# YEDİTEPE UNIVERSITY

# FACULTY of MEDICINE

# PHASE II

# ACADEMIC PROGRAM BOOK

# 2018 – 2019

**Student's**

**Name :……**
**Number :……**

# YEDİTEPE UNIVERSITY
# FACULTY OF MEDICINE

## PHASE II

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# YEDİTEPE UNIVERSITY FACULTY OF MEDICINE

## AIM OF MEDICAL EDUCATION PROGRAM

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


**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

# YEDİTEPE UNIVERSITY FACULTY OF MEDICINE
# PROGRAM OUTCOMES OF MEDICAL EDUCATION



**Abbreviations:** PO: Program Outcomes, POD: Program Outcomes Domain, PODG: Program Outcomes Domain Group

**PODG.1. Basic Professional Competencies**

**POD.1.1. Clinical Competencies**

**PO.1.1.1.** ***values*** preventive health services, ***offers*** primary prevention (i.e. prevention of diseases for the protection of health), secondary prevention (i.e. early diagnosis and treatment) tertiary prevention (i.e. rehabilitation) and quaternary prevention (i.e. prevention of excessive and unnecessary diagnosis and treatment) services, ***provides*** consultancy on these issues.
**PO.1.1.2.** ***employs*** a patient-centered approach in patient management.
**PO.1.1.3.** ***recognizes*** most frequently occurring or significant clinical complaints, symptoms, signs, findings and their emergence mechanisms in clinical conditions.
**PO.1.1.4.** ***takes*** medical history from the applicant himself/herself or from the individual's companions.
**PO.1.1.5.** ***does*** general and focused physical and mental examination.
**PO.1.1.6.** ***interprets*** findings in medical history, physical and mental examination.
**PO.1.1.7.** ***employs*** diagnostic procedures that are used frequently at the primary health care level.
**PO.1.1.8.** ***selects*** tests that have evidence-based high efficacy at the primary health care level and ***interprets*** results.
**PO.1.1.9.** ***makes*** clinical decisions using evidence-based systematic data in health care service.
**PO.1.1.10.** ***performs*** medical interventional procedures that are used frequently at the primary health care level.
**PO.1.1.11.** ***manages*** healthy individuals and patients in the context of health care services.
**PO.1.1.12.** ***keeps*** medical records in health care provision and ***uses*** information systems to that aim.

**POD.1.2. Competencies related to Communication**

**PO.1.2.1.** throughout his/her career, ***communicates*** effectively with health care beneficiaries, co-workers, accompanying persons, visitors, patient's relatives, care givers, colleagues, other individuals, organizations and institutions.
**PO.1.2.2.** ***collaborates*** as a team member with related organizations and institutions, with other professionals and health care workers, on issues related to health.
**PO.1.2.3.** ***recognizes*** the protection and privacy policy for health care beneficiaries, co-workers, accompanying persons and visitors.
**PO.1.2.4.** ***communicates*** with all stakeholders taking into consideration the socio-cultural diversity.

**POD.1.3. Competencies Related to Leadership and Management**

**PO.1.3.1.** ***manages*** and ***leads*** within the health care team in primary health care organization.
**PO.1.3.2.** ***recognizes*** the principles of health management and health sector economy, models of organization and financing of health care services.
**PO.1.3.3.** ***recognizes*** the resources in the health care service, the principles for cost-effective use.

**POD.1.4. Competencies related to Health Advocacy**
**PO.1.4.1. *recognizes*** the health status of the individual and the community and the factors affecting the health, ***implements*** the necessary measures to prevent effects of these factors on the health.

**PO.1.4.2. *recognizes*** and ***manages*** the health determinants including conditions that prevent access to health care.

**POD.1.5. Competencies related to Research**
**PO.1.5.1. *develops***, ***prepares*** and ***presents*** research projects

**POD.1.6. Competencies related to Health Education and Counseling**
**PO.1.6.1. *provides*** consultancy services and ***organizes*** health education for the community to sustain and promote the health of individual and community**.**

**PODG.2. Professional Values and Perspectives**
**POD.2.1. Competencies related to Law and Legal Regulations**
**PO.2.1.1. *performs*** medical practices in accordance with the legal framework which regulates the primary health care service.

**POD.2.2. Competencies Related to Ethical Aspects of Medicine**
**PO.2.2.1. *recognizes*** basic ethical principles completely, and ***distinguishes*** ethical and legal problems.
**PO.2.2.2. *pays importance to*** the rights of patient, patient's relatives and physicians, and ***provides*** services in this context.

**POD.2.3. Competencies Related to Social and Behavioral Sciences**
**PO.2.3.1. *relates*** historical, anthropological and philosophical evolution of medicine, with the current medical practice.
**PO.2.3.2. *recognizes*** the individual's behavior and attitudes and factors that determine the social dynamics of the community.

**POD.2.4. Competencies Related to Social Awareness and Participation**
**PO.2.4.1. *leads*** community with sense of responsibility, behavior and attitudes in consideration of individual behaviors and social dynamics of the community, and if there is a necessity, ***develops*** projects directed towards health care services.

**POD.2.5. Competencies Related to Professional Attitudes and Behaviors**
**PO.2.5.1. *displays*** a patient-centered and holistic (biopsychosocial) approach to patients and their problems.
**PO.2.5.2. *respects*** patients, colleagues and all stakeholders in health care delivery.
**PO.2.5.3. *displays*** the proper behavior in case of disadvantaged groups and situations in the community.
**PO.2.5.4. *takes*** responsibility for the development of patient safety and healthcare quality.
**PO.2.5.6. *evaluates*** own performance as open to criticism, ***realizes*** the qualifications and limitations.

**PODG.3. Personal Development and Values**
**POD.3.1.Competencies Related to Lifelong Learning**
**PO.3.1.1. *embraces*** the importance of lifelong self-learning and ***implements***.
**PO.3.1.2. *embraces*** the importance of updating knowledge and skills; ***searches*** current advancements and ***improves*** own knowledge and skills.
**PO.3.1.3. *uses*** English language at least at a level adequate to follow the international literature and to establish communication related to the profession.

**POD.3.2. Competencies Related to Career Management**
**PO.3.2.1.** ***recognizes*** and ***investigates*** postgraduate work domains and job opportunities.
**PO.3.2.2.** ***recognizes*** the application requirements to postgraduate work/job domains, and ***distinguishes*** and ***plans*** any requirement for further training and work experience.
**PO.3.2.3.** ***prepares*** a resume, and ***recognizes*** job interview methods.

**POD.3.3. Competencies Related to Protection and Development of Own Physical and Mental Health**
**PO.3.3.1.** ***implements*** the rules of healthy living.
**PO.3.3.2.** ***displays*** appropriate behavior specific to work under stressful conditions.
**PO.3.3.3.** ***uses*** self-motivation factors.

## COORDINATION COMMITTEE
## (TEACHING YEAR 2018 – 2019)

Mehtap KAÇAR, MD, PhD, Assoc. Prof. (Coordinator)
Burcu GEMİCİ BAŞOL, PhD, Assoc. Prof. (Co-Coordinator)
Deniz KIRAÇ, PhD, Assoc. Prof. (Co-Coordinator)
Alev CUMBUL, PhD, Assist. Prof. (Co-Coordinator)
Aikaterini PANTELI, Assist. Prof. (Co-Coordinator)
Mohammad ELGAZZAR, Assist. Prof. (Co-Coordinator)

## ICP-II COORDINATION COMMITTEE

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

## COORDINATION of ELECTIVE COURSES

A. Arzu AKALIN, MD, Assist. Prof. (Coordinator)

## PBL COORDINATION COMMITTEE

Serdar ÖZDEMİR, MD, PhD, Assist. Prof. (Coordinator)
İbrahim Çağatay ACUNER MD, Assoc. Prof. (Coordinator)

## DESCRIPTION AND CONTENT

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

Cardiovascular System, Respiratory System, Gastrointestinal System, Nervous System, Endocrine and Urogenital System, Introduction to Clinical Practice- II (ICP- II), Scientific Projects-II, Elective Course

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

# AIM and LEARNING OBJECTIVES of PHASE II

## AIM

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

## LEARNING OBJECTIVES

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

### KNOWLEDGE

1.0. explain basic medical knowledge for cardiovascular system, respiratory system, circulation, hemodynamics, urogenital system, gastrointestinal system, nervous system, endocrine system, immune system and immunologic response, biostatistics subjects and elective courses.
2.0. explain the operational principles, interactions and relation of the systems in the body.
3.0. of clinical conditions;
  3.1. explain mechanisms of damages formed at molecular, cell, tissue, organ, system and multi-system 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.
7.0. comprehend the biopsychosocial approach in medicine.
8.0. know how to proceed and complete a scientific project

### SKILLS

1.0. apply basic interventional and non-interventional processes for taking individual preventive measures, drug application and diagnosis or treatment.
2.0. apply basic laboratory technics and use equipments.
3.0. realize a scientific project

## INSTRUCTIONAL DESIGN OF PRECLINICAL YEARS

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

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

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

Therefore, the core medical courses are;

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

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

Phase II consists of five committees:

COMMITTEE I Cardiovascular System (6 weeks)
COMMITTEE II Respiratory System (6 weeks)
COMMITTEE III Gastrointestinal System (6 weeks)
COMMITTEE IV Nervous System (8 weeks)
COMMITTEE V Endocrine and Urogenital Systems (8 weeks)

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

## AIM

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

## LEARNING OBJECTIVES

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

### KNOWLEDGE

1.0. explain basic medical knowledge for cardiovascular system, respiratory system, circulation, hemodynamics, urogenital system, gastrointestinal system, nervous system, endocrine system, immune system and immunologic response, biostatistics subjects.
2.0. explain the operational principles, interactions and relation of the systems in the body.
3.0. of clinical conditions;
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
7.0. know how to proceed and complete a scientific project
8.0 comprehend the biopsychosocial approach in medicine.

### SKILLS

1.0. apply basic laboratory technics and basic medical examination.

2.0 realize a scientific project

## INTRODUCTION to CLINICAL PRACTICE (ICP MED 102, 202, 303)

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 non –invasive or invasive procedures on the mannequins before encountering with real patients. The students improve the gained skills by observing real encounters in the clinical settings during 2nd and 3rd year.

**Description**

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

**Credit Facility:**

This course has 5 ECTS credits for 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 gain knowledge on First Aid approaches, develop skills in Basic Life Support, Patient/Casualty Transportation and Bandaging Techniques regarding to First Aid. They also acquire basic knowledge on communication and experience patient-doctor encounter with simulated patients (SP's).

The second years ICP Program consist of modules like handwashing, wearing sterile gloves, assessing vital signs, nasogastric intubation, bladder catheterization, intramuscular, subcutaneous, intradermal and intravenous injections as well as iv. catheterization.

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

**Clinical Skills Laboratory**

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

Each 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.

**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.

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

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

**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 another group based on availability of work spaces and course coordinator's discretion (based on evidence provided).

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

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

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

### AIM and LEARNING OBJECTIVES of ICP- II

**AIM**

1. **To convey** hygienic skills (hand washing, sterile glove wearing) in working environment**,**
2. **To convey** measurement skills for basic vital findings**,**
3. **To equip with** basic interventional skills (nasogastric tube and urinary catheter application; intramuscular, intradermal and subcutaneous injection, intravenous cannulation)**.**

**LEARNING OBJECTIVES**

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

**KNOWLEDGE**

1. **describe** the techniques of hand washing and sterile glove wearing in accordance with the skill procedure**.**
2. **describe** measurement of blood pressure with sphygmomanometer in adults in accordance with the skill procedure**.**
3. **count** nasogastric probe types, application indications, contraindications and the steps in application procedure**.**
4. **count** urinary catheter types, application indications, contraindications and the steps in application**.**
5. **count** application indications, contraindications and the steps in application procedure of intramuscular, intradermal and subcutaneous injections as well as intravenous cannulation**.**

**SKILLS**

1. **apply** hand washing and sterile glove wearing skill completely in accordance with the skill procedure**.**
2. **measure** blood pressure by adult sphygmomanometer completely in accordance with the skill procedure**.**
3. **perform** nasogastric probe application on an adult model in accordance with the skill procedure**.**
4. **perform** urinary catheter application in an adult woman and male model in accordance with the skill procedure**.**
5. **perform** intramuscular, intradermal and subcutaneous injection as well as intravenous cannulation applications in an adult model in accordance with the skill procedure**.**
6. **describe** the process to be carried out to the patient before any intervention**.**

**ATTITUDE**

1. **value** the importance of informed consent
2. **pay** attention to patient privacy
3. **value** the importance of not exceeding the limits of his/her own competency level.

# 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:**

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

**Duration :**
Education Program is spread over a total of 8 weeks.

**Objectives of the Training:**
Students who complete the training program will be able to;
**Knowledge:**

- explain the steps of the patient-doctor interview.
- explain the history taking steps from the patients.
- explain the examination of vital signs and systemic examination.
- explain the role of clinical settings in daily functioning and health personnel, including 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 :**

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

**Content:**

- Meeting with the patient, learning problems, giving information about the process
- Observing the history taking and physical examination
- Observing the planning of tests for diagnosis
- Observing the planning stages of treatment

- Observing the process of admission to hospital
- Observing the Clinical process
- 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 10% of the ICP score.**
**Organization of Student Groups:**
Student cycle of Phase II will be in synchronization with the ICP program.
Phase II coordinator will send the student list for the scheduled hours of training a week before the training to ECE coordinators.
Students should be in the clinical setting on the day of training during the ICP II Program.

| Dates | Group A | Group B | Group C | Group D |
|---|---|---|---|---|
| **01 March 2019** | Scientific Project SGS | FHC | Yeditepe University Hospital, Kozyatağı | ICP |
| **08 March 2019** | Yeditepe University Hospital, Kozyatağı | Scientific Project SGS | ICP | FHC |
| **15 March 2019** | FHC | ICP | Scientific Project SGS | Yeditepe University Hospital, Kozyatağı |
| **22 March 2019** | ICP | Yeditepe University Hospital, Kozyatağı | FHC | Scientific Project SGS |
| **19 April 2019** | ICP | Scientific Project SGS | FHC | Yeditepe University Hospital, Koşuyolu |
| **26 April 2019** | Scientific Project SGS | ICP | Yeditepe University Hospital, Koşuyolu | FHC |
| **03 May 2019** | FHC | Yeditepe University Hospital, Koşuyolu | ICP | Scientific Project SGS |
| **10 May 2019** | Yeditepe University Hospital, Koşuyolu | FHC | Scientific Project SGS | ICP |

**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:** Yaşar KÜÇÜKARDALI, MD Prof.
**ICP II Coordinator and Co-coordinator:**
Özlem TANRIÖVER, MD, MPH Assoc. Prof.
A. Arzu AKALIN, MD Assist. Prof.

## SCIENTIFIC PROJECTS-II

The purpose of Scientific Projects 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 and present a scientific project proposal. Students are free to choose their research area and advisors from faculty members 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 final proposals before February 2018. All of the proposals will be presented during the small group studies which will be held in parallel with ICP hours. Please see the program. The students lists for small group studies will be announced during the first week of educational year. It is mandatory to attend to small groups studies (SP SGS) on days assigned to your group. All of the assignments should be loaded onto Moodle program before **April 12, 2019**. The proposals which were not loaded until this date will not be evaluated and hard copies are not accepted. Scientific Projects course has 4% contribution to Term Score (TS).

**SCIENTIFIC PROJECTS ASSESSMENT TABLE**

| **CRITERIA** | **Unsatisfactory** | **Below Expectations** | **Meets Expectations** | **Above Expectations** | **Clearly Outstanding** | **Not Addressed / Observed** |
|---|---|---|---|---|---|---|
| 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 |
| **TOTAL POINTS** | **40 x 2,5=100 pts (if all criteria has 5 points)** | | | | | |

## ELECTIVE COURSES

Elective courses aim to add complementary educational experiences to the medical school curriculum in order to improve comprehension of biopsychosocial approach of medical students, besides offering an opportunity to extend knowledge of interest in specific domains. For further information on elective course contents, please see: http://med.yeditepe.edu.tr/ders-programlari

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

| Code | Subject | | |
|---|---|---|---|
| **MED 611** | **Medical Anthropology** | | |
| **Goals** | This course aims to provide, different perspectives of medical issues according to anthropological holistic approach for medical students. To present how social science interprets concepts of health, sickness, illness and disease. To show how culture bound symptoms can vary from culture to culture. To discuss all health problems are universal or cultural and how anthropology describes medical phenomenon by theoretically and methodologically. | | |
| **Content** | To explain that what is anthropology? What is medical anthropology? What is the relationships between social science and medical? Why we need to be explain some concepts according to perspectives of medical anthropology? The meaning of symptoms: cultural bound symptoms, the personal and social meaning of illness, the stigma and shame of illness, What is the positioning of medical doctors for patients and caregivers; Doctor-Patient relations, patients associations, Biological Citizenship, Medicalized Selves, Biopolitics. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• emphasize cultural patterns of health.<br>• investigate how human behavior that lives in a society is affected by own cultural health patterns.<br>• discuss case studies about how cultural phenomenon affects human and public health.<br>• understand importance of health that is constructed within culture structure by human society.<br>• examine universal definition of health “state of complete physical, mental and social well-being” culturally.<br>• realize interaction between items of cultural system and health system basically; get into the level of knowledge, skills and attitudes | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Assignments | 1 | 100 |
| | **Total** | 1 | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 612** | **Creative Drama** | | |
| **Goals** | The aim of this course is the development of independence, creativity, self-control and problem-solving potential and the development of communication skills of medical students by using drama and creativity through improvisation of exercises | | |
| **Content** | Discovering, learning and teaching approaches that are student-centered in a curiosity focused setting with various cognitive and active learning styles. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• show drama skills in vocational areas benefiting from access to creativity, collaboration and empathy which are the ways of learning through play and improvisation. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Assignments | 1 | 50 |
| | Final Examination | 1 | 50 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 613** | **Medical Humanities** | | |
| **Goals** | This course aims to offer a wide variety of subjects related with art, history, cultural values, social movements, philosophy and many other areas. Main targets of this course are to improve Professionalism and Communication Skills and to support the students to develop an understanding about human and his interaction with universe. | | |
| **Content** | Main concepts of professionalism such as altruism, accountability, excellence, duty, honor and integrity, respect for others and communication skills will be covered through the lectures of history of medicine in an anthropological concept, medicine in literature and visual arts, and cinemeducation. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• gain an understanding of the history of medicine as one of social and cultural transformation in the conception of professionalism, disease and what constitutes illness and health through the centuries.<br>• develop the skills to write an essay using primary source documents in the context of the history of medicine.<br>• gain view of different reflections of medicine in literature and visual arts.<br>• develop a point of view to use literature and visual arts as an imagination instrument of compassion, to tolerate ambiguity, to dwell in paradox, to consider multiple points of view.<br>• develop better observational and interpretive skills, by using the power of visual arts to elicit an emotional response in the observer.<br>• gain understanding about the main values and various dimensions of professionalism.<br>• gain insight about his/her own values and develop humanistic values.<br>• develop a deeper understanding of human being in various contexts.<br>• gain understanding about the various factors which influence health in individual and community level.<br>• gain understanding to use films as a comprehensive guide in medical practice.<br>• reflect through films to improve their cognitive and emotional awareness. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Assignments | 1 | 50 |
| | Final Examination | 1 | 50 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 614** | **Personal Trademark Development** | | |
| **Goals** | The aim of this course is to equip the students with skills in creating personal image for successful business life and with appropriate behavior in social platforms. | | |
| **Content** | Business Etiquette creation techniques and personal image methodologies with case studies. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• create personal brand for successful business life.<br>• use behavioral codes for business etiquette. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 25 |
| | Presentations and Reports (Interactive Team Work, Social Skills Development, based on subjects studied during classes and applications of them on MED areas & discussions after each presentation) | 1 | 25 |
| | Attendence (Showing interest to classes, performance during discussion times, performance during pair works, attending classes etc.) | | 5 |
| | Quiz ((Short quizzes to keep students updated about lectures, prepare them to midterm & final, based on subjects studied in the class, Essay or MCQ) | 3 | 5 |
| | Final Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 40 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 615** | **Innovation Management** | | |
| **Goals** | The aim of this course is to convey to the students knowledge on innovative approaches for visionary life, describe the philosophy of futurism. | | |
| **Content** | Strategies for futurism and applied case studies for personal innovation. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• use futuristic strategies to create innovative approaches.<br>• use innovative and creative thinking techniques in professional life. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 25 |
| | Presentations and Reports (Interactive Team Work, Social Skills Development, based on subjects studied during classes and applications of them on MED areas & discussions after each presentation) | 1 | 25 |
| | Attendence (Showing interest to classes, performance during discussion times, performance during pair works, attending classes etc.) | | 5 |
| | Quiz ((Short quizzes to keep students updated about lectures, prepare them to midterm & final, based on subjects studied in the class, Essay or MCQ) | 5 | 5 |
| | Final Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 40 |
| | **Total** | 8 | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 616** | **Medical Management and New Services Design Skills** | | |
| **Goals** | The aim of this course is to develop leadership skills to manage a team and organizational skills in the case of emergency and lack of crew. Moreover, empathy skills will be developed to create better relationship with the patients, coworkers and customers. | | |
| **Content** | Leadership Styles, Skills needed in Med, Strategies for New Generation Leadership, Empathy Techniques, Problem Solving with Empathy, and Conciliation with Empathy. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• develop leadership skills to manage teams.<br>• use empathy techniques for conciliation with their patients and co-workers. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 25 |
| | Presentations and Reports (Interactive Team Work, Social Skills Development, based on subjects studied during classes and applications of them on MED areas & discussions after each presentation) | 1 | 25 |
| | Attendence (Showing interest to classes, performance during discussion times, performance during pair works, attending classes etc.) | | 5 |
| | Quiz ((Short quizzes to keep students updated about lectures, prepare them to midterm & final, based on subjects studied in the class, Essay or MCQ) | 4 | 5 |
| | Final Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 40 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 617** | **Personal Brand Management Skills** | | |
| **Goals** | This course aimes to teach how to deal with stress under different conditions. Besides, effective production skills under stress and time constraints will be subject of the course. This course also will be very helpful for career development. The tools will be offered to students for better communication, presentation and managerial skills. | | |
| **Content** | In the content of this course; stress and time management for effective production, personal goal settings, motivation and effective communication will be used. Breathing techniques, diction exercises and body language will help to improve student's personal development. Moreover, managerial skills development subjects will be held. Presentations and homework will be used as effective learning tools in this course. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• apply stress and time management skills in their personal development and career. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 25 |
| | Presentations and Reports (Interactive Team Work, Social Skills Development, based on subjects studied during classes and applications of them on MED areas & discussions after each presentation) | 1 | 25 |
| | Attendence (Showing interest to classes, performance during discussion times, performance during pair works, attending classes etc.) | | 5 |
| | Quiz ((Short quizzes to keep students updated about lectures, prepare them to midterm & final, based on subjects studied in the class, Essay or MCQ) | 4 | 5 |
| | Final Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 40 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 619** | **Entrepreneurship and Storytelling Techniques for Business Purposes** | | |
| **Goals** | This course aims to equip students with storytelling techniques to make smart decisions, communicate better, think creatively and use this modern technique to manage their professional relations. | | |
| **Content** | Strategies for storytelling techniques and applications. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• use storytelling techniques in workplace to make decisions, communicate better and think creatively. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 25 |
| | Presentations and Reports (Interactive Team Work, Social Skills Development, based on subjects studied during classes and applications of them on MED areas & discussions after each presentation) | 1 | 25 |
| | Attendence (Showing interest to classes, performance during discussion times, performance during pair works, attending classes etc.) | | 5 |
| | Quiz ((Short quizzes to keep students updated about lectures, prepare them to midterm & final, based on subjects studied in the class, Essay or MCQ) | 5 | 5 |
| | Final Exam (MCQ, Fill in the Blanks, T/F Questions, mostly based on case studies) | 1 | 40 |
| | **Total** | | 100 |

| Code | Subject | | |
|---|---|---|---|
| **MED 620** | **Art, Culture and Life Styles** | | |
| **Goals** | Healthcare members will have high level social status for their business life; and will join several international conferences. This course aims to develop their social and intellectual skills to make them global citizens with art, culture, fashion and life style knowledge. | | |
| **Content** | Life Style Coaching for participants, Cultural Festivals Through Europe, Art Exhibitions and Movements, Sportive Life Coaching. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• develop intellectual wealth and cultural knowledge.<br>• change their life styles for better perspective.<br>• increase quality of life.<br>• establish work-life balance. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam | 1 | 25 |
| | Assignments (Homework) | 1 | 25 |
| | Evaluation of Group Presentations | 1 | 5 |
| | Final Exam | 1 | 45 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 621** | **Epidemiological Research and Evidence Based Medicine** | | |
| **Goals** | The aim is to provide understanding of epidemiological language and terminology by reading, examining and discussing various types of epidemiological research papers and to develop the desire and enthusiasm for epidemiological studies. | | |
| **Content** | Different sessions for each type of epidemiological research will be held. The selected research types are case report, cross-sectional, case- control, cohort study, and randomized controlled trial. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• comprehend various types of epidemiological research.<br>• explain basic epidemiological terminology. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Group work performance | | 50 |
| | Presentations | | 50 |
| | **Total** | | **100** |

| Code | Subject | | |
|---|---|---|---|
| **MED 622** | **Application of Economics in Health Care** | | |
| **Goals** | This course aims to teach the essentials of economics and its' core concepts' relevance with health-care. | | |
| **Content** | Tools and concepts of traditional Microeconomics Theory, health production function, cost & benefit analysis, demand for health insurance and health care markets. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• explain the applications of micro-economic theories in health related areas.<br>• discuss the causes of market failure.<br>• list the factors effecting the demand for health.<br>• explain health insurance supply and demand.<br>• analyse how health care market operates. | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Mid-terms | 1 | 80 |
| | Quizzes, Homeworks | 5 | 5 |
| | Attendance | 14 | 15 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 45 |
| | Contribution of In-Term Studies to Overall Grade | | 55 |
| | | Total | 100 |

| Code | Subject | | |
|---|---|---|---|
| **MED 623** | **Visual Presentation in Medicine** | | |
| **Goals** | This course aims to teach to design visual aids that are to be used in medical case presentations in computerized systems with Adobe CS Photoshop and Powerpoint programs. | | |
| **Content** | Understanding of verbal & technological presentation methods/tools to be used in medical case presentations. Computerized design tools like Adobe CS Photoshop and PowerPoint will be taught in computer labs to participants. | | |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• recognize and applies main design principles<br>• design visual materials<br>• use Adobe CS Photoshop and PowerPoint in basic level<br>• manage the presentation program PowerPoint<br>• perform visual designs and presents projects using these programs<br>• criticize the images used in the media | | |
| **Assessment** | | **NUMBER** | **PERCENTAGE** |
| | Midterm Exam | 1 | 20 |
| | Presentation | 2 | 40 |
| | Project | 1 | 40 |
| | Final EXAM | | |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 60 |
| | Contribution of In-Term Studies to Overall Grade | | 40 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 624** | **Narrative Medicine** |
| **Goals** | This course aims to build close reading skills and to develop approaches to reflective writing in the clinical setting. To equip with a capacity to read deeply, extensively, and rigorously the clinical setting and conditions of the cases so as to recognize the writer/artist and (here, the dividend) the reader/ the viewer opinions comparatively. |
| **Content** | The care of the sick unfolds in stories. The effective practice of healthcare requires the ability to recognize, absorb, interpret, and act on the stories and plights of others. Medicine practiced with narrative competence is a model for humane and effective medical practice. It addresses the need for patients and caregivers to voice their experience, to be heard and to be valued, and it acknowledges the power of narrative to change the way care is given and received. Narrative Medicine empowers the overarching goals of medicine, public health, and social justice, as well as the intimate, interpersonal experiences of the clinical encounter. There is a seminar part of the course, and the workshop will be an interactive session. The instructor helps students to discuss art pieces with some questions. At the end of the session, a project is given to write a reflective piece in a limited time. The writings could be shared depending on the writers' will and feedbacks are provided as a class by using close reading techniques. Artworks (literary works such as poetry, story, novels, visual artworks such as paintings, photographs, movies, comic books, or music) will be shared by the instructor. |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• improve their close reading skills for medical narratives in the clinical setting.<br>• recognize their emotions and learn emotional honesty by learning and experiencing a reflective writing approach<br>• learn to understand/ listen/recognize more closely the artistic narratives and the clinical narratives as well.<br>• develop a humanistic attitude such as compassion, tolerance for diversity and social justice in the clinic setting.<br>• understand how important the creativity is to a clinician.<br>• understand how the humanities and humanistic values influence and protect the clinician in the clinical setting.<br>• recognize, understand and express their own feelings.<br>• gain skills in telling, listening and understanding the illness experiences.<br>• learn to increase the communication skills between the patient-physician and learn empathy in the clinical setting<br>• gain new skills for a humanistic and effective healthcare service<br>• understand the importance of writing for a clinician for understanding the self and expressing the self. |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Midterm | | |
| | Assignments/weekly feedbacks | 1 | 50 |
| | Final Examination | 1 | 50 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | 1 | 50 |
| | Contribution of In-Term Studies to Overall Grade | 1 | 50 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 627** | **Presentation of Medicine on Media** |
| **Goals** | This course aims to teach deep understanding to approaches & visual methods/tools available as community communication media in conveying medical knowledge. To analyze technical features and to develop an understanding of aesthetics behind. To develop skills in conveying messages presented via media tools. |
| **Content** | Sensual and perceptual theories of visual communication. Analysis and reading the meaning of the images presented in the media as a PR tool. |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• recognize the meaning of the visual literacy as intellectual property<br>• describe the physical features of the light and theory of vision<br>• analyze the images with the help of sensual and perceptual theories such as Gestalt, Constructivism, Semiology and Cognitive Approach.<br>• recognize the differences between advertising, journalism and public relations.<br>• describe the historical and cultural stereotypes used in the media<br>• interpret images in the media (such as typography, graphic design, infographics, photography, TV, computer, internet) in technical, historical, cultural, ethical and critical aspects. |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Midterm Exam | 1 | 70 |
| | Homework | 1 | 30 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 60 |
| | Contribution of In-Term Studies to Overall Grade | | 40 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 628** | **Healthy Living: The Milestones of the Life for Performance Management** |
| **Goals** | This course aims to support fitness practices & dietary habits of healthy life style for medical students. To introduce techniques for reducing stress with healthy living habits. To highlight the importance of superior physical and mental health status for a better job performance. |
| **Content** | In the content of this course; understanding physiology of the physical activities, risks and benefits of the regular physical activities, using fitness training as a treatment technique, effects of physical activities to reduce stress, the relation between dietary habits and health will have quite importance. |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• explain main exercise physiology<br>• define main fitness terms<br>• analyze main risks and benefits of exercising<br>• relate health and eating habits<br>• perform main fitness training techniques<br>• manage the basic exercises necessary for healthy life<br>• perform physical techniques which are frequently used in stress management<br>• explain the relationship between health and nutrition<br>• describe the principles of healthy eating<br>• recognize exercise as a treatment method for common diseases in the community |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Midterm Project | 1 | 25 |
| | Homework | 1 | 25 |
| | Final Project | 1 | 50 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 50 |
| | Contribution of In-Term Studies to Overall Grade | | 50 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 629** | **Music and Medicine** |
| **Goals** | This course aims to convey the past and current uses and utilities of music in medicine. |
| **Content** | The connection of music and medicine throughout the historical development of antiquity and Middle Ages up until today. The place of music in medical practice after the transformations in the Age of Enlightenment and beyond. |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• explain the uses of medicine in the past and present.<br>• describe the uses of music in clinical conditions, and before and after surgical treatment.<br>• explain the effects of music before and after surgery<br>• describe the types of music used in music therapy |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Midterm | 1 | 25 |
| | Assignments (Homework) | 1 | 25 |
| | Final Exam | | 50 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 50 |
| | Contribution of In-Term Studies to Overall Grade | | 50 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 630** | **Health Law** |
| **Goals** | The aim of the course is that students obtain a legal rationale, take ethical decisions from a legal perspective, act in a respectful way to patients' rights, legal risks and responsibilities. |
| **Content** | The basic concepts of law will be introduced with a view towards health law. The legal nature of medical interventions, concepts of malpractice and complication will be explained. The fundamentals and consequences of legal and criminal liability will be emphasized and medical interventions showing ethical, and legal characteristics will be evaluated from a legal point of view. |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• analyze legislature and by-laws related to health law<br>• distinguish branches and consequences of legal responsibility<br>• in taking decisions about patients, help them to make their own decisions in a proper way by respecting their right to self-determination and their privacy.<br>• take ethical decisions from a perspective of patients' rights and legal responsibility<br>• identify legal risks in the developing areas of health law |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Assignment / presentation | 1 | 50 |
| | Final EXAM | 1 | 50 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 50 |
| | Contribution of In-Term Studies to Overall Grade | | 50 |
| | | Total | 100 |

| Code | Subject |
|---|---|
| **MED 631** | **Creative Drama II** |
| **Goals** | This course aims the development of body awareness, improvement of communication skills of students by creating an atmosphere where the students can explore the potential of their emotional intelligence. |
| **Content** | In this class, the students will be searching for their abilities for self-representation and being visible in society and going into an active learning process by experiencing image theatre, invisible theatre, newspaper theatre and forum theatre techniques |
| **Course Learning Outcomes** | At the end of this course, the student should be able to<br>• build supportive relationships in group by improving personal cooperating skills.<br>• recognize personal awareness,<br>• explain and review the schemes of personal attitude, thought and feeling by playing games and different roles.<br>• improve critical and creative ways of thinking skills, also improve skills for life-long learning which will be useful for professional life as well as personal life.<br>• explore being visible and expressing oneself in front of spectators using games and storytelling techniques. |

| **Assessment** | | **NUMBER** | **PERCENTAGE** |
|---|---|---|---|
| | Midterm | 1 | 25 |
| | Performance evaluation | 5 | 25 |
| | Final EXAM | | 50 |
| | | Total | 100 |
| | Contribution of Final Examination to Overall Grade | | 50 |
| | Contribution of In-Term Studies to Overall Grade | | 50 |
| | | Total | 100 |

# SPECIFIC SESSIONS / PANELS

## Introductory Session

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

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

**Rules of the Session:**
1. The session will be held in two types, conducted by Phase Coordinator and Committee Coordinator, respectively.
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/.
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 University Faculty of Medicine Undergraduate Medical Education Program (YUFM/UG-ME), Work Descriptions and Introduction of Committees/s/Members,
- Directives on YUFM/UG-ME,
- YUFM/UG-ME Program Outcomes
- Learning Objectives of the Phase
- Academic Program of the Phase
- Teaching and Learning Methods
- Learning Environments and Sources/Resources
- Attendance
- Elective Courses
- Assessment Procedure
- Grade Point Average, Cumulative Grade Point Average (GPA, cGPA) Calculation
- Pass/Fail Conditions
- Feedback of the Previous Year and Program Improvements
- Social Programs and Facilities

In the second type, Committee / Coordinator will present brief information on the following topics:
- Learning Objectives of the Committee
- Academic Program of the Committee
- Teaching and Learning Methods
- Learning Environments and Sources / Resources, References
- Attendance
- Assessment Methods and Question Distribution Table
- Committee / Score Calculation Method
- Pass / Fail Conditions
- Feedback of the Previous Year and Program Improvements
- Social Programs and Facilities

## Committee/ Evaluation Session

**Aim of the Session:**

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

**Objectives of the Program Evaluation Session** are to;

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

**Process:**

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

**Rules of the Committee/ Evaluation Session :**

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

## Committee / 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 begining 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 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).

## A SHORT GUIDE FOR STUDENTS TO PROBLEM-BASED LEARNING (PBL)

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

The principal idea behind PBL is that the starting point for learning should be a problem, a query, or a puzzle that the learner wishes to solve.
PBL is a learning method where students perceive their knowledge gaps, decide on learning issues and achieve these, while working in small groups on a case to solve a patient's problems.
So, PBL starts by a clinical case of a patient. While working on the patient's problems you will identify your learning needs and study these. During this whole process you will work with a group of 8-12 students and a tutor.

**How it works?**

You will be presented a patient case (scenario) that has some problems and will be asked to proceed according to the information and instructions that you will receive. You will not be informed about the topic of the case in advance but will face the problem when given to you in your first session- *just like a doctor does not know what patients he/she will see when starting the day*.
Scenarios will be given to you one page at a time. When you finish discussing a page you will be given the following page with additional information about the patient.
Each PBL case will be discussed over 3 sessions, 2 hours each. You will work in a group of 8-12 students with a tutor. One student elected by the group will work as the "scribe"(person who will write the discussed topics on the board). The scribe may change at every session, by group decision.
Each group will be given the same scenario but will work independently from each other.
The tutor working with you will NOT TEACH you but will only guide to on this exciting trip. He/she will ask you questions to guide you to the problems to be solved.
Your aim will be to find out the reasons, and in some cases, the solutions of the problems presented.
It is clear (and we know) that you do not have enough knowledge to understand and solve all the problems presented to you.
Here comes the aim of PBL: **you will thus recognize WHAT YOU DO NOT KNOW and WHAT YOU SHOULD LEARN.** In other words **you will identify your knowledge gaps and try to learn them**. These are called "**learning objectives**".

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

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

The patient's problems will be listed under **"Problems**" column.
The possible causes/reasons/mechanisms of the patient's problems will be listed under "**Hypotheses**". You can suggest and write anything that comes to your mind- you will then try to find any facts or information that can support these hypotheses. Do not be shy to suggest anything. You will not be judged for those things that you suggest.
As you will not be provided with all information about the patient you will need more information (such as, the patient's fever, physical examination findings, laboratory data, etc.). You will thus ask the scribe to write down these on the board under "**Required Information**" heading. This means information that you want to learn about this particular patient.
During the course of these discussions you will recognize that you do not know and thus need to study and learn some topics/issues, which are called "**learning objectives**". The learning objectives will be written on the fourth column under this heading. These are the topics that you will study until the next session and present by then.
This will lead you to the second stage of PBL: learning the facts that ***you*** have decided to. You will have to **find and reach the required learning resources** (textbooks, journal articles, reliable internet sources, etc.) and **study** these in your **independent study time**. You will be given a list of possible

learning resources for every discipline but you can find other sources in addition to them. However, make sure that these are reliable sources- especially web sources need cautiousness.
When you meet with your group and tutor in your second (and third) session, you will be asked to summarize the previous session, list the learning objectives and then present the knowledge that you had learned.
In this way every group member (students) will study and learn the objectives and these will be discussed during the session. There may be disagreements among students for some information reached. The group will discuss and come to a conclusion about it. The tutor will guide and moderate the group through this process- BUT WILL NOT TEACH. **The tutor will <u>not be a resource person</u> but a faculty member who will facilitate your search for correct knowledge**. ***It is YOU who will reach and learn the required topics***- the topics that you have identified as your learning objectives or knowledge gaps.
**The ultimate aim of a PBL case is NOT to diagnose the patient but to learn the topics that you discover that you do not know.** Although the case is a clinical problem, at this stage of your studies, you will have to focus on basic sciences. In other words, you will need/want to learn basic science topics (anatomy, physiology, biochemistry, microbiology, etc.) related to the patient's problems. **So you will learn basic sciences starting from a clinical case and thus appreciate why and where basic sciences are necessary and relevant**.
Other benefits of PBL that you gain are to:

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

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

## PBL STUDENT ASSESSMENT FORM*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Student Name** | | | | | | | |
| **Phase/Committee** | | | | | | | |
| **PBL Scenario Name** | | | | | | | |
| **Tutor Name** | | | | | | | |
| | | | | | | | |
| **INTERACTION WITH GROUP / PARTICIPATION TO GROUP** | **Not observed** | **Poor** | **Fair** | **Average** | **Good** | **Excellent** | **Total Point of the Part** |
| | **0** | **1** | **2** | **3** | **4** | **5** | |
| 1. Starts discussion | | | | | | | |
| 2. Contributes with valid questions and ideas | | | | | | | |
| 3. Balances listening and speaking roles | | | | | | | |
| 4. Communicates effectively in group work | | | | | | | |
| **GAINING KNOWLEDGE** | **Not observed** | **Poor** | **Fair** | **Average** | **Good** | **Excellent** | **Total Point of the Part** |
| | **0** | **1** | **2** | **3** | **4** | **5** | |
| 5. Determines valid learning issues | | | | | | | |
| 6. Finds valid sources | | | | | | | |
| 7. Makes independent research on learning issues | | | | | | | |
| 8. Shows understanding of the concepts and relationships | | | | | | | |
| **COMMUNICATION/SHARING KNOWLEDGE** | **Not observed** | **Poor** | **Fair** | **Average** | **Good** | **Excellent** | **Total Point of the Part** |
| | **0** | **1** | **2** | **3** | **4** | **5** | |
| 9. Selects data valid for discussion and presentation | | | | | | | |
| 10. Expresses ideas and knowledge clearly and in an understandable way | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 11. Draws figures, diagrams clearly and in an understandable way | | | | | | | |
| 12. Has always some additional information or data to present whenever needed | | | | | | | |
| **PROBLEM SOLVING AND CRITICAL THINKING** | **Not observed** | **Poor** | **Fair** | **Average** | **Good** | **Excellent** | **Total Point of the Part** |
| | **0** | **1** | **2** | **3** | **4** | **5** | |
| 13. Generates hypotheses independently | | | | | | | |
| 14. Reviews hypotheses critically | | | | | | | |
| 15. Integrates basic science and clinical concepts | | | | | | | |
| 16. Describes the difference between normal and pathological conditions | | | | | | | |
| **PROFESSIONAL ATTITUDE** | **Not observed** | **Poor** | **Fair** | **Average** | **Good** | **Excellent** | **Total Point of the Part** |
| | **0** | **1** | **2** | **3** | **4** | **5** | |
| 17. Is sensitive to psychosocial factors affecting patients | | | | | | | |
| 18. Treats all group members as colleagues | | | | | | | |
| 19. Accepts feedback properly | | | | | | | |
| 20. Provides proper feedback to group members | | | | | | | |
| **Total Score of the Student →** | | | | | | | |

| Student's attendance status for PBL sessions | **Session 1** | **Session 2** | **Session 3** |
|---|---|---|---|
| | Attend ( ) / Not attend ( ) | Attend ( ) / Not attend ( ) | Attend ( ) / Not attend ( ) |

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

| | |
|---|---|
| Signature of the tutor | |

*Assessment form should be filled in at the end of scenario (i.e. following the completion of two consecutive sessions).

# 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 abbrevations 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)
  - Elective Course Score (ECSs)
  - 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, ECSs |
| | | SbMCQ: Scenario-based MCQs | CE, MTE, FE, ICE | CS, ICPS, FES, ICES |
| | | FSAQ: Fill-in-the-Blank Short Answer Questions | MuE | CS |
| Competency– based Assessment | OSCE: Objective Structured Clinical Examination | OSCE Checklist | | ICPS |
| | OSPE: Objective Structured Practical Examination | OSPE Checklist | | CS |
| | LPE: Laboratory Practical Exam | LPE Checklist | | CS |
| Performance–based Assessment | PWPE: Project Writing and Presenting Evaluation | PWPE Checklist | | SPS, ECSs |
| | PA: Portfolio Assessment | PA Checklist | | ECES (ICPS) |
| | PBL-P: Evaluation of PBL Student's Performance | PBL Student Evaluation Form | | CS |

| Exams Information (MED 203, MED 202) | |
|---|---|
| **CE** | For the proportional correspondence of individual learning objectives, please see the committee's assessment matrix table/page. |
| **MTE$_{ICP}$** | MTE$_{ICP}$ consists of MCQs to assess the theoretical part of the ICP program. |
| **FE** | FE consists of 200 MCQs.<br>For the proportional contribution of each committee, please see the committee's assessment matrix table/page. |
| **ICE** | ICE consists of 200 MCQs.<br>For the proportional contribution of each committee, please see the committee's assessment matrix table/page. |
| **MUE$_{BMS}$** | MUE will be held only twice in a term.<br>MUE consists of FSAQs. The number of FSAQs is half of the relevant exam.<br>MUE content will be developed by the coordination committees. |

| Scores Information (MED 203, MED 202) | |
|---|---|
| **CS** | The committee score is based on various question types/numbers and/or assessment tools (MCQ, SbMCQ or Checklists).<br>Please see the committee's assessment matrix table/page for the specifications. Contribution of student's performance during PBL sessions to CSs of Committee I, II, III, and V is **5%.** |
| **CMS** | = Average of CSs |
| **ICPS** | = (OSCE 1 %45)+(OSCE2 %45)+(ECE %10) |
| **ECSs** | = Score information is shown pages of Elective Courses in the APB. |
| **SPS** | = Score information is shown in below Scientific Projects Assessment Table. |
| **FES** | = Final Exam Score |
| **ICES** | = Incomplete Exam Score |
| **TS**<br>*for students, who are exempted from FE* | = 96% of CMS + 4% of SPS |
| **TS**<br>*for students, who are not exempted from FE* | = 96% of (60% of CMS + 40% of FES or ICES) + 4% of SPS |

| Pass or Fail Calculations of the Courses |
|---|
| **Basic Medical Sciences (BMS) II (MED 203)** |
| ***Pass;*** *TS* ***≥ 50*** |
| ***Fail;*** *FES* ***< 50*** *(barrier point), ICES* ***< 50*** *(barrier point), or/and TS* ***< 50*** |
| *The student is exempted from FE, if the CMS is* ***≥ 75*** *and all CSs are* ***≥ 50*** |
| *The FE and ICE barrier point is not applied to the students whose all CSs are* ***≥ 50*** |
| **Introduction to Clinical Practise (ICP) II (MED 202)** |
| ***Pass;*** *ICPS* ***≥ 50*** |
| ***Fail;*** *ICPS* ***< 50*** |
| **Elective Courses** |
| ***Pass;*** *ECSs* ***≥ 50*** |
| ***Fail;*** *ECSs* ***< 50*** |

*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.

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

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

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

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

## 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 loose 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 203, MED 202)**

| | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|---|
| 09:00-09:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | | MED 203 (B 311) |
| 10:00-10:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | | MED 203 (B 311) |
| 11:00-11:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | | MED 203 (B 311) |
| 12:00-12:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | | MED 203 (B 311) |
| 13:00-13:50 | | | | | |
| 14:00-14:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | MED 202 (Base Floor 442) |
| 15:00-15:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | MED 202 (Base Floor 442) |
| 16:00-16:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | Elective Course (SPRING) | MED 202 (Base Floor 442) |
| 17:00-17:50 | MED 203 (B 311) | MED 203 (B 311) | MED 203 (B 311) | Elective Course (SPRING) | MED 202 (Base Floor 442) |

**COURSE CODES:**

| | |
|---|---|
| **MED 203** | Basic Medical Sciences II (B 310) or Laboratories* |
| **MED 202** | Introduction to Clinical Practice II (CSL)** or (B 311) |

**ELECTIVE COURSES CODES:**

| | |
|---|---|
| **MED 611** | Medical Anthropology |
| **MED 612** | Creative Drama |
| **MED 613** | Medical Humanities |
| **MED 614** | Business Etiquette and Personal Image |
| **MED 615** | Futurism and Idea Creation |
| **MED 616** | Medical Management, Leadership and Coaching |
| **MED 617** | Stress and Time Management |
| **MED 618** | Medicine & Pharmaceutical Industry |
| **MED 619** | Storytelling Techniques |
| **MED 620** | Art, Culture and Life Style for HealthCare Members |
| **MED 621** | Epidemiology Journal Club |
| **MED 622** | Application of Economics in Health Care |
| **MED 623** | Visual Presentation in Medicine |
| **MED 624** | Narrative Medicine |
| **MED 627** | Presentation of Medicine on Media |
| **MED 628** | Healthy Living: The Milestones of the Life for Performance Management |
| **MED 629** | Music and Medicine |
| **MED 630** | Health Law |
| **MED 631** | Creative Drama II |

**CLASSES**

| | |
|---|---|
| **B 311** | Ground Floor |
| **Elective Course Classess** | Will be announced later |

*** MED 203 Laboratory sessions will be held at the laboratories of related departments:**
Physiology Laboratory: Room Number 448, Base Floor, and Room Number: 934, 5th Floor,
Histology and Embriology Laboratory: Room Number 929-930, 5th Floor
Anatomy Laboratory: C0547 and 3108 Cadaver Room, Ground Floor (-1)
Microbiology Laboratory: Room Number: 934, 5th Floor,
Pathology Laboratory: Room Number: 929-930, 5th Floor, Medical Faculty Block
**** MED 202 Practical Lectures will be held at Clinical Skills Laboratory (CSL) (442, Ground Floor)**

## ACADEMIC CALENDAR 2018 – 2019

**BASIC MEDICAL SCIENCES II**

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

| | |
|---|---|
| Beginning of Committee | September 17, 2018 Monday |
| End of Committee | October 26, 2018 Friday |
| Committee Exam | October 22- 26, 2018 (Theoretical and Practical Exams) |
| Committee Exam Discussion | October 26, 2018 Friday |

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

| | |
|---|---|
| Beginning of Committee | October 30, 2018 Tuesday |
| End of Committee | December 07, 2018 Friday |
| Committee Exam : | December 03 - 07, 2018 (Theoretical and Practical Exams) |
| Committee Exam Discussion | December 07, 2018 Friday |
| **Commemoration of Atatürk** | November 10, 2018, Saturday |
| **National Holiday** | October 29, 2018 Monday |

**COMMITTEE III GASTROINTESTINAL SYSTEM (6 Weeks)**

| | |
|---|---|
| Beginning of Committee | December 10, 2018 Monday |
| End of Committee | January 18 , 2019 Friday |
| Committee Exam | January 14-18, 2019 (Theoretical and Practical Exams) |
| Committee Exam Discussion | January 18, 2019 Friday |
| **New Year** | January 1, 2019 Tuesday |

**MIDTERM BREAK : 21 JANUARY – 01 FEBRUARY, 2019**

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

| | |
|---|---|
| Beginning of Committee | February 04, 2019 Monday |
| End of Committee | March 29, 2019 Friday |
| Committee Exam | March 25-29, 2019 (Theoretical and Practical Exams) |
| Committee Exam Discussion | March 29, 2019 Friday |

| | |
|---|---|
| **Physicians' Day** | March 14, 2019, Thursday |

**COMMITTEE V ENDOCRINE and UROGENITAL SYSTEMS (8 Weeks)**

| | |
|---|---|
| Beginning of Committee | April 01, 2019 Monday |
| End of Committee | May 24, 2019 Friday |
| Committee Exam | May 20-24, 2019 (Theoretical and Practical Exams) |
| Committee Exam Discussion | May 24, 2019 Friday |

| | |
|---|---|
| **National Holiday** | April 23, 2019 Tuesday |
| **Labor's Day** | May 1, 2019 Wednesday |
| **National Holiday** | May 19, 2019 Sunday |

| | |
|---|---|
| **Make-up Exam :** | June 11-12, 2019 Tuesday-Wednesday |
| **Final Exam :** | June 21, 2019 Friday |
| **Incomplete Exam** : | July 17, 2019 Wednesday |

**INTRODUCTION OF CLINICAL PRACTICE II :**

| | |
|---|---|
| **Beginning of ICP II** | September 28, 2018, Friday |
| **Midterm Exam** | February 07-08, 2019 |
| **End of ICP II** | May 14, 2019, Tuesday |
| **Make-up Exam** | May 22, 2019, Tuesday |
| **Final Exam** | May 28-29, 2019, Tuesday-Wednesday |
| **Incomplete Exam** | June 24 2019, Monday |

**Free Elective Courses:** (Spring 2018-2019)

| | |
|---|---|
| Midterm Exam | Apr 4, 2019, Thursday |
| Final Exam | May 27, 2019 Monday |
| Incomplete Exam | June 17, 2019 Wednesday |

**Coordination Committee Meetings:**

| | |
|---|---|
| I. Coordination Committee Meeting | October, 17, 2018 14:00 Wednesday |
| II. Coordination Committee Meeting | January, 09, 2019 14:00 Wednesday (with student participation) |
| III. Coordination Committee Meeting | May 8, 2019 14:00 Wednesday (with student participation) |
| IV. Coordination Committee Meeting | July, 17, 2019 14:00 Wednesday |

## RECOMMENDED TEXTBOOKS

| NO | DEPARTMENT | TEXTBOOK | AUTHOR | PUBLISHER |
|---|---|---|---|---|
| 1 | ANATOMY | Gray's Anatomy for Students | R.L. Drake et al, 3rd Edition, 2014 | Churchill Livingstone |
| | | Last's Anatomy: Regional and Applied | Chummy S. Sinnatamby, 12th Edition | Churchill Livingstone |
| | | A Textbook of Neuroanatomy | Maria Patestas, Leslie P. Gartner, 2nd Edition, 2016 | Wiley-Blackwell |
| | | Hollinshead's Textbook of Anatomy | Cornelius Rosse, Penelope Gaddum-Rosse, 5th Edition, 1998 | Lippincott Williams & Wilkins |
| 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 13th Ed. | Anthony Mescher | Mc-Graw-Hill Companies |
| | EMBRYOLOGY | The Developing Human: Clinically Oriented Embryology, 10th Ed. | Keith L. Moore & T. V. N. Persaud | Saunders |
| 6 | IMMUNOLOGY | Basic Immunology: Functions and Disorders of the Immune System | Abul K. Abbas, Andrew H. H. Lichtman, Shiv Pillai, 5th edition,.2015 | Elsevier |
| 7 | MEDICAL BIOLOGY | Molecular Biology of the Cell | Bruce Alberts et al | Garland Science |
| 8 | MEDICAL MICROBIOLOGY | Medical Microbiology: with Student Consult | P. R. Murray et al | Saunders |
| 9 | PATHOLOGY | Basic Pathology, 10e | Vinay Kumar MBBS MD et al. 2017 (ISBN-13: 978-0323353175) | Elsevier |
| 10 | 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, New York |
| | | Principles of Pharmacology | Golan, D.E et al | Lippincott Williams & Wilkins |
| 11 | PHYSIOLOGY | Guyton and Hall Textbook of Medical Physiology | John E. Hall, 13th Edition, 2016 | Saunders |
| | | Medical Physiology | Walter F. Boron, Emile L. Boulpaep 3rd Edition, 2016 | Elsevier |
| | | Human Physiology | Stuart Ira Fox, 14th Edition, 2015 | McGraw-Hill Education |

## COMMITTEE I - CARDIOVASCULAR SYSTEM
## DISTRIBUTION of LECTURE HOURS
## September 17 - October 26, 2018
## COMMITTEE DURATION: 6 WEEKS

| | BASIC MEDICAL SCIENCES II | THEORETICAL | PRACTICAL | TOTAL |
|---|---|---|---|---|
| **MED 203** | **DISCIPLINE** | | | |
| | ANATOMY | 14 | 2Grx4H | 18 |
| | BIOCHEMISTRY | 12 | 3Grx2H | 14 |
| | BIOPHYSICS | 10 | 0 | 10 |
| | BIOSTATISTICS | 2 | 0 | 2 |
| | HISTOLOGY & EMBRYOLOGY | 11 | 2Grx5H | 16 |
| | IMMUNOLOGY | 3 | 0 | 3 |
| | MEDICAL BIOLOGY | 4 | 0 | 4 |
| | MEDICAL MICROBIOLOGY | 9 | 4GrX3H | 12 |
| | PATHOLOGY | 7 | 0 | 7 |
| | PHYSIOLOGY | 34 | 3Grx10H | 44 |
| | SCIENTIFIC PROJECTS-II | 2 | 4GrX3H | 5 |
| | **TOTAL** | **108** | **27** | **135** |

| | | | | |
|---|---|---|---|---|
| **MED 202** | **INTRODUCTION TO CLINICAL PRACTICE- II** | 4GrX 1H | 4GrX 2H | 3 |

| | | |
|---|---|---|
| **Coordination Committee** | **Head** | Bayram YILMAZ, PhD. Prof. |
| | **Secretary** | Alev CUMBUL, PhD. Assist. Prof. |
| | **Member** | Mehtap KAÇAR, MD. PhD. Assoc. Prof. |
| | **Member** | Akif MAHARRAMOV, PhD. Assist. Prof. |

## COMMITTEE I - CARDIOVASCULAR SYSTEM
## LECTURERS

| MED 203 BASIC MEDICAL SCIENCES II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| ANATOMY | ERDEM SÖZTUTAR, MD. Assist. Prof.<br>Mohammed ELGAZZAR, MD. Lecturer.<br>Aikaterini PANTELİ, MD. Lecturer.<br>LAB: Edibe BİLİŞLİ, DVM<br>LAB: Zeynep Büşra ODABAŞ, DMD |
| BIOCHEMISTRY | İnci ÖZDEN, PhD Prof.<br>LAB: Jale ÇOBAN, MD Prof.<br>LAB: Müge KOPUZ, PhD. |
| BIOPHYSICS | Akif MAHARRAMOV, PhD Assist. Prof.<br>Bilge GÜVENÇ TUNA, PhD Assist. Prof. |
| BIOSTATISTICS | E. Çiğdem ALTUNOK, PhD Assist. Prof. |
| HISTOLOGY & EMBRYOLOGY | Aylin YABA UÇAR, PhD Assoc. Prof.<br>Alev CUMBUL, PhD Assist. Prof. |
| IMMUNOLOGY | Gülderen YANIKKAYA DEMİREL, MD PhD Assoc. Prof. |
| MEDICAL BIOLOGY | Turgay İSBİR, PhD Prof.<br>Soner DOĞAN, PhD Assoc. Prof.<br>Deniz KIRAÇ, PhD Assoc. Prof. |
| MEDICAL MICROBIOLOGY | İ. Çağatay ACUNER Assoc. Prof<br>Microbiology Lecturer |
| PATHOLOGY | Aydın SAV, MD. Prof. |
| PHYSIOLOGY | Bayram YILMAZ, PhD Prof.<br>Mehtap KAÇAR, MD. PhD. Assoc. Prof .<br>Burcu GEMİCİ BAŞOL, PhD. Assoc. Prof. |
| SCIENTIFIC PROJECTS-II | Gülderen YANIKKAYA DEMİREL, MD. PhD. Assoc. Prof. |

| MED 202 INTRODUCTION TO CLINICAL PRACTICE II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| CLINICAL SKILLS LAB | Özlem TANRIÖVER, MD. MPH. Assoc. Prof.<br>A. Arzu AKALIN, MD. Assist. Prof.<br>Serdar ÖZDEMİR, MD. PhD. Assist. Prof. |

# COMMITTEE I - CARDIOVASCULAR SYSTEM
# AIM and LEARNING OBJECTIVES

## AIMS

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

## LEARNING OBJECTIVES

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

1.0. For cardiovascular 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 cardiovascular system;
   3.1. describe their anatomy,
   3.2. associate with adjacent tissues and organs,
   3.3. explain their functional and clinical reflections..
4.0. For thorax and diaphragm
   4.1. describe their anatomy,
   4.2. associate with adjacent tissue and organs,
   4.3. explain their functional and clinical reflections.
5.0. For cardiovascular system;
   5.1. explain developmental stages,
   5.2. list embryological origins of organs,
   5.3. associate the relation between major birth abnormalities and developmental process.
6.0. list lymphatic organs of cardiovascular system and histological properties of blood.
7.0. explain hemodynamics of cardiovascular system and electrical activity of heart by biophysical mechanisms.
8.0. describe the structure, functions, synthesis and degradation of hemoglobin.
9.0. describe erythrocyte-specific metabolisms.
10.0. describe formation, differentiation and functions of blood cells.
11.0. describe physiopathology of diseases, such as anemia, leukemia, hemophilia.
12.0. describe heart rhythm, cardiac output and cardiac cycle.
13.0. describe nervous (autonomous) control of cardiovascular system.
14.0. explain functions of cardiovascular system.
15.0. explain functions and dynamics of circulatory system.
16.0. explain measurements of hematocrit, blood group analysis, blood pressure and ECG methods.

17.0. For immune system;
    17.1. explain development and differentiation of immune cells,
    17.2. relate changes with diseases,
    17.3. describe the properties of immune response.
18.0. For hemodynamic changes;
    18.1. explain mechanisms of development,
    18.2. describe mechanisms for cellular damage,
    18.3. describe pathologies occurring due to cell and tissue damage.
19.0. describe the factors that determine pathology as a basic science.
20.0. explain the factors of tissue damage
21.0. describe the pathological consequences and interactions of cellular injury on the cell and tissue morphology with examples.
22.0. describe examples of pathological consequences of immune response.
23.0. explain the factors that affect the clinical course and outcome of cell injury
24.0. list disorders resulting from hemodynamic changes.
25.0. describe how to write a scientific project proposal
26.0. prepare a research project draft.
27.0. count biostatistical sampling methods.
28.0. count significance tests in biostatistics.
29.0. For human flora;
    29.1 describe the flora,
    29.2 explain its relation to clinical conditions.
30.0. Describe the structural/biological features and pathogenesis of fungi.
31.0. explain case scenario related basic medical science topics in a clinical context.

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

| LEARNING OBJECTIVES | DISCIPLINE | LECTURER/ INSTRUCTOR | DISTRUBITION of MCQs | | | |
|---|---|---|---|---|---|---|
| | | | CE | FE | IE | TOTAL |
| 3.0-4.0 | ANATOMY | Dr. A. Panteli | **15** | **5** | **5** | **25** |
| 8.0-10.0 | BIOCHEMISTRY | Dr. İ. Özden | **12** | **4** | **4** | **20** |
| 1.0 | BIOPHYSICS | Dr. A. Maharramov | **10** | **4** | **4** | **18** |
| 27.0-28.0 | BIOSTATISTICS | Dr. Ç. Altunok | **1** | **1** | **1** | **3** |
| 5.0-6.0 | HISTOLOGY & EMBRYOLOGY | Dr. A. Cumbul<br>Dr. A. Yaba Uçar | **12** | **4** | **4** | **20** |
| 17.0 | IMMUNOLOGY | Dr. G. Yanıkkaya Demirel | **2** | **1** | **1** | **4** |
| 2.0 | MEDICAL BIOLOGY | Dr. T. İsbir<br>Dr. D. Kıraç | **3** | **1** | **1** | **5** |
| 29.0-30.0 | MEDICAL MICROBIOLOGY | Dr. Ç. Acuner<br>Microbiology Lecturer | **7** | **3** | **3** | **13** |
| 18.0-24.0 | PATHOLOGY | Dr. A. Sav | **7** | **3** | **3** | **13** |
| 7.0-16.0 | PHYSIOLOGY | Dr. B. Yılmaz<br>Dr. M. Kaçar<br>Dr. B. Gemici Başol | **30** | **12** | **12** | **54** |
| 29 | PBL | | **1** | **0** | **0** | 1 |
| | | **TOTAL** | **100** | **38/200#** | **38/200#** | **176** |

| LEARNING OBJECTIVES | DISCIPLINE | DISTRUBITION of LAB ASSESSMENT POINTS |
|---|---|---|
| | | LPE |
| 3.0-4.0 | ANATOMY | **30** |
| 8.0-10.0 | BIOCHEMISTRY | **5** |
| 5.0-6.0 | HISTOLOGY & EMBRYOLOGY | **15** |
| 29.0-30.0 | MEDICAL MICROBIOLOGY | **10** |
| 7.0-16.0 | PHYSIOLOGY | **40** |
| | **TOTAL** | **100** |

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).
Total value of LPE is equal to 100 points

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

**Abbreviations:**
**MCQ:** Multiple Choice Questions
**SbMCQ:** Scienario-based Multiple Choice Questions
**LPE:** Laboratory Practical Exam
**CE:** Committee Exam
**CS:** Committee Score
**FE:** Final Exam
**ICE:** Incomplete Exam
**Pts.:** Points
# In FE and ICE**, 38** out of 200 FE and ICE MCQs and SbMCQ will be from Committee I (Each question is 0.5 pt, equal value)

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**I. WEEK / 17– 21 Sep 2018**

| | Monday<br>17-Sep-2018 | Tuesday<br>18-Sep-2018 | Wednesday<br>19-Sep-2018 | Thursday<br>20-Sep-2018 | Friday<br>21-Sep-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Introductory Session**<br>Introduction to Phase II<br>Phase II Coordination Committee | **Lecture**<br>Introduction to Medical Microbiology<br>*İ. Çağatay Acuner* | **Lecture**<br>Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin<br>*İnci Özden* | **Laboratory / Microbiology**<br>Principles and Procedures of Laboratory Safety<br>*Microbiology Instructors*<br>**Group A** / **Group B,C,D IL** | **Lecture**<br>Functions of Hemoglobin<br>*İnci Özden* |
| **10.00- 10.50** | **PBL Session** | **Lecture**<br>Sterilization and Disinfection<br>*İ. Çağatay Acuner* | **Lecture**<br>Porphin, Porphyrins, Heme, Hemoglobin, Structure of Hemoglobin<br>*İnci Özden* | **Group B** / **Group A,C,D IL** | **Lecture**<br>Functions of Hemoglobin<br>*İnci Özden* |
| **11.00- 11.50** | | **Lecture**<br>Thoracic Cavity & Mediastinum<br>*Aikaterini Panteli* | **Lecture**<br>Introduction to Cardiovascular System<br>*Aikaterini Panteli* | **Group C** / **Group A,B,D IL** | **Lecture / Scientific Project II**<br>How to write a scientific project proposal<br>*Gülderen Yanıkkaya Demirel* |
| **12.00- 12.50** | | **Lecture**<br>Thoracic Cavity & Mediastinum<br>*Aikaterini Panteli* | **Lecture**<br>Pericardium and Outer Surface of the Heart<br>*Aikaterini Panteli* | **Group D** / **Group A,B,C IL** | **Lecture / Scientific Project II**<br>How to write a scientific project proposal<br>*Gülderen Yanıkkaya Demirel* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | Introduction to Committee I<br>Secretary of Committee | **Lecture**<br>Functions of blood<br>*Burcu Gemici Başol* | **Lecture**<br>Histology of Circulatory Systems; Gn Spec. Arteries<br>*Aylin Yaba Uçar* | **Lecture**<br>Chambers of the Heart<br>*Aikaterini Panteli* | **Laboratory / Anatomy**<br>Pericardium, Outer Surface and Chambers of the Heart<br>*Aikaterini Panteli*<br>**Group B** / **Group A I.L** |
| **15.00- 15.50** | **Independent Learning** | **Lecture**<br>Leukocytes<br>*Burcu Gemici Başol* | **Lecture**<br>Histology of Circulatory Systems; Capillaries & Veins<br>*Aylin Yaba Uçar* | **Lecture**<br>Chambers of the Heart<br>*Aikaterini Panteli* | **Group B I.L** / **Group A** |
| **16.00- 16.50** | | **Lecture**<br>Leukocytes<br>*Burcu Gemici Başol* | **Laboratory / Anatomy**<br>Thoracic Wall, Cavity and Mediastinum<br>*Aikaterini Panteli*<br>**Group A** / **Group B IL** | **Independent Learning** | **Independent Learning** |
| **17.00-17.50** | | **Independent Learning** | **Group A IL** / Group B | | **Independent Learning** |

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

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**II. WEEK / 24 – 28 Sep 2018**

| | Monday<br>24-Sep-2018 | Tuesday<br>25-Sep-2018 | Wednesday<br>26-Sep-2018 | Thursday<br>27-Sep-2018 | | Friday<br>28-Sep-2018 |
|---|---|---|---|---|---|---|
| **09.00- 09.50** | **PBL Session** | **Lecture**<br>Coronary arteries, Cardiac Veins, and Cardiac Conduction System<br>*Aikaterini Panteli* | **Lecture**<br>Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin<br>*İnci Özden* | **Laboratory / Microbiology**<br>Collection, Storage and Transport of Specimens<br>*Microbiology Instructors*<br>**Group D** | **Laboratory / Physiology**<br>Hematocrit Determination and Blood Typing & Bleeding Time<br>*Mehtap Kaçar*<br>**Group A** | **Lecture**<br>Adaptations<br>*Aydın Sav* |
| **10.00- 10.50** | | **Lecture**<br>Coronary arteries, Cardiac Veins, and Cardiac Conduction System<br>*Aikaterini Panteli* | **Lecture**<br>Synthesis of Hemoglobin, Disorders Concerning Synthesis of Hemoglobin<br>*İnci Özden* | **Group C** | | **Lecture**<br>Adaptations<br>*Aydın Sav* |
| **11.00- 11.50** | | **Lecture**<br>Erythrocyte<br>*Burcu Gemici Başol* | **Lecture**<br>Introduction to Mycology<br>*İ. Çağatay Acuner* | **Group B** | **Group C** | **Lecture**<br>Regulation of Cardiac Function<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **12.00- 12.50** | **PBL Panel** | **Lecture**<br>Erythrocytes<br>*Burcu Gemici Başol* | **Lecture**<br>Fungal Pathogenesis<br>*İ. Çağatay Acuner* | **Group A** | | **Lecture**<br>Regulation of Cardiac Function<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Introduction to Bioelectromagnetics Magnetic Field<br>*Akif Maharramov* | **Lecture**<br>Great Vessels of the Heart<br>*Aikaterini Panteli* | **Lecture**<br>Platelets and Coagulation<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Lymphocytes and the Immune System<br>*Bayram Yılmaz & Mehtap Kaçar* | | **ICP** / CSL: Hand Washing & Wearing Sterile Gloves<br>Özlem Tanrıöver/ Serdar Özdemir<br>**Group A** |
| **15.00- 15.50** | **Lecture**<br>Introduction to Bioelectromagnetics Electric Field<br>*Akif Maharramov* | **Lecture**<br>Major Vessels of the Body<br>*Aikaterini Panteli* | **Lecture**<br>Blood Types and Transfusion Reactions<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Lymphocytes and the Immune System<br>*Bayram Yılmaz & Mehtap Kaçar* | | **Group D SP SGS** / **Independent Learning Group C** / **Laboratory / Physiology**<br>Hematocrit Determination and Blood Typing & Bleeding Time<br>*Bayram Yılmaz & Mehtap Kaçar*<br>**Group B** |
| **16.00- 16.50** | **Lecture**<br>Leucocyte circulation and migration into tissue<br>*Gülderen Yanıkkaya Demirel* | **Independent Learning** | **Laboratory / Anatomy**<br>Coronary Arteries, Cardiac Veins, Cardiac Conduction System, Great Vessels of Heart and Body<br>*Aikaterini Panteli*<br>**Group B, I.L** / **Group A** | **Lecture**<br>Introduction to Pathology<br>*Aydın Sav* | | |
| **17.00-17.50** | **Independent Learning** | **Independent Learning** | **Group B** | **Group A I.L** | **Independent Learning** | |

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

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**III. WEEK / 01 – 05 Oct 2018**

| | Monday<br>01-Oct-2018 | Tuesday<br>02-Oct-2018 | Wednesday<br>03-Oct-2087 | Thursday<br>04-Oct-2018 | Friday<br>05-Oct-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Rhythmical Excitation of the Heart<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Degradation of Hemoglobin<br>*İnci Özden* | **Lecture**<br>Development of Circulatory System; Endocardial Tube Formation & Looping<br>*Alev Cumbul* | **Laboratory / Histology**<br>Histology of Lymph Organs<br>*Alev Cumbul & Aylin Yaba Uçar*<br>**Group A** / **Group B I.L** | **Lecture**<br>Microcirculation and the Lymphatic System<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **10.00- 10.50** | **Lecture**<br>Rhythmical Excitation of the Heart<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Degradation of Hemoglobin<br>*İnci Özden* | **Lecture**<br>Development of Circulatory Systems; Septation<br>*Alev Cumbul* | | **Lecture**<br>Capillary Fluid Exchange, Interstitial Fluid, and Lymph Flow<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **11.00- 11.50** | **Lecture**<br>Introduction to Lymphatic System<br>*Aikaterini Panteli* | **Lecture**<br>Principles of Electrocardiography<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Principles of Hemodynamics<br>*Bayram Yılmaz & Burcu Gemici Başol* | **Group B** / **Group A I.L** | **Lecture**<br>Coronary Circulation<br>*Mehtap Kaçar* |
| **12.00- 12.50** | **Lecture**<br>Circulation of Lymph<br>*Aikaterini Panteli* | **Lecture**<br>Electrocardiographic Interpretation of Cardiac Abnormalities<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Principles of Hemodynamics<br>*Bayram Yılmaz & Burcu Gemici Başol* | | **Lecture**<br>Biophysics of Cardiac Muscle Contraction<br>*Akif Maharramov* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Histology of Lymph Organs; General Aspects, Thymus and Lymph Node<br>*Aylin Yaba Uçar* | **Lecture**<br>Superficial/Subcutaneous Mycosis<br>*İ. Çağatay Acuner* | **Lecture**<br>Immunology of heart and vessels<br>*Gülderen Yanıkkaya Demirel* | **Lecture**<br>Cardiac Arrhythmias<br>*Bayram Yılmaz & Mehtap Kaçar* | **ICP** / CSL: Hand Washing & Wearing Sterile Gloves<br>*Özlem Tanrıöver / Serdar Özdemir*<br>**Group B** / **Group A SP SGS** / **Group C, D I.L** |
| **15.00- 15.50** | **Lecture**<br>Histology of Lymph Organs; Spleen and MALT (Tonsils)<br>*Aylin Yaba Uçar* | **Lecture**<br>Systemic Mycoses<br>*İ. Çağatay Acuner* | **Lecture**<br>Immunology of heart and vessels<br>*Gülderen Yanıkkaya Demirel* | **Lecture**<br>Cardiac Arrhythmias<br>*Bayram Yılmaz & Mehtap Kaçar* | |
| **16.00-16.50** | **Lecture**<br>Ischemia and Infarction<br>*Aydın Sav* | Lymphatic System<br>**Laboratory / Anatomy**<br>*Aikaterini Panteli*<br>**Group B** / **Group A I.L** | **Independent Learning** | **Lecture**<br>Biophysics of Hemodynamics<br>*Akif Maharramov* | |
| **17.00-17.50** | **Lecture**<br>Ischemia and Infarction<br>*Aydın Sav* | **Group B I.L** / **Group A** | | **Lecture**<br>Measurements of Different Hemodynamic Parameters<br>*Akif Maharramov* | **Independent Learning** |

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

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**IV. WEEK / 08 – 12 Oct 2018**

| | Monday 08-Oct-2018 | | Tuesday 09-Oct-2018 | | Wednesday 10-Oct-2018 | Thursday 11-Oct-2018 | | Friday 12-Oct-2018 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture** Congenital Heart Anomalies *Alev Cumbul* | | **Lecture** Disorders Concerning Hemoglobin Metabolism *İnci Özden* | | **Lecture** Regulation of Blood Pressure *Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Microbiology** Mycology *Microbiology Instructors* **Group D** | **Laboratory / Physiology** ECG-II *Bayram Yılmaz & Mehtap Kaçar* **Group A** | **Lecture** Heart Valves and Heart Sounds *Bayram Yılmaz & Mehtap Kaçar* | | |
| **10.00- 10.50** | **Lecture** Development of Circulatory Systems; Arteries and Anomalies *Alev Cumbul* | | **Lecture** Disorders Concerning Hemoglobin Metabolism *İnci Özden* | | **Lecture** Regulation of Blood Pressure *Bayram Yılmaz & Mehtap Kaçar* | **Group C** | | **Lecture** Heart Valves and Heart Sounds *Bayram Yılmaz & Mehtap Kaçar* | | |
| **11.00- 11.50** | **Lecture** Vascular Distensibility and Functions of Arterial and Venous Systems *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Local and Humoral Control of Blood Flow by the Tissues *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Hyperemia & Congestion *Aydın Sav* | **Group B** | **Group C** | **Lecture** Blood Coagulation, Primary Hemostasis *İnci Özden* | | |
| **12.00- 12.50** | **Lecture** Vascular Distensibility and Functions of Arterial and Venous Systems *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Local and Humoral Control of Blood Flow by the Tissues *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Hyperemia & Congestion *Aydın Sav* | **Group A** | | **Lecture** Secondary hemostasis, Procoagulation, Anticoagulation, Fibrinolysis *İnci Özden* | | |
| **13.00- 13.50** | **Lunch Break** | | **Lunch Break** | | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| **14.00- 14.50** | **Laboratory/ Physiology** ECG I *Bayram Yılmaz & Mehtap Kaçar* **Group A** | **Laboratory / Biochemistry** Peripheral Blood Smear *Jale Çoban & Müge Kopuz* **Group B** | **Lecture** Introduction to Bioelectromagnetics: Electromagnetic Field *Akif Maharramov* | | **Lecture** Opportunistic Mycoses-I *İ. Çağatay Acuner* | **Lecture** Biophysics of Blood Pressure *Akif Maharramov* | | **ICP** / CSL: Hand Washing & Wearing Sterile Gloves *Arzu Akalın / Serdar Özdemir* **Group C** | **Group B SP SGS** | **Group A, D I.L** |
| **15.00- 15.50** | | | **Lecture** Bioelectromagnetic Effects on the Heart *Akif Maharramov* | | **Lecture** Opportunistic Mycoses-II *İ. Çağatay Acuner* | **Lecture** Diagnostic Methods in Mycology *İ. Çağatay Acuner* | | | | |
| **16.00- 16.50** | **Group C** | **Group A** | **Laboratory/ Physiology** ECG I *Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Biochemistry** Peripheral Blood Smear *Jale Çoban & Müge Kopuz* | **Lecture** Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and Cardiovascular System *Deniz Kıraç* | **Laboratory / Physiology** ECG-II *Bayram Yılmaz & Mehtap Kaçar* **Group B** | **Group A, C I.L** | | | |
| **17.00-17.50** | | | **Group B** | **Group C** | **Lecture** Oxygen, Oxidative Stress, NO, Redox Disequilibrium in the Failing Heart and Cardiovascular System *Deniz Kıraç* | | | **Independent Learning** | | |

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

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**V. WEEK / 15 – 19 Oct 2018**

| | Monday 15-Oct-2018 | | Tuesday 16-Oct-2018 | | Wednesday 17-Oct-2018 | Thursday 18-Oct-2018 | | Friday 19-Oct-2018 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 09.00- 09.50 | **Lecture** Development of Head; Splanchocranium, Neurocranium *Aylin Yaba Uçar* | | **Lecture** Fetal circulation *Aikaterini Panteli* | | **Lecture** Cardiac Failure *Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Histology** Histology of the Cardiovascular System *Alev Cumbul & Aylin Yaba Uçar* **Group B** | **Laboratory / Physiology** Heart Sounds *Bayram Yılmaz & Mehtap Kaçar* **Group A** | **Lecture** Sampling, Data Collection and Data Processing *E. Çiğdem Altunok* | | |
| 10.00- 10.50 | **Lecture** Development of Neck; Pharyngeal Arches and Anomalies *Aylin Yaba Uçar* | | **Lecture** Review of the Cardiovascular System *Aikaterini Panteli* | | **Lecture** Circulatory Shock and Physiology of Its Treatment *Bayram Yılmaz & Mehtap Kaçar* | | | **Lecture** Statistical Decision Theory, Test of Hypothesis and Significance *E. Çiğdem Altunok* | | |
| 11.00- 11.50 | **Lecture** Nervous Regulation of the Circulation *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Hemorheology *Akif Maharramov* | | **Lecture** Development of Circulatory Systems; Veins and Anomalies *Alev Cumbul* | **Group A** | **Group C** | **Lecture** Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart *Turgay İsbir* | | |
| 12.00- 12.50 | **Lecture** Nervous Regulation of the Circulation *Bayram Yılmaz & Mehtap Kaçar* | | **Lecture** Hemorheology *Akif Maharramov* | | **Invited Speaker** | | | **Lecture** Biological Basis of Cardiovascular Diseases; Death Begets Failure in the Heart *Turgay İsbir* | | |
| 13.00- 13.50 | **Lunch Break** | | **Lunch Break** | | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| 14.00-14.50 | **Laboratory / Physiology** Blood Pressure *Bayram Yılmaz & Mehtap Kaçar* **Group A** | **Group B, C I.L** | **Laboratory / Physiology** Blood Pressure *Bayram Yılmaz & Mehtap Kaçar* | | **Independent Learning** | **Laboratory / Physiology** Heart Sounds *Bayram Yılmaz & Mehtap Kaçar* | | **ICP** / CSL: Hand Washing & Wearing Sterile Gloves *Arzu Akalın / Serdar Özdemir* **Group D** | **Group C SP SGS** | Group A, B IL |
| 15.00- 15.50 | | | **Group B** | **Group A, C I.L** | | **Group B** | **Group A, C I.L** | | | |
| 16.00- 16.50 | **Group C** | **Group A, B I.L** | **Independent Learning** | | | **Laboratory / Histology Review Session** *Alev Cumbul & Aylin Yaba Uçar* | | | | |
| | | | | | | **Group A** | **Group B I.L** | | | |
| 17.00-17.50 | | | | | | **Group A I.L** | **Group B** | **Independent Learning** | | |

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

**COMMITTEE I - CARDIOVASCULAR SYSTEM**
**VI. WEEK / 22 – 26 Oct 2018**

<table>
<tr><th></th><th>Monday<br>22-Oct-2018</th><th>Tuesday<br>23-Oct-2018</th><th>Wednesday<br>24-Oct-2018</th><th>Thursday<br>25-Oct-2018</th><th>Friday<br>26-Oct-2018</th></tr>
<tr><td>09.00- 09.50</td><td rowspan="4">Assessment Session<br>(Practical Exam)</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td>Independent Learning</td></tr>
<tr><td>10.00- 10.50</td><td rowspan="3">Assessment Session<br>Committee I<br>(MCQ)</td></tr>
<tr><td>11.00- 11.50</td></tr>
<tr><td>12.00- 12.50</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td rowspan="4">Assessment Session<br>(Practical Exam)</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="2">Program Evaluation Session<br>Review of the Exam Questions,<br>Evaluation of the Committee I Program<br>Secretary of the Committee</td></tr>
<tr><td>15.00- 15.50</td></tr>
<tr><td>16.00- 16.50</td><td rowspan="2">Independent Learning</td></tr>
<tr><td>17.00-17.50</td></tr>
</table>

## COMMITTEE II - RESPIRATORY SYSTEM
## DISTRIBUTION of LECTURE HOURS
## October 30– December 07, 2018
## COMMITTEE DURATION: 6 WEEKS

| | BASIC MEDICAL SCIENCES II | THEORETICAL | PRACTICAL | TOTAL |
|---|---|---|---|---|
| **MED 203** | **DISCIPLINE** | | | |
| | ANATOMY | 12 | 2Grx3H | 15 |
| | BIOPHYSICS | 4 | 0 | 4 |
| | BIOSTATISTICS | 4 | 0 | 4 |
| | HISTOLOGY & EMBRYOLOGY | 6 | 2Grx3H | 9 |
| | IMMUNOLOGY | 7 | 0 | 7 |
| | MEDICAL GENETIC | 18 | 0 | 18 |
| | MEDICAL MICROBIOLOGY | 23 | 4GRx4H | 29 |
| | PATHOLOGY | 9 | 0 | 9 |
| | PHYSIOLOGY | 16 | 3Grx4H | 20 |
| | SCIENTIFIC PROJECTS-II | 0 | 4GrX3H | 3 |
| | TOTAL | **99** | 14 | 116 |

| | | | | |
|---|---|---|---|---|
| **MED 202** | **INTRODUCTION TO CLINICAL PRACTICE- II** | 4GrX1H | 4GrX2H | 3 |

| | | |
|---|---|---|
| **Coordination Committee** | **Head** | Mehtap KAÇAR, MD PhD. Assoc. Prof. |
| | **Secretary** | Alev CUMBUL, PhD. Assist.Prof. |
| | **Member** | Çağatay ACUNER, MD. Assoc. Prof. |
| | **Member** | Deniz YAT KIRAÇ, PhD. Assist. Prof. |

## COMMITTEE II - RESPIRATORY SYSTEM
## LECTURERS

| MED 203 BASIC MEDICAL SCIENCES II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| ANATOMY | Erdem SÖZTUTAR, MD, Assist. Prof.<br>Mohammed ELGAZZAR, MD. Lecturer.<br>Aikaterini PANTELİ, MD. Lecturer<br>LAB: Edibe BİLİŞLİ, DVM<br>LAB: Zeynep Büşra ODABAŞ, DMD |
| BIOPHYSICS | Akif MAHARRAMOV, PhD Assist. Prof.<br>Bilge GÜVENÇ TUNA, PhD Assist. Prof. |
| BIOSTATISTICS | E. Çiğdem ALTUNOK, PhD Assist. Prof. |
| HISTOLOGY & EMBRYOLOGY | Aylin YABA UÇAR, PhD Assoc. Prof.<br>Alev CUMBUL, PhD Assist. Prof. |
| IMMUNOLOGY | Gülderen YANIKKAYA DEMİREL, MD, PhD Assoc. Prof. |
| MEDICAL GENETIC | Ömer Faruk BAYRAK, PhD Assoc. Prof. |
| MEDICAL MICROBIOLOGY | İbrahim Çağatay ACUNER, MD. Assoc. Prof.<br>Microbiology Lecturer/Instructor |
| PATHOLOGY | Aydın SAV, MD Prof. |
| PHYSIOLOGY | Bayram YILMAZ, PhD Prof.<br>Mehtap KAÇAR, MD PhD Assoc. Prof.<br>Burcu GEMİCİ BAŞOL, PhD Assoc. Prof |
| SCIENTIFIC PROJECTS-II | Gülderen YANIKKAYA DEMİREL, MD PhD Assoc. Prof. |

| MED 202 INTRODUCTION TO CLINICAL PRACTICE II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| CLINICAL SKILLS LAB | Serdar ÖZDEMİR, MD, PhD, Assist. Prof.<br>M. Feridun ÇELİKMEN, MD, Assist. Prof.<br>Pınar TURA, MD, Assist. Prof.<br>Barış Murat AYVACI, MD, Assist. Prof.<br>Cem ŞİMŞEK, MD. |

## COMMITTEE II - RESPIRATORY SYSTEM

## AIM and LEARNING OBJECTIVES

**AIMS**

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

**LEARNING OBJECTIVES**

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

**KNOWLEDGE**

1.0. For respiratory system;
   - 1.1. explain biophysical changes,
   - 1.2. associate with the clinical reflections.

2.0. For nose, paranasal sinus, pharynx, larynx, and lung;
   - 2.1. describe their anatomy,
   - 2.2. associate with adjacent tissues and organs,
   - 2.3. explain their functional and clinical reflections..

3.0. For respiratory system;
   - 3.1. explain developmental stages,
   - 3.2. list embryological origins of organs,
   - 3.3. associate the relation between major birth abnormalities and developmental process.

4.0. Explain functions of pulmonary system.

5.0. explain mechanisms of oxygen and carbon dioxide exchange and transportation.

6.0. describe dynamics of microcirculation together with general and pulmonary circulation.

7.0. describe nervous (autonomous) control of pulmonary system.

8.0. describe dynamics and control of pulmonary circulation.

9.0. describe measurement of spirometry method.

10.0. explain basics of exercise physiology and the effects of exercise on the cardiovascular and respiratory systems,

11.0. explain the adaptive changes in the respiratory system in extreme conditions and basic information about pathophysiology of respiratory system disorders.

12.0. For immune system;
   - 12.1. describe the properties of pulmonary immune response
   - 12.2. relate changes with infection diseases.

13.0. explain inherited and non-inherited genetic mechanisms in neoplasia.

14.0. Describe the structural/biological features and pathogenesis of bacteria.

15.0. list methods used in protection from microorganisms.

16.0. For endogenous and exogenous harmful agents;
   - 16.1. describe their mechanisms of cell and tissue damage,
   - 16.2. describe adaptation process of cells.

17.0. list pathologies resulting from endogenous and exogenous harmful agents and consequently emerging diseases.
18.0. describe how to write a scientific project proposal.
19.0. prepare a research project draft.
20.0. count significance tests in biostatistics.
21.0. count biostatistical sampling methods.
22.0. choose significance tests according to the properties of biostatistical data.
23.0. explain case scenario related basic medical science topics in a clinical context.

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

| LEARNING OBJECTIVES | DISCIPLINE | LECTURER/ INSTRUCTOR | DISTRUBITION of MCQs and SbMCQ | | | |
|---|---|---|---|---|---|---|
| | | | CE | FE | IE | TOTAL |
| 2.0, 23.0. | ANATOMY | Dr. A. Panteli | **12** | 5 | 5 | 22 |
| 1.0, 23.0 | BIOPHYSICS | Dr. A. Maharramov | **4** | **1** | **1** | 6 |
| 20.0 - 22.0 | BIOSTATISTICS | Dr. Ç. Altunok | **4** | **1** | **1** | 6 |
| 3.0 | HISTOLOGY & EMBRYOLOGY | Dr. A. Cumbul<br>Dr. A.Yaba Uçar | **6** | **2** | **2** | 10 |
| 12.0 | IMMUNOLOGY | Dr. G. Yanıkkaya Demirel | **7** | **3** | **3** | 13 |
| 13.0 | MEDICAL GENETIC | Dr. Ö.F. Bayrak | **18** | **6** | **6** | 30 |
| 14.0-15.0 | MEDICAL MICROBIOLOGY | Dr. İ. Ç. Acuner<br>Microbiology Lecturer | **23** | **8** | **8** | 39 |
| 16.0-17.0 | PATHOLOGY | Dr. A. Sav | **9** | **3** | **3** | 15 |
| 4.0-11.0, 23.0. | PHYSIOLOGY | Dr. B. Yılmaz<br>Dr. M. Kaçar<br>Dr. B. G. Başol | **16** | **6** | **6** | 28 |
| 23.0 | PBL | | **1** | **0** | **0** | 1 |
| | | **TOTAL** | **100** | **35/200#** | **35/200#** | 170 |

| LEARNING OBJECTIVES | DISCIPLINE | DISTRUBITION of LAB ASSESSMENT POINTS |
|---|---|---|
| | | LPE |
| 2.0 | ANATOMY | **40** |
| 3.0 | HISTOLOGY & EMBRYOLOGY | **10** |
| 14.0-15.0 | MEDICAL MICROBIOLOGY | **20** |
| 4.0-11.0 | PHYSIOLOGY | **30** |
| | **TOTAL** | **100** |

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).
Total value of LPE is equal to 100 points

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

**Abbreviations:**
**MCQ:** Multiple Choice Questions
**SbMCQ:** Scienario-based Multiple Choice Questions
**LPE:** Laboratory Practical Exam
**CE:** Committee Exam
**CS:** Committee Score
**FE:** Final Exam
**ICE:** Incomplete Exam
**Pts.:** Points

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

**COMMITTEE II - RESPIRATORY SYSTEM**

**I. WEEK / 30 Oct – 02 Nov 2018**

| | Monday<br>29-Oct-2018 | Tuesday<br>30-Oct-2018 | Wednesday<br>31-Oct-2018 | Thursday<br>01-Nov-2018 | Friday<br>02-Nov-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **National Day** | **PBL Session** | **Lecture**<br>Introduction to Medical Genetics<br>*Ömer Faruk Bayrak* | **Lecture**<br>Infection and Immunity<br>*Gülderen Yanıkkaya Demirel* | The Human Genome and Chromosomal Basis of Heredity<br>*Ömer Faruk Bayrak* |
| **10.00- 10.50** | | | **Lecture**<br>Introduction to Medical Genetics<br>*Ömer Faruk Bayrak* | **Lecture**<br>Infection and Immunity<br>*Gülderen Yanıkkaya Demirel* | **Lecture**<br>Cytogenetics and Chromosomal Disorders<br>*Ömer Faruk Bayrak* |
| **11.00- 11.50** | | | **Lecture**<br>Introduction to Bacteriology<br>*İ. Çağatay Acuner* | Lecture<br>Cellular Injury and Necrosis<br>*Aydın Sav* | **Lecture**<br>Test Hypotheses and Significance in Large Samples<br>*E. Çiğdem Altunok* |
| **12.00- 12.50** | | Introduction to Committee II<br>Secretary of Committee | **Lecture**<br>Bacterial Genetics<br>*Çağatay Acuner* | Lecture<br>Cellular Injury and Necrosis<br>*Aydın Sav* | **Lecture**<br>Test Hypotheses and Significance in Large Samples<br>*E. Çiğdem Altunok* |
| **13.00- 13.50** | | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | | **Independent Learning** | **Lecture**<br>Test Hypotheses and Significance in Large Samples<br>*E. Çiğdem Altunok* | **Lecture**<br>Bacterial Genetics<br>*Çağatay Acuner* | **ICP/CSL:** Vital Signs<br>*M Feridun Çelikmen & Serdar Özdemir*<br>***Group C*** / ***Group D SP SGS*** / ***Group A, B I.L*** |
| **15.00- 15.50** | | **Independent Learning** | **Lecture**<br>Test Hypotheses and Significance in Large Samples<br>*E. Çiğdem Altunok* | **Lecture**<br>Bacterial Pathogenesis<br>*Çağatay Acuner* | |
| **16.00- 16.50** | | **Independent Learning** | **Independent Learning** | **Lecture**<br>Bacterial Pathogenesis<br>*Çağatay Acuner* | |
| **17.00-17.50** | | **Independent Learning** | **Independent Learning** | **Independent Learning** | ***Independent Learning*** |

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

**COMMITTEE II - RESPIRATORY SYSTEM**
**II. WEEK / 05 – 09 Nov 2018**

| | Monday<br>05-Nov-2018 | Tuesday<br>06-Nov-2018 | Wednesday<br>07-Nov-2018 | Thursday<br>08-Nov-2018 | | Friday<br>09-Nov-2018 | | |
|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **PBL Session** | **Lecture**<br>The Pharynx<br>*Aikaterini Panteli* | **Lecture**<br>The Larynx<br>*Aikaterini Panteli* | **Group B IL** | **Laboratory /Histology**<br>Histology of Respiratory System<br>**Group A** | **Lecture**<br>Patterns of Single Gene Inheritance<br>*Ömer Faruk Bayrak* | | |
| **10.00- 10.50** | | **Lecture**<br>The Pharynx<br>*Aikaterini Panteli* | **Lecture**<br>The Larynx<br>*Aikaterini Panteli* | **Laboratory / Anatomy**<br>Upper Respiratory System<br>*Aikaterini Panteli*<br>**Group B** | | **Lecture**<br>Patterns of Single Gene Inheritance<br>*Ömer Faruk Bayrak* | | |
| **11.00- 11.50** | | **Lecture**<br>Growth and Cultivation of Bacteria<br>*Microbiology Lecturer* | **Lecture**<br>Gram Positive Cocci<br>*Çağatay Acuner* | **Laboratory / Anatomy**<br>**Group A** | **Laboratory/ Histology**<br>**Group B** | **Lecture**<br>Hemorrhage and Thrombosis<br>*Aydın Sav* | | |
| **12.00- 12.50** | **PBL PANEL** | **Lecture**<br>Microbiome<br>*Microbiology Lecturer* | **Lecture**<br>Gram Positive Cocci<br>*Çağatay Acuner* | **Group A IL** | | **Lecture**<br>Hemorrhage and Thrombosis<br>*Aydın Sav* | | |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| **14.00- 14.50** | **Lecture**<br>Histology of the Upper Respiratory Tract<br>*Alev Cumbul* | **Lecture**<br>Hemodynamics<br>*Aydın Sav* | **Lecture**<br>Histology of The Respiratory Systems; Conducting Part<br>*Alev Cumbul* | **Lecture**<br>Infection and Immunity<br>*Gülderen Yanıkkaya Demirel* | | **ICP/CSL:** Vital Signs<br>*Barış Murat Ayvacı & Serdar Özdemir*<br>**Group D** | **Group C SP SGS** | **Group A, B. I.L** |
| **15.00- 15.50** | **Lecture**<br>Histology of the Upper Respiratory Tract<br>*Alev Cumbul* | **Lecture**<br>Hemodynamics<br>*Aydın Sav* | **Lecture**<br>Histology of the Respiratory Systems; Respiratory Part<br>*Alev Cumbul* | **Lecture**<br>The Human Genome and Chromosomal Basis of Heredity<br>*Ömer Faruk Bayrak* | | | | |
| **16.00- 16.50** | **Lecture**<br>Introduction to Respiratory System<br>*Aikaterini Panteli* | **Independent Learning** | **Independent Learning** | **Lecture**<br>Cytogenetics and Chromosomal Disorders<br>*Ömer Faruk Bayrak* | | | | |
| **17.00-17.50** | **Lecture**<br>Nasal Anatomy and Paranasal Sinuses<br>*Aikaterini Panteli* | **Independent Learning** | **Independent Learning** | **Independent Learning** | | **Independent Learning** | | |

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

**COMMITTEE II - RESPIRATORY SYSTEM**
**III. WEEK / 12 – 16 Nov 2018**

| | Monday<br>12-Nov-2018 | Tuesday<br>13-Nov-2018 | Wednesday<br>14-Nov-2018 | Thursday<br>15-Nov-2018 | Friday<br>16-Nov-2018 |
|---|---|---|---|---|---|
| 09.00- 09.50 | **Lecture**<br>The Trachea<br>*Aikaterini Panteli* | **Lecture**<br>Pulmonary Ventilation<br>*Bayram Yılmaz&Mehtap Kaçar* | **Lecture**<br>Pulmonary Circulation, Pulmonary Edema, Pleural Fluid<br>*Bayram Yılmaz &Mehtap Kaçar* | **Laboratory /Microbiology**<br>Microscopy Methods in Diagnostic<br>*Microbiology Instructors*<br>**Group B** / **Group A,C,D IL** | **Lecture**<br>Gram Positive Aerobic Bacilli<br>*Microbiology Lecturer* |
| 10.00- 10.50 | **Lecture**<br>The lungs<br>*Aikaterini Panteli* | **Lecture**<br>Pulmonary Ventilation<br>*Bayram Yılmaz&Mehtap Kaçar* | **Lecture**<br>Pulmonary Circulation, Pulmonary Edema, Pleural Fluid<br>*Bayram Yılmaz &Mehtap Kaçar* | **Group D** / **Group A,B,C IL** | **Lecture**<br>Non-fermenters<br>*Microbiology Lecturer* |
| 11:00-11:50 | **Lecture**<br>The lungs<br>*Aikaterini Panteli* | **Lecture**<br>Principle of Surface Tension & Alveolar Mechanic<br>*Akif Maharramov* | **Lecture**<br>Pulmonary Innate Immune Response<br>*Gülderen Yanıkkaya Demirel* | **Group C** / **Group A,B,D IL** | **Lecture**<br>Injury by Endogenous Substances<br>*Aydın Sav* |
| 12:00-12:50 | **Lecture**<br>Mycobacteria<br>*Microbiology Lecturer* | **Lecture**<br>Principle of Surface Tension & Alveolar Mechanic<br>*Akif Maharramov* | **Lecture**<br>Pulmonary Innate Immune Response<br>*Gülderen Yanıkkaya Demirel* | **Group A** / **Group B,C,D IL** | **Independent Learning** |
| 13.00- 13.50 | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| 14.00- 14.50 | **Lecture**<br>Aerobic Actinomycetes<br>*Microbiology Lecturer* | **Laboratory / Anatomy**<br>Lower respiratory system<br>*Aikaterini Panteli*<br>**Group A** / **Group B IL** | **Lecture**<br>Development of the Respiratory Systems & Anomalies<br>*Aylin Yaba Uçar* | **Lecture**<br>Transport of Blood Gases<br>*Bayram Yılmaz & Mehtap Kaçar* | **ICP/CSL:** Vital Signs<br>*Pınar Tura & Serdar Özdemir*<br>**Group B** / **Group A SP SGS** / **Group C,D I.L** |
| 15.00- 15.50 | **Lecture**<br>Developmental Genetics and Birth Defects<br>*Ömer Faruk Bayrak* | **Group A IL** / **Group B** | **Lecture**<br>Development of the Respiratory Systems & Anomalies<br>*Aylin Yaba Uçar* | **Lecture**<br>Transport of Blood Gases<br>*Bayram Yılmaz & Mehtap Kaçar* | |
| 16.00- 16.50 | **Lecture**<br>Developmental Genetics and Birth Defects<br>*Ömer Faruk Bayrak* | **Independent Learning** | **Independent Learning** | **Independent Learning** | |
| 17.00-17.50 | **Independent Learning** | | | | **Independent Learning** |

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

**COMMITTEE II - RESPIRATORY SYSTEM**
**IV. WEEK / 19 – 23 Nov 2018**

| | Monday 19-Nov-2018 | Tuesday 20-Nov-2018 | Wednesday 21-Nov-2018 | Thursday 22-Nov-2018 | Friday 23-Nov-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture** Diffusion of Blood Gases *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Regulation of Respiration *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Pulmonary Adaptive Immune Response *Gülderen Yanıkkaya Demirel* | **Laboratory / Physiology** Spirometry *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Injury by Toxic Substances and Pneumoconiosis *Aydın Sav* |
| **10.00- 10.50** | **Lecture** Diffusion of Blood Gases *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Regulation of Respiration *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Pulmonary Adaptive Immune Response *Gülderen Yanıkkaya Demirel* | **Group A** / **Anatomy** Pleura and Diaphragm *Aikaterini Panteli* **Group B** | **Lecture** Injury by Toxic Substances and Pneumoconiosis *Aydın Sav* |
| **11.00- 11.50** | **Lecture** Pleura and Diaphragm *Aikaterini Panteli* | **Lecture** Enterobacteriaceae *Microbiology Lecturer* | **Lecture** Gram Negative Cocci *Microbiology Lecturer* | **Anatomy** Pleura and Diaphragm *Aikaterini Panteli* **Group A** / **Laboratory/ Physiology Group C** *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Other Gram Negative Bacilli-I *Microbiology Lecturer* |
| **12.00- 12.50** | **Lecture** Pleura and Diaphragm *Aikaterini Panteli* | **Lecture** Enterobacteriaceae *Microbiology Lecturer* | **Lecture** Gram Negative Cocci *Microbiology Lecturer* | | **Lecture** Other Gram Negative Bacilli-II *Microbiology Lecturer* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture** Cancer Genetics and Genomics *Ömer Faruk Bayrak* | **Laboratory / Microbiology** Culture Methods in Diagnostic Microbiology *Microbiology Instructors* | **Lecture** Review of the Respiratory System *Aikaterini Panteli* | **Laboratory / Physiology** Spirometry Bayram Yılmaz & Mehtap Kaçar | **ICP/CSL:** Vital Signs *Cem Şimşek & Serdar Özdemir* **Group A** / **Group B SP SGS** / **Group C, D I.L** |
| | | **Group A** / **Group B,C,D IL** | | | |
| **15.00- 15.50** | **Lecture** Cancer Genetics and Genomics *Ömer Faruk Bayrak* | **Group B** / **Group A,C,D IL** | **Lecture** Molecular Basis of Genetic Diseases *Ömer Faruk Bayrak* | **Group B** / **Group A, C IL** | |
| **16.00- 16.50** | **Independent Learning** | **Group C** / **Group A,B,D IL** | **Lecture** Tools of Human Molecular Genetics *Ömer Faruk Bayrak* | **Laboratory / Histology** Review Session *Alev Cumbul & Aylin Yaba Uçar* | |
| | | | | **Group A** / **Group B I.L** | |
| **17.00-17.50** | | **Group D** / **Group A,B,C IL** | **Independent Learning** | **Group A I.L** / **Group B** | **Independent Learning** |

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

**COMMITTEE II - RESPIRATORY SYSTEM**
**V. WEEK / 26 – 30 Nov 2018**

| | Monday<br>26-Nov-2018 | Tuesday<br>27-Nov-2018 | Wednesday<br>28-Nov-2018 | Thursday<br>29-Nov-2018 | Friday<br>30-Nov-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Sports Physiology<br>*Mehtap Kaçar* | **Lecture**<br>Aviation, High-Altitude and Space Physiology<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Miscallaneous Bacteria<br>*Çağatay Acuner* | **Laboratory / Microbiology**<br>Microscopy and Culture Methods in Diagnostic Mycobacteria<br>*Microbiology Instructors*<br>**Group C** / **Group A,B,D IL** | **Lecture**<br>Modeling in Circulatory & Respiratory Systems<br>*Akif Maharramov* |
| **10.00- 10.50** | **Lecture**<br>Sports Physiology<br>*Mehtap Kaçar* | **Lecture**<br>Physiology of Deep-Sea Diving and Hyperbaric Conditions<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Diagnostic Methods in Bacteriology<br>*Çağatay Acuner* | **Group D** / **Group A,B,C IL** | **Lecture**<br>Modeling in Circulatory & Respiratory Systems<br>*Akif Maharramov* |
| **11.00- 11.50** | **Lecture**<br>Anaerobic Bacteria<br>*Microbiology Lecturer* | **Lecture**<br>Genetics of Complex Diseases<br>*Ömer Faruk Bayrak* | **Lecture**<br>Introduction to Pathophysiology of Respiratory System<br>*Mehtap Kaçar* | **Group A** / **Group B,C,D IL** | **Lecture**<br>Mycoplasma, Chlamydia, Rickettsia<br>*Microbiology Lecturer* |
| **12.00- 12.50** | **Lecture**<br>Anaerobic Bacteria<br>*Microbiology Lecturer* | **Lecture**<br>Genetics of Complex Diseases<br>*Ömer Faruk Bayrak* | **Lecture**<br>Introduction to Pathophysiology of Respiratory System<br>*Mehtap Kaçar* | **Group B** / **Group A,C,D IL** | **Lecture**<br>Mycoplasma, Chlamydia, Rickettsia<br>*Microbiology Lecturer* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Laboratory / Microbiology**<br>Identification Methods in Diagnostic Microbiology<br>*Microbiology Instructors*<br>**Group D** / **Group A,B,C IL** | **Laboratory / Physiology**<br>Exercise and Metabolism<br>*Mehtap Kacar & Burcu Gemici Başol* | **Laboratory / Physiology**<br>Exercise and Metabolism<br>*Mehtap Kacar & Burcu Gemici Başol* | **Lecture**<br>Treatment of Genetic Disease - Introduction to Gene Therapy<br>*Ömer Faruk Bayrak* | **Invited Speaker** |
| **15.00- 15.50** | **Group C** / **Group A,B,D IL** | **Group B** / **Group A,C I.L** | **Group C** / **Group A,B, I.L** | **Lecture**<br>Treatment of Genetic Disease - Introduction to Gene Therapy<br>*Ömer Faruk Bayrak* | **Independent Learning** |
| **16.00- 16.50** | **Group B** / **Group A,C,D IL** | **Group B, C I.L** / **Group A** | **Independent Learning** | **Independent Learning** | |
| **17.00-17.50** | **Group A** / **Group B,C,D IL** | | | | |

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

**COMMITTEE II - RESPIRATORY SYSTEM**
**VI. WEEK / 03 – 07 Dec 2018**

| | Monday<br>03-Dec-2018 | Tuesday<br>04-Dec-2018 | Wednesday<br>05-Dec-2018 | Thursday<br>06-Dec-2018 | Friday<br>07-Dec-2018 |
|---|---|---|---|---|---|
| 09.00- 09.50 | Assessment Session<br>(Practical Exam) | Independent Learning | Independent Learning | Independent Learning | Independent Learning |
| 10.00- 10.50 | | | | | |
| 11.00- 11.50 | | | | | |
| 12.00- 12.50 | | | | | |
| 13.00- 13.50 | Lunch Break | Lunch Break | Lunch Break | Lunch Break | Lunch Break |
| 14.00- 14.50 | Assessment Session<br>(Practical Exam) | Independent Learning | Independent Learning | Independent Learning | Assessment Session<br>Committee II<br>(MCQ) |
| 15.00- 15.50 | | | | | |
| 16.00- 16.50 | | | | | |
| 17.00- 17.50 | | | | | **Program Evaluation Session**<br>Review of the Exam Questions, Evaluation of the Committee II Program<br>*Secretary of the Committee* |

## COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM
## DISTRIBUTION of LECTURE HOURS
## December 10, 2018 – January 19, 2019
## COMMITTEE DURATION: 6 WEEKS

| | BASIC MEDICAL SCIENCES II | THEORETICAL | PRACTICAL | TOTAL |
|---|---|---|---|---|
| **MED 203** | **DISCIPLINE** | | | |
| | ANATOMY | 19 | 2Grx7H | 26 |
| | BIOCHEMISTRY | 32 | 3Grx2H | 34 |
| | BIOPHYSICS | 10 | 0 | 10 |
| | BIOSTATISTICS | 4 | 0 | 4 |
| | HISTOLOGY & EMBRYOLOGY | 9 | 2Grx4H | 13 |
| | IMMUNOLOGY | 2 | 0 | 2 |
| | MEDICAL BIOLOGY | 6 | 0 | 6 |
| | MEDICAL MICROBIOLOGY | 10 | 4Grx1H | 11 |
| | PHYSIOLOGY | 16 | 3Grx2H | 18 |
| | SCIENTIFIC PROJECTS-II | 0 | 4GrX3H | 3 |
| | **TOTAL** | **108** | **19** | **127** |

| | | | | |
|---|---|---|---|---|
| **MED 202** | **INTRODUCTION TO CLINICAL PRACTICE- II** | 4 GrX1 +<br>2 GrX1 | 4 GrX2 +<br>2 GrX2 | 6 / 3 |

| | | |
|---|---|---|
| **Coordination Committee** | **Head** | İnci ÖZDEN, PhD. Prof. |
| | **Secretary** | Burcu GEMİCİ BAŞOL, PhD. Assoc.Prof. |
| | **Member** | Mehtap KAÇAR, MD. PhD. Assoc. Prof. |
| | **Member** | Aikaterini PANTELİ, MD, Lecturer |

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

| MED 203 BASIC MEDICAL SCIENCES II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| ANATOMY | Erdem SÖZTUTAR, MD. Assist. Prof.<br>Mohammed ELGAZZAR, MD. Lecturer.<br>Aikaterini PANTELİ, MD, Lecturer<br>LAB: Edibe BİLİŞLİ, DVM<br>LAB: Zeynep Büşra ODABAŞ, DMD |
| BIOCHEMISTRY | İnci ÖZDEN, PhD. Prof.<br>LAB: Jale ÇOBAN, MD Prof.<br>LAB: Müge KOPUZ, PhD. |
| BIOPHYSICS | Akif MAHARRAMOV, PhD. Assist. Prof.<br>Bilge GÜVENÇ TUNA, PhD. Assist. Prof. |
| BIOSTATISTICS | E. Çiğdem ALTUNOK, PhD. Assist. Prof. |
| HISTOLOGY & EMBRYOLOGY | Aylin YABA UÇAR, PhD. Assoc. Prof.<br>Alev CUMBUL, PhD. Assist. Prof. |
| IMMUNOLOGY | Gülderen YANIKKAYA DEMİREL, MD, PhD. Assoc. Prof. |
| MEDICAL BIOLOGY | Turgay İSBİR, PhD. Prof.<br>Soner DOĞAN, PhD. Assoc. Prof.<br>Deniz KIRAÇ, PhD. Assoc. Prof. |
| MEDICAL MICROBIOLOGY | Çağatay ACUNER, MD. Assoc.Prof.<br>Microbiology Lecturer/Instructor |
| PHYSIOLOGY | Bayram YILMAZ, PhD. Prof.<br>Mehtap KAÇAR, MD. PhD. Assoc. Prof.<br>Burcu GEMİCİ BAŞOL, PhD. Assoc. Prof. |
| SCIENTIFIC PROJECTS-II | Gülderen YANIKKAYA DEMİREL, MD, PhD. Assoc. Prof. |

| MED 202 INTRODUCTION TO CLINICAL PRACTICE II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| CLINICAL SKILLS LAB | Özlem TANRIÖVER, MD. Assoc. Prof.<br>A. Arzu AKALIN, MD. Assist. Prof.<br>Barış Murat AYVACI, MD. Assist. Prof.<br>Gökhan GENCER, MD. Assist. Prof. |

## COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM

## AIM and LEARNING OBJECTIVES

**AIMS**

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

**LEARNING OBJECTIVES**

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

**KNOWLEDGE**

1.0. describe metabolic events in human 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.

7.0. For lipid, protein and carbohydrate metabolisms;
- 7.1. describe physiological mechanisms,
- 7.2. explain the relation to each other,
- 7.3. associate the changes of these relations at fasting and postprandial phase.

7.0 In digestive system;
- 7.1. list exocrine glands secreting acid-neutralizing fluids,
- 7.2. explain their secretion mechanisms,
- 7.3. explain hormonal and neural factors.

8.0 classify the roles of enzymes and hormones in digestion and absorption of lipids and proteins.

9.0 explain types and roles of lipoproteins.

10.0 explain metabolisms of fatty acids, cholesterol, ketone bodies.

11.0 explain amino acid metabolisms, synthesis of urea and control mechanism of the synthesis.

12.0 Describe the structural/biological features and pathogenesis of parasites.

13.0 describe the properties of mucosal immunity

14.0 describe how to write a scientific project proposal.

15.0 prepare a research project draft.

16.0 count significance tests in biostatistics.

17.0 count biostatistical sampling methods.

18.0 choose significance tests according to the properties of biostatistical data.

19.0 explain case scenario related basic medical science topics in a clinical context.

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**

**COMMITTEE ASSESSMENT MATRIX**

| LEARNING OBJECTIVES | DISCIPLINE | LECTURER/ INSTRUCTOR | DISTRUBITION of MCQs and SbMCQ | | | |
|---|---|---|---|---|---|---|
| | | | CE | FE | IE | TOTAL |
| 3.0.-4.0. | ANATOMY | Dr. M.Elgazzar | **19** | **7** | **7** | 33 |
| 6.0, 8.0.-11.0., 19.0 | BIOCHEMISTRY | Dr. İ. Özden | **29** | **10** | **10** | 49 |
| 1.0., 19.0 | BIOPHYSICS | Dr. A. Maharramov | **9** | **4** | **4** | 17 |
| 16.0-18.0 | BIOSTATISTICS | Dr. E.Ç. Altunok | **4** | **1** | **1** | 6 |
| 5.0. | HISTOLOGY & EMBRYOLOGY | Dr. A. Cumbul<br>Dr. A. Yaba Uçar | **8** | **3** | **3** | 14 |
| 13.0. | IMMUNOLOGY | Dr. G. Yanıkkaya Demirel | **2** | **1** | **1** | 4 |
| 2.0. | MEDICAL BIOLOGY | Dr. S. Doğan | **4** | **2** | **2** | 8 |
| 12.0. | MEDICAL MICROBIOLOGY | Dr. Ç. Acuner<br>Microbiology Lecturer | **9** | **4** | **4** | 17 |
| 7.0, 19.0 | PHYSIOLOGY | Dr. B. Yilmaz<br>Dr. M. Kaçar<br>Dr. B. Gemici Başol | **15** | **6** | **6** | 27 |
| 19.0 | PBL | | **1** | **0** | **0** | 1 |
| | | TOTAL | 100 | 38/200# | 38/200# | 176 |

| LEARNING OBJECTIVES | DISCIPLINE | DISTRUBITION of LAB ASSESSMENT POINTS |
|---|---|---|
| | | LPE |
| 3.0-4.0 | ANATOMY | **60** |
| 6.0, 8.0.-11.0. | BIOCHEMISTRY | **5** |
| 5.0. | HISTOLOGY & EMBRYOLOGY | **20** |
| 12.0. | MICROBIOLOGY | **5** |
| 7.0. | PHYSIOLOGY | **10** |
| | TOTAL | **100** |

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).
Total value of LPE is equal to 100 points

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

**Abbreviations:**
**MCQ:** Multiple Choice Questions
**LPE:** Laboratory Practical Exam
**CE:** Committee Exam
**CS:** Committee Score
**FE:** Final Exam
**ICE:** Incomplete Exam
**Pts.:** Points
# In FE and ICE**, 38** out of 200 FE and ICE MCQs will be from Committee III (Each question is 0.5 pt, equal value)

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**

**I. WEEK / 10 – 14 Dec 2018**

| | Monday<br>10-Dec-2018 | Tuesday<br>11-Dec-2018 | Wednesday<br>12-Dec-2018 | Thursday<br>13-Dec-2018 | Friday<br>14-Dec-2018 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **PBL** | **Lecture**<br>Oral Cavity<br>*Mohammed Elgazzar* | **Lecture**<br>Gastrointestinal Functions<br>*Burcu Gemici Başol* | **Independent Learning** | **Lecture**<br>Test Hypotheses and Significance-Chi-Square Test<br>*E. Çiğdem Altunok* |
| **10.00- 10.50** | | **Lecture**<br>Oral Cavity<br>*Mohammed Elgazzar* | **Lecture**<br>Gastrointestinal Functions<br>*Burcu Gemici Başol* | **Independent Learning** | **Lecture**<br>Test Hypotheses and Significance-Chi-Square Test<br>*E. Çiğdem Altunok* |
| **11.00- 11.50** | | **Lecture**<br>Digestion and Absorption of Lipids<br>*İnci Özden* | **Lecture**<br>Introduction to Parasitology<br>Microbiology Lecturer | **Independent Learning** | **Lecture**<br>Energy Transformation & Distribution in Bio-molecular Systems<br>*Akif Maharramov* |
| **12.00- 12.50** | **Introduction to Committee III**<br>*Secretary of Committee* | **Lecture**<br>Digestion and Absorption of Lipids<br>*İnci Özden* | **Lecture**<br>Parasitic Pathogenesis<br>Microbiology Lecturer | **Independent Learning** | **Lecture**<br>Energy Transformation & Distribution in Bio-molecular Systems<br>*Akif Maharramov* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Overall Developmental Anatomy of the Digestive System<br>*Mohammed Elgazzar* | **ICP**<br>**CSL:** Nasogastric Tube Administration<br>*Özlem Tanrıöver / Arzu Akalın / Barış M. Ayvacı*<br>**Group A** / **Group B SP SGS** / **Group C, D. I.L** | **Lecture**<br>Transport of Lipids in Plasma<br>*İnci Özden* | **Lecture**<br>Cholesterol Metabolism<br>*İnci Özden* | **Lecture**<br>Histology of Upper Gastrointestinal Tract; Oral Cavity, Tongue<br>*Alev Cumbul* |
| **15.00- 15.50** | **Lecture**<br>Overall Developmental Anatomy of the Digestive System<br>*Mohammed Elgazzar* | | **Lecture**<br>Transport of Lipids in Plasma<br>*İnci Özden* | **Lecture**<br>Cholesterol Metabolism<br>*İnci Özden* | **Lecture**<br>Histology of Alimentary Canal; Intestines<br>*Alev Cumbul* |
| **16.00- 16.50** | **Lecture**<br>Bio-thermodynamics, Laws of Thermodynamics<br>*Akif Maharramov* | | **Laboratory / Anatomy**<br>Oral cavity<br>*Mohammed Elgazzar*<br>**Group A, IL** / **Group B** | **Independent Learning** | **Independent Learning** |
| **17.00-17.50** | **Lecture**<br>The Zeroth and First Laws of Thermodynamics<br>*Akif Maharramov* | **Independent Learning** | **Group A** / **Group B, IL** | **Independent Learning** | **Independent Learning** |

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

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**
**II. WEEK / 17 – 21 Dec 2018**

| | Monday 17-Dec-2018 | Tuesday 18-Dec-2018 | Wednesday 19-Dec-2018 | Thursday 20-Dec-2018 | | Friday 21-Dec-2018 | | |
|---|---|---|---|---|---|---|---|---|
| 09.00- 09.50 | PBL Session | **Lecture** Lipogenesis, Triacylglycerol Synthesis *İnci Özden* | **Lecture** Secretory Functions of the Alimentary Tract *Burcu Gemici Başol* | **Laboratory / Physiology** DigestiveSystem *Burcu Gemici Başol* | **Laboratory / Biochemistry** Lipid Determination in Blood *Jale Çoban & Müge Kopuz* | **Lecture** Digestion and Absorption of Proteins *İnci Özden* | | |
| 10.00- 10.50 | | **Lecture** Lipogenesis, Triacylglycerol Synthesis *İnci Özden* | **Lecture** Secretory Functions of the Alimentary Tract *Burcu Gemici Başol* | **Group B** | **Group C** | **Lecture** Digestion and Absorption of Proteins *İnci Özden* | | |
| 11.00- 11.50 | | **Lecture** Propulsion and Mixing Movements in the GI tract *Burcu Gemici Başol* | **Lecture** Small Intestine *Mohammed Elgazzar* | **Group A** | **Group B** | **Lecture** Entropy, Free Energy, Boltzmann Distribution *Akif Maharramov* | | |
| 12.00- 12.50 | **PBL Panel** | **Lecture** Propulsion and Mixing Movements in the GI tract *Burcu Gemici Başol* | **Lecture** Small Intestine *Mohammed Elgazzar* | | | **Lecture** The Second Law of Thermodynamics *Akif Maharramov* | | |
| 13.00- 13.50 | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| 14.00- 14.50 | **Lecture** The Stomach *Mohammed Elgazzar* | **Lecture** The Esophagus *Mohammed Elgazzar* | **Laboratory / Anatomy** Esophagus *Mohammed Elgazzar* | **Laboratory / Physiology** DigestiveSystem *Burcu Gemici Başol* **Group C** | **Laboratory / Biochemistry** Lipid Determination in *Jale Çoban & Müge Kopuz* **Group A** | **ICP** **CSL:** Nasogastric Tube Administration *ÖzlemTanrıöver& Arzu Akalın & Barış M. Ayvacı* **Group B** | **Group A SP SGS** | **Group C, D I.L** |
| 15.00- 15.50 | **Lecture** Duodenum *Mohammed Elgazzar* | **Laboratory / Anatomy** The Stomach and Duodenum *Mohammed Elgazzar* **Group A** / **Group B I.L** | **Group A** | **Group B I.L** | | | | |
| 16.00- 16.50 | **Lecture** Applications of the First Law to Isothermal and Adiabatic Processes *Akif Maharramov* | **Group A I.L** | **Group B** | **Independent Learning** | | **Lecture** Interrelationship of Biology of Major Organs *Soner Doğan* | | |
| 17.00-17.50 | **Lecture** Applications of the First Law to Isochoric, Isobaric Processes, Enthalpy *Akif Maharramov* | **Independent Learning** | | **Independent Learning** | | **Lecture** Interrelationship of Biology of Major Organs *Soner Doğan* | **Independent Learning** | |

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

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**
**III. WEEK / 24 – 28 Dec 2018**

| | Monday<br>24-Dec-2018 | Tuesday<br>25-Dec-2018 | Wednesday<br>26-Dec-2018 | Thursday<br>27-Dec-2018 | | Friday<br>28-Dec-2018 | | |
|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Gland Associated with the Digestive System; Salivary Glands<br>*Aylin Yaba Uçar* | **Lecture**<br>Ketone Bodies<br>*İnci Özden* | **Lecture**<br>Oxidation of Fatty acids<br>*İnci Özden* | **Laboratory / Histology**<br>Histology of GIS I<br>*Alev Cumbul & Aylin Yaba Uçar*<br>**Group A** | **Laboratory /Microbiology**<br>Parasitology<br>*Microbiology Instructors*<br>**Group D** | **Lecture**<br>Urea Cycle<br>*İnci Özden* | | |
| **10.00- 10.50** | **Lecture**<br>Gland Associated with the Digestive System; Salivary Glands<br>*Aylin Yaba Uçar* | **Lecture**<br>Ketone Bodies<br>*İnci Özden* | **Lecture**<br>Oxidation of Fatty acids<br>*İnci Özden* | | **Group C** | **Lecture**<br>Urea Cycle<br>*İnci Özden* | | |
| **11:00-11:50** | **Lecture**<br>Energetics and Metabolic Rate<br>*Bayram Yılmaz* | **Lecture**<br>Histology of Alimentary Canal; Small Intestine<br>*Aylin Yaba Uçar* | **Lecture**<br>Liver as Organ<br>*Bayram Yılmaz* | **Group B** | **Group A** | **Lecture**<br>Animalia – II<br>Microbiology Lecturer | | |
| **12:00-12:50** | **Lecture**<br>Energetics and Metabolic Rate<br>*Bayram Yılmaz* | **Lecture**<br>Histology of Alimentary Canal; Large Intestine & Appendix<br>*Aylin Yaba Uçar* | **Lecture**<br>Protozoa-I<br>Microbiology Lecturer | | **Group B** | **Lecture**<br>Animalia – III<br>Microbiology Lecturer | | |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| **14.00- 14.50** | **Lecture**<br>Large Intestine<br>*Mohammed Elgazzar* | **Lecture**<br>Regulation of Feeding and Obesity<br>*Bayram Yılmaz* | **Lecture**<br>Protozoa-II<br>Microbiology Lecturer | **Lecture**<br>Metabolisms of Individual Amino Acids<br>*İnci Özden* | | **ICP**<br>CSL: Nasogastric Tube Administration<br>*Özlem Tanrıöver& Arzu Akalın Barış M. Ayvacı*<br>**Group C** | **Group D SP SGS** | **Group A,B I.L** |
| **15.00- 15.50** | **Lecture**<br>Large Intestine<br>*Mohammed Elgazzar* | **Lecture**<br>Regulation of Feeding and Obesity<br>*Bayram Yılmaz* | **Lecture**<br>Animalia – I<br>Microbiology Lecturer | **Lecture**<br>Metabolisms of Individual Amino Acids<br>*İnci Özden* | | | | |
| **16.00- 16.50** | **Lecture**<br>Digestion and Absorption in the Gastrointestinal Tract<br>*Burcu Gemici Başol* | **Laboratory / Anatomy**<br>Small and Large Intestine<br>*Mohammed Elgazzar*<br>**Group A** / **Group B I.L** | **Lecture**<br>Glands Associated with the Digestive System; Pancreas & APUDs<br>*Aylin Yaba Uçar* | **Independent Learning** | | | | |
| **17.00-17.50** | **Independent Learning** | **Group A I.L** | **Group B** | **Independent Learning** | **Independent Learning** | **Independent Learning** | | |

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

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**
**IV. WEEK / 31 Dec 2018 – 04 Jan 2019**

| | Monday<br>31-Dec-2018 | Tuesday<br>01-Jan-2019 | Wednesday<br>02-Jan-2019 | Thursday<br>03-Jan-2019 | | Friday<br>04-Jan-2019 | | |
|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **Independent Learning** | **New Year** | **Lecture**<br>Metabolic Interrelationships and Provision of Tissue Fuels<br>*İnci Özden* | **Laboratory / Histology**<br>Histology of Gastrointestinal System II<br>*Alev Cumbul & Aylin Yaba Uçar*<br>**Group B** | **Group A IL** | **Lecture**<br>Overview of Metabolism<br>*İnci Özden* | | |
| **10.00- 10.50** | **Independent Learning** | | **Lecture**<br>Metabolic Interrelationships and Provision of Tissue Fuels<br>*İnci Özden* | | **Laboratory / Anatomy**<br>Liver and Biliary System<br>*Mohammed Elgazzar*<br>**Group A** | **Lecture**<br>Overview of Metabolism<br>*İnci Özden* | | |
| **11.00- 11.50** | **Independent Learning** | | **Lecture**<br>Liver<br>*Mohammed Elgazzar* | **Group A** | **Laboratory / Anatomy Group B** | **Lecture**<br>Body Temperature and Its Regulation<br>*Bayram Yılmaz* | | |
| **12.00- 12.50** | **Independent Learning** | | **Lecture**<br>Biliary System<br>*Mohammed Elgazzar* | | **Group B IL** | **Lecture**<br>Body Temperature and Its Regulation<br>*Bayram Yılmaz* | | |
| **13.00- 13.50** | **Lunch Break** | | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | |
| **14.00- 14.50** | **Independent Learning** | | **Lecture**<br>The Pancreas and Spleen<br>*Mohammed Elgazzar* | **Lecture**<br>Citric Acid Cycle<br>*İnci Özden* | | **ICP**<br>CSL: Nasogastric Tube Administration<br>*ÖzlemTanrıöver& Arzu Akalın Barış M. Ayvacı*<br>**Group D** | **Group C SP SGS** | **Group A,B I.L** |
| **15.00- 15.50** | **Independent Learning** | | **Lecture**<br>Development of Gastrointestinal Tract; Alimentary Canal & Glands<br>*Alev Cumbul* | **Lecture**<br>Citric Acid Cycle<br>*İnci Özden* | | | | |
| **16.00- 16.50** | **Independent Learning** | | **Lecture**<br>Congenital Anomalies of Gastrointestinal Tract<br>*Alev Cumbul* | **Lecture**<br>Interrelationship of Biology of MajorOrgans<br>*Soner Doğan* | | | | |
| **17.00-17.50** | **Independent Learning** | | **Independent Learning** | **Lecture**<br>Interrelationship of Biology of MajorOrgans<br>*Soner Doğan* | | **Independent Learning** | | |

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

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**
**V. WEEK / 07– 11 Jan 2019**

| | Monday<br>07-Jan-2019 | Tuesday<br>08-Jan-2019 | Wednesday<br>09-Jan-2019 | Thursday<br>10-Jan-2019 | Friday<br>11-Jan-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Clinical and Topographic Anatomy of the Anterior Abdominal Wall<br>*Mohammed Elgazzar* | **Lecture**<br>Metabolic Interrelationships and Provision of Tissue Fuels<br>*İnci Özden* | **Lecture**<br>Purine and Pyrimidine Metabolism<br>*İnci Özden* | **Lecture**<br>Xenobiotic Metabolism<br>*İnci Özden* | **Lecture**<br>Lipolysis<br>*İnci Özden* |
| **10.00- 10.50** | **Lecture**<br>Abdominal Cavity and Peritoneum<br>*Mohammed Elgazzar* | **Lecture**<br>Metabolic Interrelationships and Provision of Tissue Fuels<br>*İnci Özden* | **Lecture**<br>Purine and Pyrimidine Metabolism<br>*İnci Özden* | **Lecture**<br>Xenobiotic Metabolism<br>*İnci Özden* | **Lecture**<br>Lipolysis<br>*İnci Özden* |
| **11:00-11:50** | **Lecture**<br>Animalia – IV<br>Microbiology Lecturer | **Lecture**<br>Physiology of Gastrointestinal Disorders<br>*Mehtap Kaçar* | **Lecture**<br>Mucosal Immunity<br>*Gülderen Yanıkkaya Demirel* | **Introduction to Elective Courses** | **Lecture**<br>Test Hypotheses and Significance-<br>Z-Test<br>*Çiğdem Altunok* |
| **12:00-12:50** | **Lecture**<br>Animalia – V<br>Microbiology Lecturer | **Lecture**<br>Physiology of Gastrointestinal Disorders<br>*Mehtap Kaçar* | **Lecture**<br>Mucosal Immunity<br>*Gülderen Yanıkkaya Demirel* | | **Lecture**<br>Test Hypotheses and Significance-<br>Z-Test<br>*Çiğdem Altunok* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Diagnostic Methods in Parasitology<br>Microbiology Lecturer | **Lecture**<br>Abdominal Cavity and Peritoneum<br>*Mohammed Elgazzar* | **Lecture**<br>Nutrigenomics<br>*Soner Doğan* | **Lecture**<br>Review of the Digestive System<br>*Erdem Söztutar* | **ICP**<br>CSL: Intramuscular/ Intradermal/ Subcutan Injection<br>*ÖzlemTanrıöver& Arzu Akalın & Gökhan Gencer*<br>**Group C** |
| **15.00- 15.50** | **Laboratory / Anatomy**<br>Pancreas and Spleen<br>*Mohammed Elgazzar*<br>**Group A I.L** / **Group B** | **Lecture**<br>Nerves and Vasculature of the Abdominal Cavity<br>*Mohammed Elgazzar* | **Lecture**<br>Nutrigenomics<br>*Soner Doğan* | **Lecture**<br>Review of the Digestive System<br>*Erdem Söztutar* | **Group D SP SGS** |
| **16.00- 16.50** | **Group A** / **Group B I.L** | **Lecture**<br>Repetition all of the Material<br>*Akif Maharramov* | **Laboratory / Histology**<br>Review Session<br>*Alev Cumbul & Aylin Yaba Uçar*<br>**Group B I.L** / **Group A** | **Laboratory / Anatomy**<br>Abdominal Cavity and Peritoneum<br>*Mohammed Elgazzar*<br>**Group B I.L** / **Group A** | **Group A,B**<br>**Independent Learning** |
| **17.00-17.50** | **Independent Learning** | **Lecture**<br>Repetition all of the Material<br>*Akif Maharramov* | **Group B** / **Group A I.L** | **Group B** / **Group A I.L** | **Independent Learning** |

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

**COMMITTEE III - GASTROINTESTINAL SYSTEM and METABOLISM**
**VI. WEEK / 14 – 18 Jan 2019**

<table>
<tr><th></th><th>Monday<br>14-Jan-2019</th><th>Tuesday<br>15-Jan-2019</th><th>Wednesday<br>16-Jan-2019</th><th>Thursday<br>17-Jan-2019</th><th>Friday<br>18-Jan-2019</th></tr>
<tr><td>09.00- 09.50</td><td>Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td>Independent Learning</td></tr>
<tr><td>10.00- 10.50</td><td>Independent Learning</td><td rowspan="3">Assessment Session<br>Committee III<br>(MCQ)</td></tr>
<tr><td>11.00- 11.50</td><td>Physiology Practical Exam</td></tr>
<tr><td>12.00- 12.50</td><td>Histology and Embryology<br>Practical Exam</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td rowspan="4">Anatomy Practical Exam</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td>Program Evaluation Session<br>Review of the Exam Questions,<br>Evaluation of the Committee III<br>Program<br>Secretary of the Committee</td></tr>
<tr><td>15.00- 15.50</td></tr>
<tr><td>16.00- 16.50</td><td rowspan="2">Independent Learning</td></tr>
<tr><td>17.00-17.50</td></tr>
</table>

# MIDTERM BREAK  21 JAN 2019 - 01 FEB 2019

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

### February 4 – March 29, 2019

### COMMITTEE DURATION: 8 WEEKS

| | BASIC MEDICAL SCIENCES II | THEORETICAL | PRACTICAL | TOTAL |
|---|---|---|---|---|
| **MED 203** | **DISCIPLINE** | | | |
| | ANATOMY | 46 | 2 Gr x 14H | 60 |
| | BIOPHYSICS | 3 | 0 | 3 |
| | BIOSTATISTICS | 4 | 1 Gr x 2H | 6 |
| | HISTOLOGY & EMBRYOLOGY | 12 | 2 Gr x 3H | 15 |
| | IMMUNOLOGY | 2 | 0 | 2 |
| | MEDICAL BIOLOGY | 4 | 0 | 4 |
| | PATHOLOGY | 6 | 0 | 6 |
| | PHARMACOLOGY | 9 | 2 Gr x 1H | 10 |
| | PHYSIOLOGY | 36 | 3 Gr x 10H | 46 |
| | SCIENTIFIC PROJECTS-II | 0 | 4GrX3H | 3 |
| | **TOTAL** | **122** | **33** | **155** |

| | | | | |
|---|---|---|---|---|
| **MED 202** | **INTRODUCTION TO CLINICAL PRACTICE- II** | 4 GrX1 +<br>2 GrX1 | 4 GrX2 +<br>2 GrX2 | 6 / 3 |

| | | |
|---|---|---|
| **Coordination Committee** | **Head** | Bayram YILMAZ, PhD, Prof. |
| | **Secretary** | Deniz KIRAÇ, PhD, Assoc. Prof |
| | **Member** | Mehtap KAÇAR, PhD, MD, Assoc. Prof. |
| | **Member** | Aikaterini PANTELİ, MD. |

## COMMITTEE IV- NERVOUS SYSTEM
## LECTURERS
## February 4 – 29 March, 2019

| MED 203 BASIC MEDICAL SCIENCES II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| ANATOMY | Erdem SÖZTUTAR MD, Assist. Prof.<br>Mohammed ELGAZZAR, MD. Lecturer.<br>Aikaterini PANTELİ, MD. Lecturer<br>LAB: Edibe BİLİŞLİ, DVM<br>LAB: Zeynep Büşra ODABAŞ, DMD |
| BIOPHYSICS | Akif MAHARRAMOV, PhD Assist. Prof.<br>Bilge GÜVENÇ TUNA, PhD Assist. Prof. |
| BIOSTATISTICS | Çiğdem ALTUNOK, PhD, Assist. Prof. |
| HISTOLOGY & EMBRYOLOGY | Aylin YABA UÇAR PhD Assoc. Prof.<br>Alev CUMBUL, PhD Assist. Prof. |
| IMMUNOLOGY | Gülderen YANIKKAYA DEMIREL, MD PhD Assoc. Prof. |
| MEDICAL BIOLOGY | Turgay İSBİR, PhD Prof.<br>Soner DOĞAN, PhD Assoc. Prof.<br>Deniz KIRAÇ, PhD Assoc. Prof. |
| PATHOLOGY | Aydın SAV MD, Prof. |
| PHARMACOLOGY | Ece GENÇ, PhD Prof. |
| PHYSIOLOGY | Bayram YILMAZ, PhD Prof.<br>Mehtap KAÇAR, MD PhD Assoc. Prof.<br>Burcu GEMİCİ, PhD Assoc. Prof. |
| SCIENTIFIC PROJECTS-II | Gülderen YANIKKAYA DEMIREL, MD PhD Assoc. Prof. |

| MED 202 INTRODUCTION TO CLINICAL PRACTICE II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| CLINICAL SKILLS LAB | Özlem TANRIÖVER, MD Assoc. Prof.<br>A. Arzu AKALIN, MD Assist. Prof.<br>Mustafa YAZICIOĞLU, MD. Asist. Prof.<br>Emin Gökhan GENCER, MD. Asist. Prof.<br>Pınar TURA MD. Asist. 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 development mechanisms of inflammatory processes,
5. To convey general knowledge about neuroimmunology,
6. To convey basic knowledge about pharmacology,
7. To convey knowledge about the drugs effecting nervous system,
8. To convey information about good laboratory and clinical practices in research projects.
9. To convey basic knowledge about biostatistics.

**LEARNING OBJECTIVES**

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

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 the anatomy of skin and its derivatives and the mammary glands
  3.5. describe descending and ascending pathways,
  3.6. associate with adjacent tissue and organs,
  3.7. 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.
15.0. explain inflammatory processes, termination pathways, effects on tissues and mechanisms for inducing diseases.
16.0. describe the properties of neuroimmunology
17.0. describe how to write a scientific project proposal.
18.0. prepare a research project draft.
19.0. count biostatistical sampling methods.
20.0. count significance tests in biostatistics.
21.0. choose significance tests according to the properties of biostatistical data.

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

| LEARNING OBJECTIVES | DISCIPLINE | LECTURER/ INSTRUCTOR | DISTRUBITION of MCQs and SbMCQ | | | |
|---|---|---|---|---|---|---|
| | | | CE | FE | IE | TOTAL |
| 3.0. | ANATOMY | Dr. A. Panteli | **38** | **17** | **17** | **72** |
| 1.0. | BIOPHYSICS | Dr. B. Güvenç Tuna | **2** | **1** | **1** | **4** |
| 19.0-21.0 | BIOSTATISTICS | Dr. E.Ç. Altunok | **3** | **1** | **1** | **5** |
| 4.0. | HISTOLOGY & EMBRYOLOGY | Dr. A. Cumbul<br>Dr. A. Yaba Uçar | **10** | **4** | **4** | **18** |
| 16.0 | IMMUNOLOGY | Dr. G. Yanıkkaya Demirel | **2** | **1** | **1** | **4** |
| 2.0. | MEDICAL BIOLOGY | Dr. T. İsbir | **3** | **1** | **1** | **5** |
| 15.0 | PATHOLOGY | Dr. A. Sav | **5** | **2** | **2** | **9** |
| 13.0-14.0. | PHARMACOLOGY | Dr. E. Genç | **7** | **3** | **3** | **13** |
| 5.0-12.0. | PHYSIOLOGY | Dr. B. Yilmaz<br>Dr. M. Kaçar<br>Dr. B. Gemici Başol | **30** | **13** | **13** | **56** |
| | | **TOTAL** | **100** | **43/200#** | **43/200#** | **186** |

| LEARNING OBJECTIVES | DISCIPLINE | POINTS of ASSESSMENT METHODS |
|---|---|---|
| | | LPE |
| 3.0. | ANATOMY | **55** |
| 4.0. | HISTOLOGY & EMBRYOLOGY | **10** |
| 13.0-14.0 | PHARMACOLOGY | **5** |
| 5.0-12.0. | PHYSIOLOGY | **30** |
| | **TOTAL** | **100** |

Total value of LPE is equal to 100 points

### Committee Score (CS) = 90% CE (MCQ) + 10% (LPE)

**Abbreviations:**
**MCQ:** Multiple Choice Questions
**LPE:** Laboratory Practical Exam
**CE:** Committee Exam
**CS:** Committee Score
**FE:** Final Exam
**ICE:** Incomplete Exam
**Pts.:** Points

# In FE and ICE**, 43** out of 200 FE and ICE MCQs will be from Committee IV (Each question is 0.5 Pts., equal value)

**COMMITTEE IV - NERVOUS SYSTEM**
**I. WEEK / 04– 08 Feb 2019**

| | Monday<br>04-Feb-2019 | Tuesday<br>05-Feb-2019 | Wednesday<br>06-Feb-2019 | Thursday<br>07-Feb-2019 | Friday<br>08-Feb-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | Introduction to Committee IV<br>Secretary of Committee | **Lecture**<br>Brainstem<br>*Aikaterini Panteli* | **Lecture**<br>Sensory Receptors and Pathways<br>*Bayram Yılmaz & Mehtap Kaçar* | **ICP MIDTERM EXAM** | **ICP MIDTERM EXAM** |
| **10.00- 10.50** | **Lecture**<br>Introduction to Neuroanatomy<br>*Aikaterini Panteli* | **Lecture**<br>Brainstem<br>*Aikaterini Panteli* | **Lecture**<br>Peripheral Nervous System<br>*Bayram Yılmaz & Mehtap Kaçar* | | |
| **11.00- 11.50** | **Lecture**<br>Organization of the Nervous System<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Brainstem<br>*Aikaterini Panteli* | **Lecture**<br>Histology of Central Nervous System; PNS, Meninges and Spinal Cord<br>*Aylin Yaba Uçar* | | |
| **12.00- 12.50** | **Lecture**<br>Neuron and Neuroglia<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Synapse and Neurotransmitters<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Histology of Central Nervous System; Brain, Cerebellum<br>*Aylin Yaba Uçar* | | |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Program Improvements Sessions** | **Lecture**<br>Synapse and Neurotransmitters<br>*Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Anatomy**<br>Brainstem<br>*Aikaterini Panteli* | **ICP MIDTERM EXAM** | **ICP MIDTERM EXAM** |
| **15.00- 15.50** | **Lecture**<br>Spinal Cord<br>*Aikaterini Panteli* | **Laboratory / Anatomy**<br>Spinal Cord<br>*Aikaterini Panteli* | **Group B** / **Group A, IL** | | |
| | | **Group B**<br>**IL** / **Group A** | **Group B, IL** / **Group A** | | |
| **16.00- 16.50** | **Lecture**<br>Spinal Cord<br>*Aikaterini Panteli* | **Group B** / **Group A**<br>**IL** | **Independent Learning** | | |
| **17.00-17.50** | **Independent Learning** | **Independent Learning** | **Independent Learning** | | |

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

**COMMITTEE IV - NERVOUS SYSTEM**
**II. WEEK / 11 – 15 Feb 2019**

<table>
<tr><th></th><th>Monday<br>11-Feb-2019</th><th>Tuesday<br>12-Feb-2019</th><th>Wednesday<br>13-Feb-2019</th><th>Thursday<br>14-Feb-2019</th><th>Friday<br>15-Feb-2019</th></tr>
<tr><td>09.00- 09.50</td><td rowspan="2">Lecture<br>Cranial Nerves I-III<br>Aikaterini Panteli</td><td rowspan="2">Lecture<br>Cerebellum<br>Aikaterini Panteli</td><td rowspan="2">Lecture<br>Diencephalon<br>Aikaterini Panteli</td><td colspan="2">Laboratory / Anatomy<br>Cerebellum and Diencephalon<br>Aikaterini Panteli</td><td rowspan="3">ICP<br>CSL: Intramuscular / Intradermal / Subcutan Injection<br>Mustafa Yazıcıoğlu & Arzu Akalın<br>Gökhan Gencer<br>Group A</td><td rowspan="3">Group B SP SGS</td><td rowspan="3">Group C Laboratory / Physiology<br>Reflexes<br>Bayram Yılmaz & Mehtap Kaçar</td></tr>
<tr><td>Group B</td><td>Group A IL</td></tr>
<tr><td>10.00- 10.50</td><td>Lecture<br>Cranial Nerves IV-VI<br>Aikaterini Panteli</td><td>Lecture<br>Cerebellum<br>Aikaterini Panteli</td><td>Lecture<br>Diencephalon<br>Aikaterini Panteli</td><td>Group B IL</td><td>Group A</td></tr>
<tr><td>11.00- 11.50</td><td>Lecture<br>Cranial Nerves VII-XII<br>Aikaterini Panteli</td><td>Lecture<br>Cortical and Brain Stem Control of Motor Function<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Diencephalon<br>Aikaterini Panteli</td><td colspan="2">Lecture<br>Basal Ganglia<br>Aikaterini Panteli</td></tr>
<tr><td>12.00- 12.50</td><td>Lecture<br>Cranial Nerves X-XII<br>Aikaterini Panteli</td><td>Lecture<br>Cortical and Brain Stem Control of Motor Function<br>Bayram Yılmaz & Mehtap Kaçar</td><td>ICP-ECE Introduction Session<br>Özlem Tanrıöver</td><td colspan="2">Lecture<br>Basal Ganglia<br>Aikaterini Panteli</td><td colspan="3">Invited Speakers</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td colspan="3">Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td>Lecture<br>Motor Functions of the Spinal Cord<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Development of Central Nervous System; Early Stages<br>Aylin Yaba Uçar</td><td>Lecture<br>Scope of Pharmacology & Passage of Drugs Across Membranes<br>Ece Genç</td><td rowspan="2">Elective Courses I</td><td rowspan="2">Independent Learning</td><td colspan="3">Laboratory / Physiology<br>Reflexes<br>Bayram Yılmaz & Mehtap Kaçar</td></tr>
<tr><td>15.00- 15.50</td><td>Lecture<br>Motor Functions of the Spinal Cord<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Development of Central Nervous System; Late Stages<br>Aylin Yaba Uçar</td><td>Lecture<br>Drug Distribution<br>Ece Genç</td><td colspan="2">Group B</td><td colspan="2">Group A, C IL</td></tr>
<tr><td rowspan="2">16.00- 16.50</td><td rowspan="2">Independent Learning</td><td colspan="2">Laboratory / Anatomy<br>Cranial Nerves<br>Aikaterini Panteli</td><td rowspan="2">Independent Learning</td><td rowspan="2">Independent Learning</td><td rowspan="2">Elective Courses I</td><td rowspan="2">Group B,C IL</td><td rowspan="2">Group A</td></tr>
<tr><td>Group A</td><td>Group B I.L</td></tr>
<tr><td>17.00-17.50</td><td>Independent Learning</td><td>Group A I.L</td><td>Group B</td><td>Independent Learning</td></tr>
</table>

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

**COMMITEE IV - NERVOUS SYSTEM**
**III. WEEK / 18 –22 Feb 2019**

| | Monday<br>18-Feb-2019 | Tuesday<br>19-Feb-2019 | Wednesday<br>20-Feb-2019 | Thursday<br>21-Feb-2019 | Friday<br>22-Feb-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Telencephalon<br>*Aikaterini Panteli* | **Lecture**<br>Orbit and Eye<br>*Aikaterini Panteli* | **Lecture**<br>Physiology of Vision<br>*Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Physiology**<br>Visual Examination & Tests<br>*Bayram Yılmaz & Mehtap Kaçar* | **ICP**<br>**CSL**: Intramuscular / Intradermal / Subcutan Injection<br>*Gökhan Gencer / Mustafa Yazıcıoğlu / Arzu Akalın*<br>**Group B** / **Group C SP SGS** / **Group A, D IL** |
| **10.00- 10.50** | **Lecture**<br>Telencephalon<br>*Aikaterini Panteli* | **Lecture**<br>Orbit and Eye<br>*Aikaterini Panteli* | **Lecture**<br>Physiology of Vision<br>*Bayram Yılmaz & Mehtap Kaçar* | **Group B** / **Group A, C, IL** | |
| **11.00- 11.50** | **Lecture**<br>Telencephalon<br>*Aikaterini Panteli* | **Lecture**<br>Visual Pathways<br>*Aikaterini Panteli* | **Lecture**<br>Histology of Sensory Organs; Eye; Fibrous and Vascular Coat<br>Alev Cumbul | **Group C,B IL** / **Group A** | |
| **12.00- 12.50** | **Lecture**<br>Functions of Cerebellum and Basal Ganglia for Motor Control<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Physiology of Vision<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Histology of Sensory Organs; Eye; Nervous Coat and Appendix<br>*Alev Cumbul* | | **Independent Learning** |
| **13.00-13:50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Functions of Cerebellum and Basal Ganglia for Motor Control<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Physiology of Vision<br>*Bayram Yılmaz & Mehtap Kaçar* | **Lecture**<br>Ascending Pathways of the CNS<br>*Aikaterini Panteli* | **Elective Courses II** / **Independent Learning** | **Lecture**<br>Descending Pathways of the CNS<br>*Aikaterini Panteli* |
| **15.00- 15.50** | **Lecture**<br>Congenital Anomalies of Nervous System<br>*Aylin Yaba Uçar* | **Laboratory / Anatomy**<br>Telencephalon<br>*Aikaterini Panteli*<br>**Group A, IL** / **Group B** | **Lecture**<br>Ascending Pathways of the CNS<br>*Aikaterini Panteli* | | **Lecture**<br>Descending Pathways of the CNS<br>*Aikaterini Panteli* |
| **16.00- 16.50** | **Laboratory / Anatomy**<br>Basal Ganglia<br>*Aikaterini Panteli*<br>**Group A** / **Group B I.L** | **Group A** / **Group B, IL** | **Laboratory / Anatomy**<br>Eye and Visual Pathways<br>*Aikaterini Panteli*<br>**Group B, IL** / **Group A** | **Independent Learning** / **Elective Courses II** | **Laboratory / Physiology Group C**<br>Visual Examination & Tests<br>*Mehtap Kaçar* / **Group A,B IL** |
| **17.00-17.50** | **Group A, IL** / **Group B** | **Independent Learning** | **Group B** / **Group A, IL** | | |

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

**COMMITTEE IV - NERVOUS SYSTEM**
**IV WEEK / 26 Feb – 01 March 2019**

<table>
<tr><th></th><th>Monday<br>25-Feb-2019</th><th>Tuesday<br>26-Feb-2019</th><th>Wednesday<br>27-Feb-2019</th><th>Thursday<br>28-Feb-2019</th><th>Friday<br>01-March-2019</th></tr>
<tr><td>09.00- 09.50</td><td>Lecture<br>Ear<br>Aikaterini Panteli</td><td>Lecture<br>Cutaneous Senses<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td>Lecture<br>Physiology of Pain<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td colspan="2">Laboratory / Physiology<br>Hearing Test<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td rowspan="2">ICP<br>Intramuscular / Intradermal /<br>Subcutan Injection<br>Gökhan Gencer &<br>Mustafa Yazıcıoğlu & Arzu Akalın<br>Group D</td><td rowspan="2">Group A SP SGS</td><td rowspan="2">Group B ECE-FHC</td><td rowspan="2">Group C ECE- YUH</td></tr>
<tr><td>10.00- 10.50</td><td>Lecture<br>Ear<br>Aikaterini Panteli</td><td>Lecture<br>Cutaneous Senses<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td>Lecture<br>Physiology of Pain<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td>Group A, B IL</td><td>Group C</td></tr>
<tr><td>11.00- 11.50</td><td>Lecture<br>Auditory pathways<br>Aikaterini Panteli</td><td>Lecture<br>Limbic System<br>Aikaterini Panteli</td><td>Lecture<br>Development of Sensory Organs; Eye<br>Alev Cumbul</td><td rowspan="2">Group B</td><td rowspan="2">Group A, C IL</td><td colspan="4" rowspan="2">Independent Learning</td></tr>
<tr><td>12.00- 12.50</td><td>Lecture<br>Auditory System Biophysics and Function<br>Bilge Güvenç Tuna</td><td>Lecture<br>Limbic System<br>Aikaterini Panteli</td><td>Lecture<br>Development of Sensory Organs; Ear<br>Alev Cumbul</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td colspan="4">Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td>Lecture<br>Physiology of Hearing<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td>Lecture<br>Histology of Sensory Organs; Ear<br>Alev Cumbul</td><td>Lecture<br>Taste and Smell Pathways<br>Aikaterini Panteli</td><td rowspan="2">Elective Courses III</td><td rowspan="2">Independent Learning</td><td colspan="4">Lecture<br>Biology of Nervous System<br>Turgay İsbir</td></tr>
<tr><td>15.00- 15.50</td><td>Lecture<br>Physiology of Hearing<br>Bayram Yılmaz &<br>Mehtap Kaçar</td><td colspan="2">Anatomy Laboratory /<br>Ear and auditory pathways<br>Aikaterini Panteli<br>Group A I.L | Group B</td><td>Lecture<br>Taste and Smell Pathways<br>Aikaterini Panteli</td><td colspan="4">Lecture<br>Biology of Nervous System<br>Turgay İsbir</td></tr>
<tr><td rowspan="2">16.00- 16.50</td><td rowspan="2">Independent Learning</td><td rowspan="2">Group A</td><td rowspan="2">Group B I.L</td><td colspan="2">Laboratory / Anatomy<br>Limbic System<br>Aikaterini Panteli</td><td rowspan="2">Independent Learning</td><td rowspan="2">Elective Courses III</td><td colspan="3">Laboratory / Physiology<br>Hearing Test<br>Bayram Yılmaz & Mehtap Kaçar</td></tr>
<tr><td>Group A</td><td>Group B, IL</td><td colspan="2" rowspan="2">Group A, C IL</td><td>Group A</td></tr>
<tr><td>17.00-17.50</td><td>Independent Learning</td><td colspan="2">Independent Learning</td><td>Group A, IL</td><td>Group B</td></tr>
</table>

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

**COMMITTEE IV - NERVOUS SYSTEM**
**V. WEEK / 04 – 08 March 2019**

| | Monday 04-March-2019 | Tuesday 05-March-2019 | Wednesday 06-March-2019 | Thursday 07-March-2019 | Friday 08-March-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture** Introduction to Autonomic Nervous System *Aikaterini Panteli* | **Lecture** Parasympathetic Nervous System *Aikaterini Panteli* | **Lecture** States of Brain Activity- Sleep and Brain Waves *Bayram Yılmaz & Mehtap Kaçar* | **Laboratory / Physiology** Electroencephalography *Bayram Yılmaz & Mehtap Kaçar* | **ICP** **CSL:** IV Cannulation *Özlem Tanrıöver & Arzu Akalın & Pınar Tura* **Group C** / **Group A ECE-YUH** / **Group B SP SGS** / **Group D ECE-FHC** |
| **10.00- 10.50** | **Lecture** Sympathetic Nervous System *Aikaterini Panteli* | **Lecture** Parasympathetic Nervous System *Aikaterini Panteli* | **Lecture** States of Brain Activity- Sleep and Brain Waves *Bayram Yılmaz & Mehtap Kaçar* | **Group A** / **Groups B, C; IL** | |
| **11.00- 11.50** | Sympathetic Nervous System *Aikaterini Panteli* | **Lecture** Autonomic Nervous System *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Inflammation *Aydın Sav* | **Groups A, B, IL** / **Group C** | |
| **12.00- 12.50** | **Lecture** Physiology of Pain *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Autonomic Nervous System *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Wound Healing *Aydın Sav* | | **Independent Learning** |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture** Physiology of Pain *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Drug Application Rutes and Pharmaceutical Forms of Drugs Ece Genç | **Lecture** Test Hypotheses and Significance- Z-Test *Çiğdem Altunok* | **Elective Courses IV** / **Independent Learning** | **Lecture** Electrical Activity of Cortex and Evoked Potentials. Neural Coding *Bilge Güvenç Tuna* |
| **15.00- 15.50** | **Lecture** Drug Metabolism *Ece Genç* | **Laboratory / Anatomy** Sympathetic Nervous System *Aikaterini Panteli* **Group B** / **Group A, IL** | **Lecture** Test Hypotheses and Significance-z test *Çiğdem Altunok* | | **Lecture** Electrical Activity of Cortex and Evoked Potentials. Neural Coding *Bilge Güvenç Tuna* |
| **16.00- 16.50** | **Lecture** Drug Metabolism *Ece Genç* | **Group B, IL** / **Group A** | **Laboratory / Anatomy** Parasympathetic Nervous System *Aikaterini Panteli* **Group B, IL** / **Group A** | **Independent Learning** / **Elective Courses IV** | **Laboratory/ Physiology** Electroencephalography *Bayram Yılmaz & Mehtap Kaçar* **Group B** / **Laboratory/ Biostatistic** *Çiğdem Altunok* Computer Applications of Tests of Significance / **Group A I.L** |
| **17.00-17.50** | **Independent Learning** | **Independent Learning** | **Group B** / **Group A, IL** | | |

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**COMMITTEE IV** - NERVOUS SYSTEM
**VI. WEEK / 11 – 15 March 2019**

| | Monday 11-March-2019 | Tuesday 12-March-2019 | Wednesday 13-March-2019 | Thursday 14-March-2019 | | Friday 15-March-2019 | | | |
|---|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture** Limbic System and the Hypothalamus *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Meninges and Dual Venous Sinuses *Aikaterini Panteli* | **Laboratory / Anatomy** Meninges and the Dural Venous Sinuses *Aikaterini Panteli* | **Laboratory/ Physiology** Galvanized Skin Response *Bayram Yılmaz & Mehtap Kaçar* **Group C** | **Laboratory / Histology** Histology of CNS and Skin *Alev Cumbul & Aylin Yaba Uçar* **Group A** | **ICP** **CSL:** IV Cannulation *Özlem Tanrıöver & Arzu Akalın Pınar Tura* **Group B** | **Group A ECE-FHC** | **Group C SP SGS** | **Group D ECE-YUH** |
| **10.00- 10.50** | **Lecture** Limbic System and the Hypothalamus *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Meninges and Dual Venous Sinuses *Aikaterini Panteli* | **Group A** / **Group B I.L** | | | | | | |
| **11.00- 11.50** | **Lecture** Skin, its derivatives and the Mammary Glands *Aikaterini Panteli* | **Lecture** Chemical Senses: Taste and Smell *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Acute inflammation *Aydın Sav* | **Group A** | **Group B** | | | | |
| **12.00- 12.50** | **Lecture** Histology of Skin and Appendage; Epidermis, Dermis, Appendage *Aylin Yaba Uçar* | **Lecture** Chemical Senses: Taste and Smell *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Acute Inflammation *Aydın Sav* | | | **Independent Learning** | | | |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | | |
| **14.00- 14.50** | **Lecture** Development of Skin and Appendage *Aylin Yaba Uçar* | **Laboratory / Anatomy** Skin, its derivatives and the Mammary Glands *Aikaterini Panteli* **Group B** / **Group A, IL** | **Lecture** Biology of Nervous System *Turgay İsbir* | **PHYSICIANS' DAY** | | **Lecture** Correlation *Çiğdem Altunok* | | | |
| **15.00- 15.50** | **Independent Learning** | **Group B, IL** / **Group A** | **Lecture** Biology of Nervous System *Turgay İsbir* | | | **Lecture** Correlation *Çiğdem Altunok* | | | |
| **16.00- 16.50** | **Independent Learning** | **Independent Learning** | **Independent Learning** | | | **Independent Learning** | | | |
| **17.00-17.50** | **Independent Learning** | **Independent Learning** | | | | | | | |

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**COMMITTEE IV - NERVOUS SYSTEM**
**VII. WEEK / 18 – 22 March 2019**

<table>
<tr><th></th><th>Monday<br>18- March -2019</th><th colspan="2">Tuesday<br>19- March -2019</th><th>Wednesday<br>20- March -2019</th><th colspan="2">Thursday<br>21- March -2019</th><th colspan="4">Friday<br>22- March -2019</th></tr>
<tr><td>09.00- 09.50</td><td>Lecture<br>Vasculature of the CNS<br>Aikaterini Panteli</td><td colspan="2">Lecture<br>Review of the Nervous System<br>Aikaterini Panteli</td><td>Lecture<br>Neuroimmunology<br>Gülderen Yanıkkaya Demirel</td><td colspan="2">Laboratory / Histology<br>Review Session<br>Alev Cumbul & Aylin Yaba Uçar<br>Group A | Group B, IL</td><td rowspan="3">ICP<br>CSL: IV Cannulation<br>Özlem Tanrıöver & Arzu Akalın<br>Pınar Tura<br>Group A</td><td rowspan="3">Group B ECE-YUH I</td><td rowspan="3">Group C ECE-FHC</td><td rowspan="3">Group D SP SGS</td></tr>
<tr><td>10.00- 10.50</td><td>Lecture<br>Vasculature of the CNS<br>Aikaterini Panteli</td><td colspan="2">Lecture<br>Review of the Nervous System<br>Aikaterini Panteli</td><td>Lecture<br>Neuroimmunology<br>Gülderen Yanıkkaya Demirel</td><td>Group A, IL</td><td>Group B</td></tr>
<tr><td>11.00- 11.50</td><td>Lecture<br>Cerebral Cortex, Intellectual Functions of the Brain<br>Bayram Yılmaz & Mehtap Kaçar</td><td colspan="2">Lecture<br>Cerebrospinal Fluid and Brain Metabolism<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Chronic Inflammation<br>Aydın Sav</td><td colspan="2">Laboratory / Physiology<br>Galvanized Skin Response<br>Bayram Yılmaz & Mehtap Kaçar</td></tr>
<tr><td>12.00- 12.50</td><td>Lecture<br>Learning and Memory<br>Bayram Yılmaz & Mehtap Kaçar</td><td colspan="2">Lecture<br>Cerebrospinal Fluid and Brain Metabolism<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Chronic Inflammation<br>Aydın Sav</td><td>Group B</td><td>Groups A, C, IL</td><td colspan="4">Independent Learning</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td colspan="4"></td></tr>
<tr><td>14.00- 14.50</td><td>Lecture<br>Drug Excretion<br>Ece Genç</td><td>Laboratory / Anatomy<br>Vasculature of the CNS<br>Aikaterini Panteli<br>Group A</td><td>Laboratory / Pharmacology<br>Drug Metabolism<br>Ece Genç<br>Group B</td><td>Lecture<br>Dopamine and Drugs Effecting Dopaminergic System<br>Ece Genç</td><td rowspan="2">Elective Courses V</td><td rowspan="2">Independent Learning</td><td colspan="4" rowspan="3">Independent Learning</td></tr>
<tr><td>15.00- 15.50</td><td>Lecture<br>Drug Excretion<br>Ece Genç</td><td>Group B</td><td>Group A</td><td>Lecture<br>Serotonin and Drugs Effecting Serotonergic System of CNS<br>Ece Genç</td></tr>
<tr><td>16.00- 16.50</td><td>ndependent Learning</td><td colspan="2">Independent Learning</td><td>Independent Learning</td><td rowspan="2">Independent Learning</td><td rowspan="2">Elective Courses V</td></tr>
<tr><td>17.00-17.50</td><td>Independent Learning</td><td colspan="2">Independent Learning</td><td>Independent Learning</td></tr>
</table>

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**COMMITTEE IV - NERVOUS SYSTEM**
**VIII. WEEK / 25 – 29 March 2019**

<table>
<tr><th></th><th>Monday<br>25- March - 2019</th><th>Tuesday<br>26- March - 2019</th><th>Wednesday<br>27- March - 2019</th><th colspan="2">Thursday<br>28- March - 2019</th><th>Friday<br>29- March- 2019</th></tr>
<tr><td>09.00- 09.50</td><td>Independent Learning</td><td rowspan="3">Independent Learning</td><td rowspan="3">Independent Learning</td><td colspan="2" rowspan="3">Independent Learning</td><td>Independent Learning</td></tr>
<tr><td>10.00- 10.50</td><td>Independent Learning</td><td rowspan="3">Assessment Session<br>Committee IV Exam<br>(MCQ)</td></tr>
<tr><td>11.00- 11.50</td><td>Physiology Practical Exam</td></tr>
<tr><td>12.00- 12.50</td><td>Histology and Embryology Practical Exam</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td>Lunch Break</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td rowspan="4">Independent Learning</td><td rowspan="4">Independent Learning</td><td rowspan="2">Elective Courses VI</td><td rowspan="2">Independent Learning</td><td rowspan="2">Program Evaluation Session<br>Review of the Exam Questions, Evaluation of the Committee IV Program<br>Secretary of Committee IV</td></tr>
<tr><td>14.00- 14.50</td><td rowspan="4">Anatomy Practical Exam</td></tr>
<tr><td>15.00- 15.50</td><td rowspan="2">Independent Learning</td><td rowspan="2">Elective Courses VI</td><td rowspan="2">Independent Learning</td></tr>
<tr><td>16.00- 16.50</td></tr>
<tr><td>17.00-17.50</td><td></td></tr>
</table>

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

### April 01 – May 24, 2019

### COMMITTEE DURATION: 8 WEEKS

| | BASIC MEDICAL SCIENCES II | THEORETICAL | PRACTICAL | TOTAL |
|---|---|---|---|---|
| **MED 203** | **DISCIPLINE** | | | |
| | ANATOMY | 15 | 2Gr x 5H | 20 |
| | BIOCHEMISTRY | 22 | 3Gr x 2H | 24 |
| | BIOPHYSICS | 3 | 0 | 3 |
| | BIOSTATISTICS | 4 | 2Gr x 2H | 6 |
| | HISTOLOGY & EMBRYOLOGY | 14 | 2Gr x 5H | 19 |
| | IMMUNOLOGY | 1 | 0 | 1 |
| | MEDICAL BIOLOGY | 6 | 0 | 6 |
| | MEDICAL MICROBIOLOGY | 18 | 4Gr x 2H | 20 |
| | PATHOLOGY | 7 | 2Gr x 2H | 9 |
| | PHARMACOLOGY | 12 | 2GR x 2H | 14 |
| | PHYSIOLOGY | 28 | 3Gr x 6H | 34 |
| | **TOTAL** | **130** | **26** | **156** |

| | | | | |
|---|---|---|---|---|
| **MED 202** | **INTRODUCTION TO CLINICAL PRACTICE- II** | 4 GrX 1 | 4 GrX4 | 5 |

| | | |
|---|---|---|
| **Coordination Committee** | **Head** | Bayram YILMAZ, PhD. Prof. |
| | **Secretary** | Aikaterini PANTELİ, MD. |
| | **Member** | Mehtap KAÇAR, MD, PhD, Assoc. Prof. |
| | **Member** | Deniz KIRAÇ, PhD, Assoc. Prof. |

## COMMITTEE V- UROGENITAL and ENDOCRINE SYSTEMS
## LECTURERS
## April 01 – May 24, 2019

| MED 203 BASIC MEDICAL SCIENCES II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| ANATOMY | Erdem SÖZTUTAR, MD, Assist. Prof.<br>Mohammed ELGAZZAR, MD. Lecturer.<br>Aikaterini PANTELİ, MD, Lecturer<br>LAB: Edibe BİLİŞLİ, DVM<br>LAB: Zeynep Büşra ODABAŞ, DMD |
| BIOCHEMISTRY | İnci ÖZDEN, PhD, Prof.<br>LAB: Jale ÇOBAN, MD Prof.<br>LAB: Müge KOPUZ, PhD. |
| BIOPHYSICS | Akif MAHARRAMOV, PhD, Assist. Prof.<br>Bilge GÜVENÇ TUNA, PhD, Assist. Prof. |
| BIOSTATISTIC | E. Çiğdem ALTUNOK, PhD, Assist. Prof. |
| HISTOLOGY & EMBRYOLOGY | Aylin YABA UÇAR, PhD, Assoc. Prof.<br>Alev CUMBUL, PhD, Assist. Prof. |
| IMMUNOLOGY | Gülderen YANIKKAYA DEMiREL, MD, PhD, Assoc. Prof. |
| MEDICAL BIOLOGY | Turgay İSBİR, PhD, Prof.<br>Soner DOĞAN, PhD, Assoc. Prof.<br>Deniz KIRAÇ, PhD, Assoc. Prof. |
| MICROBIOLOGY | Çağatay ACUNER, MD, Assoc. Prof.<br>Microbiology Lecturer/Instructor |
| PATHOLOGY | Aydın SAV MD, Prof. |
| PHARMACOLOGY | Ece GENÇ, PhD, Prof. |
| PHYSIOLOGY | Bayram YILMAZ, PhD, Prof.<br>Mehtap KAÇAR, MD, PhD, Assoc. Prof.<br>Burcu GEMİCİ, PhD, Assoc. Prof. |
| PBL | |
| SCIENTIFIC PROJECTS-II | Gülderen YANIKKAYA DEMIREL, MD, PhD, Assoc. Prof. |

| MED 202 INTRODUCTION TO CLINICAL PRACTICE II | |
|---|---|
| **DISCIPLINE** | **LECTURERS** |
| CLINICAL SKILLS LAB | Özlem TANRIÖVER, MD, Assoc. Prof.<br>Sezgin SARIKAYA, MD, Prof.<br>A. Arzu AKALIN, MD, Assist. Prof.<br>Serdar ÖZDEMİR, MD, Assist. Prof.<br>Deniz ALGEDIK GÜRSOY, MD Assist. Prof.<br>Ali KANDEMIR, MD. Assist. Prof.<br>Merve EKŞİOĞLU, MD Assist. Prof.<br>Mustafa YAZICIOĞLU MD. Assist. Prof. |

## COMMITTEE V - UROGENITAL and ENDOCRINE SYSTEMS
## AIM and LEARNING OBJECTIVES

**AIMS**

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

**LEARNING OBJECTIVES**

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

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 systems;
    4.1. Classify embryological origins,
    4.2. Explain developmental stages,
    4.3. Describe histological properties,
    4.4. Associate the relation between birth anomalies 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 nephrons,
    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 minerals.
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.
16.0. Describe the structural/biological features and pathogenesis of viruses

17.0. Describe the interrelationship of hormones and immunology
18.0. Describe the general principles of magnetic resonance imaging
19.0. describe how to write a scientific project proposal.
20.0. prepare a research project draft.
21.0. Count biostatistical sampling methods.
22.0. Count significance tests in biostatistics.
23.0. Choose significance tests according to the properties of biostatistical data.
24.0. Explain case scenario related basic medical science topics in a clinical context.

## COMMITTEE V - UROGENITAL and ENDOCRINE SYSTEMS
## COMMITTEE ASSESSMENT MATRIX

| LEARNING OBJECTIVES | DISCIPLINE | LECTURER/ INSTRUCTOR | DISTRUBITION of MCQsand SbMCQ | | | |
|---|---|---|---|---|---|---|
| | | | CE | FE | IE | TOTAL |
| 2.0-3.0 | ANATOMY | Dr.M. Elgazzar | **11** | **6** | **6** | **23** |
| 8.0-9.0., 24.0. | BIOCHEMISTRY | Dr. İ. Özden | **17** | **8** | **8** | **33** |
| 18.0 | BIOPHYSICS | Dr. B.G.Tuna | **2** | **1** | **1** | **4** |
| 21.0-23.0 | BIOSTATISTICS | Dr. E.Ç. Altunok | **3** | **1** | **1** | **5** |
| 4.0. | HISTOLOGY & EMBRYOLOGY | Dr. A. Cumbul<br>Dr. A. Yaba Uçar | **11** | **5** | **5** | **21** |
| 17.0 | IMMUNOLOGY | Dr. G. Yanıkkaya Demirel | **1** | **0** | **0** | **1** |
| 1.0 | MEDICAL BIOLOGY | Dr. T. İsbir<br>Dr. D. Kıraç | **4** | **2** | **2** | **8** |
| 16.0 | MEDICAL MICROBIOLOGY | Dr. Ç. Acuner<br>Microbiology Lecturer | **14** | **6** | **6** | **26** |
| 10.0 | PATHOLOGY | Dr. A. Sav | **5** | **3** | **3** | **11** |
| 11.0-15.0 | PHARMACOLOGY | Dr. E. Genç | **9** | **4** | **4** | **17** |
| 5.0-7.0., 24.0. | PHYSIOLOGY | Dr. B. Yılmaz<br>Dr. M. Kaçar<br>Dr. B. Gemici Başol | **22** | **10** | **10** | **42** |
| 24.0 | PBL | | **1** | **0** | **0** | 1 |
| | | **TOTAL** | **100** | **46/200#** | **46/200#** | **192** |

| LEARNING OBJECTIVES | DISCIPLINE | POINTS of ASSESSMENT METHODS |
|---|---|---|
| | | LPE |
| 2.0-3.0 | ANATOMY | **30** |
| 8.0-9.0, 24.0 | BIOCHEMISTRY | **5** |
| 21.0-23.0 | BIOSTATISTICS | **5** |
| 4.0. | HISTOLOGY & EMBRYOLOGY | **10** |
| 16.0. | MEDICAL MICROBIOLOGY | **10** |
| 10.0. | PATHOLOGY | **5** |
| 11.0-15.0. | PHARMACOLOGY | **5** |
| 5.0-7.0, 24.0. | PHYSIOLOGY | **30** |
| **TOTAL** | | **100** |

Total number of MCQs are 100, equal to100 pts. Each question has 1 pt.).
Total value of LPE is equal to 100 points

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

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

**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**I. WEEK / 01 – 05 April 2019**

| | Monday 01-April-2019 | Tuesday 02-April-2019 | Wednesday 03-April-2019 | Thursday 04-April-2019 | | | Friday 05-April-2019 | | |
|---|---|---|---|---|---|---|---|---|---|
| 09.00- 09.50 | PBL | **Lecture** The Kidneys *Mohammed Elgazzar* | **Lecture** Mechanism of Drug Action 1 *Ece Genç* | **Laboratory/ Physiology** *Bayram Yılmaz & Mehtap Kaçar* Glomerular Filtration **Group A** | **Laboratory Biochemistry** *Jale Çoban& Müge Kopuz* Urine Analysis **Group B** | **Group C, IL** | **ICP CSL: IV Cannulation** *Özlem Tanrıöver & Arzu Akalın & Pınar Tura* **Group D** | **Group A SG- SPS** | **Group B, C IL** |
| 10.00- 10.50 | | **Lecture** Urinary Tracts and Suprarenal Glands *Mohammed Elgazzar* | **Lecture** Mechanism of Drug Action 2 *Ece Genç* | | | | | | |
| 11.00- 11.50 | | **Lecture** Body Fluids and Functions of Kidneys *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Histology of Urinary System: General Aspect, Kidney Nephron *Aylin Yaba Uçar* | **Laboratory/ Physiology** Glomerular Filtration **Group B** | **Laboratory/ Biochemistry** Urine Analysis *Jale Çoban & Müge Kopuz* **Group C** | **Group A IL** | | | |
| 12.00- 12.50 | Introduction to Committee V Secretary of Committee | **Lecture** Micturition *Bayram Yılmaz & Mehtap Kaçar* | **Lecture** Histology of Urinary System: Excreatory Passage *Aylin Yaba Uçar* | | | | **Independent Learning** | | |
| 13.00- 13.50 | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | | **Lunch Break** | | |
| 14.00- 14.50 | **Lecture** Introduction to Urinary System *Mohammed Elgazzar* | **Lecture** Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors *İnci Özden* | **Lecture** Urine Formation and Renal Blood Flow *Bayram Yılmaz* | **Elective Courses VII (Midterm Exam)** | **Independent Learning** | | **Lecture** Urine Formation: Tubular Processing *Bayram Yılmaz & Mehtap Kaçar* | | |
| 15.00- 15.50 | **Lecture** The Kidneys *Mohammed Elgazzar* | **Lecture** Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors *İnci Özden* | **Lecture** Urine Formation and Renal Blood Flow *Bayram Yılmaz* | | | | **Lecture** Urine Formation: Tubular Processing *Bayram Yılmaz & Mehtap Kaçar* | | |
| 16.00- 16.50 | **Independent Learning** | **Laboratory/Anatomy** Urinary System *Mohammed Elgazzar* **Group A** / **Group B, IL** | **Lecture** Introduction to Viruses *Microbiology Lecturer* | **Independent Learning** | **Elective Courses VII (Midterm Exam)** | | **Lecture** DNA Viruses I *Microbiology Lecturer* | | |
| 17.00-17.50 | **Independent Learning** | **Group A, IL** / **Group B** | **Lecture** Viral Pathogenesis/ Oncogenesis *Microbiology Lecturer* | | | | **Lecture** DNA Viruses II *Microbiology Lecturer* | | |

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

**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**II. WEEK / 08 – 12 April 2019**

| | Monday<br>08-April-2019 | Tuesday<br>09-April-2019 | Wednesday<br>10-April-2019 | Thursday<br>11-April-2019 | Friday<br>12-April-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **PBL** | **Lecture**<br>DNA Viruses III<br>*Microbiology Lecturer* | **Lecture**<br>Introduction to Neoplasia and Biologic Behaviors of Neoplasm<br>*Aydın Sav* | **Laboratory/ Physiology**<br>*Bayram Yılmaz & Mehtap Kaçar*<br>Glomerular Filtration<br>**Group C**<br>**Laboratory/ Biochemistry**<br>*Jale Çoban / Müge Kopuz*<br>Urine Analysis<br>**Group A**<br>**Group B, IL** | **Lecture**<br>Oncogenesis, Incidence and Distribution of Cancer<br>*Aydın Sav* |
| **10.00- 10.50** | | **Lecture**<br>DNA Viruses IV<br>*Microbiology Lecturer* | **Lecture**<br>Introduction to Neoplasia and Biologic Behaviors of Neoplasm<br>*Aydın Sav* | | **Lecture**<br>Oncogenesis, Incidence and Distribution of Cancer<br>*Aydın Sav* |
| **11.00- 11.50** | | **Lecture**<br>Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors<br>*İnci Özden* | **Lecture**<br>Fluid and Electrolyte Balance<br>*Bayram Yılmaz* | **Lecture**<br>Linear Regression<br>*E. Çiğdem Altunok* | **Lecture**<br>Hormones of Hypothalamus and Pituitary<br>*İnci Özden* |
| **12.00- 12.50** | **PBL Panel** | **Lecture**<br>Mechanisms of Hormone Actions, Intracellular and Cell Surface Receptors<br>*İnci Özden* | **Lecture**<br>Fluid and Electrolyte Balance<br>*Bayram Yılmaz* | **Lecture**<br>Linear Regression<br>*E. Çiğdem Altunok* | **Lecture**<br>Thyroid Hormones<br>*İnci Özden* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>Introduction to Genital Systems<br>*Mohammed Elgazzar* | **Lecture**<br>Histology of Endocrine System: General Aspect, Hypothalamus, Epiphysis<br>*Aylin Yaba Uçar* | **Lecture**<br>Histology of Endocrine System: Thyroid and Parathyroid and Suprarenal Glands<br>*Aylin Yaba Uçar* | **Elective Courses VIII**<br>**Independent Learning** | **Lecture**<br>Regulation of Acid-Base Balance<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **15.00- 15.50** | **Lecture**<br>Male Genital Organs<br>*Mohammed Elgazzar* | **Lecture**<br>Histology of Endocrine System: Hypophysis<br>*Aylin Yaba Uçar* | **Lecture**<br>Hormones of Hypothalamus and Pituitary<br>*İnci Özden* | | **Lecture**<br>Regulation of Acid-Base Balance<br>*Bayram Yılmaz & Mehtap Kaçar* |
| **16.00- 16.50** | **Lecture**<br>Male Genital Organs<br>*Mohammed Elgazzar* | **Laboratory/Anatomy**<br>Male Genital Organs<br>*Mohammed Elgazzar*<br>**Group A, IL** / **Group B** | **Lecture**<br>Hormones of Hypothalamus and Pituitary<br>*İnci Özden* | **Independent Learning**<br>**Elective Courses VIII** | **Laboratory/ Biostatistic**<br>*Çiğdem Altunok*<br>Computer Applications of Tests of Significance<br>**Group B**<br>**Group A,C IL** |
| **17.00-17.50** | **Independent Learning** | **Group A** / **Group B, IL** | **Independent Learning** | | |

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**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**III. WEEK / 15 – 19 April 2019**

| | Monday 15-April-2019 | Tuesday 16-April-2019 | Wednesday 17-April-2019 | Thursday 18-April-2019 | | Friday 19-April-2019 | | | |
|---|---|---|---|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture** Histology of Male Genital System: Testis *Alev Cumbul* | **Lecture** Hormones of Adrenal Cortex and Adrenal Medulla *İnci Özden* | **Lecture** Insulin, Diabetes Mellitus *Bayram Yılmaz & Mehtap Kaçar* | **Laboratory/ Microbiology** Immunoassays in Diagnostic Microbiology *Microbiology Instructors* **Group A** | **Laboratory/ Physiology** *Mehtap Kaçar* Metabolic Rate **Group C** | **ICP** CSL: Bladder Catheterization *Deniz Algedik Gürsoy & Özlem Tanrıöver & Mustafa Yazıcıoğlu* **Group A** | **Group B SP-SGS** | **Group C FHC** | **Group D Yeditepe University Hospital, Koşuyolu** |
| **10.00- 10.50** | **Lecture** Histology of Male Genital System: Excreatory Parts *Alev Cumbul* | **Lecture** Hormones of Adrenal Cortex and Adrenal Medulla *İnci Özden* | **Lecture** Insulin, Diabetes Mellitus *Bayram Yılmaz & Mehtap Kaçar* | **Group B** | | | | | |
| **11.00- 11.50** | **Lecture** Introduction to Endocrinology *Mehtap Kaçar* | **Lecture** Posterior Pituitary Hormones *Mehtap Kaçar* | **Lecture** Biology of Endocrine System *Deniz Kıraç* | **Group C** | **Group A** | | | | |
| **12.00- 12.50** | **Lecture** Pituitary Gland and Hypothalamic Control *Mehtap Kaçar* | **Lecture** Thyroid Metabolic Hormones *Mehtap Kaçar* | **Lecture** Biology of Endocrine System *Deniz Kıraç* | **Group D** | | **Independent Learning** | | | |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | | **Lunch Break** | | | |
| **14.00- 14.50** | **Lecture** Female Genital Organs *Mohammed Elgazzar* | **Lecture** DNA Viruses V *Microbiology Lecturer* | **Lecture** Hormones Regulating Calcium Metabolism *İnci Özden* | **Elective Courses IX** | **Independent Learning** | **Lecture** RNA Viruses I *Çağatay Acuner* | | | |
| **15.00- 15.50** | **Lecture** Female Genital Organs *Mohammed Elgazzar* | **Lecture** Post-receptor Events and Second Messengers *Ece Genç* | **Lecture** Hormones Regulating Calcium Metabolism *İnci Özden* | | | **Lecture** RNA Viruses II *Çağatay Acuner* | | | |
| **16.00- 16.50** | **Independent Learning** | **Laboratory/Anatomy** Female Genital Organs *Mohammed Elgazzar* **Group A** / **Group B, IL** | **Laboratory/Physiology** *Bayram Yılmaz & Mehtap Kaçar* Metabolic Rate **Group B** | **Group A,C IL** | **Independent Learning** | **Elective Courses IX** | **Independent Learning** | | |
| **17.00-17.50** | **Independent Learning** | **Group A, IL** / **Group B** | | | | | **Independent Learning** | | |

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

**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**IV. WEEK / 22 – 26 April 2019**

| | Monday<br>22-April - 2019 | Tuesday<br>23-April-2019 | Wednesday<br>24-April-2019 | Thursday<br>25-April-2019 | Friday<br>26-April-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Adrenocortical Hormones<br>*Mehtap Kaçar* | **NATIONAL HOLIDAY** | **Lecture**<br>Histology of the Female Genital System: Ovaries<br>*Alev Cumbul* | **Laboratory/ Microbiology**<br>Molecular Methods in Diagnostic Microbiology<br>*Microbiology instructors*<br>**Group D** / **Group A,B,C IL** | **ICP**<br>CSL: Bladder Catheterization<br>*Ali Kandemir & Arzu Akalın & Mustafa Yazıcıoğlu*<br>**Group B** / **Group A SP-SGS** / **Group C Yeditepe University Hospital, Koşuyolu** / **Group D FHC** |
| **10.00- 10.50** | **Lecture**<br>Adrenocortical Hormones<br>*Mehtap Kaçar* | | **Lecture**<br>Histology of the Female Genital System: Conducting Part<br>*Alev Cumbul* | **Group C** / **Group A,B,D IL** | |
| **11.00- 11.50** | **Lecture**<br>Nerves of the Pelvis<br>*Mohammed Elgazzar* | | **Lecture**<br>Post-receptor Events and Second Messengers<br>*Ece Genç* | **Group A** / **Group B,C,D IL** | |
| **12.00- 12.50** | **Lecture**<br>Vasculature of the Pelvis<br>*Mohammed Elgazzar* | | **Lecture**<br>Eicosanoids<br>*Ece Genç* | **Group B** / **Group A,C,D IL** | **Independent Learning** |
| **13.00- 13.50** | **Lunch Break** | | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **Lecture**<br>RNA Viruses III<br>*Çağatay Acuner* | | **Lecture**<br>PTH, Calcitonin, Calcitriol<br>*İnci Özden* | **Elective Courses X** / **Independent Learning** | **Lecture**<br>Male Reproductive Physiology<br>*Mehtap Kaçar* |
| **15.00- 15.50** | **Lecture**<br>RNA Viruses IV<br>*Çağatay Acuner* | | **Lecture**<br>PTH, Calcitonin, Calcitriol<br>*İnci Özden* | | **Lecture**<br>Male Reproductive Physiology<br>*Mehtap Kaçar* |
| **16.00- 16.50** | **Laboratory/Anatomy**<br>Nerves and Vasculature of the Pelvis<br>*Mohammed Elgazzar*<br>**Group A, IL** / **Group B** | | **Lecture**<br>Diagnostic Methods in Virology<br>*Microbiology Lecturer* | **Independent Learning** / **Elective Courses X** | **Lecture**<br>Specific Viruses<br>*Çağatay Acuner* |
| **17.00-17.50** | **Group A** / **Group B, IL** | | **Independent Learning** | | **Lecture**<br>Specific Viruses<br>*Çağatay Acuner* |

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**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**V. WEEK / 29 April – 3 May 2019**

<table>
<tr><th></th><th>Monday<br>29-April - 2019</th><th>Monday<br>30-April - 2019</th><th>Tuesday<br>01-May-2019</th><th>Thursday<br>02-May-2019</th><th></th><th>Friday<br>03-May-2019</th><th></th><th></th><th></th></tr>
<tr><td>09.00- 09.50</td><td>Lecture<br>Female Reproductive Physiology<br>Mehtap Kaçar</td><td>Lecture<br>Development of Urinary System and Anomalies<br>Alev Cumbul</td><td rowspan="8">LABOR'S DAY</td><td>Laboratory<br>Hist&Embry<br>Histology of Urinary & Endocrine Systems<br>Alev Cumbul & Aylin Yaba Uçar<br>Group B</td><td>Laboratory/<br>Pharmacology<br>Efficacy and Potency Concepts<br>Ece Genç<br>Group A</td><td rowspan="2">ICP<br>CSL: Bladder Catheterization<br>Merve Ekşioglu & Özlem Tanrıöver<br>&<br>Mustafa Yazıcıoğlu<br>Group C</td><td rowspan="2">Group A FHC</td><td rowspan="2">Group B Yeditepe University Hospital, Koşuyolu</td><td rowspan="2">Group D SP-SGS</td></tr>
<tr><td>10.00- 10.50</td><td>Lecture<br>Female Reproductive Physiology<br>Mehtap Kaçar</td><td>Lecture<br>Development of Genital System; General Aspects<br>Alev Cumbul</td></tr>
<tr><td>11.00- 11.50</td><td>Lecture<br>Viral Oncogenesis<br>Microbiology Lecturer</td><td>Lecture<br>Pregnancy and Lactation<br>Bayram Yılmaz & Mehtap Kaçar</td><td rowspan="2">Laboratory/<br>Hist&Embry<br>Histology of Urinary & Endocrine Systems<br>Alev Cumbul & Aylin Yaba Uçar<br>Group A</td><td rowspan="2">Laboratory/<br>Pharmacology<br>Efficacy and Potency Concepts<br>Ece Genç<br>Group B</td><td rowspan="2">Independent Learning</td></tr>
<tr><td>12.00- 12.50</td><td>Lecture<br>Prions<br>Çağatay Acuner</td><td>Lecture<br>Pregnancy and Lactation<br>Bayram Yılmaz & Mehtap Kaçar</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td>Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td>Lecture<br>Perineum and Ischiorectal Fossa<br>Mohammed Elgazzar</td><td>Lecture<br>Analysis of Variance and Multiple Comparisons<br>E. Çiğdem Altunok</td><td rowspan="2">Elective Courses XI</td><td rowspan="2">Independent Learning</td><td>Lecture<br>Introduction to Drug Development<br>Ece Genç</td></tr>
<tr><td>15.00- 15.50</td><td>Lecture<br>Review of the Urinary System<br>Mohammed Elgazzar</td><td>Lecture<br>Analysis of Variance and Multiple Comparisons<br>E. Çiğdem Altunok</td><td>Lecture<br>Development of Biopharmaceuticals<br>Ece Genç</td></tr>
<tr><td rowspan="2">16.00- 16.50</td><td rowspan="2">Independent Learning</td><td colspan="2">Laboratory/Anatomy<br>Perineum and Ischiorectal Fossa<br>Mohammed Elgazzar</td><td rowspan="2">Independent Learning</td><td rowspan="2">Elective Courses XI</td><td rowspan="2">Laboratory/<br>Biostatistic<br>Çiğdem Altunok<br>Computer Applications of Tests of Significance<br>Group A</td><td rowspan="2">Laboratory/<br>Physiology<br>Bayram Yılmaz & Mehtap Kaçar<br>Dissection & Examination of Endocrine System<br>Group C</td><td rowspan="2">Group B IL</td></tr>
<tr><td>Group A</td><td>Group B, IL</td></tr>
<tr><td>17.00-17.50</td><td>Independent Learning</td><td>Group A, IL</td><td>Group B</td></tr>
</table>

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**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**VI. WEEK / 06 – 10 May 2019**

<table>
<tr><th></th><th>Monday<br>06-May-2019</th><th>Tuesday<br>07-May-2019</th><th>Wednesday<br>08-May-2019</th><th colspan="2">Thursday<br>09-May-2019</th><th colspan="4">Friday<br>10-May-2019</th></tr>
<tr><td>09.00- 09.50</td><td>Lecture<br>Physiology of Growth Hormones<br>Mehtap Kaçar</td><td>Lecture<br>Insulin, Glucagon<br>İnci Özden</td><td>Lecture<br>Insulin, Glucagon<br>İnci Özden</td><td rowspan="2">Laboratory/ Physiology<br>Bayram Yılmaz & Mehtap Kaçar<br>Dissection & Examination of Endocrine System<br>Group A</td><td rowspan="2">Group B, C I.L</td><td rowspan="2">ICP<br>CSL: Bladder Catheterization<br>Sezgin Sarıkaya & Arzu Akalın</td><td rowspan="2">Group A<br>Yeditepe University Hospital. Kosuvolu</td><td rowspan="2">Group B FHC</td><td rowspan="2">Group C SP-SGS</td></tr>
<tr><td>10.00- 10.50</td><td>Lecture<br>Pineal Gland & Melatonin<br>Mehtap Kaçar</td><td>Lecture<br>Insulin, Glucagon<br>İnci Özden</td><td>Lecture<br>Insulin, Glucagon<br>İnci Özden</td></tr>
<tr><td>11.00- 11.50</td><td>Lecture<br>Endocrine Organs<br>Mohammed Elgazzar</td><td>Lecture<br>Pharmacogenetics & Pharmacogenomics<br>Ece Genç</td><td>Lecture<br>Histogenesis and Nomenclature<br>Aydın Sav</td><td rowspan="2">Laboratory/ Physiology<br>Bayram Yılmaz & Mehtap Kaçar<br>Dissection & Examination of Endocrine System<br>Group B</td><td rowspan="2">Group A, C I.L<br>Independent Learning</td><td colspan="4" rowspan="2"></td></tr>
<tr><td>12.00- 12.50</td><td>Lecture<br>Endocrine Organs<br>Mohammed Elgazzar</td><td>Lecture<br>Pharmacogenetics & Pharmacogenomics<br>Ece Genç</td><td>Lecture<br>Histogenesis and Nomenclature<br>Aydın Sav</td></tr>
<tr><td>13.00- 13.50</td><td>Lunch Break</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td colspan="4">Lunch Break</td></tr>
<tr><td>14.00- 14.50</td><td>Lecture<br>Vasoactive Peptides<br>Ece Genç</td><td>Lecture<br>Regulation of Calcium & Phosphate Metabolism and Bone Formation<br>Bayram Yılmaz & Mehtap Kaçar</td><td>Lecture<br>Hormones and Immunity<br>Gülderen Yanıkkaya Demirel</td><td rowspan="3">Elective Courses XII</td><td rowspan="3">Independent Learning</td><td colspan="4">Lecture<br>Vitamins<br>İnci Özden</td></tr>
<tr><td>15.00- 15.50</td><td>Lecture<br>Histamine and Antihistamines<br>Ece Genç</td><td>Lecture<br>Regulation of Calcium & Phosphate Metabolism and Bone Formation<br>Bayram Yılmaz & Mehtap Kaçar</td><td colspan="2">Laboratory/Pathology<br>Inflammation & Neoplasia</td><td colspan="4">Lecture<br>Vitamins<br>İnci Özden</td></tr>
<tr><td>16.00- 16.50</td><td>Independent Learning</td><td>Lecture<br>Seeing with Sound: Images from Echoes (Diagnostic Ultrasound Imaging)<br>Bilge Güvenç Tuna</td><td>Group A</td><td>Group B IL</td><td>Independent Learning</td><td>Elective Courses XII</td><td colspan="4">Independent Learning</td></tr>
<tr><td>17.00-17.50</td><td>Independent Learning</td><td>Independent Learning</td><td colspan="2">Independent Learning</td><td colspan="4">Independent Learning</td></tr>
</table>

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

**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**VII. WEEK / 13 – 17 May 2019**

| | Monday<br>13-May-2019 | Tuesday<br>14-May-2019 | Wednesday<br>15-May-2019 | Thursday<br>16-May-2019 | Friday<br>17-May-2019 |
|---|---|---|---|---|---|
| **09.00- 09.50** | **Lecture**<br>Development of the Male Genital System and Anomalies<br>*Alev Cumbul* | **Lecture**<br>Fetal and Neonatal Physiology<br>*Bayram Yılmaz* | **Lecture**<br>Minerals<br>*İnci Özden* | **Laboratory/ Hist. & Embry.**<br>Histology of Genital System<br>*Alev Cumbul & Aylin Yaba Uçar* | **Lecture**<br>Tissue Damage by Eating Disorders and Diabetes Mellitus<br>*Aydın Sav* |
| **10.00- 10.50** | **Lecture**<br>Development of the Female Genital System and Anomalies<br>*Alev Cumbul* | **Lecture**<br>Endocrine Distruptors<br>*Bayram Yılmaz* | **Lecture**<br>Minerals<br>*İnci Özden* | **Group A** / **Group B I.L** | **Lecture**<br>Biology of Sexual Differentiation and Development<br>*Turgay İsbir* |
| **11.00- 11.50** | **Lecture**<br>Drug Toxicity 1<br>*Ece Genç* | **Lecture**<br>Vitamins<br>*İnci Özden* | **Lecture**<br>Basics of MRI<br>*Bilge Güvenç Tuna* | **Group A I.L** / **Group B** | **Lecture**<br>Biology of Sexual Differentiation and Development<br>*Turgay İsbir* |
| **12.00- 12.50** | **Lecture**<br>Drug Toxicity 2<br>*Ece Genç* | **Lecture**<br>Vitamins<br>*İnci Özden* | **Lecture**<br>Basics of MRI<br>*Bilge Güvenç Tuna* | | **Lecture**<br>Biology of Sexual Differentiation and Development<br>*Turgay İsbir* |
| **13.00- 13.50** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** | **Lunch Break** |
| **14.00- 14.50** | **ICP**<br>**CSL:** ICP-II Review<br>*Sezgin Sarıkaya* | **ICP**<br>**CSL:** ICP-II Review<br>*Özlem Tanrıöver* | **Lecture**<br>Vaccines<br>*Microbiology Lecturer* | **Elective Courses XIII** / **Independent Learning** | **Lecture**<br>Biology of Sexual Differentiation and Development<br>*Turgay İsbir* |
| **15.00- 15.50** | **Group A** / **Groups B, C, D, IL** | **Group C** / **Groups A, B, D, IL** | **Lecture**<br>Prenatal Diagnosis<br>*Alev Cumbul* | | **Laboratory/ Hist. & Embry.**<br>Review Session<br>*Alev Cumbul & Aylin Yaba Uçar*<br>**Group A** |
| **16.00- 16.50** | **Groups A, C, D, IL** | **Groups A, B, C, IL** | **Independent Learning** | **Independent Learning** / **Elective Courses XIII** | **Group B** |
| **17.00-17.50** | ICP-II Review<br>*Serdar Özdemir*<br>**Group B** | ICP-II Review<br>*Arzu Akalın*<br>**Group D** | **Independent Learning** | | **Independent Learning** |

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

**COMMITTEE V – UROGENITAL and ENDOCRINE SYSTEMS**
**VIII. WEEK / 20 – 24 May 2019**

<table>
<tr><th></th><th>Monday<br>20-May-2019</th><th>Tuesday<br>21-May-2019</th><th>Wednesday<br>22-May-2019</th><th colspan="2">Thursday<br>23-May-2019</th><th>Friday<br>24-May-2019</th></tr>
<tr><td>09.00- 09.50</td><td rowspan="2">Independent Learning</td><td rowspan="3">ICP Make-Up Exam</td><td rowspan="3">Independent Learning</td><td colspan="2" rowspan="3">Independent Learning</td><td>Independent Learning</td></tr>
<tr><td>10.00- 10.50</td><td rowspan="3">Assessment Session<br>Committee V<br>(MCQ)</td></tr>
<tr><td>11.00- 11.50</td><td>Physiology Practical Exam</td></tr>
<tr><td>12.00- 12.50</td><td>Histology and Embryology Practical Exam</td><td>Lunch Break</td><td>Lunch Break</td><td colspan="2">Lunch Break</td><td>Lunch Break</td></tr>
<tr><td>13.00- 13.50</td><td rowspan="3">Anatomy Practical Exam</td><td rowspan="3">Independent Learning</td><td rowspan="3">Independent Learning</td><td rowspan="2">Elective Courses XIV</td><td rowspan="2">Independent Learning</td><td rowspan="2">Program Evaluation Session<br>Review of the Exam Questions, Evaluation of the Committee V Program<br>Secretary of the Committee</td></tr>
<tr><td>14.00- 14.50</td></tr>
<tr><td>15.00- 15.50</td><td>Independent Learning</td><td>Elective Courses XIV</td><td>Independent Learning</td></tr>
<tr><td>16.00- 17.50</td></tr>
</table>

| | Monday<br>27-May-2019 | Tuesday<br>28-May-2019 | Wednesday<br>29-May-2019 | Thursday<br>30-May-2019 | Friday<br>31-May-2019 |
|---|---|---|---|---|---|
| 09.00- 09.50 | Independent Learning | | | | |
| 10.00- 10.50 | | | | | |
| 11.00- 11.50 | Elective Courses Final Exam | | | | |
| 12.00- 12.50 | Elective Courses Final Exam | | | | |
| 13.00- 13.50 | Lunch Break | | | | |
| 14.00- 14.50 | Independent Learning | | | | |
| 15.00- 15.50 | | | | | |
| 16.00- 17.50 | | | | | |

# STUDENT COUNSELING

Student counseling is a structured development process established between the student and the consultant that aims to maximize student success by focusing the student to her/his target. Although the major component of this relationship is the student, the faculties also take part by bringing the requirements of this interaction to their systems. The targeted outcomes of the consultant-student interaction are success in the exams, success in the program, and preparation for the professional life.

The aim of counseling is to help students to solve their problems, to give professional guidance, to provide coaching, to contribute to adopting the habit of lifelong learning, to provide information about the University and Faculty, to follow their success and failure and to help them select courses.

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

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

a. Inform students about the university, faculty and surrounding facilities
b. Inform students about the courses and help them select courses
c. Inform students about the education and assessment regulations
d. Follow students attendance to lectures and success
e. In case of failure, investigate the causes and cooperate with the students to overcome them
f. Help students in career planning
g. Contribute to students adapting the habit of lifelong learning
h. Guide students to counseling services of the university
i. Set a role model as long as the professional susceptibility, professional guidance, intellectual responsibility, interaction with peers, ethics, professional values are concerned
j. Contribute to cultivation of professional and intellectual development in a rapidly changing world
k. Inform the coordinator when there are unsolved problems of the students

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 | | | COUNSELOR |
|---|---|---|---|---|
| | **STUDENT NO** | **NAME** | **SURNAME** | **NAME** |
| **1** | 20170800110 | SEYYED SHAHAB | ABOUTALEBI | PROF. DR. TURGAY İSBİR |
| **2** | 20160800073 | MEHMET DORUK | ACET | PROF. DR. TURGAY İSBİR |
| **3** | 20170800119 | KARDELEN | AKGÜN | PROF. DR. TURGAY İSBİR |
| **4** | 20170800017 | SHIRIN | ALANSARI | PROF. DR. TURGAY İSBİR |
| **5** | 20170800092 | DORUK | ARSLAN | PROF. DR. ECE GENÇ |
| **6** | 20160800061 | ELA | ASLANSOY | PROF. DR. ECE GENÇ |
| **7** | 20160800046 | İREM | AYDIN | PROF. DR. ECE GENÇ |
| **8** | 20160800060 | NİL BAŞAK | BAŞAK | PROF. DR. ECE GENÇ |
| **9** | 20170800038 | DURU | BAYKAL | PROF. DR. ECE GENÇ |
| **10** | 20160800051 | ANİSA | BEYAN | PROF. DR. ECE GENÇ |
| **11** | 20160800086 | BATUHAN | BİLGİN | PROF. DR. EROL SEZER |
| **12** | 20170800001 | CANDAN | BİRDAL | PROF. DR. EROL SEZER |
| **13** | 20160800052 | ÖZLEM | BURÇ | PROF. DR. EROL SEZER |
| **14** | 20170800005 | ÇAĞLA ZEHRA | BÜYÜKKOÇ | PROF. DR. EROL SEZER |
| **15** | 20170800032 | CEREN | CANŞE | PROF. DR. EROL SEZER |
| **16** | 20170800107 | ENİS | CEVRİOĞLU | PROF. DR. EROL SEZER |
| **17** | 20170800002 | SEDA | CEYLAN | PROF. DR. EROL SEZER |
| **18** | 20160800055 | ZEYNEP SERRA | COŞKUN | PROF. DR. EROL SEZER |
| **19** | 20150800106 | AYŞENUR BANU | ÇAKIL | DR. ÖĞR. ÜYESİ HALE ARIK TAŞYIKAN |
| **20** | 20160800074 | AYHAN | ÇELİKAYAK | PROF. DR. EROL SEZER |
| **21** | 20170800047 | ZEYNEP | DAL | PROF. DR. İNCİ ÖZDEN |
| **22** | 20150800053 | HAKAN | DELİLBAŞI | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **23** | 20170800054 | ZEKERİYA ALP | DEMİRSOY | PROF. DR. İNCİ ÖZDEN |
| **24** | 20180800032 | EFE | DEMOKAN | PROF. DR. İNCİ ÖZDEN |
| **25** | 20160800039 | GÖNÜL BERFİN | DENİZ | PROF. DR. İNCİ ÖZDEN |
| **26** | 20170800025 | KAĞAN | DİLEK | PROF. DR. İNCİ ÖZDEN |
| **27** | 20170800058 | SEÇİL NUR | DİNÇER | PROF. DR. İNCİ ÖZDEN |
| **28** | 20170800035 | MERT | EGE | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **29** | 20170800037 | GÜLİNA | EKMEN | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **30** | 20170800039 | EBRAR CEMRE | ELMALI | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **31** | 20170800036 | CEYDA | ERALP | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **32** | 20160800081 | HAZAL | ERDEM | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **33** | 20170800087 | ÇAĞLA | EREK | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **34** | 20170800060 | ORHAN SELİM | ERGİN | DOÇ. DR. GÜLDEREN YANIKKAYA DEMİREL |
| **35** | 20170800009 | GÖZDE | ERĞUT | DOÇ. DR. ÇAĞATAY ACUNER |
| **36** | 20170800055 | BAŞAK SILA | ERYİĞİT | DOÇ. DR. ÇAĞATAY ACUNER |
| **37** | 20170800026 | DEREN | ESENCAN | DOÇ. DR. ÇAĞATAY ACUNER |
| **38** | 20170800006 | DAVID SINAN | ESENSOY | DOÇ. DR. ÇAĞATAY ACUNER |
| **39** | 20170800057 | ECE | EZELSOY | DOÇ. DR. ÇAĞATAY ACUNER |
| **40** | 20170800028 | BEGÜM | EZELSOY | DOÇ. DR. ÇAĞATAY ACUNER |
| **41** | 20170800010 | ALİ | FARUK | DOÇ. DR. ÇAĞATAY ACUNER |
| **42** | 20170800030 | EGE | FIRILOĞLU | DOÇ. DR. ÇAĞATAY ACUNER |
| **43** | 20160800077 | MELTEM | GEZERTAŞAR | DOÇ. DR. ÇAĞATAY ACUNER |

| | | | | |
|---|---|---|---|---|
| **44** | 20170800065 | BURAK | GÖNÜLLÜ | DOÇ. DR. ÇAĞATAY ACUNER |
| **45** | 20170800016 | FIONA BERİL | GUNDERSON | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **46** | 20170800071 | IŞIL | GÜLSEREN | DOÇ. DR. SONER DOĞAN |
| **47** | 20170800085 | SEZİ CEREN | GÜNAY | DOÇ. DR. SONER DOĞAN |
| **48** | 20160800043 | İREM | GÜNER | DOÇ. DR. SONER DOĞAN |
| **49** | 20160800036 | MERT | GÜNEŞ | DOÇ. DR. SONER DOĞAN |
| **50** | 20170800102 | ÖYKÜ | GÜVEN | DOÇ. DR. SONER DOĞAN |
| **51** | 20170800053 | AHMET BERK | GÜZELCE | DOÇ. DR. SONER DOĞAN |
| **52** | 20170800012 | EDA | HASBAY | DOÇ. DR. ÖZLEM TANRIÖVER |
| **53** | 20170800013 | ELİZ | HASBAY | DOÇ. DR. ÖZLEM TANRIÖVER |
| **54** | 20160800083 | CEYHUN | HAZIROĞLU | DOÇ. DR. ÖZLEM TANRIÖVER |
| **55** | 20180800024 | ÖZGE | HIDIROĞLU | PROF. DR. İNCİ ÖZDEN |
| **56** | 20170800059 | SELİN | İSMAİLOĞLU | DOÇ. DR. ÖZLEM TANRIÖVER |
| **57** | 20170800095 | UMUT | KARAÇAM | DOÇ. DR. ÖZLEM TANRIÖVER |
| **58** | 20170800089 | DİLAN | KARAÇAM | DOÇ. DR. ÖZLEM TANRIÖVER |
| **59** | 20160800038 | TUNAHAN | KARAÇOBAN | DR. ÖĞR. ÜYESİ ÇİĞDEM ALTUNOK |
| **60** | 20170800080 | EKİN | KARAGÖLENT | DOÇ. DR. MEHTAP KAÇAR |
| **61** | 20170800029 | CEREN | KARCEBAŞ | DOÇ. DR. ÖZLEM TANRIÖVER |
| **62** | 20170800061 | MAİDE | KARGILI | DOÇ. DR. MEHTAP KAÇAR |
| **63** | 20170800069 | BEGÜM | KAŞ | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **64** | 20170800019 | ALP | KAVAKLIOĞLU | DOÇ. DR. MEHTAP KAÇAR |
| **65** | 20160800078 | CEREN NAZ | KAVLAK | DOÇ. DR. MEHTAP KAÇAR |
| **66** | 20170800067 | HELİN | KAYA | DOÇ. DR. MEHTAP KAÇAR |
| **67** | 20180800020 | RANA BURKE | KAYA | DOÇ. DR. MEHTAP KAÇAR |
| **68** | 20160800022 | SERAY | KAYMAKCI | DOÇ. DR. MEHTAP KAÇAR |
| **69** | 20170800011 | AMAL | KERDJADJ | DOÇ. DR. MEHTAP KAÇAR |
| **70** | 20170800063 | SARP | KOCA | DOÇ. DR. DENİZ KIRAÇ |
| **71** | 20170800068 | NAZLI | KOCAOĞLU | DOÇ. DR. DENİZ KIRAÇ |
| **72** | 20160800089 | EYLÜL | KOÇ | DOÇ. DR. DENİZ KIRAÇ |
| **73** | 20160800072 | METE | KORKMAZ | DOÇ. DR. DENİZ KIRAÇ |
| **74** | 20170800070 | ZEYNEP | KÖFTECİ | DOÇ. DR. DENİZ KIRAÇ |
| **75** | 20170800084 | DENİZ | KÖSE | DOÇ. DR. DENİZ KIRAÇ |
| **76** | 20160800056 | DUYGU | KURT | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **77** | 20170800083 | ALİ TAN | KÜÇÜKBASMACI | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **78** | 20150800064 | BÜŞRA | KÜÇÜKYILDIZ | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **79** | 20160800065 | FADİME | MAN | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **80** | 20170800049 | KAAN | MANDIRACI | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **81** | 20160800067 | SUDE | MENEKŞE | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **82** | 20170800091 | ECEM | MEŞECİ | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **83** | 20170800105 | FARHİA | MOHAMED MURSAL | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **84** | 20170800074 | NEDİ | MOTRO | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **85** | 20170800066 | ECE | MUTLUAY | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **86** | 20170800004 | ASENA | NUHOĞLU | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **87** | 20170800100 | ZEYNEP | ORDUSEVEN | DR. ÖĞR. ÜYESİ SERDAR ÖZDEMİR |
| **88** | 20160800068 | ONUR | ORHAN | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |
| **89** | 20170800120 | RAWAN | OSMAN | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |
| **90** | 20160800066 | CANSU | ÖLMEZ | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |
| **91** | 20170800109 | FULYA | ÖNÜGÖR | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |

| | | | | |
|---|---|---|---|---|
| **92** | 20170800062 | TUTKU NAZ | ÖZDEMİR | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |
| **93** | 20170800072 | ŞEVVAL ÖZLEM | ÖZEL | DR. ÖĞR. ÜYESİ BİLGE GÜVENÇ TUNA |
| **94** | 20170800051 | ECE | ÖZEL | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **95** | 20170800078 | SELAHATTİN ALP | ÖZKÖK | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **96** | 20170800043 | DEMİR CAN | PATA | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **97** | 20160800071 | SAİT EGEMEN | PEKŞEN | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **98** | 20170800121 | MAHAMMAD | SHAHBAZOV | DR. ÖĞR. ÜYESİ ALEV CUMBUL |
| **99** | 20170800050 | GÖKSU | SAYGILI | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **100** | 20160800047 | ALP | SEÇER | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **101** | 20170800081 | ÇAĞLA | SELÇUK | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **102** | 20160800009 | MEHMET ALİ | SERDAROĞLU | DOÇ. DR. BURCU GEMİCİ |
| **103** | 20170800041 | BUKET | SERİM | DOÇ. DR. BURCU GEMİCİ |
| **104** | 20170800064 | ÖMER | SÖNMEZ | DR. ÖĞR. ÜYESİ ARZU AKALIN |
| **105** | 20160800062 | ENES TANER | SÖNMEZIŞIK | DOÇ. DR. BURCU GEMİCİ |
| **106** | 20170800082 | MELİS ECE | ŞAHİNER | DOÇ. DR. BURCU GEMİCİ |
| **107** | 20170800022 | HAYDAR | ŞENDUR | DR. ÖĞR. ÜYESİ ÇİĞDEM ALTUNOK |
| **108** | 20160800085 | PELİN | ŞENGÜDER | DR. ÖĞR. ÜYESİ ÇİĞDEM ALTUNOK |
| **109** | 20170800044 | İPEK | TANAÇAR | DR. ÖĞR. ÜYESİ ÇİĞDEM ALTUNOK |
| **110** | 20160800003 | MUSTAFA ALİHAN | TÜRK | DR. ÖĞR. ÜYESİ ÇİĞDEM ALTUNOK |
| **111** | 20170800094 | CEMAL | ULUSOY | DR. ÖĞR. ÜYESİ HALE ARIK TAŞYIKAN |
| **112** | 20170800108 | SELİN | UYAR | DR. ÖĞR. ÜYESİ HALE ARIK TAŞYIKAN |
| **113** | 20170800056 | MERVE | UYSAL | DR. ÖĞR. ÜYESİ HALE ARIK TAŞYIKAN |
| **114** | 20160800070 | SEDAT | ÜÇAR | DR. ÖĞR. ÜYESİ HALE ARIK TAŞYIKAN |
| **115** | 20160800001 | YAĞMUR | ÜNSAL | DOÇ. DR. BURCU GEMİCİ |
| **116** | 20170800093 | METEHAN | YELMENOĞLU | DOÇ. DR. AYLİN YABA UÇAR |
| **117** | 20170800045 | SU | YILDIRIM | DOÇ. DR. AYLİN YABA UÇAR |
| **118** | 20160800008 | ONUR | YILMAZ | DOÇ. DR. AYLİN YABA UÇAR |
| **119** | 20160800025 | MEHMET ALİ | YÜCEL | DOÇ. DR. AYLİN YABA UÇAR |
| **120** | 20160800014 | GÖKTUĞ | YÜKSEL | DOÇ. DR. AYLİN YABA UÇAR |

# CONTACT INFORMATION

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**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

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