**T.C.**

**ATILIM UNIVERSITY FACULTY OF MEDICINE**

**EDUCATION IN 2022-2023 ACADEMIC YEAR**

**ACADEMIC CALENDAR**

**Laboratory Lessons:**

1. Lab: Histology of Tonsilla palatina and Lymph Node & Histology of the Spleen and Thymus (1 hour, Dr. Aykanat)
2. Lab: Inflammation (1 hour, Dr. Boduroğlu & Dr. Yurdakan)
3. Clinical Skill: Physical examination of lymph node (1 hour, Dr. Öktem)
4. Lab: Neoplastic proliferations of white cells (Dr. Boduroğlu & Yurdakan)
5. Clinical Skills: Fever Measurement (1 hour, Dr. Tülek & Dr. Acar)
6. Lab: Flow cytometry (1 hour, Dr. Özalp)

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| **COMMITTEE NAME** | **STARTING DATE** | **COMPLETION DATE** |
| **MED 201** | 12.09.2022 | 21.10.2022 |
| **MED 203** | 24.10.2022 | 30.12.2022 |
| **MED 202** | 16.01.2023 | 24.03.2023 |
| **MED 204** | 27.03.2023 | 05.05.2023 |

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|  | **MED 201** | **MED 202** | **MED 203** | **MED 204** |
| **CLINICAL SKILL EXAM DATE** | 19.10.2022 |  |  |  |
| **COMMITTEE EXAM DATE** | 20.10.2022 |  |  |  |

**MED 201 IMMUNE SYSTEM** **COMMITTEE**

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| **PHASE II COORDINATOR** | Prof. Dr. Ali ACAR | | | |
| **PHASE II VICE COORDINATOR** | Instructor Dr. Badegül SARIKAYA | | | |
| **CHAIRMAN OF THE MED 201 COMMITTEE** | Prof. Dr. Necla TÜLEK | | | |
| **MED 201 COMMITTEE DATE RANGE** | 12.09.2022 - 21.10.2022 | | | |
| **ACADEMIC STAFF AT THE MED 201 COMMITTEE** | Prof. Dr. Ali ACAR- Microbiology  Prof. Dr. Veli Cengiz ÖZALP- Medical Biology  Prof. Dr. Gamze YURDAKAN - Pathology  Prof. Dr. Cem Hasan RAZI- Pediatry- Allergy and Immunology  Prof. Dr. Nedret KILIÇ – Medical Biochemistry  Prof. Dr. Necla TÜLEK – Medical Microbiology & Immunology  Prof. Dr. Siren SEZER- Internal Medicine-Nephrology  Assoc. Prof. Dr. Hale ÖKTEM – Anatomy  Asst. Prof. Dr. Ali Doğan DURSUN-Physiology  Asst. Prof. Dr. Esin BODUROĞLU- Pathology  Asst. Prof. Dr. Nuriye Ezgi BEKTUR AYKANAT- Histology and Embryology  Asst. Prof. Dr. Gökşen ÖZ- Pharmacology  Asst. Prof. Dr. Recep Ali BROHI- Anatomy | | | |
| |  |  | | --- | --- | |  |  |   **ACADEMIC STAFF** | **THEORETICAL LECTURE TIME** | **PRACTICAL LECTURE TIME** | **INTERACTIVE EDUCATION**  **TIME** | **TOTAL TIME** |
| **Anatomy** | 2 | 1 | - | 3 |
| **Histology and Embryology** | 6 | 1 | - | 7 |
| **Microbiology-Immunology** | 37 | 1 | 6  (PBL) | 44 |
| **Medical Pharmacology** | 7 | - | - | 7 |
| **Medical Biochemistry** | 2 | - | - | 2 |
| **Medical Pathology** | 14 | 2 | 1  (CBL) | 17 |
| **Physiology** | 3 | - | - | 3 |
| **Pediatric Allergy and Immunology** | 4 | - | - | 4 |
| **Internal Medicine -Nephrology** | 2 | - | - | 2 |
| **TOTAL** | 77 | 5 | 7 | 89 |

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| **Office Hour** | 06.10.2022 16:30-17:20 |

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| **CONTENT OF THE MED 201 COMMITTEE** | | |
| Introduction to anatomy, development of the cells and organs of immune system, general features and functions of immune cells, innate and acquired immune response, immune response against microorganisms, hypersensitivity, autoimmunity, immunodeficiency, immune modulation, autocoids, antibiotic use, and resistance mechanisms, cancer etiology and basic mechanisms of cancer development. | | |
| **MED 201 COMMITTEE AIM** | | |
| To overview the definition and elements of the immune system, the development, structure and functions of the immune system elements, disorders related to this system, and immunotherapeutic. Also, to gain basic medical skills for evaluation of immune system. To give information about human flora, fever mechanism, basic principles of antibiotic use and antibiotic resistance mechanisms. | | |
| **MED 201 COMMITTEE LEARNING OBJECTIVES** | | |
| 1. Explains the medical importance of Immune Systems  2. Lists the elements of immune system  3. Describe the essential characteristics of humoral and cell-mediated immunity  4. Explain the embryological development and histological features of tonsilla palatin.  5. Describes the embryological development and histological features of the lymph node.  6. Explain embryological development and histological features of the thymus and spleen.  7. Explains the histological features and functions of the cells of the immune system.  8. Explains anatomy and functions of lymphoid tissues  9. Explains the leukocyte circulation and migration  10. Describes the innate immunity; components and functions  11. Defines the complement system  12. Describes the acute and chronic inflammation and mechanisms involved.  13. Defines antigens and antibodies  14. Describe the theory of clonal selection  15. Explains the recognition of microorganisms by the immune system  16. Explains the stimulation of adaptive immunity  17. Describe the cells involved in the adaptive immune response-T cells, B cells and antigen presenting cells  18. Explain pathogenesis of the non-neoplastic disorders of the leukocytes  19. Describe non-neoplastic & neoplastic diseases of lymph nodes, the spleen & thymus  20. Explains B cell activation and antibody production  21. Describes the antibody structure and functions  22. Explains the antigen presentations of T lymphocyte  23. Describes the role of MHC in the immune responses  24. Defines Immune receptors and signal transduction  25. Explains the activation of T lymphocytes  26. Explain the difference between self and non-self  27. Explains the Immunologic tolerance and autoimmunity.  28. Describes the role of immunogenetics, infections, tissue injury, and other environmental factors in autoimmunity  29. Explains the immune response against microorganisms  30. Describe in overall terms what the host defence is, why we need is, what it does and how it does it  31. Explains the mechanisms of hypersensitivity disorders and give two examples for each  32. Discuss the immunologic basis of graft rejection  33. Describes the primary and secondary immunodeficiencies  34. Lists the immunomodulatory agents and primary indications for them.  35. Explains the immunopharmacology.  36. Describe a range of tests used in evaluation of immune system and immune response.  37. Defines the drugs used in Rheumatoid Arthritis & Gout  38. Explains the mechanisms in development of cancer.  39 Apply the fever measurement.  40. Apply lymph node examination. | | |
| **RECOMMENDED BOOKS**  1. Basic & Clinical Pharmacology (14th Edition); Bertram G. Katzung,‎ Anthony J. Trevor; McGraw-Hill, 2018.  2. Braddom's Physical Medicine and Rehabilitation (5th Edition); David X. Cifu MD; Elsevier, Philadelphia, 2016.  3. Gray’s Anatomy for Students (3rd Edition); Richard L. Drake, A. Wayne Vogl, Adam W. M. Mitchell; Churchill Livingston Elsevier, Philadelphia, 2015.  4. Guyton and Hall Textbook of Medical Physiology (13th Edition); John E. Hall; Elsevier, Philadelphia, 2016.  5. Histology and Cell Biology: An Introduction to Pathology (4th Edition); Abraham L. Kierszenbaum, Laura L. Tres; Elsevier Saunders, Philadelphia, 2015.  6. Medical Microbiology 8th Edition. Murray, Rosenthal, Pfaller, Elsevier Saunders, Philadelphia,2016  7. Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e, 2019,  McGraw-Hill Education  8. Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th Edition, Bennett, JE, Dolin R, Blaser MJ. Elsevier, 2019  9. Robbins Basic Pathology (10th Edition); Vinay Kumar, Abul K. Abbas, Jon C. Aster; Elsevier Saunders, Philadelphia, 2018.  10. Basic Immunology: Functions and Disorders of the Immune System, 6e, Abbas, Lichmann, Pillai, Elsevier, 2019.  11. Review of Medical Microbiology and Immunology, 16th Edition by Warren Levinson, Peter Chin-Hong, Elizabeth Joyce, Jesse Nussbaum, Brian Schwartz. 2020. | | |
| **MED 201 COMMITTEE EXAM WEEK** | | |
| **DATE** | **EXAM NAME** | **EXAM HOUR** |
| 19.10.2022 | Clinical Skill Exam | 09:30-12:20 |
| 20.10.2022 | MED 201 Committee Exam | 10:00-12:00 |
| **Teaching Methods and Techniques** | |  |  |  |  | | --- | --- | --- | --- | | Lecture | Case based learning | Case discussion | Student presentation | | Discussion | Problem based learning | Project | Homework | | Role playing | Lab report | Self Learning | Laboratory practice | | Online education | Clinical skill | Flip class based learning |  | | |
| **Evaluation Method** | Theoretical Exam (80%), Clinical Skills (10%), Problem Based Learning (8%), Flip Class Based Learning (2%) | |
| **Lesson Language** | English | |