



AYDIN ADNAN MENDERES UNIVERSITY COURSE INFORMATION FORM

| | | | | | | | | | |
|--|---|---|------------|---|---|----------------------------------|---|------------|---|
| Course Title | | Medical Physics | | | | | | | |
| Course Code | | TIP155 | | Couse Level | | Short Cycle (Associate's Degree) | | | |
| ECTS Credit | 3 | Workload | 75 (Hours) | Theory | 2 | Practice | 0 | Laboratory | 0 |
| Objectives of the Course | | The main aim of this course is to provide an understanding of the basic concepts and principles of physics. better in the vocational courses of students, especially in subjects involving Medical Imaging Techniques to understand their knowledge and skills in both theoretical and practical courses. to increase. | | | | | | | |
| Course Content | | Measurement, units, conversion between units, mechanical, force, moment, biomechanics, optical and biological vision, acoustic, biological hearing and sound, electricity, magnetism and electromagnetism, electricity and transmission in living organism, medical imaging methods, nuclear radiation use and living organism affect | | | | | | | |
| Work Placement | | N/A | | | | | | | |
| Planned Learning Activities and Teaching Methods | | | | Explanation (Presentation), Demonstration, Discussion, Case Study | | | | | |
| Name of Lecturer(s) | | | | | | | | | |

Prerequisites & Co-requisites

| | |
|-------------------|-------|
| Equivalent Course | TG105 |
|-------------------|-------|

Assessment Methods and Criteria

| Method | Quantity | Percentage (%) |
|----------------------|----------|----------------|
| Midterm Examination | 1 | 30 |
| Final Examination | 1 | 45 |
| Practice Examination | 1 | 25 |

Recommended or Required Reading

Week Weekly Detailed Course Contents

Workload Calculation

| Activity | Quantity | Preparation | Duration | Total Workload |
|---------------------------------------|----------|-------------|----------|----------------|
| Lecture - Theory | 14 | 2 | 2 | 56 |
| Seminar | 1 | 10 | 1 | 11 |
| Midterm Examination | 1 | 2 | 2 | 4 |
| Final Examination | 1 | 2 | 2 | 4 |
| Total Workload (Hours) | | | | 75 |
| [Total Workload (Hours) / 25*] = ECTS | | | | 3 |

*25 hour workload is accepted as 1 ECTS

Learning Outcomes

Programme Outcomes (Medical Imaging Techniques)

| | |
|----|--|
| 1 | THE ANATOMICAL STRUCTURE |
| 2 | HUMAN PHYSIOLOGY |
| 3 | APPLY FIRST AID FOR PATIENTS OR INJURIES |
| 4 | MAKING RADIOGRAPHY AND FILM BATHROOM, PRINTING PROCESSES |
| 5 | MAKING FLOROSCOPIC IMAGING |
| 6 | MAKING THE MAMOGRAPHY TEST |
| 7 | DOING ANGIOGRAPHY |
| 8 | MAKING MAGNETIC RESONANCE IMAGING (MRI) |
| 9 | MAKING COMPUTERIZED TOMOGRAPHY (CT) ANALYSIS |
| 10 | DOING THE BONE MINERAL DANCEITOMETER (DEXA) |



| | |
|----|--|
| 11 | ULTRASONOGRAPHY (USG) |
| 12 | GAMA CAMERA IMAGING |
| 13 | RADIOTHERAPY SIMULATION AND APPLICATION |
| 14 | RADIATION SAFETY AND RADIATION PROTECTION |
| 15 | MAKING BUSINESS ORGANIZATION AND PROVIDING PROFESSIONAL DEVELOPMENT |
| 16 | KEEPING RADIOLOGICAL ANATOMY |
| 17 | KEEPING MEDICAL TERMS |
| 18 | To be able to use modern Turkish language knowledge and language skills. |
| 19 | To have knowledge about Atatürk's Principles and Revolution History |
| 20 | To communicate at a basic level in a foreign language |
| 21 | Knows cancer and its types. Know what needs to be done to prevent cancer |
| 22 | To increase student's awareness of gender equality |
| 23 | To have information about clinical biochemistry |
| 24 | Knows the structure of proteins, carbohydrates and fats |
| 25 | To know family planning methods |
| 26 | To obey occupational ethic principals |
| 27 | To know occupational ethics |
| 28 | Understand the importance of teamwork |
| 29 | The organizational chart of the institution will be able to understand. |
| 30 | Will understand the importance of record keeping. |
| 31 | To know the ethical dilemmas in health |
| 32 | To gain educational and exploratory knowledge about control and protection against infectious diseases |
| 33 | To evaluate the general condition of the patient or the injured to take the initiative |
| 34 | To know the indications and contraindications of contrast agents |
| 35 | To be able to use and maintain the right communication skills with patients and relatives |
| 36 | To be able to communicate with colleagues, patient and patient relatives at therapeutic level |
| 37 | To evaluate the behavior of patients and their relatives |
| 39 | To have general information about health system |
| 40 | To learn the rights and obligations of health workers |
| 41 | Ability to gain theoretical knowledge about disaster recovery |
| 42 | To gain practical knowledge about disaster recovery and to be able to use them in accordance with ethical principles |
| 43 | To be able to explain the concepts related to substance abuse |
| 44 | Identify the needs of individuals with substance addiction |
| 45 | Working organization |
| 46 | Prepare promotional material with ready template |
| 47 | To be able to prepare personal web site |
| 48 | Knows pharmacological agents. know how to apply the drugs according to the indications and contraindications |
| 49 | To have knowledge about the effects of radiation on environment and human health. |
| 50 | Knows the concepts of quality standards, quality, standardization, standards and accreditation in health. |
| 51 | To know the rules of ergonomics |
| 52 | To learn the rules of behavior in social and business life |
| 53 | Ensuring the development of social sensitivity levels |
| 54 | To use their personal knowledge, skills and experiences for the benefit of the society as a team |
| 55 | Will be able to apply the basic tasks to use the operating system |
| 56 | Demonstrate behavior by understanding the information given about health. |
| 57 | Know the learning and teaching methods |
| 58 | Will have the ability to prepare educational material and conduct effective training. |

