



Programme Specification

A- Basic Information

University: **Beni-Suef**
Faculty: **Dentistry**
Programme Title: **Master's degree of Implantology**
Program type: **Master Program**
Departments: **Program comittee**
Coordinator: **Associate Prof. Walid Samir Salem**
External evaluator :
Academic year: **2022/2023**
Last date of programme specifications approval: 09/2022

B- Professional Information

1- Programme aims

The Master of Dental Implantology program is a three -year, postgraduate program designed to provide dentists with the advanced knowledge and skills necessary to perform dental implant surgery and restore function and esthetics to patients with missing teeth. The program will cover the theoretical and clinical aspects of dental implantology, including: Implant anatomy and physiology, Implant surgery principles and techniques, Implant prosthetic options, Implant complications and management, Advanced implant techniques

2- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

- A.1 Understand the theoretical basis of dental implantology
- A.2 Understand the the structure and properties of the implant materials
- A.3 Demonstrate a comprehensive knowledge of implant anatomy and physiology
- A.4 Apply the principles of biomechanics and bone biology to dental implant treatment planning

A.5 Recognize and manage implant complications

b- Intellectual skills:

- b.1 Evaluate patient cases using a systematic and critical approach, integrating clinical, radiographic, and diagnostic information to formulate accurate diagnoses and treatment plans.
- b.2 Apply evidence-based dentistry principles to implant treatment planning and decision-making
- b.3 Critically evaluate scientific literature related to dental implantology
- b.4 Formulate and test research hypotheses in dental implantology
- b.5 Solve complex dental implant treatment problems

c- Professional and practical skills:

- c1 Perform dental implant surgery safely and effectively
- c2 Manage dental implant complications effectively
- c3 Communicate effectively with patients and other healthcare professionals about dental implant treatment
- c4 Demonstrate proficiency in managing patient risk factors, addressing complications, and providing long-term maintenance and follow-up care
- c5 Collaborate with other dental specialists and healthcare professionals to develop comprehensive treatment plans and manage interdisciplinary cases.
- c6 Restore function and esthetics to patients with missing teeth using dental implants
- c7 Pursue lifelong learning in the field of dental implantology

d- General and transferable skills:

- d1 Exhibit strong communication skills, both written and oral, for effective interaction with patients, colleagues, and interdisciplinary teams.
- d2 Manage time effectively and prioritize tasks
- d3 Demonstrate a commitment to ethical and professional conduct, upholding the highest standards of integrity, confidentiality, and patient-centered care.
- d4 Foster a lifelong learning mindset, engaging in continuous professional development, and staying informed about emerging technologies and advancements in dental implantology.
- d5 Exhibit leadership qualities and contribute to the growth of the prosthodontic community through mentorship, education, and active involvement in professional organizations.
- d6 Adapt to new situations and learn new skills quickly

3- Academic standards

3a External references for standards (benchmarks)

1. **American Academy of Implant Dentistry (AAID):** The American Academy of Implant Dentistry (AAID) is a non-profit professional organization dedicated to advancing the science and practice of dental implants. The AAID provides education, research, and advocacy for dental professionals who use dental implants to restore function and esthetics to patients with missing teeth.
2. **European Association for Osseointegration (EAO):** The European Association for Osseointegration (EAO) is a non-profit scientific association dedicated to promoting the science and practice of osseointegration, the process by which bone grows around and bonds to an implant. The EAO provides education, research, and advocacy for dental professionals who use dental implants to restore function and esthetics to patients with missing teeth..
3. **International Congress of Oral Implantologists (ICOI):** The International Congress of Oral Implantologists (ICOI) is a non-profit professional organization dedicated to advancing the science and practice of dental implants. The ICOI provides education, research, and advocacy for dental professionals who use dental implants to restore function and esthetics to patients with missing teeth..
4. **Commission on Dental Accreditation (CODA):** CODA is the accrediting body for dental education programs in the United States. Their standards and accreditation criteria for advanced specialty education programs in prosthodontics offer comprehensive guidelines for program development and evaluation.
5. **American Dental Association (ADA):** The American Dental Association (ADA) is the professional organization for dentists in the United States. The ADA provides education, research, and advocacy for dentists and their patients. The ADA also develops and publishes standards for dental education and continuing dental education.
6. **World Dental Federation (FDI):** FDI provides international perspectives on dental education and practice. Their publications and guidelines can offer insights into global best practices for prosthodontics education.
7. **Previous Accredited Programs:** Reviewing the curricula and accreditation standards of established and well-regarded Prosthodontics Master's Programs can offer insights into industry norms and expectations.

3b Comparison of provision to external references

1. **American Academy of Implant Dentistry (AAID):**

Master of Dental Implantology Program Guidelines. provide a framework for developing and maintaining a high-quality program. The guidelines cover a wide range of topics, including:

- Program administration
- Faculty qualifications
- Curriculum content
- Clinical requirements
- Evaluation and assessment

The AAID also places a strong emphasis on ethical and professional conduct.

2. **European Association for Osseointegration (EAO).**

The EAO's Curriculum for Postgraduate Education in Oral Implantology provides a comprehensive overview of the knowledge and skills that dental professionals need to provide high-quality implant care. The curriculum is divided into three modules:

- Basic principles of implant dentistry
- Surgical and prosthetic procedures
- Complications and management

The EAO also places a strong emphasis on research and evidence-based practice.

3. **International Congress of Oral Implantologists (ICOI).**

Master of Dental Implantology Program Standards.

The ICOI's Master of Dental Implantology Program Standards are designed to ensure that graduates of accredited programs are competent to provide safe and effective implant care. The standards cover a wide range of topics, including:

- Program administration
- Faculty qualifications
- Curriculum content
- Clinical requirements
- Evaluation and assessment

The ICOI also places a strong emphasis on patient safety and informed consent.

4. Commission on Dental Accreditation (CODA):

The CODA's Standards for Advanced Dental Education Programs provide a framework for developing and maintaining high-quality advanced dental education programs. The standards cover a wide range of topics, including:

- Program administration
- Faculty qualifications
- Curriculum content
- Clinical requirements
- Evaluation and assessment

The CODA also places a strong emphasis on continuous quality improvement.

5. American Dental Association (ADA)

The ADA's Standards for Continuing Dental Education provide a framework for developing and maintaining high-quality continuing dental education programs. The standards cover a wide range of topics, including:

- Program content
- Instructor qualifications
- Evaluation and assessment

The ADA also places a strong emphasis on ethical and professional conduct.

4- Curriculum Structures and Contents

4a programme duration:

6 Academic semester (3 years program)

4b Programme structure

1. **Didactic Courses:**

2. **Clinical Training:**

3. **Research Component:**

- Thesis or Research Project: Independent research project under faculty guidance, focusing on a relevant prosthodontic topic.

- Research Seminars: Regular seminars or workshops to discuss research progress, findings, and methodology.

5- Programme courses

Level/year(1)

Master's degree of Implantology

Candidate must fulfill 6 credit hours (elective courses) along the six semesters

Semester 1

Code	Title	Weeks	Didactic	practical	Credit H	Course Mapping				
						Course work	Requirement	Final practical	Final written	Total
	Applied Biomaterial I	15	2		2	20	20		60	100
	Oral Pathology	15	2	2	3	20	10	30	30	100
	Anatomy of head & Neck	15	2	2	3	20	10	30	40	100
	Oral Biology	15	2	2	3	20	10	30	40	100
	Basic implantology I	15	2	2	3	20	10	30	40	100
	x-ray for Implantology	15	2	2	3	20	10	30	40	100
Total credit H.					15					

Semester 2

Code	Title	Prerequisite	Weeks	Didactic	practical	Credit H	Course Mapping				
							Course work	Requirement	Final practical	Final written	Total
	Applied Biomaterial II	Applied Biomaterial I	15	2		2	20	20		60	100
	Applied x-ray for implantology	x-ray for Implantology	15	2	2	3	20	10	30	40	100
	Basic implantology II	Basic implantology I	15	2	2	3	20	10	30	40	100
	Oral & maxillofacial surgery		15	2	2	3	20	10	30	40	100
	General & local anesthesia		15	2		2	20	20		60	100
Total credit H.						15					

College

Semester 3

Code	Title	Prerequisite	Weeks	Didactic	practical	Credit H	Course Mapping				
							Course work	Requirement	Final practical	Final written	Total
	Fixed prosthodontics I	Applied Biomaterial II	15	2	2	3	20	10	30	40	100
	Removable prosthodontics I	Applied Biomaterial II	15	2	2	3	20	10	30	40	100
	Technology of implantology I	Basic implantology II	15	2	2	3	20	10	30	40	100
	Implant surgery I	Oral & maxillofacial surgery	15	2	2	3	20	10	30	40	100
	Digital implantology I	Basic implantology II	15	2	2	3	20	10	30	40	100
	Occlusion I		15	2		2	20	20		60	100
Total credit H.						15					

Semester 4

Code	Title	Prerequisite	Weeks	Didactic	practical	Credit H	Course Mapping				
							Course work	Requirement	Final practical	Final written	Total
	Fixed prosthodontics II	Fixed prosthodontics I	15	2	2	3	20	10	30	40	100
	Removable prosthodontics II	Removable prosthodontics I	15	2	2	3	20	10	30	40	100
	Technology of implantology II	Technology of implantology I	15	2	2	3	20	10	30	40	100
	Implant surgery II	Implant surgery I	15	2	2	3	20	10	30	40	100
	Digital implantology II	Digital implantology I	15	2	2	3	20	10	30	40	100
	Occlusion II	Occlusion I	15	2		2	20	20		60	100
Total credit H.						17					

Semester 5

Code	Title	Prerequisite	Weeks	Didactic	practical	Credit H	Course Mapping				
							Course work	Requirement	Final practical	Final written	Total
	Case presentation & comprehensive treatment plan in implantology I		15	2		2	20	20		60	100
	Esthetics in implantology I	Fixed prosthodontics II	15	2	2	3	20	10	30	40	100
	Advanced prosthodontics	Removable prosthodontics II	15	2	2	3	20	10	30	40	100
	Periodontology in Implantology		15	2	2	3	20	10	30	40	100
	Advanced oral and maxillofacial surgery in implantology	Implant surgery II	15	2	2	3	20	10	30	40	100
	Implant precision attachment	Removable prosthodontics II	15	2		2	20	20		60	100
Total credit H.						16					

Semester 6

Code	Title	Prerequisite	Weeks	Didactic	practical	Credit H	Course Mapping				
							Course work	Requirement	Final practical	Final written	Total
	Case presentation & comprehensive treatment plan in implantology II	Case presentation & comprehensive treatment plan in implantology I	15	2		2	20	20		60	100
	Esthetics in implantology II	Esthetics in implantology I	15	2	2	3	20	10	30	40	100
	Advanced prosthodontics II	Advanced prosthodontics	15	2	2	3	20	10	30	40	100
	Full mouth rehabilitation		15	2	4	4	20	10	30	40	100
	Multidisciplinary seminars		15	2		2	20	20		60	100
	Review of literature for implantology		15	2		2	20	20		60	100
Total credit H.						16					

Total credit hours 94 + 6 Credit Hours (elective courses) + 20 thesis= 120 C.H

4- Teaching and learning methods

a – Small group discussion / Brain storming.	<u>Yes/No</u>
b- Interactive lecture	<u>Yes</u>
c – Demonstrations.	<u>Yes</u>
d- Research project.	<u>Yes</u>

5- Student assessment methods (please select the assessment methods you use)

a. Written and short answer question.	<u>Yes/No</u>
b. Written and long essay.	<u>Yes</u>
c. Multiple choice questions (MCQ)	<u>Yes</u>
d. True or false question with justifying answer.	<u>Yes</u>
e. Practical / OSPE.	<u>Yes</u>
f. Project work .	<u>Yes</u>
g. logbooks.	<u>Yes</u>

Assessment schedule

Eg. Assignment. Quiz, midterm

Quiz 1	4 th week
Quiz 2	8 th Week
Assignment	All over the semester

Weighting of assessments

	CW	Written	Practical	Requirement	Total
Course assessment	20	40	30	10	100

- List of reference;

1. Contemporary Implant Dentistry by Carl E. Misch
2. Contemporary Implant Dentistry book
2. Implant Dentistry at a Glance by **Jacques Malet**
3. Implant Dentistry at a Glance book
3. Clinical Implantology by **Ajay Vikram Singh**
4. Clinical Implantology book
4. Dental Implant Prosthetics by **Randolph R. Resnik**
5. Dental Implant Prosthetics book
5. **Misch's Avoiding Complications in Oral Implantology** by Carl E. Misch
6. **Misch's Avoiding Complications in Oral Implantology** book
7. Periodontal and Implant Dentistry by **Robert E. Tarnow**
8. Oral Implantology and Periodontology by **Christer Dahlin**
9. Bone Augmentation by Anatomical Region: Techniques and Decision-Making by **Mohamed A. Maksoud**
10. Immediate Dentoalveolar Restoration: Immediately Loaded Implants in Compromised Sockets by **Adam Hamilton**
11. Mucogingival Esthetic Surgery Around Implants by **Giovanni Zucchelli**
12. Implant Imaging: A Radiology Perspective by **Thomas J. Balshi**
13. Dental Materials: Clinical Applications for the Dental Team by **John W. McLean and H. Ralph Rawls**

Facilities required for teaching and learning

1. Lecture Halls and Seminar Rooms:

- Equipped with audio-visual aids, projectors, and interactive whiteboards for effective presentations and discussions.
- Comfortable seating arrangements to accommodate students and encourage active participation.

2. Dental Simulation Laboratories:

- Fully equipped with dental units, phantom heads, and workstations for hands-on preclinical exercises and skill development
- Dental materials and instruments for practicing prosthodontic procedures

3. Clinical Facilities:

- Modern clinical operatories with dental chairs, equipment, and instruments for treating patients under faculty supervision
- Radiographic facilities for diagnosis and treatment planning.

4. Research Laboratories:

- Well-equipped research facilities for students to conduct experiments, analyze data, and contribute to prosthodontic research.
- Computers and software for data analysis and simulation
- 5. **Library and Resource Center:**
 - Comprehensive collection of prosthodontics textbooks, research journals, and electronic resources for reference and self-study
 - Access to online databases and digital libraries for research purposes.
- 6. **Prosthodontic Workshops:**
 - Specialized spaces for fabricating dental prostheses, including dentures, crowns, bridges, and implant-supported restorations
 - Advanced equipment such as CAD/CAM systems for digital prosthodontics
- 7. **Computer Labs:**
 - Computer facilities with software for dental treatment planning, simulation, and digital design of prostheses.
 - Access to educational software and tools for learning and practicing prosthodontic concepts
- 8. **Audio-Visual Resources:**
 - Recording and playback facilities for capturing lectures, demonstrations, and clinical procedures for later review.

Course coordinator: Associate Prof. Walid Samir Salem
Head of Department: Prof. Ahmed Nabil Fahmy

Date: 10 /10 /2022