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| **C:\Users\Namariel\Downloads\TıpF (1)\TıpF\TıpF-2.png**  **MARMARA UNIVERSITY SCHOOL of MEDICINE** | | | |
| CELL AND TISSUE INJURY - I  YEAR 2 COURSE 1  September 02 – October 17, 2019 | | | |
| **Coordinator of the Course 2.1**  Prof., Pelin BAĞCI | | | |
| **Year 2 Coordinators**  Assoc. Prof., Özgür Kasımay ÇAKIR & Assist. Prof.,M.Burak AKSU | | | |
| **Module Coordinator**  Prof., Özlem SARIKAYA | | **Introduction to Clinical Practice (ICP) Coordinators**  Prof, Pemra ÜNALAN & Prof., Serap ÇİFÇİLİ | |
| **Coordinator of Multidisciplinary Students’ Lab**.  Assoc. Prof., Betül KARADEMİR | | **Coordinator of Clinical Skills Lab.**  Assoc. Prof., Çiğdem APAYDIN | |
| **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**  Assoc. 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., Ümit Süleyman ŞEHİRLİ | | **Dean**  Prof., Hakan GÜNDÜZ | |

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

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| CELL AND TISSUE INJURY - I | |
| AIM and LEARNING OBJECTIVES of COURSE  **Aim:** At the end of this course, second year students will be able to broaden their basic science knowledge to include the understanding of how certain alterations in bodily processes may manifest as disease and gain fundamental knowledge about the processes underlying human diseases, as the scientific foundation for developing clinical skills.  **Learning Objectives:** At the end of this course, second year students will,   * describe using proper nomenclature, the etiology, pathogenesis, structural and functional changes at cellular and tissue level; * describe in detail what happens to cells and tissues in response to abnormal stimuli; * explain the basic principles of human immune system as it relates to defense against disease (innate, humoral, cell mediated); * describe the principles of classifying infectious microorganisms and their pathogenic properties; * gain knowledge about viruses and viral pathogenesis; * gain knowledge about parasites and pathogenesis of parasitic diseases; * identify major drug classes and prototype drug(s) for each class. | |
| **ASSESSMENT SYSTEM**  Module examination: Written exam at the end of module (10 % of final score)  Practical examination: Practical exams at the end of course  Course 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-2.1 | |
| * Biochemistry * Biophysics * Child Health and Diseases * Family Medicine * Immunology * Medical Genetics | * Microbiology * Nuclear Medicine * Pathology * Pharmacology * Physiology |

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| LECTURERS / TUTORS | |
| Tunç AKKOÇ, Professor of Immunology  Mehmet Burak AKSU, Assist. Professor of Microbiology  Yaşar İnci ALİCAN, Professor of Physiology  Ahmet ARMAN, Professor of Medical Genetics  Pınar ATA, Professor of Medical Genetics  Çiğdem ATAİZİ ÇELİKEL, Professor of Pathology  Pelin BAĞCI, Professor of Pathology  Süheyla BOZKURT, Professor of Pathology  Hülya CABADAK, Professor of Biophysics  Nilgün ÇERİKÇİOĞLU, Professor of Microbiology  Saliha Serap ÇİFÇİLİ, Professor of Family Medicine  Elif DAĞLI, Professor of Child Health and Diseases  Rafi Haner DİRESKENELİ, Professor of Internal Medicine  İpek ERBARUT, Assist. Professor of Pathology  Tanju Yusuf ERDİL, Professor of Nuclear Medicine  Şirin Funda EREN, Professor of Pathology  Deniz FİLİNTE, Assoc. Professor Pathology  Günseli Ayşe GARİP İNHAN, Assoc. Professor of Biophysics  Zafer GÖREN, Professor of Pharmacology | Medine GÜLÇEBİ İDRİZ OĞLU, Assoc. Professor of Pharmacology  Rezzan GÜLHAN, Professor of Pharmacology  Ahmet İlter GÜNEY, Assoc. Professor of Medical Genetics  Goncagül HAKLAR, Professor of Biochemistry  Ufuk HASDEMİR, Professor of Microbiology  Zeynep Arzu İLKİ, Professor of Microbiology  Atila KARAALP, Professor of Pharmacology  Ayşegül KARAHASAN, Professor of Microbiology  Nesrin KARTAL ÖZER, Professor of Biochemistry  Handan KAYA, Professor of Pathology  Hızır KURTEL, Professor of Physiology  Pınar MEGA TİBER, Assoc. Professor of Biophysics  Oya ORUN, Professor of Biophysics  Güner SÖYLEDİR, Professor of Microbiology  Halil Turgut TUROĞLU, Professor of Nuclear Medicine  Nurver ÜLGER, Professor of Microbiology  Gülru Pemra ÜNALAN, Professor of Family Medicine  Hasan Raci YANANLI, Assoc. Professor of Pharmacology  Alper YILDIRIM, Assoc. Professor of Physiology |
| LABORATORY TUTORS  MICROBIOLOGY: G.Söyledir, M.U.Hasdemir, N.Çerikçioğlu, A.Karahasan, N.Ulger, Z.A.İlki, M.B.Aksu  PATHOLOGY: P.Bağcı | |
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| READING / STUDYING MATERIALS   * Basics and Clinical Pharmacology (Bertram G Katzung). * Clinical Pharmacology (Laurence DR, Bennet PN). * Pharmacological Basis of Therapeutics (Goddman & Gilman’s). * Radiation protection, Ch.5 (Mary Alice Statkiewicz) * Radiobiology for the radiologist (Eric J.Hall) * Physics of Life Sciences (Alan H.Cromer) * Clinical Biophysics (Anbar) * Radiologic Science for Technologist (S.C.Bushong) * Textbook of Physiology (Guyton AC). * Basic Pathology (Stanley L. Robbins, Marcia Angel, Vinay Kumar). * Histology and Cell Biology: an Introduction to Pathology (Abraham L. Kierszenbaum). * Review Medical Microbiology (Ernest Jawetz et al.). * Medical Microbiology (Cedric Mims et al.). * Review of Medical Microbiology (Patric R. Murray, Ken S. Rosenthal). * Cellular and Molecular Immunology 5th Edition (Abbas, Lichtman). * Kuby Immunology 4th Edition (Goldsby, Kindt, Osborne). * Immunobiology 6th Edition (Janeway, Travers, Walport, Schlomchik). * Immunology, Infection and Immunity (Pier, Lyczak, Wetzler) | |

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| SUMMARY OF THE COURSE | | | |
| **Discipline** | **Lecture & Group Discussion** | **Multidisciplinary Lab. & Clinical Skills Lab. Practice** | Total |
| Biochemistry | 4 |  | 4 |
| Biophysics | 12 |  | 12 |
| Child Health and Diseases | 2 |  | 2 |
| Family Medicine | 2 |  | 2 |
| Immunology | 12 |  | 12 |
| Microbiology | 25 | 6 | 31 |
| Nuclear Medicine | 2 |  | 2 |
| Pathology | 17 | 4 | 21 |
| Pharmacology | 17 |  | 17 |
| Physiology | 5 |  | 5 |
| Medical Genetics | 7 |  | 7 |
| **SUBTOTAL** | 105 | 10 | 115 |
| ICP-2: Basic Clinical Skills, Human in Medicine, Students Research Activity | 20 | 20 | 40 |
| **TOTAL** | **125** | **30** | **155** |

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| **SEVEN WEEK PROGRAM** | | |
|  | **THEORETICAL AND PRACTICAL SESSIONS** | **LECTURER(S)/TUTOR(S)** |
| **Week-1 (02 September - 06 September 2019)** | | |
| **Monday** | **02 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 |  |  |
| 10:30-10:35 |  |  |
| 10:45-11:30 |  |  |
| 11:30-11:35 |  |  |
| 11:45-12:30 | Introduction to the course and opening lecture | Dr. Pelin Bağcı |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | Introduction to pharmacology | Dr. Atila Karaalp |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Routes of drug administration | Dr. Atila Karaalp |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 |  |  |
| 16:30-16:35 |  |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Tuesday** | **03 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 |  |  |
| 10:30-10:35 |  |  |
| 10:45-11:30 | Radioactivity: the decay law; physical half-life, biological halflife | Dr. Oya Orun |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Radioactivity: the decay law; physical half-life, biological halflife | Dr. Oya Orun |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Microbiology of water, milk and air | Dr. Nilgün Çerikçioğlu |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Pathogenesis of parasitic disease | Dr. Nurver Ülger |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 |  |  |
| 16:30-16:35 |  |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Wednesday** | **04 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Biochemical aspect of cell death | Dr. Goncagül Haklar |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Biochemical aspect of cell death | Dr. Goncagül Haklar |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Blood and tissue protozoa | Dr. Nurver Ülger |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | General pharmacokinetic principles-1 | Dr. Rezzan Gülhan |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | General pharmacokinetic principles-2 | Dr. Rezzan Gülhan |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 |  |  |
| 16:30-16:35 |  |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Thursday** | **05 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Human microbiota | Dr. Nilgün Çerikçioğlu |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Effects of the electromagnetic waves on human health | Dr. Günseli Ayşe Garip İnhan |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Intestinal and urogenital protozoa | Dr. Nurver Ülger |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | Types of radiation | Dr. Oya Orun |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Types of radiation | Dr. Oya Orun |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Molecular and radiobiological behavior | Dr. Hülya Cabadak |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Friday** | **06 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Effects of ionizing radiation on the cell and organism | Dr. Hülya Cabadak |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Radiation protection | Dr. Hülya Cabadak |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Tissue and organ response to radiation and genetic effects of radiation | Dr. Tanju Yusuf Erdil |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
| 14:30-14:35 |  |  |
| 14:45-15:30 | Dosimetry, basic concepts | Dr. Oya Orun |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Electromagnetic spectrum | Dr. Oya Orun |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Week-2 (09 September - 13 September 2019)** | | |
| **Monday** | **09 September** |  |
| 08:45-09:30 | Molecular mechanisms of necrosis and apoptosis | Dr. Ahmet Arman |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Cellular aging and death | Dr. Pınar Ata |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | General pharmacokinetic principles-3 | Dr. Rezzan Gülhan |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | General pharmacokinetic principles- 4 | Dr. Rezzan Gülhan |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | Interaction of radiation with matter | Dr. Pınar Mega Tiber |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Interaction of radiation with matter | Dr. Pınar Mega Tiber |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Introduction to ICP-2 | Dr. Gülru Pemra Ünalan |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Tuesday** | **10 September** |  |
| 08:45-09:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 17:30-17:35 | Discussion |  |
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| **Wednesday** | **11 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Mechanism of drug action | Dr. Zafer Gören |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Mechanism of drug action | Dr. Zafer Gören |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Microbial pathogenicity and virulence | Dr. Zeynep Arzu İlki |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Microbiology LAB: Normal body flora-A | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Microbiology LAB: Normal body flora-B | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Microbiology LAB: Normal body flora-C | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | Microbiology LAB: Normal body flora-D | Multidisciplinary Lab. |
| 17:30-17:35 | Discussion |  |
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| **Thursday** | **12 September** |  |
| 08:45-09:30 | Intestinal and tissue nematodes | Dr. Nurver Ülger |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Intestinal and tissue nematodes | Dr. Nurver Ülger |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Basic principles of drug toxicity | Dr. Hasan Raci Yananlı |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Cultivation and identification of bacteria | Dr. Zeynep Arzu İlki |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Microbiology LAB: Normal body flora-B | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Microbiology LAB: Normal body flora-C | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Microbiology LAB: Normal body flora-D | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | Microbiology LAB: Normal body flora-A | Multidisciplinary Lab. |
| 17:30-17:35 | Discussion |  |
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| **Friday** | **13 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Cestodes and trematodes | Dr. Nurver Ülger |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Microbial toxins | Dr. Güner Söyledir |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Antiseptics and disenfectants | Dr. Hasan Raci Yananlı |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
| 14:30-14:35 |  |  |
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| 17:30-17:35 |  |  |
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| **Week-3 (16 September - 20 September 2019)** | | |
| **Monday** | **16 September** |  |
| 08:45-09:30 | Health effects of tobacco | Dr. Elif Dağlı |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Health effects of tobacco | Dr. Elif Dağlı |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Introduction to pathology | Dr. Şirin Funda Eren |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Mechanism of viral pathogenesis | Dr. Güner Söyledir |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | Cell injury and cell death | Dr. Handan Kaya |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Cell injury and cell death | Dr. Handan Kaya |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Introduction to innate immune system | Dr. Rafi Haner Direskeneli |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Tuesday** | **17 September** |  |
| 08:45-09:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 17:30-17:35 | Discussion |  |
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| **Wednesday** | **18 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 |  |  |
| 10:30-10:35 |  |  |
| 10:45-11:30 | Adaptive cell reactions and abnormal accumulations | Dr. İpek Erbarut |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Signal transduction of inflammation | Dr. Ahmet Arman |
| 12:30-12:35 | Discussion |  |
|  |  |  |
| 13:45-14:30 | Acute inflammatory response | Dr. Deniz Filinte |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Acute inflammatory response | Dr. Deniz Filinte |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 |  |  |
| 16:30-16:35 |  |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Thursday** | **19 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Tissue renewal and repair: regeneration, healing and fibrosis | Dr. Pelin Bağcı |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions | Dr. Tunç Akkoç |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Chemokines, neutrophils and monocytes in innate immunity, immunoglobulins: Structure and function, antigen & antibody interactions | Dr. Tunç Akkoç |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
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| 16:30-16:35 |  |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Friday** | **20 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 |  |  |
| 10:30-10:35 |  |  |
| 10:45-11:30 | Introduction to chemotherapeutics | Dr. Rezzan Gülhan |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Major histocompatibility complex (MHC) molecules, antigen processing and presentation | Dr. Tunç Akkoç |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
| 14:30-14:35 |  |  |
| 14:45-15:30 | Host parasite interactions | Dr. Güner Söyledir |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Host parasite interactions | Dr. Güner Söyledir |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
|  |  |  |
| **Week-4 (23 September - 27 September 2019)** | | |
| **Monday** | **23 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Pharmacogenetics | Dr. Ahmet İlter Güney |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Pharmacogenetics | Dr. Ahmet İlter Güney |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Basic principles of immunopathology | Dr. Süheyla Bozkurt |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Pathology of hypersensitivity reactions | Dr. Süheyla Bozkurt |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Cytokines | Dr. Tunç Akkoç |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Cytokines | Dr. Tunç Akkoç |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Tuesday** | **24 September** |  |
| 08:45-09:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 17:30-17:35 | Discussion |  |
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| **Wednesday** | **25 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Miscellaneous viruses; Coronavirus, Flavivirus, Calicivirus | Dr. Mehmet Burak Aksu |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Hepatitis viruses | Dr. Güner Söyledir |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Chronic inflammatory response | Dr. Handan Kaya |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Eicosanoids and related compounds | Dr. Nesrin Kartal Özer |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Eicosanoids and related compounds | Dr. Nesrin Kartal Özer |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Development of T cells, T lymphocyte signaling mechanisms and activation | Dr. Tunç Akkoç |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | B Lymphocyte: Development and biology | Dr. Tunç Akkoç |
| 17:30-17:35 | Discussion |  |
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| **Thursday** | **26 September** |  |
| 08:45-09:30 | Microbiology LAB: Examination of protozoa -C | Multidisciplinary Lab. |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Microbiology LAB: Examination of protozoa -C | Multidisciplinary Lab. |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Microbiology LAB: Examination of protozoa -D | Multidisciplinary Lab. |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Microbiology LAB: Examination of protozoa -D | Multidisciplinary Lab. |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Microbiology LAB: Examination of protozoa -A | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Microbiology LAB: Examination of protozoa -A | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Microbiology LAB: Examination of protozoa -B | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | Microbiology LAB: Examination of protozoa -B | Multidisciplinary Lab. |
| 17:30-17:35 | Discussion |  |
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| **Friday** | **27 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | DNA viruses: Adenoviruses, Parvoviruses, Papavoviruses, and Poxviruses | Dr. Ayşegül Karahasan |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | RNA viruses: Orthomyxoviruses and Paramyxoviruses | Dr. Ayşegül Karahasan |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Structure and function of complement system | Dr. Tunç Akkoç |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
| 14:30-14:35 |  |  |
| 14:45-15:30 | RNA viruses: Picornaviruses, Rhabdoviruses and Reoviruses | Dr. Ufuk Hasdemir |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | RNA viruses: Retroviruses and HIV | Dr. Ufuk Hasdemir |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Week-5 (30 September - 04 October 2019)** | | |
| **Monday** | **30 September** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Bridging innate and adaptive immunity dendritic cells, NK cells, NKT cells and other innate-like T and B lineages | Dr. Rafi Haner Direskeneli |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Laboratory diagnosis of viral infections | Dr. Mehmet Burak Aksu |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Laboratory diagnosis of viral infections | Dr. Mehmet Burak Aksu |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Immune responses to extracellular and intracellular infections | Dr. Tunç Akkoç |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Immune responses to extracellular and intracellular infections | Dr. Tunç Akkoç |
| 15:30-15:35 | Discussion |  |
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| **Tuesday** | **01 October** |  |
| 08:45-09:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | ICP-2: Basic Clinical Skills-Human in Medicine- Students Research Activity-2 |  |
| 17:30-17:35 | Discussion |  |
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| **Wednesday** | **02 October** |  |
| 08:45-09:30 | Microbiology LAB: Examination of helminths and medically important arthropods-D | Multidisciplinary Lab. |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Microbiology LAB: Examination of helminths and medically important arthropods-D | Multidisciplinary Lab. |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Microbiology LAB: Examination of helminths and medically important arthropods-A | Multidisciplinary Lab. |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Microbiology LAB: Examination of helminths and medically important arthropods-A | Multidisciplinary Lab. |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Microbiology LAB: Examination of helminths and medically important arthropods-B | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Microbiology LAB: Examination of helminths and medically important arthropods-B | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Microbiology LAB: Examination of helminths and medically important arthropods-C | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 | Microbiology LAB: Examination of helminths and medically important arthropods-C | Multidisciplinary Lab. |
| 17:30-17:35 | Discussion |  |
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| **Thursday** | **03 October** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Immunogenetics of transplantation | Dr. Pınar Ata |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Immunogenetics of transplantation | Dr. Pınar Ata |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Pathology LAB: General principals of macroscopic evaluation (slide lecture) | Dr. Şirin Funda Eren |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Drug-induced immune response and antiallergic treatment | Dr. Hasan Raci Yananlı |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Transplantation pathology | Dr. Handan Kaya |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Amyloidosis | Dr. Handan Kaya |
| 16:30-16:35 | Discussion |  |
| 16:45-17:30 |  |  |
| 17:30-17:35 |  |  |
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| **Friday** | **04 October** |  |
| 08:45-09:30 | DNA viruses: Herpes viruses | Dr. Ufuk Hasdemir |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | RNA viruses: Togaviruses, Bunyaviruses, Flaviviruses and other RNA viruses | Dr. Ayşegül Karahasan |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Bioterrorism: a global threat | Dr. Ayşegül Karahasan |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Pathology of autoimmune disorders | Dr. Süheyla Bozkurt |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 |  |  |
| 14:30-14:35 |  |  |
| 14:45-15:30 | Physiology of microcirculation and edema formation | Dr. Hızır Kurtel |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Physiology of microcirculation and edema formation | Dr. Hızır Kurtel |
| 16:30-16:35 | Discussion |  |
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| **Week-6 (07 October - 11 October 2019)** | | |
| **Monday** | **07 October** |  |
| 08:45-09:30 | Pharmacotherapy in parasitic infections | Dr. Medine Gülçebi İdriz Oğlu |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Haemodynamic disorders | Dr. Çiğdem Ataizi Çelikel |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Thromboembolic disease | Dr. Çiğdem Ataizi Çelikel |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Thromboembolic disease | Dr. Çiğdem Ataizi Çelikel |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Elective course |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Elective course |  |
| 15:30-15:35 | Discussion |  |
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| **Tuesday** | **08 October** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -A | Multidisciplinary Lab. |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -A | Multidisciplinary Lab. |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -A | Multidisciplinary Lab. |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -B | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -B | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -B | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
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| **Wednesday** | **09 October** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -C | Multidisciplinary Lab. |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -C | Multidisciplinary Lab. |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -C | Multidisciplinary Lab. |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -D | Multidisciplinary Lab. |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -D | Multidisciplinary Lab. |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Pathology LAB: Cell response to injury and adaptive cell reactions and changes in the size, consistency, colour, and composition of organs -D | Multidisciplinary Lab. |
| 16:30-16:35 | Discussion |  |
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| **Thursday** | **10 October** |  |
| 08:45-09:30 |  |  |
| 09:30-09:35 |  |  |
| 09:45-10:30 | Introduction to Family Medicine | Dr. Gülru Pemra Ünalan |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Body temperature and its regulation | Dr. Yaşar İnci Alican |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Body temperature and its regulation | Dr. Yaşar İnci Alican |
| 12:30-12:35 | Discussion |  |
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| 13:45-14:30 | Autocoids | Dr. Zafer Gören |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Autocoids | Dr. Zafer Gören |
| 15:30-15:35 | Discussion |  |
| 15:45-16:30 | Autocoids | Dr. Zafer Gören |
| 16:30-16:35 | Discussion |  |
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| **Friday** | **11 October** |  |
| 08:45-09:30 | Pharmacotherapy of viral infections | Dr. Medine Gülçebi İdriz Oğlu |
| 09:30-09:35 | Discussion |  |
| 09:45-10:30 | Physiology of pain | Dr. Alper Yıldırım |
| 10:30-10:35 | Discussion |  |
| 10:45-11:30 | Application of nuclear medicine and radiotherapy | Dr. Halil Turgut Turoğlu |
| 11:30-11:35 | Discussion |  |
| 11:45-12:30 | Patient with fever and rash | Dr. Saliha Serap Çifçili |
| 12:30-12:35 | Discussion |  |
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| **Week-7 (14 October - 18 October 2019)** | | |
| **Monday** | **14 October** |  |
| 08:45-09:30 | **PRACTICAL EXAM** |  |
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| 13:45-14:30 | Elective course |  |
| 14:30-14:35 | Discussion |  |
| 14:45-15:30 | Elective course |  |
| 15:30-15:35 | Discussion |  |
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| **Tuesday** | **15 October** |  |
| 08:45-09:30 | **PRACTICAL EXAM** |  |
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| **Wednesday** | **16 October** |  |
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| **Thursday** | **17 October** |  |
| 08:45-09:30 | **Y2C1 THEORETICAL EXAM** |  |
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| **Friday** | **18 October** |  |
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