



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Department of Applied Dental Sciences
Course syllabus
First Semester 2016-2017

Course Information	
Course Title	Dental Materials
Course Code	TDEN 203
Course Credit	2 Cr hour Theoretical
Prerequisite Or Co-requisite Prerequisite	ADS 102
Lecture Time	Monday and Thursday 8:15-9:15
Course Coordinator Lecturer	Alina Al Twal
Instructors:	Alina Al Twal, Dr. Isra' Al Bakri
Office phone:	02/7201000 Ext. 26951
Office location:	Applied Medical Sciences building- Second floor
Office hours:	Monday 1:15-2:15 ,Thursday 12:15-1:15, susceptible to change and will be confirmed during the lecture
Email	eqaltwal@just.edu.jo
Course Description:	
<p>This course is designed to the undergraduate students at the 2nd year and it is a two Credit hour theoretical course. This course will provide introduction, knowledge and understanding of the dental materials with emphasis on those restorative and impression materials commonly used in dental practice and laboratory. This course is also linked with a practical course (TDEN 205) which enables the students to see and examine the different dental materials used in dental practice.</p>	
Required Texts:	
<ol style="list-style-type: none"> 1. McCabe J. and Walls A. Applied Dental Materials 9th edition. Blackwell Publishers 2. Instructor Handouts 	
Reference Texts:	
<ol style="list-style-type: none"> 1. Van Noort R. (2002). Introduction to Dental Materials, second edition Publisher Mosby. 2. Anusavice, K.J. Science of dental materials. (1996). 10th edition. Philadelphia: W.B Saunders Co. 3. Finkbeiner, B.L., & Johnson, C.S. (1995) 1st edition. Comprehensive Dental Assisting. St. Louis: CV Mosby publishers. 4. Phillips R.W., & Moore B.K. (1994). 5th edition. Elements of dental materials for dental hygienists and dental assistants. Philadelphia: W.B. Saunders Co. 	



Teaching & Learning Methods

There will be two lectures weekly one hour each, they will include discussion written assignments, and handouts.

Methods of Evaluation:	Percentage
1 st Exam	30%
2 nd Exam	30%
Final Exam	40%

General Course Objectives: Upon the completion of this course, students will be able to:

1. Describe the physical, electrical, and biological characteristics of various dental materials
2. Be familiar with impression materials and be able to differentiate between the different types of impression materials such as elastomeric impression materials and non elastic impression materials along with their properties and indications.
3. Recognize the various formulations of gypsum products and their uses
4. Be familiar with dental waxes, their composition and uses
5. Be familiar with the investing and casting procedures and the different materials used in these processes.
6. Be familiar with the different types of metal alloys used in the dental practice
7. Differentiate between the different types of dental cements, the indications and contraindications to use each one of them
8. Determine the indications and selection of various restorative materials such as amalgam, ceramics and composite materials.
9. Be familiar with polymerms, their composition and uses in dental practice.
10. To be able to differentiate between different polishing agents and their specific indications
11. Utilize safety procedures necessary when dealing with different dental materials.



Course Content		
	Topics	Chapter in Textbook (handouts)
	Introduction into the course (History, Types of materials, Specifications, Evaluation of dental material selection of dental materials)	Lecture notes
	Properties of Materials (physical, mechanical, thermal, electrical, light properties biological)	Applied dental materials (Ch 2)
	Gypsum (Impression plaster, Dental plaster, Dental stone, Special die stone)	Applied dental materials (Ch 3)
	Impression Materials (Hydrocolloid systems, Rubber systems, Compound systems, Others)	Applied dental materials (Ch 16 ,17,18,19)
	Waxes (Sources of dental waxes and their properties, Clinical and laboratory waxes, Handling characteristics of waxes)	Applied dental materials (Ch.4)
	Investment materials	Applied dental materials (Ch 5)
	Metal alloys	Applied dental materials (Ch 6,7,8)
	Polymers (Denture base materials)	Applied dental materials (Ch 13,14)
	Ceramics	Introduction to Dental Materials Van Noort chapter 3.4 pages 231-236)
	Amalgam	Applied dental materials (Ch 21)
	Composites	Introduction to Dental Materials Van Noort chapter 2.2
	Cements	Introduction to Dental Materials Van Noort chapter 2.4 , 2.3
	Abrasives	Handouts

Course Content

Week	Date	Title of the Lecture	Lecturer
1	26/9/2016	Introduction into the course	Alina Al Twal
	29/9/2016	History and Types of dental materials, Specifications, Evaluation and selection of dental materials),	
2	3/10/2016	Properties of Materials (physical, mechanical and thermal properties)	Alina Al Twal
	6/10/2016		
3	10/10/2016	Properties of Materials (electrical, light and biological properties)	Alina Al Twal
	13/10/2016	Gypsum materials 1	
4	17/10/2016	Gypsum materials 2	Alina Al Twal Isra' Al Bakri
	20/10/2016	Impression materials 1	
5	24/10/2016	Impression materials 2	Isra' Al Bakri
	27/10/2016	Impression materials 3	Isra' Al Bakri
6	31/10/2016	First Exam ***	
	3/11/2016	Impression materials 4	
7	7/11/2016	Impression materials 5	Isra' Al Bakri
	10/11/2016	Waxes	
8	14/11/2016	Investment Materials	Isra' Al Bakri
	17/11/2016	Metal alloys 1	
9	21/11/2016	Metal alloys 2	Isra'aAl Bakri
	24/11/2016	Polymers 1	
10	28/11/2016	Polymers 2	Isra' Al Bakri
	1/12/2016	Ceramics 1	Alina Al Twal
11	5/12/2016	Ceramics 2	Alina Al Twal
	8/12/2016	Second Exam***	Isra' Al Bakri
12	12/12/2016	Amalgam	Alina Al Twal
	15/12/2016	Composites,	
13	19/12/2016	Cements	Alina Al Twal
	22/12/2016	Abrasives	



Additional Notes

Exams	Students are required to sit for the 3 semester examinations (1st, 2nd, and final exams)
Cheating	Cheating during exam will result in dismissal from the exam hall and the student will be penalized according to JUST regulations
Attendance	<p>JUST requires the faculty member to assign ZERO grade (35%) if a student misses more than 20% of the classes with or without an excuse.</p> <ul style="list-style-type: none">• Any student who is absent on a test day, will have to demonstrate an acceptable medical or social statement explaining the illness or personal crisis as instructed by their faculty• No make-up exams or quizzes will be given for unexcused absences• Individual instructors may accommodate by arrangements for a make-up test only when a written request is sent to and approved by the Dean.
Feedback:	<p>Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lecture, notes on the content of the course, its teaching and assessment methods can be also sent by e-mail to the following address:</p> <p>eqaltwal@just.edu.jo</p>