#### **ISTINYE UNIVERSITY**

#### VOCATIONAL SCHOOL OF HEALTH SERVICES

#### DEPARTMENT OF MEDICAL IMAGING TECHNIQUES

#### **COURSE DESCRIPTIONS**

#### 1<sup>st</sup> SEMESTER

#### Radiological Imaging I | 7 ECTS

With this course, students will learn basic principles of radiological imaging.

#### TG115- Introduction To Anatomy | 3 ECTS

To give information about the anatomical structure and properties of human body.

#### TGT113- Physics | 2 ECTS

Teaching of the basic subject of physics which are physical quantities, kinematics, mechanics, work, power, energy, electromagnetism and radiation application in medicine.

#### Medical Biology | 2 ECTS

Through this lesson, students will be able to understand an organism at a cellular level and learn about living organism in general by learning the general biology mechanisms.

#### TRM111- Medical Terminology | 3 ECTS

With this course, students will be able to understand the meanings, they will be able to easily understand and use these terms in their professional and everyday life.

#### Information And Communication Technologies | 4 ECTS

In this course, communicate on the Internet, do business applications on the Internet, edit digital data, ready-made templates to prepare promotional material will be discussed.

#### **MSE111- Occupational Ethics | 3 ECTS**

This course will help students learn about the ethical concept and health professional ethics and find solutions to the problems they face in their professional life.

## ATA111- Ataturk's Principles And History Of Turkish Revolution I | 2 ECTS

Teaching the military, political, economic and social events of the Ottoman Empire in the internal and external politics, the struggle for national liberation and the formation of the new Turkish Republic.

## ING111- English I | 2 ECTS

Students will understand English effectively and use basic grammar of English Rules. Through this course, students will be able to interpret simple dialogues in English and use the new structures and words they have learned in their daily lives.

## TURK111- Turkish Language I | 2 ECTS

To give information about language definition, role and importance in communication, verbal and written expression techniques in literary and scientific fields, writing rules and expression disorders.

## 2<sup>nd</sup> SEMESTER

## Radiological Imaging II | 5 ECTS

Radiology includes general information about imaging techniques and facts.

## TG122– Nuclear Medicine | 5 ECTS

It provides information about imaging techniques for nuclear medicine technicians.

## TGT123- Radiation Physics | 4 ECTS

To teach all basic concepts and information about Radiation used in Medical Physics and Health Physics.

## TGT124- Radiation Safety And Protection | 4 ECTS

To teach biological effects of radiation and methods of protection

## TGT125- Radiological Anatomy | 3 ECTS

Radiological anatomy of the head and neck region, radiological anatomy of the upper extremity, radiological anatomy of the lower extremity, radiological anatomy of the thorax and abdomen region, radiological anatomy of the pelvis region are taught to the students.

## FZY121- Physiology | 3 ECTS

Introduction to human physiology, tissue and systems, homeostasis, Muscular System, Nervous System, Cardiovascular System, Blood and Immune system, Respiratory System, Sensory System, Digestive System, Urinary System, Endocrine System and Reproduction are taught to the students.

#### ATA121- Ataturk's Principles And History Of Turkish Revolution II | 2 ECTS

This course examines Atatürk's principles and reforms and the political developments after the Ataturk with the establishment process of the Republic of Turkey.

#### ING121- English II | 2 ECTS

Students will be able to understand English, use it effectively and compare basic grammar rules of English. Through this course, students can comment on simple dialogues in English and use the new structures and words they have learned in their daily lives.

#### TURK121- Turkish Language II | 2 ECTS

Proper use of punctuation marks in writing, development of plain text writing skills, listening and reading skills are taught.

#### **3<sup>rd</sup> SEMESTER**

#### Radiological Imaging III | 6 ECTS

To acquire the ability to perform the necessary preparations for computerized tomography and DEXA imaging, magnetic resonance imaging parameters, image quality and operations, patient and contrast preparation for magnetic resonance imaging, preparation for ultrasound and special ultrasonography applications.

#### Medical Imaging Techniques Application Training | 5 ECTS

Head radiographs, Facial radiographs, Vertebra radiographs, Chest radiographs, Upper extremity radiographs, Lower extremity radiographs, Lung and heart radiographs, Fluoroscopic imaging, Fluoroscopic contrast agents, Digestive system fluoroscopic imaging, Biliary system fluoroscopic imaging, urogenital system fluoroscopic imaging, mammography devices, Mammographic examination, angiography devices, coronary angiography, cerebral angiography, angiography in stend applications, angiography in abdominal applications.

## İLK111- First Aid | 3 ECTS

First aid entry and general characteristics, evaluation of basic life function, respiratory and circulatory system, first aid injury, bleeding in first aid, shock and first aid, burns and first aid, poisoning and first aid, fracture-dislocations and sprains first aid, basic life support.

#### TGT214- Compulsory Internship | 5 ECTS

The professional knowledge gained at the school, students will receive internships during the thirty working days at the end of the 2nd semester to ensure that they acquire new practical and technical skills, to acquire business skills, and to communicate effectively with other disciplines and administrators.

#### TGT213- Pharmacology | 4 ECTS

In this course, basic pharmacological concepts, specific mechanisms of drug action and the system will be discussed.

#### STS211- Stress Management | 3 ECTS

To learn basic concepts about crisis and stress, what to do and how to do in crisis environment to teach that it should be managed, to give the awareness of controlling stress.

#### Manifest Of Istinye University I | 1 ECTS

After graduation of Istinye University students to increase their employability, social and life skills to help them discover and increase their skills. The Manifesto of Istinye University in different categories such as art, sports, career and so on. students participating in the activities are expected to report on the activities they attend. After the evaluation of the report prepared by the student center, the students are counted as past or repeated.

#### SAi211- Communication In Health | 3 ECTS

Basic concepts of Communication and Health Communication, Theories and Models of Communication, Target Audience, Campaign Process and Media Use

#### 4<sup>th</sup> SEMESTER

#### **Diseases Information | 5 ECTS**

The system of the body and the basic knowledge of the diseases which are related to these systems are transferred to the students.

#### Radiological Imaging IV | 4 ECTS

To acquire the ability to perform the necessary preparations for computerized tomography and DEXA imaging, magnetic resonance imaging parameters, image quality and operations, patient and contrast

preparation for magnetic resonance imaging, preparation for ultrasound and special ultrasonography applications.

## TGT222- Medical Imaging Techniques Application | 5 ECTS

Magnetic resonance imaging I, Magnetic resonance imaging II, Cranial magnetic resonance imaging, Neck magnetic resonance imaging, Thorax magnetic resonance imaging, Upper abduction magnetic resonance imaging, Lower abdomen magnetic resonance imaging, Vertebra magnetic resonance imaging, Upper extremity magnetic resonance imaging, Lower extremity Magnetic resonance imaging, MR angio imaging, Advanced magnetic resonance imaging, Computerized tomography, Head and neck CT imaging, Vertebra CT imaging, Thorax and abdominal CT imaging, Extreme CT imaging, Advanced computerized tomography.

## Manifest Of Istinye University II | 1 ECTS

After graduation of Istinye University students to increase their employability, social and life skills to help them discover and increase their skills. The Manifesto of Istinye University in different categories such as art, sports, career and so on. students participating in the activities are expected to report on the activities they attend. After the evaluation of the report prepared by the student center, the students are counted as past or repeated.

## TGT223- Basic Professional Skills | 5 ECTS

During his education and professional life he / she was informed during treatment and care of healthy /apply basic skills.

# Carrier And Life | 3 ECTS

The aim of the course is to enable students to discover themselves during their education, to support their career planning, to learn how to deal with the problems they will be confronted with in their business life and to improve their life skills.

# Vocational English | 2 ECTS

To address the basic concepts of professional English in the field of health, improve understanding skills, contribute to writing and speaking skills.

## History Of Art | 3 ECTS

What is art ?, Style, perception and representation, Periodization of civilization history, Formation and development processes of Turkish art before and after Anatolia, Art-architecture and culture in the first Turkish-Islamic states, Architecture and decoration program of Seljuk and Beylik period The process of formation and development of Turkish art during the period of Early Ottoman, Ottoman and Westernization, Internal and external influences on the formation of Turkish art, Art movements and the effects of these movements on architecture, The development process of Turkish ornamentation and handicrafts.

# Rational Drug Use | 2 ECTS

To provide the students with the basic knowledge about the safe and effective application of drugs and to understand the role of nursing in safe and rational drug applications.