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

**UNDERGRADUATE PROGRAM   
2023-2024 ACADEMIC YEAR**

**EDUCATIONAL INFORMATION PACKAGE**

| **COURSE INFORMATION** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Course Name** | **Neurology Clerkship** | | | | **Course Code** | **MED 508** |
| **Phase** | 5 | **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** | Maltepe University Medical Faculty Hospital, | | | | **Suggested Courses** | None |
| **Prerequisite** | 1. MED 100  2. MED 200  3. MED 300  4. All courses in Phase 4 | | | Concurrent Requirements:  None | | |

| **ECTS** | | | |
| --- | --- | --- | --- |
| **ECTS Credits** | **Theoretical Lecture Hours** | **Practical Hours** | **Course Duration** |
| **5** | **18** | **72** | **3 weeks** |

| **COURSE COORDINATORS AND INSTRUCTORS** |
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| **Course Coordinator, Contact Details and Office Hours:**  Nilgün ÇINAR, MD., Professor, Maltepe University, Faculty of Medicine  [cinarnilgun@gmail.com](mailto:cinarnilgun@gmail.com) extension: 2229  **Office Hours:**  Monday, Wednesday: 13:00-14:00   | **Instructors, Contact Details and Office Hours:**  Nilgün ÇINAR, MD., Professor, Maltepe University, Faculty of Medicine  [cinarnilgun@gmail.com](mailto:cinarnilgun@gmail.com) extension: 2229  **Office Hours:**  Monday, Wednesday: 13:00-14:00  Miruna Florentina ATEŞ, MD., Assistant Professor, Maltepe University, Faculty of Medicine  [miruna.ates@maltepe.edu.tr](mailto:miruna.ates@maltepe.edu.tr) extension: 2225  **Office Hours:**  Monday, Wednesday: 13:00-14:00  Cansu SARIKAYA, MD., Assistant Professor, Maltepe University, Faculty of Medicine  [cansu.sarikaya@maltepe.edu.tr](mailto:Cansu.sarikaya@maltepe.edu.tr) extension: 2224  **Office Hours:**  Monday, Wednesday: 13:00-14:00  Destina YALÇIN, MD., Professor, Maltepe University, Faculty of Medicine  [destinayalcin @yahoo.com](mailto:cinarnilgun@gmail.com) extension: 2226  **Office Hours:**  Monday, Wednesday: 13:00-14:00 | | --- | |  | |

| **GENERAL OBJECTIVE AND CATEGORY OF THE COURSE** |
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| The aim of the Neurology Internship is to perform a complete and accurate neurological examination, to evaluate the symptoms and findings obtained, to diagnose common nervous system diseases at the level of the general practitioner, to organize first-line treatments and to guide patients correctly, to provide life-saving first and emergency aid in neurological emergencies. To provide the knowledge and skills to apply interventions and treatments.   | **COURSE CATEGORY** | | | --- | --- | | 1. Basic vocational course | **x** | | 1. Specialization / Field Course |  | | 1. Support lectures |  | | 1. Transferable skill courses |  | | 1. Humanities, Communication and Management skill courses |  | |

| **COURSE LEARNING OUTCOMES, SUB-SKILLS and COMPETENCIES** |
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| **Students completing this course;**   | **Sequence No.** | **Learning Output / Sub - Skills / Competencies** | **Education method** | **MR Method** | | --- | --- | --- | --- | | **1** | will be able to do neurological diseases differential diagnosis. | EY2, EY4, EY5 | LO1, LO4 | | **2** | will be able to do neurological examination. | EY2, EY4, EY5 | LO1, LO4 | | **3** | will be able to do headache differential diagnosis. | EY2, EY4, EY5 | LO1, LO4 | | **4** | will be able to evaluate neuromuscular diseases. | EM2, EM4, EM5 | ME1, ME4 | | **5** | will be able to summarize epilepsy clinic features, diagnosis-treatment and separator diagnosis. | EM2, EM4, EM5 | ME1, ME4 | | **6** | will be able to summarize movement disorders clinic features, diagnosis-treatment and separator diagnosis. | EM2, EM4, EM5 | ME1, ME4 | | **7** | will be able to summarize and identify stroke, know its clinic findings and diagnosis and perform its treatment. | EM2, EM4, EM5 | ME1, ME4 | | **8** | will be able to evaluate demyelinating diseases | EM2, EM4, EM5 | ME1, ME4 | | **9** | will be able to do Nervous system infection’s diferential diagnosis. | EM2, EM4, EM5 | ME1, ME4 | | **10** | will be able to understand and evaluate sleep disorders. | EM2, EM4, EM5 | ME1, ME4 | |

| **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 |

| **COURSE CONTENTS** |
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| The aim of this course is to provide students with clinical knowledge about nervous system diseases. In this course, students will be given information on symptomatology, examination and treatment on questioning, neurological examination and certain nervous system diseases. At the end of this course, students will be able to evaluate neurological patients and send patients who need further examination and treatment to the relevant centers. |

| **COURSE TEXTBOOKS AND SUPPLEMENTARY READINGS** |
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| **Textbooks**  Istanbul University Medical School neurology lesson book,  Adams and Victor’s Principles of Neurology.  **Supplemantary Readings**  Bradley's Neurology İn Clinical Practice |

| **COURSE ASSESSMENT AND EVALUATION SYSTEM** |
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| | **Studies during the year** | **Percent grade** | | --- | --- | | **Clerkship Examination** | **50** | | **Structured Oral Examination** | **50** | | **ICE (İş Başı Değerlendirme)** | **-** | | **OSCE (Structured Subjective Clinical Examination)** | **-** | | **Attendance** | **-** | | **Laboratory** | **-** | | **Clinical Practice** | **-** | | **Field study** | **-** | | **Lesson Specific Internship** (if there is) | **-** | | **Homework** | **-** | | **Presentation** | **-** | | **Project** | **-** | | **Seminar** | **-** | | **Problem Based Learning** | **-** | | **Others** | **-** | | **TOTAL** | **100** |   **NOTES:**   1. Student who score less than %50 in Intership Final Evalution Exam cannot take the Structured Oral Exam. 2. Students who score less than %50 in Structured Oral Exam are considered unsuccessful.   Assessment and Evaluation System is organized according to T.C. Maltepe University Faculty of Medicine Education and Training Regulations. |

| **ECTS STUDENT WORKLOAD TABLE** |
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| | **Activities** | **Number** | **Duration**  **(hours)** | **Total work load** | | --- | --- | --- | --- | | **Lectures** | **18** | 1 | 18 | | **Laboratory** | **5** | 1 | 5 | | **Practice** | **72** | 1 | 72 | | **Lesson specific internship** (if there is) | **-** | - | - | | **Field study** | **-** | - | - | | **Lesson study time out of class** (pre work, strengthen, etc) | **7** | 1 | 7 | | **Presentation / Preparing seminar** | 2 | 3 | 6 | | **Project** | - | - | - | | **Homework** | **2** | 2 | 4 | | **İnterval examinations** | 1 | 3 | 3 | | **Clerkship Examination** | 1 | 10 | 10 | | **Total work load** | | | **125** | |

| **RELATIONSHIP BETWEEN NEUROLOGY CLERKSHIP LEARNING OUTCOMES AND MEDICAL EDUCATION PROGRAMME KEY LEARNING OUTCOMES** |
| --- |
| | **No** | **Program Competencies/ Outcomes** | **Level of Contribution[[1]](#footnote-0)\*** | | | | | | --- | --- | --- | --- | --- | --- | --- | | **1** | **2** | **3** | **4** | **5** | | **1** | To describe the normal structure and function of the organism. |  |  | **x** |  |  | | **2** | To explain the pathogenesis, clinical and diagnostic characteristics of diseases. |  |  |  |  | **x** | | **3** | To get the medical history of a patient and to evaluate patient with general-systems-based physical examination. |  |  |  |  | **x** | | **4** | To treat life-threatening emergencies and provide transportation of the patient if needed. |  |  |  |  | **x** | | **5** | To execute basic medical interventions for the diagnosis and treatment of diseases. |  |  |  | **x** |  | | **6** | To carry out applications of preventive medicine and forensic medicine. |  | **x** |  |  |  | | **7** | To have a basic understanding of the structure and operation of the National Health System. |  | **x** |  |  |  | | **8** | To regard legal liabilities and define ethical principles |  |  | **x** |  |  | | **9** | To perform the first line therapy of common diseases in the population based on scientific data with highly effective techniques. |  |  |  | **x** |  | | **10** | To organize and execute scientific meetings and projects. |  |  |  | **x** |  | | **11** | To be able to follow medical literature in foreign languages to update medical knowledge, to be able to use statistics and computer technologies to evaluate scientific studies. |  |  |  |  | **x** | |

| **PHASE 5 MED 508 NEUROLOGY CLERKSHIP  COURSE LIST AND RANKING** |
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| | **Sequence No.** | **Course/Competence** | **Lecturer** | | --- | --- | --- | | 1 | Introduction to Neurology – Neurological examination (Theoretical: 1 hour) | Assistant Prof. Cansu Sarıkaya | | 2 | Headache classification, symptoms, treatment (Theoretical: 1 hour) | Assistant Prof. Cansu Sarıkaya | | 3 | High cortical functions (Theoretical: 1 hour) | Assistant Prof. Miruna Florentina Ates | | 4 | Neurological emergencies, Encephalitis , Meningitis (Theoretical: 1 hour) | Assistant Prof. Miruna Florentina Ates | | 5 | Multiple Sclerosis (Theoretical: 1 hour) | Assistant Prof. Cansu Sarıkaya | | 6 | Muscle Junction Diseases (Theoretical: 1 hour) | Assistant Prof. Miruna Florentina Ates | | 7 | Motor Neuron Diseases (Theoretical: 1 hour) | Assistant Prof. Miruna Florentina Ates | | 8 | Dementia (Theoretical: 1 hour) | Prof. Dr. Nilgun Cinar | | 9 | Parkinson's Disease, Parkinsonism , Parkinson Plus Syndromes (Theoretical: 1 hour) | Prof. Dr. Nilgun Cinar | | 10 | Polyneuropathy (Theoretical: 1 hour) | Prof. Dr. Nilgun Cinar | | 11 | Ischemic Stroke (Theoretical: 1 hour) | Prof. Dr. Nilgun Cinar | | 12 | Epilepsy (Theoretical: 1 hour) | Prof. Dr. Destina Yalcin | | 13 | Muscle Diseases (Theoretical: 1 hour) | Prof. Dr. Destina Yalcin | | 14 | Sleeping Disorders ( Theoretical: 1 hour) | Prof. Dr. Destina Yalcin | | 15 | EMG and EEG features and practical use ( Theoretical: 1 hour) | Prof. Dr. Nilgun Cinar | | 16 | Paraneoplastic Neurological Syndromes (Theoretical: 1 hour) | Assistant Prof. Cansu Sarıkaya | |

| **PHASE 5 MED 508 NEUROLOGY CLERKSHIP SCHEDULE** | | | | | |
| --- | --- | --- | --- | --- | --- |
| 1. Week | | | | | |
| Days | Monday | Tuesday | Wednesday | Thursday | Friday |
| 8.30-9.30 | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds |
| 9.30-10.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 10.30-11.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 11.30-12.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 12.30-13.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 13.30-14.30 | Introduction to Neurology – Neurological examination | High cortical functions | Multiple Sclerosis | Muscle Junction Diseases | Motor Neuron Diseases |
| 14.30-15.30 | Headache classification, symptoms, treatment | Neurological emergencies, Encephalitis , Meningitis | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 15.30-16.30 | EEG lab | EEG lab | EEG lab | EEG lab | EEG lab |
| 16.30-17.30 | EMG lab | EMG lab | EMG lab | EMG lab | EMG lab |
|  |  |  |  |  |  |
|  | | | | | |
| 2.Week | | | | | |
| 8.30-9.30 | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds |
| 9.30-10.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 10.30-11.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 11.30-12.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 12.30-13.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 13.30-14.30 | Dementia | Parkinson's Disease, Parkinsonism , Parkinson Plus Syndromes | Polyneuropathy | Ischemic Stroke | Epilepsy |
| 14.30-15.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic | Outpatient clinic |
| 15.30-16.30 | EEG lab | EEG lab | EEG lab | EEG lab | EEG lab |
| 16.30-17.30 | EMG lab | EMG lab | EMG lab | EMG lab | EMG lab |
|  |  |  |  |  |  |
| 3.Week |  |  |  |  |  |
| 8.30-9.30 | Inpatient Rounds | Inpatient Rounds | Inpatient Rounds | Theorical Examination | Oral Examination |
| 9.30-10.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic |  |  |
| 10.30-11.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic |  |  |
| 11.30-12.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic |  |  |
| 12.30-13.30 | Outpatient clinic | Outpatient clinic | Outpatient clinic |  |  |
| 13.30-14.30 | Outpatient clinic | EMG and EEG features and practical use | Outpatient clinic |  |  |
| 14.30-15.30 | Muscle Diseases | Sleeping Disorders | Paraneoplastic Neurological Syndromes |  |  |
| 15.30-16.30 | EEG lab | EEG lab | EEG lab |  |  |
| 16.30-17.30 | EMG lab | EMG lab | EMG lab |  |  |
|  |  |  |  |  |  |

NOTE: Prepare this table for each week of your course.

| **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. | |

| **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. | |

1. \*1 lowest, 2 low, 3 fair, 4 high, 5 highest. [↑](#footnote-ref-0)