University of Malta
Faculty of Health Sciences
Department of Radiography

ERASMUS programme

Malta

Education and Culture DG

Lifelong Learning Programme

Course Programme

MISSION STATEMENT

The Faculty of Health Sciences aims to achieve excellence in the education and training of reflective, caring accountable health professionals, in response to health and health service needs of the population.

DEPARTMENT OF RADIOGRAPHY

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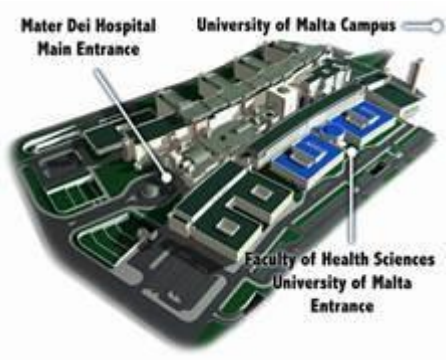
THE FACULTY OF HEALTH SCIENCES

THE FACULTY OF HEALTH SCIENCES

The Faculty of Health Sciences (FHS) is situated within Mater Dei Hospital, Malta's main general and acute hospital which is very close to the main campus of the University of Malta. The address of the Department of Radiography is as follows: -

Department of Radiography
Faculty of Health Sciences
University of Malta
Administration Building (Block A1)
Mater Dei Hospital
Msida, MSD2090
MALTA



One can make use of public transport to get to the University of Malta and/or Mater Dei Hospital. Kindly refer to the Transport Malta website (http://www.publictransport.com.mt) for latest information about routes and timetables.

You may also be able to book a private cab/ride via mobile app. Some of the leading companies in Malta are being listed here, in alphabetical order, for ease of reference:
Bolt - https://bolt.eu/
eCabs - https://www.ecabs.com.mt/
Hicabs - https://www.hicabs.com.mt/
Malta Taxi - https://www.maltataxi.mt/

NON-SMOKING POLICY

Kindly note that there is a non-smoking policy governing Mater Dei Hospital (including the Faculty of Health Sciences), and therefore smoking is only permissible in designated smoking areas outside the hospital grounds. Hefty fines are given to individuals who do not follow such a policy.

Nonetheless students are reminded that the smell of cigarettes or tobacco smoke lingers on the breath and clothing and may be offensive to sick patient/clients and to non-smokers. It also undermines the role of the health professional as a role model and health educator. Strong smelling perfumes and deodorants to mask such smells should also be avoided.

INTRODUCTION TO THE PROGRAMME

An introductory meeting will be scheduled with the students at the start of their mobility. This meeting will serve to provide relevant information about the programme, as well provide students with some orientation of the Hospital and University grounds. Furthermore, any pending documentation and/or payments due can be discussed and/or settled.

SOCIAL EVENTS

Social events may be organised by local student associations, details of which may be found on the respective websites (https://mhsa-fhs.com/ , KSU).

Furthermore, the Society of Medical Radiographers, Malta may also organise events for radiographers and radiography students. Latest updates are usually provided here www.radiographersmalta.com or https://www.facebook.com/radiographersmalta

ERASMUS COURSE PROGRAMME

ACADEMIC TEACHING

Within the University, lectures, discussions and tutorials will be supported by group and individual assignments. Success in the programme relies on full participation in the assignments and/or tasks assigned.

Lectures sessions can be held at Mater Dei Hospital or on the Main University Campus. The length of the lecture may vary. Free time is intended for course reading and individual study.

CLINICAL PLACEMENTS

Clinical placements will mainly take place at Mater Dei Hospital which is the main general and acute public hospital in Malta. Radiotherapy clinical placement will take place at Sir Anthony Mamo Oncology Centre, Malta's main Radiotherapy and Oncology Hospital.

Students will be expected to perform **200 hours in clinical placement**. In order to achieve this goal, the students can be can be assigned to either morning, afternoon or night duties, Mondays to Fridays.

- *Morning clinical hours are from 8.00 till 14.30.*
- *Afternoon clinical hours are from 13.00 till 19.30.*
- *Night clinical hours are from 19.30 to 07.30*

While on clinical placements students are allowed a 20-minute break during morning or afternoon shifts. A 60-minute break is allowed during night duties.

The clinical placement co-ordinator assigns all clinical placements, where students work under the supervision of qualified radiographers. During clinical placements students may observe, assist and perform radiographic examinations. Students cannot send images onto PACS without having them checked by a qualified radiographer.

Students will be required to keep a record of the clinical hours they have performed on attendance sheets that will be supplied by the clinical placement co-ordinator. All hours recorded in clinical placement must be accompanied by the signature of a radiographer who supervised the student during that placement.

CLINICAL PLACEMENTS

Students are required to perform 200 hours in clinical. These are generally scheduled in a variety of general and specialist areas, at two main hospitals: -

1. **Mater Dei Hospital**, which includes the following areas: -
   - *General skeletal radiography*
   - *Accident & Emergency Radiography*
   - *Fluoroscopy (Contrast Studies)*
   - *Bone densitometry (DEXA)*
   - *Computed Tomography*
   - *Dental radiography*
   - *Mammography*
   - *Magnetic Resonance Imaging*
   - *Nuclear Medicine & PET*
   - *Theatre radiography*
   - *Angiography / Cardiac Catheterization*
   - *General ultrasound / Obs&Gynae ultrasound*

2. **Sir Anthony Mamo Oncology Centre**, which includes: -
   - *Radiotherapy*

You will be provided with the proposed clinical placement roster in the first week.

While students may request changes to the clinical placement roster during the introductory meeting, the possibility of such changes will be dependent on numerous factors, such as availability, demand and possible Covid19 restrictions.

CHANGING FACILITIES AT THE FACULTY OF HEALTH SCIENCES

No changing room facilities are available at the FHS. Students may use the practical room belonging to the Department of Radiography. Please take care of your personal belongings at all times. The Faculty of Health Sciences opens daily at 0730 hrs and closes at 1700hrs.

HEALTH AND WELLNESS

Given the stress and/or anxiety that may be brought about by the uncertain times we are living in, kindly note that you are free to access the services offered by the University of Malta Health and Wellness Centre, any time during your stay in Malta. More information can be found on the website:

https://www.um.edu.mt/services/health-wellness/

PERSONAL RADIATION MONITOR SERVICE

The Department of Radiography will issue each student with a local radiation monitor for clinical placement, so as to fulfil radiation safety legal requirements of the placement sites.

For this reason, each student will be provided with a link and instructions to effect an online payment for the provision of this service:

- 55 Euro deposit (refundable following the return of the radiation monitor at the end of the exchange)
- 55 Euro service fee for the entire exchange period (non-refundable)

Students will not be able to commence or attend placements without a local radiation monitor.

ATTENDENCE

According to the University of Malta General Regulations art. 40 (quoted below), attendance is compulsory and a lecturer may choose to bar the student from being assessed – automatically meaning that you would fail that study unit.

General Regulations for University Undergraduate Awards, 2004

> ***Attendance***
>
> *40. Unless otherwise specified in the bye-laws of a Course, or expressly stated in the description of a study-unit as published in the catalogue of study-units, attendance for lectures, tutorials, seminars, practical or clinical sessions or work placements, fieldwork and any other teaching session in whatever mode is obligatory. A lecturer may bar a student whose attendance in a study-unit is not satisfactory from being assessed in that study-unit. In such cases a 0 mark and an F grade shall be assigned and recorded.*

While we hope that you will be responsible and attend lectures and clinical placements as required, we will not hesitate to enforce this regulation.

In this regard, if a student is unable to attend a lecture or clinical placement due to sickness (or any other valid reason), the Secretary of the Department of Radiography must be informed in advance either by e-mail (noel.vassallo@um.edu.mt) or by telephone (+356 2340 1907).

Students who claim to be unwell or sick must present a note of confirmation from a medical doctor to the Department of Radiography upon return to University/Clinical placements.

The course programme for the ERASMUS+ students during the exchange programme will be composed of the following study units:

CODE	TITLE	CREDIT VALUE
RAD 4139	Directed Studies	8 ECTS
RAD 3019	Clinical Imaging Practice: Quality Assurance	2 ECTS
RAD 3330	Pharmacology and radio pharmacy for radiographers	4 ECTS
MAL 0004	Maltese for Radiographers	2 ECTS
NUR 3092	Basic Life Support (Healthcare Provider)	2 ECTS
TTC 0409	Introduction to Maltese society, tourism and hospitality	2 ECTS

STUDY UNITS DESCRIPTION

RAD4139 – DIRECTED STUDIES (8 ECTS)

DESCRIPTION

As part of this study-unit, students will perform supervised placements under the supervision of qualified radiographers or other health care professionals depending on the area of placement. The placements will include an equal period in both medical imaging and radiotherapy departments or areas that contribute to the development of the radiography students. In the case of ERASMUS and Elective students the area of placement will be directed in accordance with programme of studies followed in the home institution as well as the available of placements. The availability of placement sites locally and/or abroad, are directed so as to ensure that student's preferences and the intended learning outcomes are achieved.

STUDY-UNIT AIMS:

The aim of this study-unit is:

- For the student to further develop and gain experience in both radiotherapy and medical imaging departments or related areas, locally and/or abroad;
- To compare and reflect upon radiography practice across different departments, institutions and/or countries;
- To compare and reflect upon safety guidelines for patients, staff and visitors as applicable in different departments, institutions and/or countries;
- To compare and reflect upon delivery of care in practice in different departments, institutions and/or countries;
- To provide a practical learning environment which encourages competent, confident and safe working practices;
- To enable the students to value the importance of delivering person-centred care to all patients, irrespective of circumstances, characteristics or culture.

LEARNING OUTCOMES

By the end of the study-unit the student will be able to:

<u>Knowledge & Understanding</u>:

- Apply principles of radiography to the area of placement ;
- Demonstrate and apply care as applicable in the area of placement selected;
- Develop clinical and transferable skills for different radiotherapy treatments, medical imaging procedures and related areas;
- Evaluate and reflect upon the role of medical imaging and/or radiotherapy examinations and related areas in the delivery of care to patients.

<u>Skills</u>:

- Apply safety in practice under the supervision of a qualified radiographer or health care professional as applicable to the placement area;
- Evaluate the delivery of care under the supervision of a qualified radiographer or a health care professional as applicable to the area of placement;
- Reflect upon the needs and preferences of different types of patients presenting for medical imaging or radiotherapy procedures and examinations or related areas;
- Demonstrate a caring attitude and good communication skills when imaging or treating different types of patients or related areas, under the supervision of a qualified radiographer or a health care professional as applicable to the area of placement.

ASSESSMENT MODE:

Portfolio (100%)

LECTURERS

Dr. Deborah Mizzi

RAD 3019 – CLINICAL IMAGING PRACTICE: QUALITY ASSURANCE (2 ECTS)

DESCRIPTION

This study-unit encourages students to understand and reflect upon the clinical importance of Quality Assurance in the Medical Imaging Department. Students registered for this study-unit will need to perform supervised hours in clinical placement in different general and speciality areas within the medical imaging department.

Students will be encouraged to familiarise themselves, reflect upon and discuss the various QA procedures and performed in the different specialities within the Medical Imaging Department.

STUDY-UNIT AIMS:

The aim of the study-unit is to facilitate students' understanding of the principles of Quality Assurance and its importance and application in the clinical medical imaging setting. Students will be encouraged to use their clinical placement to effectively to familiarise themselves with the various QA procedures and Quality Control tests performed in the different specialities within the Medical Imaging Department.

LEARNING OBJECTIVES

By the end of this study unit, the student will be able to understand:

Knowledge & Understanding:

- Explain the principles of Quality Assurance (QA).
- Discuss the importance of QA in clinical medical imaging practice.
- Identify which Quality Control (QC) tests are performed in particular medical imaging specialities.
- Explain how these QC tests are performed in particular medical imaging specialities.
- Discuss the importance of particular QC tests in particular medical imaging specialities.

Skills:

- Compare the different QC tests performed in the different specialities within the medical imaging department.
- Compare the different QA & QC procedures followed in different countries.

ASSESSMENT MODE

Assignment (100%)

LECTURERS

Dr. Deborah Mizzi

RAD 3330 – PHARMACOLOGY AND RADIOPHARMACY FOR RADIOGRAPHERS (4 ECTS)

DESCRIPTION

This study-unit serves to provide a sound understanding of the principles underlying the therapeutic action of drugs used in radiography especially contrast media as well as possible treatments options for radiation therapy side effects and radiopharmacy. It will include an understanding of the various phases of drug action, from the molecular level to drug analysis, as well as understanding of pharmacokinetic and pharmacodynamic principles and general pharmacological activity.

The study-unit will also consider practical aspects of the role of pharmacology for the work graduates in radiographic science will be undertaking, especially in an understanding of the drugs used in emergency situations encountered in their practice.

Students are also provided with the foundations for the use and application of radiopharmacy agents in medical imaging, for a diverse range of clinical applications.

Radiopharmaceuticals and radionuclides are medical products defined in the European directive 2004/27/EC, which should be handled by trained and qualified radiographers in order to ensure patient and staff safety. Students in this study-unit will be taught about the production of radionuclides and radiopharmaceuticals, used in both diagnostic and therapy procedures.

STUDY-UNIT AIMS:

This study-unit aims to provide:

- A sound understanding of the principles underlying the therapeutic action of drugs used in radiography, especially contrast media, and for the treatment of radiotherapy side effects;
- An understanding of the various phases of drug action, from the molecular level to drug analysis;
- An understanding of pharmacokinetic and pharmacodynamic principles and general pharmacological activity of contrast media and emergency drugs;
- An understanding of Practical aspects of the role of pharmacology in understanding drugs used in emergency situations;
- Knowledge on using pharmacological principles to understand differences in the mode of action and selection of contrast media, and treatment options for radiation side effects as part of a treatment;
- Knowledge on the principles underlying radiopharmacy, in order to ensure safe working practices; and
- An understanding of the concepts of radionuclide production.

LEARNING OBJECTIVES

By the end of this study unit, the student will be able to understand:

Knowledge & Understanding:

- Appraise the general mechanisms of drug action;
- Define and apply the different modes of drug administration in radiography;
- Interpret the principles of pharmacokinetics and pharmacodynamics of drugs used in radiography;
- Identify the mechanism of action of drugs available on the emergency trolley;
- Predict and manage adverse reactions to drugs used in radiography;
- Apply and practice aseptic procedures in drug preparation;
- Discuss the differences between different treatment options for radiation treatment side effects;
- Discuss the clinical applications of the most common radiopharmaceuticals and radionuclides;
- Apply and practice safe use and dispose of radiopharmaceuticals and radionuclides, in line with required radiation protection measures and national regulations;
- Appraise the use of theranostic procedures in Radiography.

Skills:

- - Apply the principles of drug action in the selection of contrast media used radiography;
- Apply the principles of drug action in the selection of treatment options for radiation treatment side effects;
- Apply knowledge of the molecular mode of action of drugs to specific clinical scenarios encountered emergency situations in radiography;
- Manage drug related problems in radiography;
- Adopt and practice aseptic techniques in the preparation of drugs used in radiography;
- Appraise the principles of pharmacology to understand the use of drugs available on the emergency trolley;
- Apply the principles of radiopharmacy to radiography;
- Identify the appropriate radiopharmaceuticals / radionuclides to be used for basic Nuclear Medicine imaging procedures, and in theranostic examinations.

ASSESSMENT MODE

Assignment (20%)
Assignment (20%)
Examination (1 hr) (60%)

LECTURERS

Dr. Karen Borg Grima
Dr Amanda Abela
Dr Godwin Grech
Prof Janet Mifsud

TTC0409– INTRODUCTION TO MALTESE SOCIETY, TOURISM AND HOSPITALITY (2 ECTS)

DESCRIPTION

This study-unit will consist of lectures to introduce Erasmus students to Maltese society and its culture, and how it arrived at its modern form. This include the multi nationality of hospitality environments and how to use a variation of skills to navigate this environment. Introductory lectures will be given about the major transitions in Maltese society throughout the ages, in context of hospitality.

STUDY-UNIT AIMS:

This study-unit aims to provide international students studying at the FHS to gain an insight of Maltese history and culture.

-To provide students with a cultural, sectoral, pedagogical & linguistic experience which may enhance their educational experiences for growth and development.
- To raise intercultural awareness.

LEARNING OBJECTIVES

1. Knowledge & Understanding

By the end of the study-unit the student will be able to:

in the context of the Maltese hospitality industry to:

- demonstrate an introductory knowledge of the Maltese people, food and culture;
- synthesis the importance of Malta's geographical position in relation to its history;
- identify the various aspects of the main Maltese historical periods and their role in tourism;
- broadly describe the mayor influences left behind by the various powers on the Maltese Islands.

2. Skills

By the end of the study-unit the student will be able to:

in the context of the Maltese hospitality industry to:

- demonstrate an introductory knowledge of the Maltese people, food and culture;
- synthesis the importance of Malta's geographical position in relation to its history;
- identify the various aspects of the main Maltese historical periods and their role in tourism;

- broadly describe the mayor influences left behind by the various powers on the Maltese Islands.

ASSESSMENT MODE

Reflective Diary (100%)

LECTURERS

Prof. Dane Munro

MAL 0004 – MALTESE FOR RADIOGRAPHERS (2 ECTS)

DESCRIPTION

This study-unit is designed for groups of foreign students attending short specialized courses at the University of Malta, such as ERASMUS students, who need basic knowledge of Maltese at the survival level in connection with their area of study and related job experience. Students will be helped not only to learn to read and write basic sentences in Maltese, but also to be able to communicate in several daily situations, particularly in those related to their area of specialization.

ASSESSMENT MODE

Oral Examination (40%)
Examination (1 hr) (60%)

LECTURERS

Dr. Olvin Vella

NUR3092 – BASIC LIFE SUPPORT (HEALTHCARE PROVIDER) (2 ECTS)

DESCRIPTION

The Basic Life Support for healthcare providers course is designed to teach the skills of CPR for victims of all ages (including ventilation with a barrier device, a bag-mask device, and oxygen), use of an automated external defibrillator (AED), and relief of foreign-body airway obstruction (FBAO). It is intended for participants who provide health care to patients in a variety of settings including in-hospital and out of hospital settings. This study-unit is covered by learning experiences through the use of lectures, demonstration of skills and opportunity for hand-on experience.

STUDY-UNIT AIMS:

- Describe the chain of survival;
- Describe the normal physiology of the heart and lungs;
- Define Atherosclerosis and three coronary artery disease processes. These include: Angina, Heart Attack, Sudden cardiac death;
- Categorize the major risk factors for a heart attack into risk factors which can be changed or not changed;
- Describe Prudent Heart Living, as it relates to individual lifestyle;
- Identify strategies how to prevent injuries and sudden cardiac arrest in infants and children.

Comprehend the need for CPR and perform, correctly, the following psychomotor skills:

- Activation of the emergency response system;
- Rescue breathing using mouth to mouth ventilation, mouth to barrier device ventilation (with and without oxygen), and bag and mask ventilation with oxygen for adult, infant and child victims;
- 1 and 2 rescue CPR for adult, infant and child victims;
- Use of an AED for victims less or equal to 8 years of age (and approx.25kg or more);
- Relief of FBAO in the responsive and unresponsive victim of any age.

LEARNING OUTCOMES

- Basic Life Support in Perspective;
- Anatomy and Physiology of the Respiratory, Cardiovascular, and Cerebrovascular Systems;
- Coronary Artery Disease and Acute Coronary syndromes;
- Acute Stroke;
- Risk Factors for Heart Disease and Stroke;
- Adult CPR;
- Automated External Difibrillation;
- Adult Foreign-Body Airway Obstruction;
- Paediatric CPR;
- Paediatric Foreign -Body Airway Obstruction;

- Safety During CPR Training and Actual Rescue;
- Special Resuscitation Situations.

- Skills performance in:
- Adult 1-Rescuer CPR;
- Adult Bag-Mask Ventilation;
- Adult 2 rescuer CPR;
- Adult FBAO in the Responsive Victim;
- Adult FBAO in the Unresponsive Victim;
- Infant 1-Rescuer CPR;
- Infant Bag-Mask Ventilation;
- Infant FBAO in the Responsive Victim;
- Infant FBAO in the Unresponsive Victim;
- Infant and Child 2 rescuer CPR;
- Child 1-Rescuer CPR;
- Child Bag-Mask Ventilation;
- Child FBAO in the Responsive Victim;
- Child FBAO in the Unresponsive Victim

ASSESSMENT MODE:

Examination (1hr) 100%

LECTURERS

Dr. Trevor Abela Fiorentino