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

**UNDERGRADUATE PROGRAM
2023-2024 ACADEMIC YEAR**

**EDUCATIONAL INFORMATION PACKAGE**

| **COURSE INFORMATION** |
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| **Course Name** | **Radiology** Clerkship | **Course Code** | **MED 501** |
| **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 2003. MED 3004. All courses in Phase 4 | Concurrent Requirements:None |

| **ECTS**  |
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| **ECTS Credits** | **Theoretical Lecture Hours** | **Practical Hours** | **Course Duration** |
| 4 | 20 | 40 | 2 weeks |

| **COURSE COORDINATORS AND INSTRUCTORS** |
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| **Course Coordinator, Contact Details and Office Hours:** Ömer ÖZÇAĞLAYAN, MD., Associated Professor, Maltepe University, Faculty of Medicine omer.ozcaglayan@gmail.com extension: 2016 **Office Hours:** Wednesday:11:00-12:00

| **Instructors, Contact Details and Office Hours:** Rahmi ÇUBUK MD., Professor, Maltepe University, Faculty of Medicine rahmicubuk@yahoo.com extension: 2039**Office Hours:**  Wednesday:11:00-12:00 Ömer ÖZÇAĞLAYAN , M.D., Associated Professor, Maltepe University, Faculty of Medicineomer.ozcaglayan@gmail.com extension: 2039**Office Hours:**  Wednesday:13:00-14:00 Alev Günaldı, MD, Assistant professor doctor Maltepe University, Faculty of Medicinealevozturkdr@hotmail.com extension: 2039**Office Hours:**  Wednesday:14:00-15:00 Esra Yetiş , MD, Assistant professor doctor Maltepe University, Faculty of Medicineesraummuhanmermi@gmail.com extension: 2039**Office Hours:**  Wednesday:15:00-16:00 |
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| **GENERAL OBJECTIVE AND CATEGORY OF THE COURSE** |
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| The aim of the lecture is to give a basic information about the radiological methods and radiological procedure used in general radiology and prepare the student to the internship exam.

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

| **Sequence No.** | **Learning Output / Sub - Skills / Competencies** | **Education method** | **MR Method** |
| --- | --- | --- | --- |
| **1** | 1. Students will be able to aware of radiological methods and procedure.
 | EM2 and EM5 | ME1 and ME4 |
| **2** | Students will be able to make the differential diagnosis of imaging findings. | EM2 and EM5 | ME1 and ME4 |
| **3** | Students will be able to make a simple x-ray examination such as lung x-ray.. | EM2 and EM5 | ME1 and ME4 |
| **4** | Students will be able to assess x-ray findings during evaluating emergency conditions. | EM2 and EM5 | ME1 and ME4 |
| **5** | Students will be able to evaluate specific ct finding such as posttraumatic cranial ct.  | EM2 and EM5 | ME1 and ME4 |
| **6** | Students will be able to learn how to make differential diagnosis specially emergency room’s x-ray such as bone trauma films. | EM2 and EM5 | ME1 and ME4 |
| **7** | Students will be able to learn how to choose appropiate radiological modality for evaluating special situations.  | EM2 and EM5 | ME1 and ME4 |

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| **GENERAL COMPETENCIES:** |
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| 1. Productive
2. Rational
3. Creative
4. Ethical
5. Respectful to differences
6. Sensitive to social issues
7. able to use own language effectively
8. Sensitive to environment
9. Able to use a foreign language effectively
10. Able to adapt to different social roles in various situations
11. Able to work as a team member
12. Able to use time effectively
13. Having a critical mind
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| **COURSE CONTENTS** |
| --- |
| Fundamentals of Radiology PhysicsNeuroradiologyThorax radiologyAbdomen radiologyMusculoskeletal RadiologyInterventional RadiologyBreast Radiology |

| **COURSE TEXTBOOKS AND SUPPLEMENTARY READINGS** |
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| **Textbooks**1. Clinical Radiology2. Essentials of radiology) **Supplemantary Readings**  |

| **COURSE ASSESSMENT AND EVALUATION SYSTEM** |
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| **Studies during the year** | **Percent grade** |
| --- | --- |
| **Clerkship Examination**  | **%40** |
| **Structured Oral Examination**  | **%60** |
| **ICE (İş Başı Değerlendirme)** | %0 |
| **OSCE (Structured Subjective Clinical Examination)** | %0 |
| **Attendance**  | %0 |
| **Laboratory** | %0 |
| **Clinical Practice** | %0 |
| **Field study** | %0 |
| **Lesson Specific Internship** (if there is)  | %0 |
| **Homework** | %0 |
| **Presentation** | %0 |
| **Project** | %0 |
| **Seminar** | %0 |
| **Problem Based Learning** | %0 |
| **Others** | %0 |
| **TOTAL** | **100** |

**NOTES:**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** | 20  | 1 | 20 |
| **Laboratory** | - | - | - |
| **Practice** | 40 | 1 | 40 |
| **Lesson specific internship** (if there is)  | **-** | - | - |
| **Field study** | **-** | - | - |
| **Lesson study time out of class** (pre work, strengthen, etc) | **10** | 2 | 20 |
| **Presentation / Preparing seminar** | **-** |  |  |
| **Project** | - | - | - |
| **Homework** | **1** | 5 | 5 |
| **İnterval examinations** | - | - | - |
| **Clerkship Examination**  | 1 | 15 | 15 |
| **Total work load**  | **100** |

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

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| **PHASE 5 MED 501 RADIOLOGY CLERKSHIP COURSE LIST AND RANKING** |
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| **No.** | **Subject/Competence** | **Instructor** |
| --- | --- | --- |
| 1 | Fundamentals of Radiology Physics | Prof.Dr. Rahmi Çubuk |
| 2 | Neuroradiology | Assoc. Prof.Dr. Ömer Özçağlayan |
| 3 | Thorax Radiology | Asst.Prof.Dr. Esra Yetiş |
| 4 | Abdomen Radiology | Asst.Prof.Dr. Esra Yetiş |
| 5 | Musculoscletal Radiology | Asst Prof. Dr. Alev Günaldı |
| 6 | Interventional Radiology | Prof.Dr. Rahmi Çubu |
| 7 | Breast Radiology | Asst. Prof.Dr. Alev Günaldı |
| 8 | Introduction to radiology | Assoc. Prof.Dr. Ömer Özçağlayan |
| 9 | Circulation system radiology | Asst.Prof.Dr. Esra Yetiş |
| 10 |  |  |
| 11 |  |  |
| 12 |  |  |
| 13 |  |  |
| 14 |  |  |
| 15 |  |  |
| 16 |  |  |

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| **PHASE 5 MED 501 RADIOLOGY CLERKSHIP SCHEDULE** |
| --- |
| 1. Week |
| Days | Monday  | Tuesday | Wednesday | Thursday | Friday |
| 8.30-9.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 9.30-10.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 10.30-11.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 11.30-12.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 12.30-13.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 13.30-14.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 14.30-15.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 15.30-16.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
| 16.30-17.30 | Introduction to radiology | Fundamentals of Radiology Physics | Thorax Radiology | Abdomen Radiology | Musculoscletal Radiology |
|  |  |  |  |  |  |
|  |
| 2.Week |
| 8.30-9.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 9.30-10.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 10.30-11.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 11.30-12.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 12.30-13.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 13.30-14.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 14.30-15.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 15.30-16.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
| 16.30-17.30 | Interventional Radiology | Breast Radiology | Neuroradiology | Cırcukatıon system radiology | Neuroradiology |
|  |  |  |  |  |  |

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. |

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

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