



Beni-Suef University
Faculty of Dentistry
Quality Assurance Unit



Programme Specification

University: **Beni-Suef**

Faculty: **Dentistry**

Programme Title: **Master's Degree in Oral and Maxillofacial Radiology**

Programme type: 3 years programme

Departments: Oral and Maxillofacial Radiology Department Coordinator: Vice dean for

Academic year:2022-2023

Last date of programme specifications approval: Sept. 2021-2022

A- Basic Information

A- Basic Information:

- 1- Program Title: Master's Degree in Oral and Maxillofacial Radiology
- 2- Programme Type: Single: Double Multiple
- 3- Department: Oral and Maxillofacial Radiology Department
- 4 - Date of program approval: Sept. 2021-2022

B- Professional Information:

1- Program Aims:

This program aims to develop an efficient graduate capable of improving quality of patient care, improving access to oral and maxillofacial radiology services, performing diagnostic imaging used for examining the craniofacial, dental and adjacent structures, in addition to providing interpretive skills in demonstrating abnormalities using all 2D and 3D imaging modalities in the OMFRAD field.

The graduate will also be able to apply ethical, evidence based and high quality oral and maxillofacial diagnostic services to the referred public and communicate effectively among the health care community.

This program aims to promote and advance the art and science of radiology in dentistry. It also provides continuing education activities through various activities as the annual scientific session (Departmental Scientific Day) and through conducting continuous scientific evidence-based research in the OMFRAD field.

2-Intended Learning Outcomes (ILOs):

A. Knowledge and Understanding:

By the end of the program, the graduate should be able to:

- A1-recognize basics, science and assumptions behind radiobiology, radiation physics radiation chemistry, radiation properties and radiation hazards
- A2-recognize regulations of radiation use, patient education, quality assurance and infection control in oral and maxillofacial radiography clinics
- A3-define basics for purchasing an x-ray dental unit, panoramic unit and CBCT unit and optimizing its exposure parameters for the optimum health care and educational services.
- A4-identify basic theories and fundamentals of x-ray production and image formation.
- A5-outline basic anatomy of the head and neck, basics of clinical diagnosis of oral and maxillofacial lesions .
- A6-describe the different 2D and 3D imaging techniques and conventional and digital image receptors and their applications in the dental field.
- A7-recognize the objectives, pros and cons, technical considerations, physical fundamentals, and appropriate application of various advanced imaging modalities .
- A8-state the influence of proper algorithmic selection of imaging modalities on the enhancement of the oral and maxillofacial health care of the Egyptians.
- A9-state the influence of proper radiographic differential diagnosis of various dental, bone and soft tissue lesions, implantology, computer-guided surgery, traumatology cases and forensic dentistry on the enhancement of the oral and maxillofacial health care of the Egyptians.
- A10-identify the clinical tips needed, the pathological nature of diseases and methodological approaches regarding differential diagnosis and radiographic interpretation of cysts, benign, malignant, inflammatory, and bone lesions manifestations in the oral and maxillofacial region as well as developmental anomalies, systemic diseases with radiographic oral and maxillofacial.
- A11-describe explicitly the different radiographic features of oral and maxillofacial lesions and the role of early detection of some of the aggressive diseases and those with malignant proclivity and its impact on treatment of such cases.
- A12-describe recent scientific advances in prescribing imaging modalities, radiographic interpretation and differential diagnosis of oral and maxillofacial radiographic conditions.
- A13-recognize the ethical and legal principles of radiation protection of operator, patient and environment and identify measures of radiation protection with special emphasizes on the federal and global regulations in the field of OMFRAD.
- A14-identify lawful and moral principles for proficient practice in the specialty of oral and maxillofacial radiology.
- A15-determine ground rules, moral values fundamentals, methodologies, and ethics of scientific research.
- A16-state the basis and policies underlying conduction of any research.
- A17-identify the appropriate exposure parameters and beam modifiers for 2D and 3D recent imaging modalities for providing maximum quality service for the environment in the field of OMFRAD.
- A18-summarize the essentials and philosophy of quality of imaging and interpretation in professional practice in OMFRAD.

B. Intellectual Skills:

By the end of the program, the graduate should be able to:

- B1-categorize methodological approaches regarding production of high quality radiographic images and enhancement of images if applicable to achieve proper diagnosis of various challenging oral and maxillofacial radiology cases.

B2-analyze the acquired radiographic information to get the professional decisions for radiographic differential diagnosis of various challenging oral and maxillofacial radiology cases.

B3-analyse anatomical issues, histopathological background and clinical diagnostic and laboratory tips to aid in determining the diagnosis of different oral abnormalities and pathosis.

B4-integrate oral radiology with other dental and non-dental professions in diagnosis and treatment of maxillofacial lesions in children, adolescents, patients undergoing radiotherapy, adults, elders and patients with special needs .

B5-solve problems related to technical imaging ,image production, image reception and image enhancement mishaps , pitfalls and artifacts in the field of OMFRAD .

B6-assess problems prioritize them and generate a problem - oriented list to facilitate achieving accurate diagnosis .

B7-evaluate difficulties that hinder proper diagnosis and design a proper protocol to follow in order to reach a final correct diagnosis.

B8-assess risks and threats of different doses of ionizing radiation applied during 2D imaging and the relation between doses yielded with CBCT and low dose CBCT protocols .

B9-combine the law and ethics of radiation usage and awareness of biological effects with emphasis on patient education .

B10-select a research study and/or write a methodical scientific study on a research problem and on a scientific research program .

B11-apply critical thinking and problem solving skills according to the condition under investigation .

B12-take the professional decisions in various professional in radiographic imaging and diagnosis domains to build up experience in OMFRAD field .

B13-submit hands on, perform case presentations as well as case reporting, and seminars to develop the performance and build up the experience in OMFRAD practice.

C. Practical and Professional Skills:

By the end of the program, the graduate should be able to:

C1-construct an imaging plan with concomitant proper interpretation for all maxillofacial lesions , abnormalities and diseases from plain and cross-sectional imaging with or without contrast media using the professional basic skills and recent advances in radiographic differential diagnosis.

C2-conduct the appropriate steps for performing maximum quality radiographs the field of oral and maxillofacial radiology with the least radiation exposure to the patient and to the environment

C3-evaluate different machine components, exposure parameters and different processing techniques applied in the oral radiology to master all skills required to optimize exposure parameters and produce of images of high diagnostic information in OMFRAD area.

C4-perform measures of quality assurance, infection control and apply all legalities in OMFRAD specialty.

D. General and Transferable Skills:

By the end of the program, the graduate should be able to:

D1-synchronize effectively with radiologists, patients and other professions as oral surgeons, medical radiologists, periodontists, endodontists, orthodontists, implantologists , oral and clinical pathologists, prosthodontists and physicians .

D2-communicate with other healthcare professionals both verbally and in globally accepted written format and apply the principles of confidentiality in the context of written records .
D3-use information technology regarding radiographic imaging of lesions (maxillofacial, TMJ, salivary glands, and maxillary sinuses, impactions, implantology and fractures etc...) and directing them towards serving the professional major practice.
D4-develop an optimal socio-economic environment for OMR .
D5-shape and advance the scientific base in OMR by fostering research .
D6-implement the ethical and legal principles in the practice of oral radiology and the fundamentals and ethics of scientific research .
D7-employ quality of patient care by gaining skillful access to radiological services .
D8-employ different sources to retrieve information and knowledge needed for preparing seminars in the field of OMFRAD and for enhancing skills of data entering.
D9-collaborate in a team and team leadership in the various radiography situations.
D10- refer patients for multidisciplinary diagnosis .
D11-manage time effectively towards patients and their families by respecting time of sessions, also towards his/her colleagues, and all faculty staff and employees by respecting time during multidisciplinary learning and clinical sessions.
D12-implement strategies of life long self-learning, self-assessment and critical thinking in maintaining competency .

3-Academic Standards

Faculty of Dentistry, Beni-seuf University adopted the general National Academic Reference Standards (NARS) provided by the National Authority for Quality Assurance and Accreditation of Education (NAQAAE for postgraduate programs). s (ARS) were suggested for this program.

4- Référence Standards (Benchmarks)

- 1-Oral and Maxillofacial Radiology-UCLA School of Dentistry-USA(**attached documents**)
- 2-Graduate Programs in Dental and Maxillofacial Radiology-King's College –London-UK (**attached documents**)
- 3-Graduate Degree Programs-Faculty of Dentistry-University of Toronto(**attached documents**)

5- Curriculum Structure and Contents

a- Program duration: 3 years

c- Program Levels and Courses

a. Compulsory Courses

(يقوم الطالب بدراسة ثلاث ساعات معتمده من المواد الإختيارية خلال الستة فصول الدراسيه)

Semester 1

<u>Code</u>	<u>Title</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
						Course Work	Requirement	Final Practical	Final Written	Total
	Anatomy of the Head & Neck	15	2	2	3	20	10	30	40	100
	Oral Pathology I	15	2	2	3	20	10	30	40	100
	Clinical Oral Diagnosis for Radiologists	15	2	4	4	20	10	30	40	100
	Oral & Maxillofacial Radiology I	15	2	2	3	20	10	30	40	100
	Total Credit H.				15					

Semester 2

<u>Code</u>	<u>Title</u>	<u>Prerequisite</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
							Course Work	Requirement	Final Practical	Final Written	Total
	Oral & Maxillofacial Pathology II	Advanced clinical oral diagnosis I	15	2	2	3	20	10	30	40	100
	Oral & Maxillofacial Radiology II	Oral & Maxillofacial Radiology I	15	4	6	7	20	10	30	40	100
	Radiation Biophysics		15	2	0	2	20	20		60	100
	Advanced clinical oral diagnosis I		15	2	2	3	20	20		60	100
	Total Credit H.					15					

Semester 3

<u>Code</u>	<u>Title</u>	<u>Prerequisite</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
							Course Work	Requirement	Final Practical	Final Written	Total
	Case Presentations I		15	0	4	2	20	20		60	100
	Oral & Maxillofacial Radiology III	Oral & Maxillofacial Radiology II	15	3	6	6	20	10	30	40	100
	Biostatistics and bioethics		15	2	0	2	20	20		60	100
	Dental Implantology		15	2	2	3	20	10	30	40	100
	Advanced clinical oral diagnosis II		15	2	2	3	20	10	30	40	100
Total Credit H.						16					

Semester 4

<u>Code</u>	<u>Title</u>	<u>Prerequisite</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
							Course Work	Requirement	Final Practical	Final Written	Total
	Clinical Radiology Rotations I		15	0	4	2	20	10	30	40	100
	Case Presentations		15	0	4	2	20	20		60	100
	Oral & Maxillofacial Radiology IV	Oral & Maxillofacial Radiology III	15	3	6	6	20	10	30	40	100
	Advanced Imaging Modalities I		15	2	2	3	20	10	30	40	100
	Digital Dentistry		15	2	0	2	20	20		60	100
Total Credit H.						15					

Semester 5

<u>Code</u>	<u>Title</u>	<u>Prerequisite</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
							Course Work	Requirement	Final Practical	Final Written	Total
	Clinical Radiology Rotations II	Clinical Radiology Rotations I	15	2	4	3	20	10	30	40	100
	Oral & Maxillofacial Radiology V	Oral & Maxillofacial Radiology IV	15	4	8	8	20	10	30	40	100
	Advanced Imaging Modalities II	Advanced Imaging Modalities I	15	2	4	4	20	10	30	40	100
	Total Credit H.					15					

Semester 6

<u>Code</u>	<u>Title</u>	<u>Prerequisite</u>	Weeks	Didactic	practical	Credit <u>H</u>	Course Mapping				
							Course Work	Requirement	Final Practical	Final Written	Total
	Interdisciplinary Seminars		15	2	0	2	20	20		60	100
	Oral & Maxillofacial Radiology VI	Oral & Maxillofacial Radiology V	15	4	8	8	20	10	30	40	100
	Case Presentations	Advanced Imaging Modalities I	15	0	4	2	20	10	30	40	100
	Current OMRAD Literature		15	2	0	2	20	20		60	100
	Total Credit H.					14					

6- Program Admission Requirements:

Prerequisites for registration:

The applicant should have:

- Bachelor's degree in "Oral and Dental Medicine and Surgery" from any Egyptian University or equivalent degree and recognized by the Supreme Council of Universities.
- General grade "good" and the specialty grade "good".
- A minimum of one year of training after the internship year.
- Approval of the employer to be enrolled as a full time student.
- Passing grade of 450 Test of English as a Foreign Language (TOEFL) or 7 International English Language Testing System (IELTS).
- Submission of all documents as determined by the Faculty from the beginning to the end of June. Foreign students submit their documents following the University regulation.
- Pay all tuition fees before enrollment.
- Approval of the Department of Oral and Maxillofacial Radiology Department

7- Regulations for Progression and Program Completion:

Students are awarded the Master's degree after:

- Successfully completing a minimum of ...180 credit points (6 semesters)(40 for thesis + 140 for courses and logbook activities)...
- Passing grade for all courses (60%) and final exit exam (70%).
- Approval of the logbook that documents all the practical/clinical requirements.
- Defense of the thesis after a minimum of one academic year from the approval date of the research project by the Faculty Council. The Thesis stands for a total of 40 credit points.

8- - Students assessment:

Methods of assessments:	Intended Learning Outcomes
1. Written examination	A1-A18/ B1-B13 /C1 and C3
2. Oral examination	A1-A18/ B1-B13 / D1,D2,D3, D10,D11,D12
3. Practical examination	A1-A18 / B1-B13 /C1-C4/ D1,D2,D3,D6,D7,D9,D10,D11
4. Case presentation and Self-study	A1-A18/ B1-B13 /C1 and C4/ D1-D12

9- Evaluation of Program:

Evaluator	Tool	Sample
1- Senior students	Questionnaire and small group meetings	Analyzed and Attached
2- Alumni	Questionnaire	Analyzed and Attached
3- Stakeholders (Employers)	Questionnaire and Meetings	Analyzed and Attached

4-External Evaluator(s) (External Examiner(s))	Questionnaire	Report is Attached
5- Other	-----	-----

Program Director

Head of department

Ass. Prof Dr Walaa Samir

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