**T.C. MALTEPE UNIVERSITY FACULTY OF MEDICINE**

**UNDERGRADUATE PROGRAM
2023-2024 ACADEMIC YEAR**

**EDUCATIONAL INFORMATION PACKAGE**

| **COURSE INFORMATION** |
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| **Course Name** | **Phase I Occupational Lecture**  | **Course Code** | **MED 100** |
| **Phase**  | 1 | **Level of the Course** | Undergraduate | **Language of the Course** | English |
| **Mode of Delivery** | Face to face, E-Learning, hybrid | **Lesson Type** | Compulsory |
| **Practice/Laboratuary Site** | Basic Medical Sciences Student Laboratory | **Suggested Courses** | None |
| **Prerequisite** | Requirements: None | Concurrent Requirements:None |

| **ECTS** |
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| **ECTS Credits** | **Theoretical Lecture Hours** | **Practical Hours** | **Course Duration** |
| 40 | 452 | 41 | 35 weeks |

| **COURSE COORDINATORS AND INSTRUCTORS** |
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| **Phase Coordinator and Assistant of the Coordinator**Assist. Prof. Esra Münire AydoğmuşAssist. Prof. Hale Bayram**Subject Committee Coordinators**

| **Basic Sciences Subject Committee 1** | Assist. Prof. Mustafa Sarikaya |
| --- | --- |
| **Basic Sciences Subject Committee 2** | Assist. Prof. Hale Bayram |
| **Basic Sciences Subject Committee 3** | Assoc. Prof. Pınar Eker |
| **Basic Sciences Subject Committee 4** | Assoc. Prof. Demet Hacıseyitoğlu |

| **Instructors**Prof. Necla Öztürk, Prof. Hüseyin Refik Burgut, Prof. Ayşegül Erdemir, Prof. Canan Külah, Prof. Barış Çakır, Prof. Suat Küçükgöncü, Assoc. Prof. Pınar Buket Thomas, Assoc. Prof. Pınar Eker, Assoc. Prof. Yaprak Dönmez Çakıl, Assoc. Prof. Demet Hacıseyitoğlu Assist. Prof. İbrahim Yaman Sağlam, Assist. Prof. Nesrin Özcanlı, Assist. Prof. Hidayet Ece Çelik, Assist. Prof. Buğra Çetin, Assist. Prof. Esra Münire Aydoğmuş, Assist. Prof. Uğur Baran Kasırga, Assist. Prof. Burcu Kök Kendirlioğlu |
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| **GENERAL OBJECTIVE AND CATEGORY OF THE COURSE** |
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| To give students the basic concepts of physics and organic chemistry in order to understand the normal working mechanism of biological systems; to provide students with knowledge about the structure and function of the cell, communication mechanisms between cells, genetic structure and information transfer, basic anatomy and histology; To inform students about behavioural psychology, general operation of microscopy.

| **COURSE CATEGORY** |
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| 1. Basic vocational course
 | **X** |
| 1. Specialization / Field Course
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| 1. Support lectures
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| 1. Transferable skill courses
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| 1. Humanities, Communication and Management skill courses
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| **COURSE LEARNING OUTCOMES, SUB-SKILLS and COMPETENCIES** |
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| **Students completing this course will be able to;**

| **Sequence No.** | **Learning Output / Sub - Skills / Competencies** | **Education method** | **MR Method** |
| --- | --- | --- | --- |
| **1** | Explain the basic physics concepts, apply them to biological systems, | EM1 | ME1 |
| **2** | Explain the basic principles of gene expression, gene technology, heredity and their applications in medicine, | EM1, EM3 | ME1, ME3 |
| **3** | Explain the basic aspects of cell physiology, | EM1 | ME1 |
| **4** | Explain the cell structure and dynamic events that take place in the cell, | EM1 | ME1 |
| **5** | Explain the formation mechanisms of membrane potential and action potential, | EM1 | ME1 |
| **6** | Discuss the effects of ion concentrations and membrane properties on the membrane potential, | EM1 | ME1 |
| **7** | Explain the basic mechanisms of membrane structure and signal transmission, | EM1 | ME1 |
| **8** | Knows anatomical/medical terminology; explain the anatomical features of bones and joints in the human body, | EM1, EM3 | ME1, ME2 |
| **9** | Apply biomechanical concepts to muscle and bone tissue, | EM1 | ME1 |
| **10** | Summarizes the basic properties, synthesis and degradation processes of nucleic acids, proteins, carbohydrates and lipids, | EM1 | ME1 |
| **11** | Summarize the basic concepts of psychology and behavioral science, | EM1 | ME1 |
| **12** | Can perform basic statistical tests and medical applications, | EM1 | ME1 |
| **13** | Explain the working principle of the microscope, | EM1, EM3 | ME1, ME2 |
| **14** | Can perform DNA isolation, quantification of DNA and visualization of DNA in agarose gel. | EM3 | ME2 |

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| **GENERAL COMPETENCIES:** |
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| 1. Productive
2. Rational
3. Creative
4. Ethical
5. Respectful to differences
6. Sensitive to social issues
7. able to use own language effectively
8. Sensitive to environment
9. Able to use a foreign language effectively
10. Able to adapt to different social roles in various situations
11. Able to work as a team member
12. Able to use time effectively
13. Having a critical mind
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| **COURSE CONTENTS** |
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| **Phase 1 Basic Sciences Subject Committee 1*** + - 1. Study of basic biochemical compounds, their synthesis and degradation
			2. General basic physics concepts and their applications in biological systems
			3. Physics principles of some optical devices used in medicine,
			4. Effect of electric current on the body,
			5. DNA structure, genetic information flow; model organisms and scientific methods
			6. Fundamentals of behavioral sciences, introduction to psychology, biology and behaviour
			7. History of medicine

**Phase 1 Basic Sciences Subject Committee 2**1. Acid, base, buffer, buffer systems, energy concepts2. The structures of proteins, nucleic acids, lipids and carbohydrates, their functions in the organism and their importance in terms of energy3. Comparison of properties of prokaryotic and eukaryotic cell genomes4. Gene expression, developmental genetics, epigenetics5. Biomechanical concepts and their applications in musculoskeletal systems6. Imaging systems used in medicine and their working principles7. Recording of biomedical signals and features of the devices used8. Lifelong developmental stages, motivation, excitement, attention, perception and consciousness concepts9. General information on communication to facilitate communication of individuals with society**Phase 1 Basic Sciences Subject Committee 3**1. Review of cell and cell types, organelles, structure and functions of cell membrane and skeleton, outline of substance trafficking in the cell2. Hereditary information flow, replication, transcription, translation processes in living organisms; control mechanisms of these processes and recombinant DNA technology and applications3. Identification of organelles in the cell and their histological preparations under the microscope4. Biochemically describe the structural components that make up different cells5. Physical properties and transport mechanisms of cell membranes6. Membrane potential and action potential7. Basic biochemical reactions in cells and their relationship with signal transmission and practical applications8. Basic psychological concepts in humans such as defense mechanisms, inhibition, anxiety and abnormal behaviors, and stress and mental health.9. Structure and features of unicellular and multicellular organisms10. Synthesis and degradation of lipids and proteins11. Mitosis and meiosis, cell cycle stages and control, apoptosis, molecular mechanism of cancer, applications in biotechnology and medicine12. Gaining knowledge about classification of bacteria, cell structures, reproduction and genetics; sterilization and disinfection rules and related practices that should be known when working with bacteria13. Basic biostatistics concepts14. Parametric and non-parametric tests and analysis15. Social psychology and patient-physician relations**Phase 1 Basic Sciences Subject Committee 4**1. Classification and localization of skeletal system anatomy2. The morphological structure of the cells that make up the tissues and the relationship of these tissues with the function3. Muscle anatomy, description of contraction-related anatomical features and muscle-related structures4. Muscle contraction-relaxation cycle and its control5. The structure of the nerve cell, its function in nerve conduction and the biochemistry of nerve conduction6. Basic features of the muscle and nervous system, histological structure and functions of muscle and nervous tissue7. Voluntary movements of striated muscles, neuromuscular junction, motor units, location of motor endplate, components of neuromuscular junction, distribution and characteristics of peripheral nervous system8. Mendelian genetics and principles of non-Mendelian inheritance9. Radiation, Radioactivtiy Units and Protection from Radiation, the basics of computer tomography |

| **COURSE TEXTBOOKS AND SUPPLEMENTARY READINGS** |
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| **Lecture Books**Faculty Members’ Lecture Notes, Guyton Tıbbi Fizyoloji, Ganong-Tıbbi Fizyoloji, Berne Levy Fizyoloji, Vander İnsan Fizyolojisi, Physiology, Larsen’s Human Embryology, Essentials of Human Embryology, Klinik Anestezi, Biyoistatistik. Temel Biyoistatistik, Çocuk ve Ergen Ruh Sağlığı ve Hastalıklarına Giriş, Dikkat Eksikliği Hiperaktivite Bzk. (DEHB), Çocuk ve Ergenlerde İhmal ve İstismar: Belirtileri, Etkileri, Temel Nöroşirurji Cilt 1 ve Cilt 2, Türk Nöroşirurji Derneği Yayınları, Tıp Tarihi Kitabı, Medikal Etik, Doğan Türk Tıp Etiği ve Tıp Hukuku Araştırmaları Yıllığı, Principles of Biochemistry, Medical Biochemistry, Biyokimya, Tıbbi Mikrobiyoloji, Robins Temel Patoloji, Robbins&Cotran Pathologic Basis of Disease, Kliniğe Yönelik Anatomi Fonksiyonel Anatomi Baş-Boyun ve İç Organlar, Tıp Fakültesi Öğrencileri İçin Klinik Anatomi, Biyofizik Prof. Dr. Ferit Pehlivan, Temel Biyofizik 1, Prof.Dr. İsmail Günay.**Further Reading**PDQ Fizyoloji, Hücre Elektrofizyolojisi ve Görüntülemenin Temelleri, Guyton Tıbbi Fizyoloji, GanongTıbbi Fizyoloji, Berne Levy Fizyoloji, Vander İnsan Fizyolojisi, Physiology, The Developing Human Clinically Oriented Embryology, Miller’s Anesthesia, Klinik Anesteziyoloji, Handbook of Clincal Anesthesia, Biyokimya, İnsan Biyokimyası, Manual of Clinical Microbiology, Tıp Fakültesi Öğrencileri İçin Klinik Anatomi |

| **COURSE ASSESSMENT AND EVALUATION SYSTEM** |
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| **No.** | **Examination** | **Percent Contribution**  |
| --- | --- | --- |
| 1 | Arithmetic Average of End of Committee Theoretical Examinations | %60 |
| 2 | Final Examination / Resit Examination Result | %40 |

Assessment and Evaluation System is organized according to T.C. Maltepe University Faculty of Medicine Education and Training Regulations. Laboratory practical exams are also included in the evaluation number (1) according to the course hour rate. |

| **ECTS STUDENT WORKLOAD TABLE** |
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| **Activities** | **Number** | **Duration****(hours)** | **Total work load** |
| --- | --- | --- | --- |
| Lectures | 452 | 1 | 452 |
| Laboratory | 41 | 1 | 41 |
| Practice | - | - | - |
| Lesson specific internship (if there is)  | - | - | - |
| Field study | - | - | - |
| Out of class lesson study time (pre work, strengthen, etc) | 35 | 7 | 245 |
| Presentation / Preparing seminar | - | - | - |
| Project | - | - | - |
| Homework | - |  |  |
| İnterval examinations | 4 | 25 | 100 |
| Clerkship Examination  | 1 | 25 | 100 |
| **Total work Load** | **938** |

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| **RELATIONSHIP BETWEEN PHASE II OCCUPATIONAL LECTURE COURSE LEARNING OUTCOMES AND MEDICAL EDUCATION PROGRAMME KEY LEARNING OUTCOMES** |
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| **No.** | **Program Competencies/ Outcomes**  | **Level of Contribution[[1]](#footnote-0)\*** |
| --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** |
| **1** | Able to explain the normal structure and functions of the organism. |  |  |  |  | **X** |
| **2** | Able to explain the pathogenesis, clinical and diagnostic features of psychiatric disorders |  | **X** |  |  |  |
| **3** | Able to take history and perform mental status examination. | **X** |  |  |  |  |
| **4** | Able to perform first step interventions and refer and transfer cases in life threatening emergency situations. | **X** |  |  |  |  |
| **5** | Able to perform necessary basic medical interventions for the diahnosis and treatment of mental | **X** |  |  |  |  |
| **6** | Able to perform preventive measures and forensic practices. |  | **X** |  |  |  |
| **7** | Having sufficient knowledge about the structure and process of the National Health System. |  | **X** |  |  |  |
| **8** | Able to define legal responsibilities and ethical principles. |  | **X** |  |  |  |
| **9** | Able to perform first step care of most prevalent disorders in the community with effective evidence based medical methods. | **X** |  |  |  |  |
| **10** | Able to organize and implement scientific meetings and projects | **X** |  |  |  |  |
| **11** | Able to use a major foreign language sufficient enough for follow up of literature and update of medical knowledge; able to use computer and statistical skills for the evaluation of scientific studies. |  |  |  | **X** |  |

**\* 1 en düşük, 2 düşük, 3 orta, 4 yüksek, 5 en yüksek olarak belirtilecektir.** |

| **PHASE I OCCUPATIONAL LECTURE COURSE LIST AND RANKING** |
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| **Basic Sciences Subject Committee 1**

| **No** | **Lecture/Competence** | **Instructor** |
| --- | --- | --- |
| 1 | Introduction to Medical Biology (Teorik: 2 Saat) | Pınar Buket Thomas |
| 2 | Introduction to Biophysics (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
| 3 | Measurement (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
| 4 | Waves: Longitudinal and Standing Waves (Teorik: 2 Saat) | Esra Münire Aydoğmuş  |
| 5 | Fluids (Teorik: 2 Saat) | Esra Münire Aydoğmuş  |
| 6 | Meaning of Medical History, Medicine in Prehistorical (Teorik: 2 Saat) | Ayşegül Erdemir |
| 7 | Electrical Field and Dipole (Teorik: 1 Saat) | Esra Münire Aydoğmuş |
| 8 | Molecular Forces (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
| 9 | Chromosome Structure and Epigenetics (Teorik: 2 Saat) | Pınar Buket Thomas |
| 10 | Medicine in the Ancient Ages (Teorik: 2 Saat) | Ayşegül Erdemir |
| 11 | Medicine in the Middle Ages (Teorik: 1 Saat) | Ayşegül Erdemir |
| 12 | Cytogenetics (Teorik: 2 Saat) | Pınar Buket Thomas |
| 13 | Turkish Medicine up to Ottoman Period (Teorik: 1 Saat) | Ayşegül Erdemir |
| 14 | Turkish Medicine in the Ottomans and in the Turkish Republic Period (Teorik: 2 Saat) | Ayşegül Erdemir |
| 15 | Medicine in Renaissance (Teorik: 1 Saat) | Ayşegül Erdemir |
| 16 | DNA Replication (Teorik: 2 Saat) | Çağrı Öner |
| 17 | Introduction to Biochemistry (Teorik: 2 Saat) | Nesrin Özcanlı |
| 18 | Effects of Electrical Current on Body (Teorik: 1 Saat) |  Esra Münire Aydoğmuş  |
| 19 | Solutions and concept of concentration (Teorik: 1 Saat) | Nesrin Özcanlı |
| 20 | Structure and feature of water (Teorik: 2 Saat) | Nesrin Özcanlı |
| 21 | Biomolecules and Evolution (Teorik: 2 Saat) | Pınar Buket Thomas |
| 22 | Structure and Functions of Nucleic Acids (Teorik: 2 Saat) | Pınar Buket Thomas |
| 23 | Optics and Optical Medical Instruments (Teorik: 3 Saat) | Esra Münire Aydoğmuş  |
| 24 | Acids and Bases and pH (Teorik: 2 Saat) | Nesrin Özcanlı |
| 25 | Amino acids (Teorik: 3 Saat) | Nesrin Özcanlı |
| 26 | DNA Damage and Repair Mechanisms (Teorik: 2 Saat) | Çağrı Öner |
| 27 | Structure and Functions of Proteins (Teorik: 3 Saat) | Nesrin Özcanlı |
| 28 | Biochemistry Lab Solutions And Concept Of Concentration (Pratik: 2 Saat) | Nesrin Özcanlı |
| 29 | Medical Biology Lab: Preparation Of Solutions (Pratik: 1 Saat) | Pınar Buket Thomas, Nur Kaluç |
| 30 | Medical Biology Lab: Pcr And Its Applications (Pratik: 1 Saat) | Pınar Buket Thomas, Nur Kaluç |
| 31 | Biochemistry Lab: Colorimetry (Pratik: 2 Saat) | Nesrin Özcanlı |

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| **Basic Sciences Subject Committee 2**

| **Sıra No** | **Ders/Yetkinlik** | **Eğitici** |
| --- | --- | --- |
| 1. 1
 | Biomechanics: Vectors, Torque and Rotational Movement (Teorik: 2 Saat) | Esra Münire Aydoğmuş |
| 1. 2
 | Transcription (Teorik: 2 Saat) | Pınar Buket Thomas |
| 1. 4
 | Genetic Code and Protein Synthesis (Teorik: 2 Saat) | Pınar Buket Thomas |
| 1. 5
 | Biological Oxidation, Bioenergetics and ATP (Teorik: 2 Saat) | Nesrin Özcanlı |
| 1. 6
 | Regulation of Gene Expression (Teorik: 2 Saat) | Pınar Buket Thomas |
| 1. 7
 | [Biomechanics: Elastic Properties of Tissues](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/61)(Teorik: 3 Saat) | Esra Münire Aydoğmuş |
| 1. 8
 | [Stress and Adaptation](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/56)(Teorik: 1 Saat) | Buğra Çetin |
|  | [Psychoanalytic Theory and Defence Mechanisms](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/55)(Teorik: 1 Saat) | Buğra Çetin |
| 1. 10
 | Regulation of Gene Activity in Prokaryotes (Teorik: 2 Saat) | Pınar Buket Thomas |
| 1. 11
 | [Introduction to Enzymes and Kinetics](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/57)(Teorik: 5 Saat) | Nesrin Özcanlı |
| 1. 12
 | [Biosynthesis and Post-translational Modifications of Proteins](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/62)(Teorik: 2 Saat) | Nesrin Özcanlı |
| 1. 13
 | [Molecular Basis of Genetic Variation](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/65)(Teorik: 3 Saat) | Pınar Buket Thomas |
| 1. 14
 | Regulation of Gene Activity in Eukaryotes (Teorik: 2 Saat) | Pınar Buket Thomas |
| 1. 15
 | [Heat, Thermodynamics and Bioenergetics](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/64)(Teorik: 2 Saat) | Esra Münire Aydoğmuş  |
| 1. 16
 | [Protein Turnover](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/76)(Teorik: 2 Saat) | Nesrin Özcanlı |
| 1. 17
 | [Protein Targeting](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/72)(Teorik: 2 Saat) | Nesrin Özcanlı |
| 1. 18
 | Imaging Techniques and Principles (Ultrasound and NMR) (Teorik: 3 Saat) | Esra Münire Aydoğmuş  |
| 1. 19
 | [Principles of Recording Biomedical Signals](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/82)(Teorik: 4 Saat) | Necla Öztürk |
| 1. 20
 | [Immunogenetics](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/75)(Teorik: 4 Saat) | Pınar Buket Thomas |
| 1. 21
 | [Structure and Functions of Carbohydrates](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/79)(Teorik: 4 Saat) | Nesrin Özcanlı |
| 1. 22
 | [Structure and Functions of Lipids](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/83)(Teorik: 4 Saat) | Nesrin Özcanlı |
| 1. 23
 | [Structure and Functions of Nucleotides](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/86)(Teorik: 1 Saat) | Nesrin Özcanlı |
| 1. 24
 | Personality Process Adulthood and Aging (Teorik: 2 Saat)  | Suat Küçükgöncü |
| 1. 25
 | Medical Biology [Lab: Dna Isolation](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/1538)(Pratik: 2 Saat) | Pınar Buket Thomas |
| 1. 26
 | Medical Biology [Lab: Agarose Gel Electrophoresis](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/1539)(Pratik: 2 Saat) | Pınar Buket Thomas |
| 1. 27
 | Medical Biology [Lab: Quantification Of Dna](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/1540)(Pratik: 2 Saat) | Pınar Buket Thomas |
| 1. 31
 | [Medical Biology Lab: Agarose Gel Electrophoresis](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/69) (Pratik: 1 Saat) | Pınar Buket Thomas |
| 1. 33
 | Biochemistry Lab: Enzyme Kinetics (Pratik: 3 Saat) | Nesrin Özcanlı |
| 1. 36
 | Biopsychosocial Model (Teorik: 1 Saat)  | Suat Küçükgöncü |
| 1. 39
 | [Biochemistry Lab: Qualitative analyses of carbohydrates](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/85)(Pratik: 2 Saat) | Mustafa Erinç Sitar  |
| 1. 41
 | [Doctor patient relationship](https://keypstipen.maltepe.edu.tr/n/belirtke-tablosu/2259)(Teorik: 1 Saat) | Buğra Çetin |

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| **Basic Sciences Subject Committee 3**

| **Sıra No** | **Ders/Yetkinlik** | **Eğitici** |
| --- | --- | --- |
|  | Introduction to Anatomy, Important Anatomical Terms (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Introduction to Histology: Histochemical Technics and Basic Principles (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Introduction to Embryology (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Skull (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Microscopy (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Basic Techniques for Microscopy (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Cell Structure 1: Plasmalemma (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Cell Structure 2,3: Organelles & Inclusions (Teorik: 3 Saat) | Yaprak Dönmez Çakıl |
|  | Splanchnocranium (Teorik: 1 Saat) | Uğur Baran Kasırga |
|  | Prokaryotic, Eukaryotic Cells (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Cytoplasm and Cellular Organelles (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Biomembrane Components and Transport I (Teorik: 3 Saat) | Nesrin Özcanlı |
|  | Nuclear Transport (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Violence (Teorik: 1 Saat) | Hidayet Ece Çelik |
|  | Neurocranium, Cranial Cavity (Teorik: 4 Saat) | Uğur Baran Kasırga |
|  | Biomembrane Components and Transport II (Teorik: 3 Saat) | Nesrin Özcanlı |
|  | Temporal, Infratemporal and Pterygopalatine Fossae (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Cell Cycle and Its Regulation (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Cell Structure 4: Cytoplasm (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Introduction to Microbiology (Teorik: 1 Saat) | Canan Külah |
|  | Eucaryotes and Procaryotes (Teorik: 1 Saat) | Canan Külah |
|  | Bacterial Morphology and Classification (Teorik: 2 Saat) | Demet Hacıseyitoğlu |
|  | Cell Structure 5: Cytoskeleton (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Disease, Health and Normal (Teorik: 1 Saat) | Ece Büyüksandalyacı Tunç |
|  | Glycolysis (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Bones of Upper Limb (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Bones of Lower Limb (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Gluconeogenesis (Teorik: 1 Saat) | Nesrin Özcanlı |
|  | Thorax and Ribs (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Bacterial Metabolism (Teorik: 1 Saat) | Demet Hacıseyitoğlu |
|  | Cell Structure 6: Nucleus (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Volume and Composition of Body Fluids (Teorik: 2 Saat) | Barış Çakır |
|  | Diffusion and Fick’s Law (Teorik: 2 Saat) | Esra Münire Aydoğmuş |
|  | Vertebrae and Vertebral Column (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Cell Division and Gametogenesis (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Homeostasis (Teorik: 1 Saat) | Barış Çakır |
|  | Cellular Aging (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Cell Death (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Bacterial genetics (Teorik: 1 Saat) | Demet Hacıseyitoğlu |
|  | Nernst Equilibrium (Teorik: 2 Saat) | Esra Münire Aydoğmuş |
|  | Metabolism of monosaccarides other than glycose (Teorik: 1 Saat) | Nesrin Özcanlı |
|  | Definition and Use of Biostatistics (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Descriptive Statistics (Teorik: 2 Saat) | Hüseyin Refik Burgut |
|  | Stem Cells (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Gibbs-Donnan Equilibrium (Teorik: 2 Saat) | Esra Münire Aydoğmuş |
|  | Bacterial growth (Teorik: 2 Saat) | Demet Hacıseyitoğlu |
|  | Signal Transduction (Teorik: 4 Saat) | Pınar Buket Thomas |
|  | Citric acid cycle (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Generation of Membrane Potential (Teorik: 2 Saat) | Esra Münire Aydoğmuş |
|  | Kinetics of the Voltage Gated Channels (Teorik: 2 Saat) | Necla Öztürk |
|  | Glycogen metabolism (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Microbiota-Sampling for Microbiology (Teorik: 1 Saat) | Canan Külah |
|  | Viral Classification, Structure and Replication (Teorik: 1 Saat) | Canan Külah |
|  | Tables and Graphics (Teorik: 2 Saat) | Hüseyin Refik Burgut |
|  | Cell Membrane and Transport of Substances Across the Cell Membrane (Teorik: 2 Saat) | Barış Çakır |
|  | Bioelectric Potentials (Teorik: 2 Saat) | Barış Çakır |
|  | Molecular Basis of Cancer (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Cell Culture (Teorik: 1 Saat) | Pınar Buket Thomas |
|  | Types and Sources of Data (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Demographic and Morbidity Statistics (Teorik: 2 Saat) | Hüseyin Refik Burgut |
|  | Respiratory chain (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Epithelial Tissue (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Capillary Fluid Exchange (Teorik: 2 Saat) | Barış Çakır |
|  | Fungal classification, structure and general properties (Teorik: 2 Saat) | Canan Külah |
|  | Pentose phosphate pathway (Teorik: 1 Saat) | Nesrin Özcanlı |
|  | Glucuronic acid metabolism (Teorik: 1 Saat) | Nesrin Özcanlı |
|  | Regulation of blood glucose (Teorik: 1 Saat) | Nesrin Özcanlı |
|  | Membrane Potential Changes Induced by Subthreshold Stimulus (Teorik: 2 Saat) | Necla Öztürk |
|  | Fertilization (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Stem Cells (Teorik: 2 Saat) | Pınar Buket Thomas |
|  | Compound Action Potential (Teorik: 2 Saat) | Necla Öztürk |
|  | Biosynthesis of lipids (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Gametogenesis (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Early Embryological Period: First Week (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Parasitic Classification, Structure and General Properties (Teorik: 1 Saat) | Demet Hacıseyitoğlu |
|  | Lipid Catabolism (Teorik: 2 Saat) | Nesrin Özcanlı |
|  | Disinfection and Sterilization (Teorik: 2 Saat) | Demet Hacıseyitoğlu |
|  | Recombinant DNA Technology and Its Applications (Teorik: 3 Saat) | Pınar Buket Thomas |
|  | Introduction to immunology (Teorik: 2 Saat) | Canan Külah |
|  | Y1c3 Biochemistry Lab (Pratik: 1 Saat) | Nesrin Özcanlı |
|  | Y1c3 Histology And Embryology Lab (Pratik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Anatomy Lab: Bones Of Upper Limb (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Anatomy Lab: Bones Of Lower Limb (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Anatomy Lab: Vertebrae And Vertebral Column, Thorax And Ribs (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Anatomy Lab: Neurocranium, Cranial Cavity, Temporal, Infratemporal And Pterygopalatine Fossae (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Sexuality (Teorik: 1 Saat) | Burcu Kök Kendirlioğlu |
|  | Anatomy Lab: Skull (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Anatomy Lab: Splancnocranium (Pratik: 1 Saat) | Uğur Baran Kasırga, Betül Aslan |
|  | Frequency Tables (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Single Dimensional Tables And Graphs (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Multi Dimensional Tables And Graphs (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Probability And Probability Distributions (Teorik: 1 Saat) | Hüseyin Refik Burgut |
|  | Microbiology Lab: Methods for Preparing Samples. Inoculation and Culture methods (Pratik: 2 Saat) | Demet Hacıseyitoğlu |
|  | Histology Lab: Epithelial Tissue (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Death and Grieving (Teorik: 1 Saat) | Hidayet Ece Çelik |
|  | Embryology First Week: Video | Yaprak Dönmez Çakıl |
|  | Addiction (Teorik: 1 Saat) | Hidayet Ece Çelik |
|  | Minerals and Trace Elements (Teorik: 3 Saat) | Pınar Eker |
|  | Structure and Functions of Vitamins and Coenzymes (Teorik: 3 Saat) | Pınar Eker |
|  | Action Potential (Teorik: 2 Saat) | Necla Öztürk |
|  | Introduction to Clinical Application (KUG, Teorik: 34 Saat)  | David Thomas, Nur Kaluç |

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| **Basic Sciences Subject Committee 4**

| **Sıra No** | **Ders/Yetkinlik** | **Eğitici** |
| --- | --- | --- |
|  | Body Joints in General, Joint Types (Teorik: 1 Saat) | Uğur Baran Kasırga |
|  | Body Joints (Teorik: 4 Saat) | Uğur Baran Kasırga |
|  | General Anatomical Features of Muscles (Teorik: 1 Saat) | Uğur Baran Kasırga |
|  | Shoulder Muscles, Axilla, Arm Muscles (Teorik: 3 Saat) | Uğur Baran Kasırga |
|  | Anterior and Lateral Compartment Muscles of Thocic Cage (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Back and Neck Muscles (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Anterior Compartment (Flexors) Forearm Muscles (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Posterior Group (Extensor) Forearm Muscles (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Hand Muscles (Teorik: 3 Saat) | Uğur Baran Kasırga |
|  | Cervical Plexus and Brachial Plexus (Teorik: 4 Saat) | Uğur Baran Kasırga |
|  | Anterior, Lateral and Medial Compartment Muscles of Thigh. (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Gluteal Region Muscles (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Posterior Thigh Muscles, Popliteal Fossa (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Leg Muscles (Anterior- Lateral- Psterior Compartments) (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Foot Muscles (Teorik: 3 Saat) | Uğur Baran Kasırga |
|  | Biological Foundations of Behaviors (Teorik: 1 Saat) | Ece Büyüksandalyacı Tunç |
|  | Psychological Foundations of Behaviors (Teorik: 1 Saat) | Ece Büyüksandalyacı Tunç |
|  | Suicide (Teorik: 1 Saat) | Hidayet Ece Çelik |
|  | Discrimination Stigma Immigration | Burcu Kök Kendirlioğlu, |
|  | Radyoactivity and Types of Radioactive Decay (Teorik: 2 Saat) | Esra Münire Aydoğmuş  |
|  | Interaction of Radioactive Rays with Matter (Teorik: 2 Saat) | Necla Öztürk  |
|  | Radioactivtiy Units and Protection from Radiation (Teorik: 2 Saat) | Necla Öztürk  |
|  | Biological Effects of Radiation (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
|  | Production of X-Rays (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
|  | PET-Pozitron Emission Tomography (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
|  | Laser Beams and it's used in Medicine (Teorik: 1 Saat) | Esra Münire Aydoğmuş  |
|  | Connective Tissue (Teorik: 3 Saat) | Yaprak Dönmez Çakıl |
|  | Cartilage Tissue (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Bone Tissue (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Osteogenesis (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Muscle Tissue (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Development & Histology of Skin (Teorik: 3 Saat) | Yaprak Dönmez Çakıl |
|  | Formation Of Bilaminar Embroyonic Disc: Second Week (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | Plasenta and Fetal Membranes (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Formation Of Germ Layers and Early Tissue and Organ Differentiation: Third Week (Teorik: 2 Saat) | Yaprak Dönmez Çakıl |
|  | The Fetal Period: Ninth Week To Birth (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Mendelian Genetics (Teorik: 2 Saat) | Nur Kaluç |
|  | Inheritance Patterns of Monogenic Diseases (Teorik: 2 Saat) | Nur Kaluç |
|  | Beyond Mendel’s Laws (Teorik: 2 Saat) | Nur Kaluç |
|  | Non-Mendelian Inheritance (Teorik: 4 Saat) | Pınar Buket Thomas |
|  | Population Genetics (Teorik: 2 Saat) | Nur Kaluç |
|  | Striated Muscles and Contraction Theories (Teorik: 4 Saat) | Barış Çakır |
|  | Physiology of Smooth Muscles (Teorik: 2 Saat) | Barış Çakır |
|  | Nerve Muscle Junction (Teorik: 2 Saat) | Barış Çakır |
|  | Synaptic Transmission and Reseptors (Teorik: 2 Saat) | Barış Çakır |
|  | Otonomic Nervous System (Teorik: 2 Saat) | Barış Çakır |
|  | Periferical Nervous System Physiology (Teorik: 1 Saat) | Barış Çakır |
|  | Spinal Reflexes (Teorik: 3 Saat) | Barış Çakır |
|  | Connective Tissue Biochemistry (Teorik: 4 Saat) | Nesrin Özcanlı |
|  | Verbal and Non-Verbal Communication and Empathy (Teorik: 1 Saat) | Hidayet Ece Çelik |
|  | Lumbar Plexus and Sacral Plexus (Teorik: 2 Saat) | Uğur Baran Kasırga |
|  | Dermatomes (Teorik: 1 Saat) | Uğur Baran Kasırga |
|  | Congenital Malformations and Birth (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  | Anatomy Lab: Joints, Ligaments Pectoral Region And Superficial Back Muscles (Pratik: 1 Saat) | Betül Aslan |
|  | Anatomy Lab: Deep Neck And Back Muscles Shoulder Muscles, Axilla, Brachial Plexus And Arm Muscles ( (Pratik: 1 Saat) | Betül Aslan |
|  | Physiology Lab: Physiology Of Muscles (Pratik: 2 Saat) | Barış Çakır |
|  | Anatomy Lab: Forearm Muscles And Hand (Pratik: 1 Saat) | Betül Aslan |
|  | Anatomy Lab: Gluteal Region : Anterior, Lateral, Medial And Posterior Thigh Muscles, Popliteal Fossa (Pratik: 1 Saat) | Betül Aslan |
|  | Anatomy Lab: Leg And Foot Muscle (Pratik: 1 Saat) | Betül Aslan |
|  | Histology Lab: Connective Tissue (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Histology Lab: Cartilage Tissue (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Histology Lab: Bone Tissue (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Histology Lab: Muscle Tissue (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Histology Lab: Skin (Pratik: 1 Saat) | Yaprak Dönmez Çakıl, Sevtap Gökalp |
|  | Muscles Of Head (Teorik: 1 Saat) | Uğur Baran Kasırga |
|  | Anterior And Lateral Side Muscles Of Neck (Teorik: 3 Saat) | Uğur Baran Kasırga |
|  | Discrimination Stigma Immigration (Teorik: 1 Saat) | Burcu Kök Kendirlioğlu |
|  | Gender Equality (Teorik: 1 Saat) | Burcu Kök Kendirlioğlu |
|  | Organogenesis 4-8 weeks (Teorik: 1 Saat) | Yaprak Dönmez Çakıl |
|  |  Introduction to Clinical Applications ( Teorik: 31 Saat) | David Thomas, Nur Kaluç |

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| **EDUCATIONAL METHODS GUIDE** |
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| **CODE** | **METHOD NAME** | **EXPLANATION** |
| --- | --- | --- |
| **EM1** | Amphitheatre lesson | These are the courses applied in preclinical education where the whole class is together. |
| **EM2** | Class lesson | These are courses applied in small groups during the clinical period. |
| **EM3** | Lab application | These are laboratory courses applied in the preclinical period. |
| **EM4** | Skill Training App | It is the work that the student does on a model or mannequin before meeting with the real patient, which will be done in the Virtual Clinic or other environment. |
| **EM5** | Clinic Education | These are activities that provide clinical competence by applying bedside training with real patients or models under the supervision of trainers. |
| **EM6** | Independent Study Hours | These are the periods in the curriculum for the student to repeat what they have learned and to prepare for new lesson sessions. |
| **EM7** | Community Based Education Application | Field practices, non-unit professional practices, etc. includes. |
| **EM8** | Problem Based Learning | Problem based learning. |
| **EM9** | Private Study module | These are applications that will enable the student to gain in-depth knowledge about a subject individually or as a group. |
| **EM10** | Scientific Research study | These are applications aimed at improving the scientific research competence of the student. |
| **EM11** | Other | If this code is used, the training method should be written in detail. |

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| **MEASUREMENT EVALUATION METHODS GUIDE** |
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| **CODE** | **METHOD NAME** | **EXPLANATION** |
| --- | --- | --- |
|  **ME1** | Theoretical Exam ( Multiple Elective , Multiple Optional etc Questions containing ) | The committee is the exam used in the final exams. |
|  **ME2** | Practical exam | It should be used for laboratory applications. |
| **ME3** | Classical Verbal |  |
| **ME4** | Structured Oral | It is an oral exam in which questions and answers are prepared on a form beforehand. |
| **ME5** | OSCE | Objective Structured Clinical Examination |
| **ME6** | CORE | Clinical Act Execution Exam |
| **ME7** | ICE ( Business head Evaluation ) | It is the evaluation made by the trainer on the student at the bedside or during the practice. |
| **ME8** | Other | A statement must be made. |

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1. [↑](#footnote-ref-0)