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| **C:\Users\Namariel\Downloads\TıpF (1)\TıpF\TıpF-2.png****MARMARA UNIVERSITY SCHOOL of MEDICINE** |
| CELLULAR METABOLISM AND TRANSPORT YEAR 1 COURSE 2December 05, 2022 – January 20, 2023 |
| **Coordinator of the Course 1.2**Prof. Betül YILMAZ | **Coordinator of the Module 1.2**Assoc. Prof. Banu AYDIN OMAY |
| Prof. Dilek AKAKIN & Prof. Mustafa AKKİPRİK |
| **Module Coordinators**Prof. Rezzan GÜLHAN Assist.Prof. Sinem YILDIZ İNANICI | **Introduction to Clinical Practice (ICP) Coordinators**Prof. Gülru Pemra CÖBEK ÜNALANProf. Serap ÇİFÇİLİ |
|  **Coordinator of Multidisciplinary Students’ Lab**.Prof. Betül YILMAZ | **Coordinator of Clinical Skills Lab.**Assoc. Prof. Çiğdem APAYDIN KAYA |
|  **Coordinator of Assessment Unite**Assist. Prof. Cevdet NACAR | **Coordinator of Student Exchange Programs**Assist. Prof. Can ERZİK |
| **Vice-Chief Coordinators** |
| **Program**Prof. Oya ORUN | **Assessment** Prof. Hasan R. YANANLI | **Students’ Affairs**Assist. Prof. Can ERZİK |
| **Chief Coordinator (Pre-Clinical Education)** Prof. Serap ŞİRVANCI | **Coordinator of Medical Education Program Evaluation and Development Commission**Prof. Harika ALPAY |
| **Vice Dean (Education)**Prof. Ahmet Altuğ ÇİNÇİNProf. Hasan R. YANANLI | **Dean**Prof. Ümit Süleyman ŞEHİRLİ |

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| MU MEDICAL SCHOOL PRE-CLINICAL EDUCATION PROGRAM |
| LEARNING OUTCOMES / COMPETENCIES1. Clinical Care: Qualified patient care and community oriented health care
2. Basic clinical skills
3. The organization and management of the patient and the patient care
4. The organization and the management of health care delivery services / system
5. Health promotion and disease prevention
6. Medical Knowledge and Evidence-Based Medicine
7. Appropriate information retrieval and management skills
8. The integration of knowledge, critical thinking and evidence-based decision making
9. Scientific methods and basic research skills
10. Professional Attitudes and Values
11. Communication skills and effective communication with patients / patient relatives
12. Interpersonal relationships and team working
13. Ethical and professional values, responsibilities
14. Individual, social and cultural values and responsibilities
15. Reflective practice and continuing development
16. Healthcare delivery systems, management and community oriented health care
17. Education and counseling
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| PHASE-1 LEARNING OBJECTIVES1. Understanding the normal structures and functions of human body
2. Correlating the basic concepts and principles to each other that define health and disease; applying basic concepts and principles to health and disease conditions
3. Developing clinical problem solving, clinical reasoning and evaluation skills by integrating biomedical, clinical, social and humanities knowledge
4. Gaining basic clinical skills by applications in simulated settings.
5. Awareness of the professional values in health and disease processes (professional, individual, societal) and acquisition necessary related skills
6. Evaluating critically and synthesizing all the medical evidence and perform respecting scientific, professional and ethical values
7. Acquisition skills in reflective thinking and practicing, being open to continuous individual / professional development.
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| PHASES – 1 THEMA/ORGAN SYSTEM-BASED COURSE PROGRAMSYear 1, Course 1: Introduction to Cell and Cellular ReplicationYear 1, Course 2: Cellular Metabolism and TransportYear 1, Course 3: Development and Organization of Human BodyYear 1, Course 4: Introduction to Nervous System and Human BehaviorYear 2, Course 1: Cell and Tissue Injury I Year 2, Course 2: Cell and Tissue Injury IIYear 2, Course 3: Hematopoietic System and Related DisordersYear 2, Course 4: Musculoskeletal, Integumentary Systems and Related DisordersYear 2, Course 5: Respiratory System and Related DisordersYear 3, Course 1: Cardiovascular System and Related DisordersYear 3, Course 2: Gastrointestinal System, Metabolism and Related DisordersYear 3, Course 3: Nervous System and Related DisordersYear 3, Course: Growth, Development, Mental Health and Related DisordersYear 3, Course 5: Urinary and Reproductive System and Related Disorders |

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| CELLULAR METABOLISM AND TRANSPORT |
| AIM and LEARNING OBJECTIVES of COURSE **Aim:** At the end of this committee, first year students will gain knowledge about the metabolic pathways within the cell, structure of the cell membrane and transport mechanisms.**Learning Objectives:** At the end of this committee, first year students will * acquire knowledge related to structural characteristics, functions and regulation of enzymes and coenzymes
* understand the ATP synthesis and its effect on metabolic pathways
* describe the constituents and reactions of metabolic pathways within the cell
* understand membrane structure and its function, physical principles of transport and signaling mechanisms both within and among the cells
* acquire skills necessary to perform experimental applications.
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| **ASSESSMENT SYSTEM**Module examination: Written exam at the end of module (10 % of final score)Practical examination: Practical exams at the end of courseCourse examination: Written exam at the end of course |  **PROGRAM EVALUATION** Evaluation at the end of the course, is done both orally and by using structured evaluation forms |
| DEPARTMENTS PARTICIPATING IN COURSE-1.2 & MODULE-1.2 |
| * Biochemistry
* Biophysics
* Biostatistics
* Cardiovascular Surgery
* Medical Biology
 | * Medical Education
* Ophtalmology
* Physiology
* Urology
 |
| LECTURERS / TUTORS |
| Mustafa AKKİPRİK, Professor of Medical Biology Çiğdem APAYDIN KAYA, Professor of Familiy MedicineSaime BATIREL, Assoc. Professor of Biochemistry Gülnaz Nural BEKİROĞLU, Professor of BiostatisticsHülya CABADAK, Professor of BiophysicsÖzge EMRE, Instructor of Medical English Can ERZİK, Assist. Professor of Medical Biology Günseli Ayşe GARİP İNHAN, Assoc. Professor of BiophysicsMehmet Ali GÜLPINAR, Professor of Medical Education | Goncagül HAKLAR, Professor of Biochemistry İrem PEKER EYÜBOĞLU, Assist.Professor of Medical BiologyBanu AYDIN OMAY, Assoc. Professor of BiophysicsBetül YILMAZ, Professor of BiochemistryÖzgür KASIMAY, Professor of Physiology Cevdet NACAR, Assist. Professor of Biophysics Berrak YEĞEN, Professor of Physiology Alper YILDIRIM, Assoc. Professor of PhysiologySinem YILDIZ İNANICI, Assist.Prof. of Medical Education |
| READING / STUDYING MATERIALS* Biochemistry, Stryer, 4th Ed., Freeman
* Biochemistry, Zubay, 3rd Ed., WCB
* Harper's Biochemistry, Murray, Granner, 23rd Ed., Lange Interscience, New Jersey 2003
* Introduction to Biostatistics For Health Sciences, Micheal R. Chernick, Robert H. Friss,Willey
* Lehninger Principles of Biochemistry, Nelson, Cox, 3rd edition, Worth
* Medical Statistics at a Glance, Aviva Petrie, Caroline Sabin, Blackwell Science, London 2003
* Physics, Giancoli, 4th Ed., Prentice Hall
* Practical Statistics For Medical Research, Douglas Altman, Chapman & Hall, London 1995
* Principles of Physiology, Bern and Levy, 4th Ed.
* Temel Biyoistatistik, Mustafa Şenocak, Çağlayan Kitapevi, İstanbul 1990
* Textbook of Physiology, Guyton and Hall , 10th Ed.
* The Cell: A Molecular Approach, Cooper, 2nd Ed., ASM Press
* Molecular Biology of the Cell, Alberts et al. 3rd Ed., Garland
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| SUMMARY OF THE COURSE 1.2 |
| Discipline | **Lecture & Group Discussion** | **Multidisciplinary Lab. & Clinical Skills Lab. &** **ICP Lab.** **Practice** | Total |
| Biochemistry | 26 | 9 | 35 |
| Biophysics | 20 |  | 20 |
| Biostatistics | 10 |  | 10 |
| Medical Biology | 4 |  | 4 |
| Physiology | 8 | 2 | 10 |
| Subtotal | 66 | 11 | 79 |
| PBL Module | 8 |  | 8 |
| TOTAL | 74 | 11 | 87 |
| ICP-1: Computer Skills (Students’ Research Activity) |  | 18 | 18 |
| Medical English | 12 |  | 12 |
| TOTAL | **88** | **26** | **117** |

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| **SEVEN WEEK PROGRAM** |
|  | **THEORETICAL AND PRACTICAL SESSIONS** | **LECTURER(S)/TUTOR(S)** |
| **Week-1 (05 December - 09 December 2022)** |
| **Monday** | **05 December** |  |
| 08:40-09:30 | Introduction to the course | Dr. Mustafa Akkiprik |
| 09:40-10:30 | Homeostasis | Dr. Berrak Yegen |
| 10:40-11:30 | Transport of substances | Dr. Özgür Kasımay |
| 11:40-12:30 | Transport of substances | Dr. Özgür Kasımay |
|  |  |  |
| 13:40-14:30 | Physical principles: Diffusion and facilitated transport | Dr. Hülya Cabadak |
| 14:40-15:30 | Physical principles: Diffusion and facilitated transport | Dr. Hülya Cabadak |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
| 17:40-18:30 |  |  |
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| **Tuesday** | **06 December** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 | Active transport and secondary active transport | Dr. Hülya Cabadak |
| 10:40-11:30 | Signal transduction | Dr. Özgür Kasımay |
| 11:40-12:30 | Cell to cell adhesions | Dr. Özgür Kasımay |
|  |  |  |
| 13:40-14:30 | Introduction to bioelectricity-I | Dr. Cevdet Nacar |
| 14:40-15:30 | Introduction to bioelectricity-I | Dr. Cevdet Nacar |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **07 December** |  |
| 08:40-09:30 | Introduction to metabolism and metabolic control | Dr. Goncagül Haklar |
| 09:40-10:30 | Introduction to metabolism and metabolic control | Dr. Goncagül Haklar |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
|  |  |  |
| 13:40-14:30 | Introduction to bioelectricity-II | Dr. Cevdet Nacar |
| 14:40-15:30 | Introduction to bioelectricity-II | Dr. Cevdet Nacar |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
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| **Thursday** | **08 December** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 | Intercellular communication | Dr. Alper Yıldırım |
| 10:40-11:30 | Role of organelles in the metabolism | Dr. Goncagül Haklar |
| 11:40-12:30 | Overview of glycolysis | Dr. Goncagül Haklar |
|  |  |  |
| 13:40-14:30 | Physical characteristics of membrane structure and function | Dr. Banu Aydın Omay |
| 14:40-15:30 | Membrane proteins | Dr. Banu Aydın Omay |
| 15:40-16:30 | Electrochemical potentials, Nernst potential | Dr. Ayşe Garip İnhan |
| 16:40-17:30 |  |  |
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| **Friday** | **09 December** |  |
| 08:40-09:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 09:40-10:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 10:40-11:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 11:40-12:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
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| 13:40-14:30 |  |  |
| 14:40-15:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 15:40-16:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 16:40-17:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Week-2 (12 December - 16 December 2022)** |
| **Monday** | **12 December** |  |
| 08:40-09:30 | Bioelectric potentials | Dr. Berrak Yegen |
| 09:40-10:30 | Bioelectric potentials | Dr. Berrak Yegen |
| 10:40-11:30 | Reactions of glycolysis | Dr. Goncagül Haklar |
| 11:40-12:30 | Reactions of glycolysis | Dr. Goncagül Haklar |
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| 13:40-14:30 | Membrane potentials and action potential | Dr. Ayşe Garip İnhan |
| 14:40-15:30 | Membrane potentials and action potential | Dr. Ayşe Garip İnhan |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
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| **Tuesday** | **13 December** |  |
| 08:40-09:30 | Regulation of glycolysis | Dr. Goncagül Haklar |
| 09:40-10:30 | Regulation of glycolysis | Dr. Goncagül Haklar |
| 10:40-11:30 | Introduction to statistical analysis | Dr. Nural Bekiroğlu |
| 11:40-12:30 | Sampling, distribution and estimation | Dr. Nural Bekiroğlu |
|  |  |  |
| 13:40-14:30 | Flow of energy in nature, first law of thermodynamics | Dr. Ayşe Garip İnhan |
| 14:40-15:30 | Flow of energy in nature, first law of thermodynamics | Dr. Ayşe Garip İnhan |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
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| **Wednesday** | **14 December** |  |
| 08:40-09:30 | Tricarboxylic acid cycle and hexose monophosphate shunt | Dr. Goncagül Haklar |
| 09:40-10:30 | Tricarboxylic acid cycle and hexose monophosphate shunt | Dr. Goncagül Haklar |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
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| 13:40-14:30 | The second law of thermodynamics, entropy, free energy | Dr. Ayşe Garip İnhan |
| 14:40-15:30 | The second law of thermodynamics, entropy, free energy | Dr. Ayşe Garip İnhan |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
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| **Thursday** | **15 December** |  |
| 08:40-09:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 09:40-10:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 10:40-11:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 11:40-12:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
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| 13:40-14:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 14:40-15:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 15:40-16:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
| 16:40-17:30 | ICP-1 First-Aid Practice Exam | ICP Lab. |
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| **Friday** | **16 December** |  |
| 08:40-09:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 09:40-10:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 10:40-11:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
| 11:40-12:30 | Clinical Skills Laboratory (CSL) Activities | ICP Lab. |
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| 13:40-14:30 |  |  |
| 14:40-15:30 | Communication Skills and Introduction to Medical Interview (Intercultural Communication) | Dr. Mehmet Ali Gülpınar |
| 15:40-16:30 | Communication Skills and Introduction to Medical Interview (Intercultural Communication) | Dr. Mehmet Ali Gülpınar |
| 16:40-17:30 | Communication Skills and Introduction to Medical Interview (Intercultural Communication) | Dr. Mehmet Ali Gülpınar |
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| **Week-3 (19 December - 23 December 2022)** |
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| **Monday** | **19 December** |  |
| 08:40-09:30 | Tricarboxylic acid cycle and hexose monophosphate shunt | Dr. Goncagül Haklar |
| 09:40-10:30 | Tricarboxylic acid cycle and hexose monophosphate shunt | Dr. Goncagül Haklar |
| 10:40-11:30 | What is probability and probability distribution? | Dr. Nural Bekiroğlu |
| 11:40-12:30 | Bayes’ Theorem  | Dr. Nural Bekiroğlu |
|  |  |  |
| 13:40-14:30 | Coupling of biological reactions with high energy metabolite | Dr. Hülya Cabadak |
| 14:40-15:30 | Coupling of biological reactions with high energy metabolite | Dr. Hülya Cabadak |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
| 17:40-18:30 |  |  |
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| **Tuesday** | **20 December** |  |
| 08:40-09:30 | Electron transport chain | Dr. Goncagül Haklar |
| 09:40-10:30 | Electron transport chain | Dr. Goncagül Haklar |
| 10:40-11:30 | Principles of statistical analysis  | Dr. Nural Bekiroğlu |
| 11:40-12:30 | Elements of statistical interference | Dr. Nural Bekiroğlu |
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| 13:40-14:30 | PBL Study Time |  |
| 14:40-15:30 | PBL-1 |  |
| 15:40-16:30 | PBL-1 |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **21 December** |  |
| 08:40-09:30 | Oxidative Phosphorylation | Dr. Goncagül Haklar |
| 09:40-10:30 | Oxidative Phosphorylation | Dr. Goncagül Haklar |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
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| 13:40-14:30 | Physiology LAB: Cell Physiology-Group A | Multidisciplinary Lab. |
| 14:40-15:30 | Physiology LAB: Cell Physiology-Group A | Multidisciplinary Lab. |
| 15:40-16:30 | Physiology LAB: Cell Physiology-Group B | Multidisciplinary Lab. |
| 16:40-17:30 | Physiology LAB: Cell Physiology-Group B | Multidisciplinary Lab. |
| 17:40-18:30 |  |  |
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| **Thursday** | **22 December** |  |
| 08:40-09:30 | **Y3C2 THEORETICAL EXAM** |  |
| 09:40-10:30 |  |
| 10:40-11:30 |  |
| 11:40-12:30 |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 | Oxidation of lipids | Dr. Saime Batırel |
| 15:40-16:30 | Oxidation of lipids | Dr. Saime Batırel |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Friday** | **23 December** |  |
| 08:40-09:30 | Communication Skills and Introduction to Medical Interview (Intercultural Communication) | Dr. Sinem Yıldız İnanıcı |
| 09:40-10:30 | Communication Skills and Introduction to Medical Interview (Intercultural Communication) | Dr. Sinem Yıldız İnanıcı |
| 10:40-11:30 | Introduction to Student Research and Computer Skills (Finding Research Subject & Designing a questionnaire design) | Dr. Sinem Yıldız İnanıcı |
| 11:40-12:30 | Introduction to Student Research and Computer Skills (Finding Research Subject & Designing a questionnaire design) | Dr. Sinem Yıldız İnanıcı |
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| 13:40-14:30 | PBL Study Time |  |
| 14:40-15:30 | PBL-2 |  |
| 15:40-16:30 | PBL-2 |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Week-4 (26 December - 30 December 2022)** |
| **Monday** | **26 December** |  |
| 08:40-09:30 | Biosynthesis of lipids | Dr. Saime Batırel |
| 09:40-10:30 | Biosynthesis of lipids | Dr. Saime Batırel |
| 10:40-11:30 | Importance of genome projects in medicine | Dr. İrem Peker Eyüboğlu |
| 11:40-12:30 | Genome of mitochondria | Dr. Can Erzik |
|  |  |  |
| 13:40-14:30 | Free energy and thermodynamic properties of water | Dr. Ayşe Garip İnhan |
| 14:40-15:30 | Energetics of electron transport | Dr. Hülya Cabadak |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
| 17:40-18:30 |  |  |
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| **Tuesday** | **27 December** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Testing statistical hypothesis | Dr. Nural Bekiroğlu |
| 11:40-12:30 | Types of errors in statistical inference | Dr. Nural Bekiroğlu |
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| 13:40-14:30 | PBL Study Time |  |
| 14:40-15:30 | PBL-3 |  |
| 15:40-16:30 | PBL-3 |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **28 December** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Thursday** | **29 December** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 | Biochemistry LAB: Electron Transport Chain-Group A | Multidisciplinary Lab. |
| 10:40-11:30 | Biochemistry LAB: Electron Transport Chain-Group A | Multidisciplinary Lab. |
| 11:40-12:30 | Biochemistry LAB: Electron Transport Chain-Group A | Multidisciplinary Lab. |
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| 13:40-14:30 | Biochemistry LAB: Electron Transport Chain-Group B | Multidisciplinary Lab. |
| 14:40-15:30 | Biochemistry LAB: Electron Transport Chain-Group B | Multidisciplinary Lab. |
| 15:40-16:30 | Biochemistry LAB: Electron Transport Chain-Group B | Multidisciplinary Lab. |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Friday** | **30 December** |  |
| 08:40-09:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 09:40-10:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 10:40-11:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 11:40-12:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
|  |  |  |
| 13:40-14:30 |  |  |
| 14:40-15:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 15:40-16:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 16:40-17:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 17:40-18:30 |  |  |
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| **Week-5 (02 January - 06 January 2023)** |
|  |  |  |
| **Monday** | **02 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
|  |  |  |
| 13:40-14:30 | Difference between parametric and nonparametric methods; Introduction to parametric methods | Dr. Nural Bekiroğlu |
| 14:40-15:30 | One sample t-test, unpaired t-test and paired t-test | Dr. Nural Bekiroğlu |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
| 17:40-18:30 |  |  |
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| **Tuesday** | **03 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Biosynthesis of lipids | Dr. Saime Batırel |
| 11:40-12:30 | Biosynthesis of lipids | Dr. Saime Batırel |
|  |  |  |
| 13:40-14:30 | PBL Study Time |  |
| 14:40-15:30 | PBL-4 |  |
| 15:40-16:30 | PBL-4 |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **04 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
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| 13:40-14:30 | Gluconeogenesis and glycogen metabolism-1 | Dr. Saime Batırel |
| 14:40-15:30 | Gluconeogenesis and glycogen metabolism-1 | Dr. Saime Batırel |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Thursday** | **05 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
| 10:40-11:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
| 11:40-12:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
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| 13:40-14:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
| 14:40-15:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
| 15:40-16:30 | Biochemistry LAB: Anaerobic Glycolysis-Group A | Multidisciplinary Lab. |
| 16:40-17:30 |  |  |
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| **Friday** | **06 January** |  |
| 08:40-09:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 09:40-10:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 10:40-11:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
| 11:40-12:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Çiğdem Apaydın Kaya |
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| 13:40-14:30 |  |  |
| 14:40-15:30 | Introduction to Student Research and Computer Skills (Meeting with the advisors) |  |
| 15:40-16:30 | Introduction to Student Research and Computer Skills (Meeting with the advisors) |  |
| 16:40-17:30 | Introduction to Student Research and Computer Skills (Meeting with the advisors) |  |
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| **Week-6 (09 January - 13 January 2023)** |
| **Monday** | **09 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Gluconeogenesis and glycogen metabolism-2 | Dr. Saime Batırel |
| 11:40-12:30 | Gluconeogenesis and glycogen metabolism-2 | Dr. Saime Batırel |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 | Elective course  |  |
| 16:40-17:30 | Elective course  |  |
| 17:40-18:30 |  |  |
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| **Tuesday** | **10 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
| 10:40-11:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
| 11:40-12:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
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| 13:40-14:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
| 14:40-15:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
| 15:40-16:30 | Biochemistry LAB: Anaerobic Glycolysis-Group B | Multidisciplinary Lab. |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **11 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 | Medical English | Dr. Özge Emre |
| 11:40-12:30 | Medical English | Dr. Özge Emre |
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| 13:40-14:30 | Applications of recombinant DNA technology in medicine | Dr. Mustafa Akkiprik |
| 14:40-15:30 | Applications of recombinant DNA technology in medicine | Dr. Mustafa Akkiprik |
| 15:40-16:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Özge Emre |
| 16:40-17:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Özge Emre |
| 17:40-18:30 |  |  |
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| **Thursday** | **12 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Friday** | **13 January** |  |
| 08:40-09:30 | Clinical Skills Laboratory (CSL) activities | ICP Lab. |
| 09:40-10:30 | Clinical Skills Laboratory (CSL) activities | ICP Lab. |
| 10:40-11:30 | Clinical Skills Laboratory (CSL) activities | ICP Lab. |
| 11:40-12:30 | Clinical Skills Laboratory (CSL) activities | ICP Lab. |
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| 13:40-14:30 |  |  |
| 14:40-15:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Özge Emre |
| 15:40-16:30 | Communication Skills and Introduction to Medical Interview (Practice) | Dr. Özge Emre |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Week-7 (16 January - 20 January 2023)** |
| **Monday** | **16 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
| 18:40-19:30 |  |  |
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| **Tuesday** | **17 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Wednesday** | **18 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Thursday** | **19 January** |  |
| 08:40-09:30 | **Y1C2 THEORETICAL EXAM** |  |
| 09:40-10:30 |  |
| 10:40-11:30 |  |
| 11:40-12:30 |  |
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| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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| **Friday** | **20 January** |  |
| 08:40-09:30 |  |  |
| 09:40-10:30 |  |  |
| 10:40-11:30 |  |  |
| 11:40-12:30 |  |  |
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| 13:40-14:30 |  |  |
| 14:40-15:30 |  |  |
| 15:40-16:30 |  |  |
| 16:40-17:30 |  |  |
| 17:40-18:30 |  |  |
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