



Jordan University of Science and Technology
Faculty of Dentistry
Dental Surgery Department

DENT518 Oral Implantology
Second Semester 2022-2023

Course Catalog
1 Credit Hours. This course is basic and theoretical. It is considered a foundation course in implant dentistry for undergraduate dental students. It will provide information about implant history, rationale for treatment, applied anatomy, radiography, bone physiology, biomechanics, case selection and treatment planning and pre-surgical clinical procedures involved in implant dentistry to provide a predictable outcome. Furthermore, clinical cases treated by dental implants will be discussed to focus on the importance of case selection, treatment planning and sequencing of treatment. Lectures on implant placement & loading protocols, implants in the partially and totally edentulous mouth, microbiology of dental implants, complications and failures will be covered as well. This course is designed as a blended course; thus some lectures will be given online, either synchronous or asynchronous.

Text Book	
Title	Misch's Contemporary Implant Dentistry
Author(s)	Carl E. Misch
Edition	4th Edition
Short Name	Contemporary Implant Dentistry
Other Information	

Course References

Short name	Book name	Author(s)	Edition	Other Information
Practical Implant Dentistry	Practical Implant Dentistry: The science and art	Ashok Sethi & Thomas Kaus	2nd Edition	

Instructor	
Name	Dr. Rami Al-Fodeh
Office Location	Dental Teaching Center
Office Hours	
Email	rsfodeh@just.edu.jo

Class Schedule & Room
Section 1: Lecture Time: Wed : 14:30 - 15:30 Room: NG76

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	-Introduction to the Course and Discussion of the Syllabus	
Week 2	-Dental Implants: History and Definitions	
Week 3	-Dental Implants: Types of Implant-supported Prosthesis -Rationale of Dental Implantology	
Week 4	-Surgical Anatomy in Relation to Dental Implants -Radiographic Imaging	
Week 5	-Bone Biology, Histology, and Physiology -Osseointegration, Peri-implant Tissues, and Bone-Implant Interface -Post-extraction Healing	
Week 6	-Case Selection & Treatment Planning -Presurgical Prosthodontics I	
Week 7	-Presurgical Prosthodontics II	
Week 8	-Dental Implants in the Anterior & Posterior Zones Single and Multiple I	
Week 9	-Dental Implants in the Anterior & Posterior Zones Single and Multiple II	
Week 10	-Impression Techniques and Abutment Selection	
Week 11	-Timing of Implant placement and Loading Protocols -Implant Occlusion	
Week 12	-Implants in the Edentulous Patients	
Week 13	-Microbiology and Maintenance of Dental Implants	
Week 14	-Complications and Failures of Dental Implants	
Week 15	-Case discussions	
Week 16	-Catch-up	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Develop a comprehensive understanding of maxillofacial anatomy, with a focus on structures relevant to implant placement, such as bone density, sinus anatomy, and neurovascular structures, with application anatomical knowledge to create precise, patient-specific treatment plans that minimize risks and complications during implant surgery. [151.2 Scientific Knowledge and Cognitive Skills]	15%	
Demonstrate a comprehensive understanding of implant dentistry principles, encompassing the scientific basis of osseointegration, implant materials, and surgical techniques, and demonstrating an in-depth understanding of the biological processes involved in osseointegration, including the interaction between implant surfaces and surrounding bone tissues, with applying the knowledge acquired to critically evaluate factors influencing osseointegration success, such as implant design, surface modifications, and loading protocols. [151.7 Scientific Knowledge and Cognitive Skills]	15%	
Apply scientific knowledge to critically evaluate and select appropriate implant treatment plans for diverse clinical scenarios. [101.4 Scientific Knowledge and Cognitive Skills]	10%	
Acquire knowledge of potential complications associated with implant surgery and prosthetic components with developing strategies for prevention, early detection, and management of complications to ensure the long-term success and well-being of the patient. [101.7 Scientific Knowledge and Cognitive Skills]	10%	
Develop the ability to engage patients in the decision-making process for implant treatment, considering individual needs, preferences, and expectations. [52.1 Person-Centred Care]	5%	
Communicate effectively with patients to provide clear and empathetic information about implant procedures, ensuring informed consent and shared decision-making. [52.4 Person-Centred Care]	5%	
Adhere to ethical principles and professional standards in implant dentistry, considering the social impact of implant interventions on patient well-being. [53.2 Responsibility, Communication, Professionalism and Ethics]	5%	
Communicate professionally and ethically with colleagues, fostering a collaborative and patient-centered approach in implant treatment planning and execution. [53.1 Responsibility, Communication, Professionalism and Ethics]	5%	
Apply critical thinking skills to assess and solve complex challenges in implant dentistry, considering both surgical and prosthetic aspects. [54.3 Critical Thinking, Problem Solving and Evidence-Based Practice]	5%	
Utilize evidence-based practices in the planning and execution of implant treatments, integrating research findings into decision-making. [54.1 Critical Thinking, Problem Solving and Evidence-Based Practice]	5%	
Promote oral health within the community by educating patients on the benefits and considerations of implant dentistry. [55.1 Health Promotion and Community Oral Health]	5%	
Understand and address the broader public health implications of implant interventions, contributing to community oral health promotion. [55.1 Health Promotion and Community Oral Health]	5%	
Demonstrate a commitment to lifelong learning in implant dentistry, staying updated on emerging technologies, materials, and techniques relevant to implant treatment. [56.1 Sustained Dental Practice and Lifelong Learning]	5%	
Cultivate skills necessary for sustained dental practice, including adaptability, resilience, and a proactive approach to continuous improvement in implant dentistry. [56.2 Sustained Dental Practice and Lifelong Learning]	5%	

Relationship to Program Student Outcomes (Out of 100%)													
1.1 Scientific Knowledge and Cognitive Skills	1.2 Scientific Knowledge and Cognitive Skills	1.3 Scientific Knowledge and Cognitive Skills	1.4 Scientific Knowledge and Cognitive Skills	1.5 Scientific Knowledge and Cognitive Skills	1.6 Scientific Knowledge and Cognitive Skills	1.7 Scientific Knowledge and Cognitive Skills	2.1 Person-Centred Care	2.2 Person-Centred Care	2.3 Person-Centred Care	2.4 Person-Centred Care	3.1 Responsibility, Communication, Professionalism and Ethics	3.2 Responsibility, Communication, Professionalism and Ethics	3.3 Responsibility, Communication, Professionalism and Ethics
	15		10			25	5			5	5	5	

Evaluation	
Assessment Tool	Weight
Midterm	40%
Final	60%

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