Course Specifications

Course Title:	Clinical Dental Implantology
Course Code:	SDS 523
Program:	Bachelor of Dental Surgery (BDS)
Department:	Substitutive Dental Science
College:	College of dentistry
Institution:	Majmaah University

Table of Contents

A. Course Identification

1. Credit hours: 3	
2. Course type	
a. University ☐ College ☐ Department ☒ Others ☐	
b. Required ☒ Elective ☐	
3. Level/year at which this course is offered: 5th year / 1st & 2nd semester	
4. Pre-requisites for this course (if any)**:** SDS 413	
5. Co-requisites for this course (if any)**:** None	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	15	50%
2	**Blended**	NA	NA
3	**E-learning**	NA	NA
4	**Correspondence**	NA	NA
5	**Other (Dental Laboratory)**	45	50%

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	15
2	**Clinic/Studio**	45
3	**Tutorial**	-
4	**Others** (specify)	-
	Total	60
Other Learning Hours*		
1	**Study**	45
2	**Assignments**	15
3	**Library**	15
4	**Projects/Research Essays/Theses**	15
5	**Others** (specify)	-
	Total	90

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

1. This course represents the extensive phase to the discipline of Dental Impalntology.
2. It provides advanced knowledge for the students to learn the recent techniques and procedure employed in the practice of dental implantology.
3. It prepares the student for the practice of dental implantology through lectures,

demonstrations and discussions of clinical and laboratory procedures.

2. Course Main Objective

By the end of this course the student will be able to:

1. Demonstrate comprehensive knowledge regarding principles and techniques of dental implant placement in simple and complicated situations.
2. Utilize modern diagnostic aids to select suitable size of implant, surgical need, and best treatment to an implant patient.
3. Describe surgical procedures related to dental implantology
4. Perform clinical and lab procedures required to rehabilitate the partially or completely edentulous patient by dental implants.

3. Course Learning Outcomes

CLOs		Aligned-PLOs
1	**Knowledge:**	
K3.31	Recognize the basic facts and concepts needed for the diagnosis and treatment of dental implant cases.	K3
2	**Skills :**	
S3.18	Develop critical thinking and reasoning skills to create treatment plan of dental implant cases.	S3
S6.14	Demonstrate hand-eye coordination skills for management of different dental implant rehabilitation procedures.	S6
3	**Competence:**	
C4.4	Use modern technology and medical informatics in management of dental implant.	C4

C. Course Content

No	List of Topics	Contact Hours
	First semester	
1	**Unit 1 :** Introduction to implant dentistry • Definition & history of dental implant. • Types of dental implants. • Osseointegration. • Basic components of dental implant.	1
2	**Unit 2 :** Patient selection for dental implant • Indications of dental implant. • Contraindications of dental implant. • Patient evaluation for dental implant.	1
3	**Unit 3 :** Applied anatomy for dental implant (part 1) • Introduction. • Surgical anatomy of anterior mandible. • Surgical anatomy of posterior mandible.	1
4	**Unit 3 :** Applied anatomy for dental implant (part 2) • Surgical anatomy of anterior maxilla. • Surgical anatomy of posterior maxilla. • Classification of maxillary sinus septa.	1

5	**Unit 4 :** Treatment planning for dental implant (I) • Dental implant team. • Patient records for dental implant.	1
6	**Unit 4 :** Treatment planning for dental implant (II) • Pre-treatment phase for dental implant. • Peri-implant environment analysis.	1
7	**Unit 5 :** Imaging for dental implant (part 1) • Imaging technique for implant planning. • Panorama for implant planning.	1
8	**Unit 5 :** Imaging for dental implant (part 2) • Linear and spiral tomography. • CT and CBCT in implantology. • Computer-guided implantology.	1
9	**Unit 6 :** Prosthetic planning for dental implant • Dental implant planning for partially edentulous patient • Dental implant planning for completely edentulous patient	1
10	**Unit 7 :** Surgical phase for dental implant • Surgical template for dental implant. • Surgical environment and instrumentation for dental implant. • Surgical steps for dental implant.	1
11	**Unit 8 :** Soft & hard tissue management for dental implant • Tissue deficiencies at dental implants site. • Preventive procedures for management of tissue deficiencies at implant site. • Corrective procedures for management of tissue deficiencies at implants site.	1
12	**Unit 9 :** Prosthetic phase for dental implant • Provisional restoration for dental implant. • Prosthetic kit for dental implant. • Dental implant impression techniques. • Prosthetic phase for various implant supported prosthesis.	1
13	**Unit 10 :** Advanced surgical techniques for dental implant (part 1) • Split ridge principles. • Split ridge selection & complications. • Sinus floor elevation classification.	1
14	**Unit 10 :** Advanced surgical techniques for dental implant (part 2) • Sinus floor elevation techniques. • Alveolar distraction osteogenesis principles. • Alveolar distraction selection & complications.	1
15	**Unit 11 :** Complications & peri-implant disease • Success in implant dentistry. • Complication of dental implant. • Peri-implant diseases.	1
Total		15

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
K3.31	Recognize the basic facts and concepts needed for the diagnosis and treatment of dental implant cases.	✓ Lecture ✓ Lab ✓ Clinical Session	• Written exams. • Oral exam. • Practical exam. • OSPE / OSCE. Assignments.
2.0	**Skills**		
S3.18	Develop critical thinking and reasoning skills to create treatment plan of dental implant cases.	✓ Lecture ✓ Lab ✓ Clinical Session	• Written exams. • Oral exam. • Practical exam. • OSPE / OSCE. • Assignments. • Case based scenario / Problem based learning. • Weekly assessment. • Approved procedures documented in logbook.
S6.14	Demonstrate skills for hand-eye coordination during patient clinical examination, diagnosis and treatment planning for dental implant.	✓ Lecture ✓ Lab ✓ Clinical Session	• Written exams. • Oral exam. • Practical exam. • OSPE / OSCE. • Assignments. • Case based scenario / Problem based learning. • Weekly assessment. • Approved procedures documented in logbook.
3.0	**Competence**		
C4.4	Use modern technology and medical informatics in management of dental implant.	✓ Lab ✓ Clinical Session	• Practical / clinical exam. • OSPE / OSCE. • Case based scenario / Problem based learning. • Approved procedures documented in logbook. • Research projects.

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Mid- Term Exam	15th	15%
2	Activities (Quiz, Research, Patient diagnosis & Treatment planning)	7th	15%

#	Assessment task*	Week Due	Percentage of Total Assessment Score
3	Weekly Assessments	Weekly	30%
4	Final theory	31th	15%
5	Final Practical	30th	25%

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

- Availability of the staff will be placed in front of the office in staff schedule as office hours.
- Academic advising unit for each year functions separately, it will hold periodic meeting with the students for feedback.
- Students will be informed in advance to assemble themselves in the classroom for discussions regarding difficulties in learning, attendance, facilities. etc.
- Students will be encouraged towards use of internet sources and library for the study and completion of the assignments

F. Learning Resources and Facilities

1.Learning Resources

Required Textbooks	• Contemporary Implant dentistry (Latest edition) by Cral Misch and Craig Misch • Implant dentistry at a glance (Latest edition) by Jacques Malet • Implant Laboratory Procedures: A Step-by-Step Guide by Carl Drago
Essential References Materials	• Journal of prosthetic dentistry • European Journal of dental Implantlogy • Journal of oral implantology
Electronic Materials	• http://www.pubmed.com • http://www.sdl.com
Other Learning Materials	• Power point and videos

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	• Lecture rooms should be large enough to accommodate 30 students. • Well-equipped dental laboratory.
Technology Resources (AV, data show, Smart Board, software, etc.)	• One computer, projector, active-board, video set connected to projector.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	• Demonstration lab. • Dental implant kits and motor.

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Effectiveness of teaching and assessment	Students	✓ Course Evaluation Survey ✓ Quality of Exam Survey
	Faculty	✓ CLO Mapping with teaching & assessment. ✓ Course Blueprinting ✓ Grade Analysis ✓ Psychometric Analysis
	Peers	Grade Verification
Extent of achievement of course learning outcomes	Faculty member / Quality assurance committee	✓ Direct assessment outcome analysis ✓ Course report preparation
Quality of learning resources, etc	Students / Faculty	✓ Academic advising survey ✓ Student experience survey

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)
Evaluators (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

H. Specification Approval Data

Council / Committee	Department Council
Reference No.	
Date	26 / 8 / 1440