-May-2016</b>
<b>09.00- 09.50</b>	<b>Lecture</b> Helminthes I <i>Yeşim Gürol</i>	<b>Lecture</b> Wound Healing <i>Ferda Özkan</i>	<b>Lecture</b> Arthropods-I <i>Yeşim Gürol</i>	<b>Laboratory / Pathology</b> Inflammation <i>Ferda Özkan &amp; Işın.D. Ekici</i>	<b>Lecture</b> Parasitology Laboratory Methods <i>Yeşim Gürol</i>
<b>10.00- 10.50</b>	<b>Lecture</b> Helminthes II <i>Yeşim Gürol</i>	<b>Lecture</b> Chronic Inflammation <i>Ferda Özkan</i>	<b>Lecture</b> Arthropods-II <i>Yeşim Gürol</i>		<b>Lecture</b> Histogenesis and Nomenclature <i>Işın.D. Ekici</i>
<b>11.00- 11.50</b>	<b>Lecture</b> Acute Inflammation <i>Ferda Özkan</i>	<b>Lecture</b> Chronic Inflammation <i>Ferda Özkan</i>	<b>Lecture</b> Genetics of Complex Diseases <i>Ömer Faruk Bayrak</i>		<b>Lecture</b> Histogenesis and Nomenclature I <i>Işın.D. Ekici</i>
<b>12.00- 12.50</b>	<b>Lecture</b> Acute Inflammation <i>Ferda Özkan</i>	<b>Lecture</b> Helminthes III <i>Yeşim Gürol</i>	<b>Lecture</b> Genetics of Complex Diseases <i>Ömer Faruk Bayrak</i>	<b>Independent Learning</b>	<b>Independent Learning</b>
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Laboratory / Microbiology</b> Immunoassays in Diagnostic Microbiology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> Vaccines <i>Gülden Çelik</i>	<b>Lecture</b> Intro to Neoplasia and Biologic Behaviors of Neoplasm <i>Işın.D. Ekici</i>	<b>Invited Speaker</b>	<b>Independent Learning</b>
<b>15.00- 15.50</b>		<b>Laboratory / Microbiology</b> Molecular Methods in Diagnostic Microbiology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> Intro to Neoplasia and Biologic Behaviors of Neoplasm <i>Işın.D. Ekici</i>	<b>Invited Speaker</b>	<b>Laboratory / Microbiology X</b> Mycology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>
<b>16.00- 16.50</b>			<b>Independent Learning</b>	<b>Independent Learning</b>	
<b>17.00-17.50</b>	<b>Independent Learning</b>				

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**V. WEEK / 09 – 13 May 2016**

	<b>Monday 09-May-2016</b>	<b>Tuesday 10-May-2016</b>	<b>Wednesday 11-May-2016</b>	<b>Thursday 12-May-2016</b>	<b>Friday 13-May-2016</b>
<b>09.00-09.50</b>	<b>Lecture</b> Cancer Genetics and Genomics <i>Ömer Faruk Bayrak</i>	<b>Lecture</b> Treatment of Genetic Disease – Introduction to Gene Therapy <i>Ömer Faruk bayrak</i>	<b>Lecture</b> Developmental Genetics and Birth Defects <i>Ayşegül Ç. Kuşkucu</i>	<b>Laboratory / Microbiology MAKE-UP LAB</b> <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Laboratory / Physiology</b> Exercise and Metabolism <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>
<b>10.00-10.50</b>	<b>Lecture</b> Cancer Genetics and Genomics <i>Ömer Faruk Bayrak</i>	<b>Lecture</b> Treatment of Genetic Disease – Introduction to Gene Therapy <i>Ömer Faruk bayrak</i>	<b>Lecture</b> Developmental Genetics and Birth Defects <i>Ayşegül Ç. Kuşkucu</i>		<b>Group A</b> <b>Group B,C Independent Learning</b>
<b>11.00-11.50</b>	<b>Lecture</b> Post Receptor Events and Second Messengers <i>Ece Genç</i>	<b>Lecture</b> General Principles of Antimicrobial Chemotherapy <i>Ferda Kaleağasıoğlu</i>	<b>Lecture</b> Pharmacogenetics & Pharmacogenomics <i>Ece Genç</i>		<b>Group A, C, Independent Learning</b> <b>Group B</b>
<b>12.00-12.50</b>	<b>Lecture</b> Factors Influencing Drug Action in Individuals <i>Ece Genç</i>	<b>Lecture</b> General Principles of Cancer Chemotherapy <i>Ferda Kaleağasıoğlu</i>	<b>Lecture</b> Pharmacogenetics & Pharmacogenomics <i>Ece Genç</i>	<b>Independent Learning</b>	
<b>13.00-13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00-14.50</b>	<b>Independent Learning</b>	<b>Lecture</b> Oncogenesis, Incidence and Distribution of Cancer <i>Işın D. Ekici</i>	<b>Laboratory / Pharmacology</b> Dose-response Effects, Agonists and Antagonists <i>Ece Genç &amp; Ferda Kaleağasıoğlu</i>	<b>Lecture</b> Sports Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Drug Toxicity-I <i>Ferda Kaleağasıoğlu</i>
			<b>Group A,C Independent Learning</b> <b>Group B</b>		
<b>15.00-15.50</b>	<b>Laboratory / Microbiology</b> Parasitology <i>Gülden Çelik &amp; Yeşim Gürol &amp; Çağatay Acuner</i>	<b>Lecture</b> Oncogenesis, Incidence and Distribution of Cancer I.D. Ekici <i>Işın D. Ekici</i>	<b>Group A</b> <b>Group B, C Independent Learning</b>	<b>Lecture</b> Sports Physiology <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Lecture</b> Drug Toxicity-II <i>Ferda Kaleağasıoğlu</i>
<b>16.00-16.50</b>		<b>Laboratory / Pharmacology</b> Efficacy and Potency Concepts Pharmacology <i>Ece Genç &amp; Ferda Kaleağasıoğlu</i>	<b>Group A, B Independent Learning</b> <b>Group C</b>	<b>Laboratory / Physiology</b> Exercise and Metabolism <i>Bayram Yılmaz &amp; Mehtap Kaçar</i>	<b>Independent Learning</b>
<b>17.00-17.50</b>			<b>Independent Learning</b>	<b>Group A, B Independent Learning</b> <b>Group C</b>	

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM**  
**VI. WEEK / 16 – 20 May 2016**

	Monday 16-May-2016	Tuesday 17-May-2016	Wednesday 18-May-2016	Thursday 19-May-2016	Friday 20-May-2016
09.00-09.50	Lecture Histamine and Antihistamines <i>Ece Genç</i>	Lecture Eicosanoids 1 <i>Ferda Kaleağasioğlu</i>	Lecture Grading and Staging of Cancer and Clinical Findings <i>Işın D. Ekici</i>	NATIONAL HOLIDAY	Independent Learning
10.00-10.50	Lecture Vasoactive Peptides <i>Ece Genç</i>	Lecture Eicosanoids 2 <i>Ferda Kaleağasioğlu</i>	Lecture Grading and Staging of Cancer and Clinical Findings <i>Işın D. Ekici</i>		
11.00-11.50	Lecture Molecular Basis of Genetic Diseases <i>Ömer Faruk bayrak</i>	Lecture Biochemistry of the Connective Tissue <i>Serdar Öztezcan</i>	Lecture Introduction to Drug Development <i>Ferda Kaleağasioğlu</i>		
12.00-12.50	Lecture Tools of Human Molecular Genetics <i>Ömer Faruk bayrak</i>	Lecture Biochemistry of the Bone Tissue <i>Serdar Öztezcan</i>	Lecture Development of Biopharmaceuticals <i>Ferda Kaleağasioğlu</i>		
13.00-13.50	Lunch Break	Lunch Break	Lunch Break		Lunch Break
14.00-14.50	Lecture General Principles of Antimicrobial Chemotherapy <i>Ferda Kaleağasioğlu</i>	Laboratory / Pathology Neoplasia <i>Ferda Özkan &amp; Işın.D. Ekici</i>	Independent Learning		Independent Learning
15.00-15.50	Laboratory / Pharmacology <i>Ece Genç &amp; Ferda Kaleağasioğlu</i>				
	Group A      Group B, C Independent Learning				
16.00-16.50	Group A,C Independent Learning				
17.00-17.50	Group A, B Independent Learning	Group C			

**COMMITTEE V - TISSUE DAMAGE and NEOPLASM  
VII (EXAM). WEEK / 23 – 27 May 2016**

	<b>Monday 23-May-2016</b>	<b>Tuesday 24-May-2016</b>	<b>Wednesday 25-May-2016</b>	<b>Thursday 26-May-2016</b>	<b>Friday 27-May-2016</b>
<b>09.00- 09.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Independent Learning</b>
<b>10.00- 10.50</b>					<b>Assessment Session Committee V (MCQ-EMQ)</b>
<b>11.00- 11.50</b>					
<b>12.00- 12.50</b>					
<b>13.00- 13.50</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>14.00- 14.50</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Independent Learning</b>	<b>Assessment Session (Practical Exam)</b>	<b>Program Evaluation Session</b> Review of the Exam Questions, Evaluation of the Committee V Program <i>Head of Committee</i>
<b>15.00- 15.50</b>					
<b>16.00- 16.50</b>					<b>Independent Learning</b>
<b>17.00-17.50</b>					

## 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

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

## LIST OF STUDENT COUNSELING- PHASE II

STUDENT NUMBER	NAME	SURNAME	COUNSELOR
20140800075	DİLARA UMUT	ALTUN	ASSOC. PROF. ÜNAL USLU
20130800010	HİLMİ	ALPTEKİN	ASSOC. PROF. ÜNAL USLU
20140800096	LADEN	ALTAY	ASSOC. PROF. ÜNAL USLU
20150800107	MUHARREM BERKER	ALTINTAŞ	PROF. GÜLDEN ÇELİK
20130800009	ALEV	ARSLAN	ASSOC. PROF. ÜNAL USLU
20130800033	ÇAĞDAŞ	ATAOĞLU	ASSIST. PROF. DENİZ KIRAÇ
20140800022	İLKE ESİN	AYDINER	ASSIST. PROF. DENİZ KIRAÇ
20140800023	MUSTAFA CANER	AYDİN	ASSIST. PROF. DENİZ KIRAÇ
20140800017	İPEK	AYRI	ASSIST. PROF. ÇİĞDEM KASPAR
20140800083	BUENA	AZIRI	ASSIST. PROF. ÇİĞDEM KASPAR
20140800015	BERİL	BALAK	ASSIST. PROF. ÇİĞDEM KASPAR
20140800018	ECE	BATUR	ASSIST. PROF. ÇİĞDEM KASPAR
20140800073	NİYAZİ GÖRKEM	BEKTAŞ	ASSOC. PROF. MEHTAP KAÇAR
20140800068	İREM	BOLLUK	PROF. GÜLDEN ÇELİK
20130800074	YILDIRIM HAN	BOZAL	ASSOC. PROF. KAAAN YÜCEL
20140800088	BASSEL	BSAT	ASSOC. PROF. KAAAN YÜCEL
20140800014	HATİCE ZEYNEP	CEYLAN	PROF. TURGAY İSBİR
20130800079	VOLKAN	CİVELEK	PROF. TURGAY İSBİR
20130800059	YUNUS EMRE	ÇADIRCI	PROF. TURGAY İSBİR
20130800084	BORA	ÇAĞAN	ASSOC. PROF. MEHTAP KAÇAR
20140800020	EGEMEN KAAAN	ÇAKAR	ASSOC. PROF. ELİF VATANOĞLU
20130800045	SEÇKİN	ÇELİK	PROF. TURGAY İSBİR
20140800070	ECE MELİS	ÇETİNKAYA	ASSOC. PROF. ELİF VATANOĞLU
20140800009	GÖKTUĞ	ÇETİNYOL	ASSOC. PROF. ELİF VATANOĞLU
20130800069	BÜŞRA NUR	ÇOŞAN	ASSOC. PROF. YEŞİM GÜROL
20130800001	SERKAN	DEKTAŞ	ASSOC. PROF. ELİF VATANOĞLU
20140800102	BATUHAN BERK	DEMİR	ASSOC. PROF. YEŞİM GÜROL
20140800069	UMAY	DİLEK	ASSOC. PROF. YEŞİM GÜROL
20130800006	HASAN	DÖNER	ASSOC. PROF. ÇAĞATAY ACUNER
20140800081	EZGİ	DUMAN	ASSOC. PROF. ÇAĞATAY ACUNER
20130800097	SENA	EKİZ	ASSOC. PROF. ÇAĞATAY ACUNER
20130800020	MELİKE SABA	ERDİNÇ	ASSOC. PROF. ELİF VATANOĞLU
20120800088	DAMLA	ERDOĞAN	ASSOC. PROF. ELİF VATANOĞLU
20130800075	MURAT	ERDOĞAN	ASSIST. PROF. ALEV CUMBUL
20140800077	MERYEM BEYZA	ERKAN	ASSIST. PROF. ALEV CUMBUL
20140800027	MERCAN	EZELSOY	ASSOC. PROF. ÖZLEM TANRIÖVER
20140800053	GÖRKEM	FEYZULLAHOĞLU	ASSOC. PROF. ÖZLEM TANRIÖVER

20140800074	BAŞAK	GÜNAY	ASSOC. PROF. HÜLYA AKAN
20140800084	LORINA	HAZIRI	ASSOC. PROF. HÜLYA AKAN
20130800008	ZELİHA NUR	IRMAK	PROF. İNCİ ÖZDEN
20140800019	AYLİN	İKİS	PROF. İNCİ ÖZDEN
20140800041	ÖMER SERTAÇ	İLASLAN	PROF. İNCİ ÖZDEN
20140800039	AYSU	KAÇAR	PROF. JALE ÇOBAN
20140800045	OSMAN KAMİL	KAMILOĞLU	ASSIST. PROF. ARZU AKALIN
20130800068	SİDAR	KARABULUT	PROF. JALE ÇOBAN
20130800048	SILA	KARAKUŞ	PROF. JALE ÇOBAN
20120800045	İREM BUSE	KARAKUM	ASSOC. PROF. ÖZLEM TANRIÖVER
20140800058	BURAKSU	KARSLI	ASSIST. PROF. ARZU AKALIN
20140800034	MELİH KAĞAN	KAVCIOĞLU	ASSIST. PROF. ARZU AKALIN
20130800076	EREN	KAVUKÇU	PROF. ECE GENÇ
20120800023	KORAY	KAYA	PROF. ECE GENÇ
20140800013	ALİ	KESER	PROF. ECE GENÇ
20130800054	BENGİSU	KESKİN	ASSIST. PROF. AYŞEGÜL KUŞKUCU
20130800004	KEVSER	KİŞİFLİ	ASSIST. PROF. AYŞEGÜL KUŞKUCU
20130800028	DENİZ	KOCA	ASSIST. PROF. AYŞEGÜL KUŞKUCU
20140800004	KIVANÇ	KORKMAZ	PROF. FERDA ÖZKAN
20130800012	ATA	KÖKEN	PROF. FERDA ÖZKAN
20140800076	ECE	KUDUBAN	PROF. FERDA ÖZKAN
20130800043	GÖZDE	KURAN	PROF. FERDA ÖZKAN
20130800007	DİLGE	KÜÇÜKCAN	PROF. IŞIN DOĞAN EKİCİ
20130800088	JOSEPF FURKAN	KÜÇÜKTAŞ	PROF. JALE ÇOBAN
20130800078	SENA	LOĞOĞLU	PROF. IŞIN DOĞAN EKİCİ
20130800046	ÖNCEL	MEYSA	PROF. IŞIN DOĞAN EKİCİ
20140800082	EDA	OLCAYTUĞ	ASSOC. PROF. GÜLDEREN YANIKKAYA DEMİREL
20140800072	ECEM	OLTULU	ASSOC. PROF. SONER DOĞAN
20130800035	DENİZ CAN	ÖNEN	PROF. RECEP EROL SEZER
20130800031	GİZEM AYNUR	ÖZCAN	PROF. RECEP EROL SEZER
20140800071	YAĞIZ	ÖZDAĞ	PROF. RECEP EROL SEZER
20140800038	FEHMİ GİRAY	ÖZGÜN	PROF. RECEP EROL SEZER
20120800005	OĞUZ GÖKBERK	ÖZHAN	PROF. ECE GENÇ
20130800005	SELMA NUR	ÖZKİRAZ	PROF. RECEP EROL SEZER
20130800070	DUHA YAREN	ÖZTÜRK	ASSIST. PROF. SERDAR ÖZDEMİR
20140800001	ALİ EMRE	ÖZTÜRK	ASSIST. PROF. SERDAR ÖZDEMİR
20130800050	ATILA BERKE	ÖZÜS	ASSIST. PROF. SERDAR ÖZDEMİR
20140800046	NAZ	PAYTONCU	ASSIST. PROF. SERDAR ÖZDEMİR
20140800063	HÜMA ARDA	PEDİRİK	ASSIST. PROF. BİLGE GÜVENÇ TUNA
20120800002	KONURALP	SAĞLAM	ASSIST. PROF. HALE ARIK TAŞYIKAN
20130800072	PELİN	SARI	ASSIST. PROF. BİLGE GÜVENÇ TUNA



20140800033	DİLANUR SULTAN	SEÇİLMİŞ	ASSIST. PROF. BİLGE GÜVENÇ TUNA
20130800065	SEMİH SERGEN	SEMERÇİ	ASSIST. PROF. BİLGE GÜVENÇ TUNA
20120800009	OĞUZCAN	SERNİKLİ	ASSIST. PROF. HALE ARIK TAŞYIKAN
20140800064	AYŞE EZGİ	SEVER	ASSOC. PROF. FERDA KALEAĞASIOĞLU
20120800035	MUHAMMET SAİT	SEVİNDİK	ASSIST. PROF. AYŞEGÜL KUŞKUCU
20140800035	ZELİHA İLKE	SUNGUR	ASSOC. PROF. FERDA KALEAĞASIOĞLU I
20140800086	NAİLE	ŞABAN	ASSOC. PROF. FERDA KALEAĞASIOĞLU
20140800056	MUSTAFA EFE	ŞÜKÜROĞLU	ASSOC. PROF. FERDA KALEAĞASIOĞLU
20130800066	ELİF NUR	TAKIR	ASSOC. PROF. FERDA KALEAĞASIOĞLU
20130800060	AYŞE NAZ	TEKKÖK	ASSOC. PROF. MEHTAP KAÇAR
20140800067	ESRA EZGİ	TEMÜR	ASSOC. PROF. MEHTAP KAÇAR
20140800079	DENİZ	TURGUT	ASSIST. PROF. ÇİĞDEM KASPAR
20130800004	ZEYNEP İLAY	YALÇIN	ASSIST. PROF. DENİZ KIRAÇ
20130800071	OLCAY	YAVUZ	ASSIST. PROF. ALEV CUMBUL
20130800042	YEKTA	YILDIRIM	ASSOC. PROF. KAAN YÜCEL
20140800049	ÖYKÜ MERVE	YILMAZ	ASSIST. PROF. AKİF MAHARRAMOV
20140800007	MERVE	ZENGİN	ASSIST. PROF. AKİF MAHARRAMOV

## Contact

---

**Faculty Secretary :**

Tel: +90 216 578 05 93

**Dean Secretary:**

Tel: +90 216 578 05 05 – 06

Fax: +90 216 578 05 75

**Student Affairs :**

Tel: 0216 578 06 86

**Documents Affairs:**

Tel: 0216 578 05 23

Mehtap KAÇAR, MD, Ph.D, Assoc. Prof (Coordinator) 216 578 00 00 (1419) / [mehtap.kacar@yeditepe.edu.tr](mailto:mehtap.kacar@yeditepe.edu.tr)

Deniz KIRAÇ, Ph.D Assist. Prof. (Co-Coordinator) 216 578 00 00 (1568) / [dyat@yeditepe.edu.tr](mailto:dyat@yeditepe.edu.tr)

Alev CUMBUL, Ph.D Assist. Prof. (Co-Coordinator) 216 578 00 00 (1534) / [alev.cumbul@yeditepe.edu.tr](mailto:alev.cumbul@yeditepe.edu.tr)

E.Çiğdem KASPAR, Ph.D Assist. Prof. (Co-Coordinator) 216 578 00 00 (3803) / [ecaltunok@yeditepe.edu.tr](mailto:ecaltunok@yeditepe.edu.tr)

Özlem Tanrıöver, MD, Assoc. Prof. (ICP-Coordinator) 216 578 0000 (3742) [otanrioer@yeditepe.edu.tr](mailto:otanrioer@yeditepe.edu.tr)

A. Arzu Akalın, MD, Assist. Prof. (ICP-Co-Coordinator) 216 578 0000 (1525) [arzuakalin@yeditepe.edu.tr](mailto:arzuakalin@yeditepe.edu.tr)

**Address:**

Yeditepe University Faculty of Medicine  
İnönü Mah. Kayışdağı Caddesi,  
26 Ağustos Yerleşimi,  
34755 Ataşehir, İstanbul

**Web:** [www.med.yeditepe.edu.tr](http://www.med.yeditepe.edu.tr)

**E-mail:** [tipfakdek@yeditepe.edu.tr](mailto:tipfakdek@yeditepe.edu.tr)



# YEDİTEPE UNIVERSITY FACULTY OF MEDICINE

İnönü Mah. Kayışdağı Caddesi,  
26 Ağustos Yerleşimi,  
34755 Ataşehir, İstanbul

+ 90 216 578 00 00

[www.yeditepe.edu.tr](http://www.yeditepe.edu.tr)  
<http://www.med.yeditepe.edu.tr>  
[tipfakdek@yeditepe.edu.tr](mailto:tipfakdek@yeditepe.edu.tr)