

**Accreditation and Quality Assurance Centre Course Syllabus The University of Jordan**

<b>1</b>	Course title	Dental Material I– Theory
<b>2</b>	Course number	1302221
<b>3</b>	Credit hours (theory, practical)	1
	Contact hours (theory, practical)	15
<b>4</b>	Prerequisites/corequisites	1302221
<b>5</b>	Program title	DDS in Dentistry
<b>6</b>	Program code	NA
<b>7</b>	Awarding institution	University of Jordan
<b>8</b>	Faculty	Dentistry
<b>9</b>	Department	Conservative Dentistry
<b>10</b>	Level of course	2nd year
<b>11</b>	Year of study and semester (s)	2 <sup>nd</sup> semester 2022/2023
<b>12</b>	Final Qualification	DDS
<b>13</b>	Other department(s) involved in teaching the course	Prosthodontics Dentistry Department
<b>14</b>	Language of Instruction	English
<b>15</b>	Date of production/revision	28/2/2023

**16. Course Coordinator:**

*Officenumbers,officehours, phonenumbers,andemailaddresses shouldbelisted.*

*Dr.Alaa Haddad , office hours: ....., phone no.23552, E-mail: a.haddad@ju.edu.jo*

**17.Other instructors:**

*Officenumbers,officehours, phonenumbers,andemailaddresses shouldbelisted.*

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*Dr.Samiha Sartawi . phone 23552, email: [s.saratwi@ju.edu.jo](mailto:s.saratwi@ju.edu.jo)*

*Dr.Rashs Omoush. Phone 23552 , email: [r.omoush@ju.edu.jo](mailto:r.omoush@ju.edu.jo)*

*Dr.Ayah Al-Asmar : Sunday 01-03 pm phone no.23552 E-mail: [dr.ayahalasmr@yahoo.com](mailto:dr.ayahalasmr@yahoo.com)*

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**18. Course Description:**

*This course discusses the biological, chemical, and physical properties of biomaterials used in dentistry and their applications.*

**19. Course aims and outcomes:****Course aims:**

Course objectives are:

- . To introduce the students to the basics of Material Science.
- To introduce the students to the Materials used in Dentistry.
- To familiarize students with the characteristics and properties of dental materials

**Outcomes:**

1. The ability to classify different material categories.
2. The ability to differentiate between different classes of material according to their physical and mechanical properties
3. The ability to describe and explain the behavior of different classes of materials.
4. The ability to classify different dental material categories.
5. The ability to describe and explain the behavior of different classes of dental materials when they are used in their specific application.
6. Be able develop a wide range of back-ground knowledge and understanding of

- material science that will help him/her understand the specifics of dental materials
7. Be able develop a wide range of back-ground knowledge and understanding of dental materials with regard to their physical and mechanical properties in addition to the chemical structures that will help him/her understand the specific applications of these materials.
  8. Apply the knowledge of the basic sciences (Chemistry, Biology and Physics) to the science of applied dental materials.
  9. Understand and relate the properties and behavior of direct restorative dental materials to actual clinical longevity.
  10. Understand and appreciate the biological aspects of use of dental materials.
  11. Integrate the knowledge and understanding of the esthetic, biological and mechanical needs and consideration with the properties and limitations of clinical dental material.
  12. Utilize the knowledge of dental material science in the subsequent courses that follow.
  13. To select and use any dental material according to its specific properties in a specific dental application within the courses that follow.
  14. Utilize the modern sources of information such as the internet and data base to develop and update the knowledge in the field of applied dental materials.
  15. Appreciate the importance of clinical and laboratory based research in the development of new categories of restorative dental materials

## 20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
Mechanical & Physical Properties I	1	Dr.Haddad	1+24	22 (1+2)	25 (A)
Mechanical & Physical Properties II	2	Dr.Haddad	1+2	22 (1+2)	25 (A)
Impression material No. I	3	Dr.Wijdan	13+14+15	22 (1+2)	25 (A)
Impression material No. II	4	Dr.Wijdan	13+14+15	22 (1+2)	25 (A)
Gypsum products	5	Dr.Samiha	6	22 (1+2)	25 (A)
Waxes	6	Dr.Rasha	5+6	22 (1+2)	25 (A)
Acrylic resin I	7	Dr.Rasha	3+4	22 (1+2)	25 (A)
Acrylic resin II	8	Dr.Rasha	3+4	22 (1+2)	25 (A)
Composite Materials I	9	Dr.Ayah	.7+8	22 (1+2)	
Composite Materials II	10	Dr.Ayah	7+8	22 (1+2)	25 (A)

Dental Cements I	11	Dr.Nour	9+10	22 (1+2)	25 (A)
Dental Cements II	12	Dr.Nour	9+10	22 (1+2)	25 (A)
Amalgam I	13	Dr.Alaa	13+14+15	22 (1+2)	25 (A)
Amalgam II	14	Dr.Alaa	13+14+15	22 (1+2)	25 (A)

### 21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

Teaching methods:

Duration: 16 weeks in 1st (4th year), 16 hours in total

Lectures/Practical Sessions: 16 hours, 1 per week (including one 1-hour midterm exam exams and one 2-hours final exam)

### 22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

1. Midterm exam : 40 points , SMA format
2. Final Exam: 60points, MCQ format

### 23. Course Policies:

A- Attendance policies:

Lecture attendance is obligatory. The handout and recommended textbook are not comprehensive and additional material will be covered in lectures. Students are responsible for all material covered in lectures. However, 15% allowed absence is granted for students by the university law.

A- Absences from exams and handing in assignments on time:

According to the roles and regulations of the University of Jordan

C- Health and safety procedures:

According to the roles and regulations of the Faculty of Dentistry

D- Honesty policy regarding cheating, plagiarism, misbehavior:

According to the roles and regulations of the University of Jordan

E- Grading policy:

According to the roles and regulations of curriculum for the academic degree of Doctor of Dental Surgery (DDS)

F- Available university services that support achievement in the course: None

#### 24. Required equipment:

None special

#### 25. References:

A- Required book (s), assigned reading and audio-visuals:

Strongly recommended:

1. Phillips' Science of Dental Materials, Anusavice, 11 edition, Elsevier science USA 2003. Anderson Applied Dental Materials, McCabe J F, 8<sup>th</sup> edition, Blackwell scientific publications.
2. Notes on Dental Materials, Combe E C, 6<sup>th</sup> edition, Churchill Livingstone.
3. CRAIG'S RESTORATIVE DENTAL MATERIALS. John Powers, Ronald Sakaguchi Mosby 2006.
4. Dental Materials Journal; the corresponding articles will be provided by course coordinator/instructor.

B- Recommended books, materials, and media:

See course outline

#### 26. Additional information:

Name of Course Coordinator: ..... Signature: ----- Date: ----- Head  
of curriculum committee/Department: ----- Signature: -----  
Head of Department: ..... Signature: -----  
Head of curriculum committee/Faculty: ----- Signature: -----  
Dean: ----- -Signature: -----

Copy to:

Head of Department  
Assistant Dean for Quality Assurance  
Course File