COURSE PLAN

FIRST: BASIC INFORMATION

College	
College	: Irbid College
Department	: Medical Department

Course	
Course Title	: Dental CAD Practice
Course Code	: 020813262
Credit Hours	: 2 (0 Theoretical, 2 Practical)
Prerequisite	:

Instructor	
Name	:
Office No.	:
Tel (Ext)	:
Email	:
Office Hours	:

	Building	Day	Start Time	End Time	Room No.

Text Book	
Title	Davidowitz G, Kotick PG. (2011), "The use of CAD/CAM in dentistry.", Dent Clin North Am, 55 (3): 559-570, doi: 10.1016/ j.cden. 2011 .02 .011, PMID 21726690.

References

1. Davidowitz G, Kotick PG. (2011), "The use of CAD/CAM in dentistry.", Dent Clin North Am, 55 (3): 559–570, doi:10.1016/j.cden.2011.02.011, PMID 21726690.
2. Rekow D (1987), "Computer-aided design and manufacturing in dentistry: a review of the state of the art", J Prosthet Dent, 58 (4): 512–516, doi:10.1016/0022-3913(87)90285-X, PMID 3312586.
3. Oen, Kay T; Veitz-Keenan, Analia; Spivakovsky, Silvia; Wong, Y Jo; Bakarman, Eman; Yip, Julie (April 9, 2014). "CAD/CAM versus traditional indirect methods in the fabrication of inlays, onlays, and crowns". Cochrane Database of Systematic Reviews. doi:10.1002/14651858.cd011063. ISSN 1465-1858.
4. a b c d e Edelhoff, D.; Schweiger, J.; Beuer, F. (May 2008). "Digital dentistry: an overview of recent developments for CAD/CAM generated restorations". British Dental Journal. 204 (9): 505–511. doi:10.1038/sj.bdj.2008.350. ISSN 1476-5373. PMID 18469768.

SECOND: PROFESSIONAL INFORMATION
COURSE DESCRIPTION

This course covers how to use dental CAD. This course provides dental CAD software usage, 3D model scanning, and dental prosthetic design methods.

COURSE OBJECTIVES

The objectives of this course are to enable the student to do the following:
- Explain the dental CAD/CAM system
- Utilize 3D model scanning
- Design dental prosthetics
- Perform conversions for CAM

COURSE LEARNING OUTCOMES

By the end of the course, the students will be able to:

CLO1. Explain the dental CAD/CAM system
CLO2. Utilize 3D model scanning
CLO3. Design dental prosthetics
CLO4. Perform conversions for CAM

COURSE SYLLABUS

Week	Unit	Content	Related LO and Reference (Chapter)	Proposed assignments
1	Dental CAD/CAM System	• Introduction of dental CAD/CAM system • Types of dental CAD/CAM system • Composition of dental CAD/CAM system	CLO1	
2	Dental CAD	• Types of dental CAD software • Method of use for each type of CAD. • Data setting manual	CLO1	
3	Working Cast	• Manufacturing of working cast • Die trimming	CLO2	
4	3D Model Scanning	• Scanner calibration • Scanner basic structure and scanner shooting method • Scan the working model	CLO2	
5	3D Articulator	• Working model articulator attachment	CLO2	
6	3D Oral Scanning	• Comparison of model scanner and oral scanner. • 3D model production using oral scan. • Data and transmission of oral scan files.	CLO2	

Week	Unit	Content	Related LO and Reference (Chapter)	Proposed assignments
7	3D Model Editing	• 3D model editing	CLO3	
8	**Midterm Exam**			
9	Basic Setting Design	• Set to insert • Margin's settings • Setting of inner gap	CLO3	
10	Basic Design	• Arrangement setting • Size setting • Contact setting	CLO3	
11	Anterior Crown Design	• Anterior crown design • Framework design	CLO3	
12	Posterior Crown Design	• Posterior crown design • Digital articulation	CLO3	
13	CAM Assembly Process	• Material setting • Nesting • Tool path calculation	CLO4	
14	CAM Assembly Milling	• STL conversion for milling	CLO4	
15	CAM assembly	• 3D printer support setting	CLO4	
16	**Final Exam**			

COURSE LEARNING RESOURCES

ONLINE RESOURCES

www.dentalcadcamshop.com
www.benco.com
www.ocdentalacademy.com

ASSESSMANT TOOLS

grading distribution table evaluation activity	
homework	5
report	5
Queses	10

mid term exam	20
Experience/Attendance/Participation	10
final exam	50
Total	100%

THIRD: COURSE RULES

ATTENDANCE RULES

Attendance and participation are extremely important, and the usual University rules will apply. Attendance will be recorded for each class. Absence of 10% will result in a first written warning. Absence of 15% of the course will result in a second warning. Absence of 20% or more will result in forfeiting the course and the student will not be permitted to attend the final examination. Should a student encounter any special circumstances (i.e. medical or personal), he/she is encouraged to discuss this with the instructor and written proof will be required to delete any absences from his/her attendance records.

GRADING SYSTEM
Example:

Grade	Points
-	

REMARKS

{The instructor can add any comments and directives such as the attendance policy and topics related to ethics}

COURSE COORDINATOR

Course Coordinator:	**Department Head:**
Signature:	**Signature:**
Date:	**Date:**