#### **NEAR EAST UNIVERSITY**

# VOCATIONAL SCHOOL OF HEALTH SERVICES MEDICAL IMAGING TECHNIQUES DEPARTMENT COURSE CONTENTS

#### LFALL

AIT103 Ataturk's Principles and History of Turkish Revolution I

Under the leadership of Mustafa Kemal Atatürk, with the reform movements carried out within the framework of the search for solutions in the Ottoman Empire, which started to be solved and collapsed in the face of the political, economic, cultural and socio-psychological problems that emerged as a result of the encounter between Western cultures and Turkish culture addressing the National Struggle result of the establishment of the Republic of Turkey.

#### ENG101 English I

- Talking about biographies
- 2. Talking about biographies
- 3. Asking & answering about general knowledge
- 4. Talking about past events
- 5. Talking about past events
- 6. Talking about technology in the future
- Asking for permission/Making a request
- 8. Formal phone conversations
- 9. Informal phone conversations
- 10. Making an appointment
- 11. Talking about products
- 12. Checking understanding/ Asking for clarification
- 13. Recommending a place/food

#### YIT101 Turkish for Foreigners I

- Introducing yourself and others
- Names of objects generally used in everyday life.
- 3. Turkish alphabet and sound events
- 4. Present tense
- Present Simple Tense
- 6. Short reading texts
- Personal pronouns

Dog. Dr. Ash AYKAÇ SHMYD Mödürü



## COM101 Computer I

- 1. The Place of Information Technologies in Daily Life
- 2. Computer Systems, File Management
- 3. Ethics and Security, Digital Citizenship
- 4. Privacy and Security
- Computer Networks
- 6. Research
- 7. Communication Technologies and Collaboration
- 8. Visual Processing Programs
- 9. Word Processor Programs
- 10. Presentation Programs
- 11. Spreadsheet Programs
- 12. Audio and Video Processing Programs
- 13. Problem Solving Concepts and Approaches, Programming

VSH101 Medical Terminology

Prefixes that form medical terminologies, word stems and suffixes. Teaching of these and performing an application. Informing about operations and standard terminologies of diseases.

## VSH109 Basic First Aid

The importance of first aid, rules, disaster conditions, reasons, generated problems, civil defense. First aid in case of injury, first aid in case of bleeding, first aid applications about respiration and circulation system, first aid in case of extremity fractures and hemorrhages, first aid for spine, head, chest bone fractures and bleeding, recovery and transportation methods. Burns, electric shock, freezing, food and chemical substance poisoning and first aid required other conditions. Knowing anaphylaxis and dealing ways.

#### VSH111 Basic Anatomy

Introduction to anatomy. Musculoskeletal and muscle system anatomy; bone, muscle, joint and general informations, upper and lower extremity. Respiration system anatomy: throax wall anatomy and diaphragma, nose and larynx trachea, lung and pleura. Circulation system: heart (atria and ventricles), pericardium, veins. Digestion, urinary and reproduction system: pharynx, desophagus and stomach, bowels, liver, pancreas, spleen, kidneys, ureters-bladder and urethra female and male genital organs. Nerve system: central nervous -diencephalon and telencephalon-medulla spinalis morphology, brain stem- cerebellum and cranial nerves - autonomic nerve system. Endocrine system. Sense organs: eye and vision, ear, hearing and balance ways.

RAT101 Radiology Physics

SHMYD Moderii X-rays: existence, source, tube, necessary conditions for occurrence, properties, quality, quantity. X-ray interaction with matter, X-ray detection, dosage. Radioactivity and Radium. Tools used to improve quality in radiography. Secondary radiation, reduction of secondary radiation through the Grid, reduction of secondary radiatig by changing the primary light, and other methods.

Doc. Dr. Ash AYKAL

#### **RAT103 Basic Professional Practices**

It includes the theoretical and practical practice of the student in other institutions with a radiology department. It is a very important course for professional development.

#### CAM100 Campus Orientation

The CAM100 course aims at the social and cultural development of students as well as their academic development and facilitates their adaptation to university life. While this course provides students with some competencies that they can use in their entire education life, it also contributes to the formation of a versatile and enjoyable campus life by strengthening the communication between all stakeholders of the university.

## CHC100 Cyprus: History and Culture

The aim of the course is to provide architectural examples as well as to ensure the perception of cultural heritage by considering the diverse architecture and art of the island within the framework of the history of Cyprus Civilization in a general chronological framework. Through the exams held in the same environment with the lecture notes presented in the virtual environment and many visual course materials, the student is provided to learn partly by their own efforts, and an environment of mutual discussion is created with the classroom seminars held at regular intervals and historical site visits organized in the company of the lecturer. The main objective of the course is to emphasize the importance of the cultural history of the island, as well as its political problems, and also to raise awareness about the protection of cultural heritage.

#### II SPRING

AIT104 Ataturk's Principles and History of Turkish Revolution II

Mustafa Kemal Pasha, the principle that perform until her death on 29 October 1923
from the Republic of Turkey and reforms are considered penny.

#### ENG102 English II

- 1. Health Matters
- 2. Health Matters
- 3. Restaurant Problems-Complaints and responses
- 4. Talking about Computer Problems
- 5. Reporting the News and the Weather
- 6. Reporting the News and the Weather
- 7. Product Problems- Complaints at the store
- 8. Talking about the future possibilities
- 9. Talking about the future possibilities
- 10. Health Problems and Herbs
- 11. Health Problems and Herbs
- 12. Job qualifications and Working Conditions

Dog. Dr. Aslı AYKAÇ Shmyd Müdütü



## YIT102 Turkish for Foreigners II

- 1. Adjectives
- 2. Names of objects generally used in everyday life
- 3. Comparative adjectives
- 4. Future tense
- 5. Past tense
- 6. Short reading texts
- 7. Personal pronouns

## VSH102 Diseases Knowledge

Health and disease concepts, symptoms, findings, etiology, disease examination, examination types and diagnosis processes. Congenital abnormalities, infection and parasite disease, cancer, endocrine system diseases, blood diseases, mental health and disorders. Nerve system and sense organs diseases, respiration and circulation diseases, gastrointestinal system diseases. Neurologic diseases, urogenital diseases.

VSH104 Physiology

General structure of human body. Cell and functions, metabolism, body fluids and tissue types, organs and systems. Cell physiology, muscle physiology, circulation system, blood physiology, respiration system physiology, digestive system physiology, urinary system physiology, central nervous system physiology, endocrine system physiology.

RAT102 Medical Imaging I

Radioactive examinations; IVP, PMD, small intestine, colon, gall bladder examination. Using Radiographic Positions and Devices in Direct Radiography, Mammography, Orthopontomographic Film Methods, Film Quality (Dosage, Position), Preparation of solutions in automatic baths with darkroom hand bath and film processing techniques, Cassette and device maintenance.

RAT104 Radiological Anatomy I

In the anatomy lesson; basic structure of the body, functions of the structures and organs that make up the systems, anatomical features, location and neighborhood knowledge and skills are aimed to be acquired.

#### RAT106 Clinical Education and Practice I

It includes the student's theoretical and practical application in the institution, which has a radiology department. It is a very important course for professional development.

Dec. Dr. Ash AYKAQ

### RAT150 Summer Internship (30 Working Days)

The necessity of auxillary support personnel in the audiometry department

To explain / explain the concept (s) determined

Raising awareness about the relevant concept (s) and developing it

· To discuss the validity of the concept (s) determined.

Developing selected / Identified skills

In-depth / detailed examination of selected topics

SHMYO Müdürü

- To improve the existing knowledge of students about the determined concepts / theories / subjects
- To develop students' ideas / knowledge / understanding in the context of selected concepts
- Refreshing existing knowledge with students about the determined concept / theory / subjects
- Promoting Innovation
- Developing critical thinking

SPM104 Sterilization Principles and Methods

Classification and Structure of Microorganisms: Classification bases of microorganisms, naming, size, simple staining methods, gram staining method and principles. Principles of acid-resistant bacteria staining method. Structure of Bacteria: Round (cocci), rod-shaped and spiral-shaped bacteria, involution forms. Anatomical Structure of Bacterial Cells: Protoplasts, cepheroplasts, L shapes of bacteria. The Effect of External Environment on Microorganisms: Sterilization, disinfection and application methods. Sterilization methods, physical methods, chemical methods, heat, irradiation, filtration (filtration) methods, dry-hot air sterilization, moist heat sterilization, tindalization. Structure of Viruses: Differences between bacteria and viruses, AIDS virus.

CAR100 Career Planning

Learning career planning and career development models.

To have knowledge about the current labor market conditions.

To have knowledge about interview techniques. Learning how to make an impressive lob interview.

To have knowledge about CV, cover letter and methods of preparing thank-you

Preparing a CV to use in job applications

#### III.FALL

RAT201 Radiological Anatomy II

Computed tomography of the respiratory, cardiovascular, gastrointestinal and urogenital systems, and explaining the cross-sectional anatomy of magnetic resonance

RAT203 Medical Imaging II

Doc. Dr. Aslı AYKAÇ

Angiography, Ultrasonography, Computed Tomography, Magnetic Resonance MYO Moduro devices working principles, shooting techniques and protocols.

RAT205 Nuclear Medicine

Basic devices and quality control used in nuclear medicine. Basics of radiojsc dilution methods in nuclear medicine. Biological principles of scintigraphy medicine. In vitro tumor definition with radionuclide methods. Doses and a

Positions, Examination of systems with nuclear medicine methods, Clinical applications.

RAT207 Radiotherapy

History of radiotherapy. Technical terms used in radiotherapy. Devices used in radiotherapy and their usage. Treatment types used in radiotherapy. Brief radiation physics, Radiation units / Radiobiology. Patient planning and the technician's duty within this framework.

## RAT209 Clinical Education and Practice II

It includes the student's office in the institution, which has a department of radiology. It is a very important course for professional development.

RAT211 Blomedical Device Technology

Definition and application of biomedical technology. Magnetism, Description of electric current, Direct and alternating current, Electromagnetism. Resistors, capacitors, self coils, transformers and their use in electrical circuits. Atomic theory, Electro negative and electro positive currents, Rectifiers, vacuum lamps, semiconductors. Finding malfunctions in electrical energy devices. X-ray properties and acquisition of X-ray, X-ray types, main structure of X-ray device, Measurement and compensation systems, X-ray device main circuits (autotransformer, kenetron filament, control, timer and buki circuits). The necessary settings to be made in the x-ray device (autotransformer, cheetron filament, timer tube filament and KVP settings), ideal x-ray laboratory Dark rooms, Fault finding systems, minor repairs that can be done by X-ray technicians, simplification of schemes.

RAT213 Organization in Radiology

The alm of this course is to provide the student with knowledge and skills about the working order in the radiology departments in classrooms and hospital conditions. Organizing the study, organizing the patient information system, organizing the working environment, archiving patient images, monitoring the services provided in radiology departments, ensuring professional development and following professional authorities and responsibilities are the main topics that the course aims to teach.

#### RAT215 Radiation Health and Protection

Effect of radiation on living cells, Maximum permissible radiation doses, Radiation measurement methods, Radiation control measures, Shielding against radiation, Planning of radiation-working places and equipment while working, Protective clothing, Radiation protection methods.

VSH201 Measurement and Evaluation

This course aims to provide students with the basic knowledge, concepts, models with and skills required for measurement and evaluation. The control of whether students will have reached the achievements in educational programs will be realized by using measurement and evaluation techniques effectively. It is an important training need for prospective teachers to learn about the learning deficiencies of students, their of degree of achievement, and the assessment and evaluation approaches they will be to decide whether they will continue to a higher education level. This course girls to teach pre-service teachers the basic knowledge, concepts, models and skills equired for measurement and evaluation.

## IV.SPRING

## VSH202 Public Health

Health human strength, Turkey and TRNC health organizations, explanation of community health, basic protection methods, immunity services, basic nutrition, health education, employee and employer health, family planning.

## VSH204 Professional Ethics

Its a program that directed to information and skills to work suited for ethics rules in work life. Historical development of medicine, medicine principles.

VSH206 Health Care Management

Management concept and periods. Basic health services, Turkish health system and lower systems, aims, organizational structure, historical development, today's condition, process, management and institutional system and observation of institution.

VSH208 Rational Drug Use

Rational use of drugs: The use of drugs in accordance with the clinical needs of the patients, at an appropriate dose, in a sufficient period of time, at the lowest cost for both themselves and the community. To explain / explain the determined concept (s). To raise awareness about the related concept (s) and to develop it.

VSH210 Quality in Health Services

In all associate degree departments that include health services, quality in health includes safety, waste, infection, communication, healthcare worker responsibility, medical errors, emergencies, device management, sterilization and disinfection, devices in the hospital. Turkey overview of the health care system, patients employee safety and health quality standards, laid management, prevention of infections, medication management, radiation safety, basic patient rights, healthy communication with patients and their relatives, patient safety in healthcare worker liability, patient safety and medical errors, it includes risk management in health, prevention of falling patients, informing the patient and patient consent, safe drug practices, measurement and evaluation culture in health, material and device management, disaster and emergency management, and information management.

## RAT202 Term Implementation

- Requirement of assistant support staff in the department
- To explain / explain the concept (s) determined
- Raising awareness about the relevant concept (s) and developing it. SHMYD Mödürü
- To discuss the validity of the concept (s) determined.
- Developing selected / identified skills
- In-depth / detailed examination of selected topics
- Students' existing knowledge about the concept / theory / subjects deteg
- develop
- Students' ideas / knowledge / understanding in the context of the chose concepts

Dog. Dr. Ash AYKAC

- develop
- Existing knowledge with students about the concept / theory / subjects determined
- renew
- Promoting innovation
- Developing critical thinking

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