

Academic description of dental material (Basic)

1. Course Name: Dental Material (Basic)	
2. Course Code:	
3. Semester / Year: second semester/ First year	
4. Description Preparation Date: 27/1/2025	
5. Available Attendance Forms: Theoretical and practical in the classroom and laboratory	
6. Number of Credit Hours (Total) / Number of Units (Total): 30 theoretical hours + 75 practical hours/ 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Asst. Lec. Zahraa Saadi Noori Email: drzahrara@gmail.com	
8. Course Objectives	
Course Objectives	- Informing the student about the materials used in dental industry technique and how to deal with them. - To enable the student of the Department of Dental Technology student to study and use all common laboratory materials in preparing and manufacturing dental and maxillofacial prosthetics, in addition to studying their physical, chemical and biological properties.
9. Teaching and Learning Strategies	
Strategy	1. Introducing the student to medical and dental materials 2. Introducing the student to the reasons for and contraindications for using dental materials 3. Introducing the student to the laboratory steps for mixing and manipulating dental materials 4. Introducing the student to the techniques of manufacturing dental materials
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Know the structural form of the polymer	Polymers in dentistry (Basic structure polymer)	theoretical	Short exams and discuss
Second	2	Learn how polymer molecules are bonded and how they interact	Polymers in dentistry (polymerization crosslinking reaction)	theoretical	Short exams and discuss
Third	2	Study of acrylic and artificial teeth and their types	Resins, artificial teeth materials	theoretical	Short exams and discuss
Fourth	2	Study of the acrylic material used in the manufacture of dental retainers	Acrylic resin materials (denture base materials)	theoretical	Short exams and discuss
Fifth	2	Learn the types and characteristics of acrylic	Classification and properties of dental acrylic resin materials	theoretical	Short exams and discuss
Sixth	2	Study of the materials used in lining the denture	Denture liner materials	theoretical	Short exams and discuss
Seventh	2	Know the specifications components of the wax used	Wax (composition properties)	theoretical	Short exams and discuss
Eighth	2	Knowledge of the physical, chemical and thermal properties of wax	Dental wax (Thermal, physical, and chemical properties)	theoretical	Short exams and discuss
Ninth	2	Knowing the types and uses of wax	Dental wax (types and uses)	theoretical	Short exams and discuss
Tenth	2	Learn the components of gypsum and its chemical composition	Gypsum products (chemistry composition)	theoretical	Short exams and discuss
Eleventh	2	Learn the types and uses of gypsum	Gypsum products (types and uses)	theoretical	Short exams and discuss
Twelfth	2	Study the specifications and reaction method of gypsum	Gypsum products (setting reaction properties)	theoretical	Short exams and discuss
Thirteenth	2	Study of dental peeling materials	Dental abrasives (definition concept)	theoretical	Short exams and discuss
Fourteenth	2	Identify the types of materials used in dental abrasion	Dental abrasives types	theoretical	Short exams and discuss
Fifteenth	2	Know how to use dental peeling materials	Dental abrasives (procedure and application)	theoretical	Short exams and discuss

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Daily exams: 10%

Semester exams: 70%

Preparing reports: 10%

Discussions in practical: 10%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Phillips' Science of Dental Materials
Recommended books and references (scientific journals, reports...)	Dental journals
Electronic References, Websites	Google

Academic description of Dental appliance techniques(advanced)

1. Course Name: Dental appliance techniques (advanced)					
2. Course Code:					
3. Semester / Year: second semester/ First year					
4. Description Preparation Date: 27/1/2025					
5. Available Attendance Forms: Theoretical and practical in the classroom and laboratory					
6. Number of Credit Hours (Total) / Number of Units (Total): 30 theoretical hours + 75 practical hours/ 4					
7. Course administrator's name (mention all, if more than one name)					
Name: Asst. Lec. Sanaa Noori Ali Email: alyaserim93@gmail.com					
8. Course Objectives					
Course Objectives	- Informing the student about the equipment used in dental industry techniques and how to deal with them. - To enable the student of the Department of prosthodontics to study and all common laboratory appliances in preparing and manufacturing dental and maxillofacial prosthetics.				
9. Teaching and Learning Strategies					
Strategy	-1. Introducing the student to advanced dental equipment 2. Introducing the student to distinguish between different types of dental appliances 3. teaching prosthodontics student how to repair and maintenance of dental appliance				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	agar-ager melting machine and Flask cooling unit	Study the mate and uses	theoretical	Short exaeach the student ts

Second	2	Burn-out Furnace and casting ring	How to do burn out by the furnace	theoretical	Short exams and discuss
Third	2	Conventional Centrifuge casting machine.	Definition and uses	theoretical	Short exams and discuss
Forth	2	Electric and Induction Centrifuge casting machine.	Study how to use instrument	theoretical	Short exams and discuss
Fifth	2	Ultrasonic cleaning machine, and Mechanical mixer (vacuum)	Types of machines and their uses	theoretical	Short exams and discuss
Sixth	2	Sand blast machine	Definition and uses	theoretical	Short exams and discuss
Seventh	2	Dental Ceramic Furnace	How to use furnace in making ceramic	theoretical	Short exams and discuss
Eighth	2	Soldering and welding	Definition procedure	theoretical	Short exams and discuss
Ninth	2	Dental Biostar	Definition uses	theoretical	Short exams and discuss
Tenth	2	Dental-Arch Trimmer	Definition uses	theoretical	Short exams and discuss
Eleventh	2	Dental Pindex machine	How to use machine	theoretical	Short exams and discuss
Twelfth	2	Electronic spatula for wax modelling	How to use instrument	theoretical	Short exams and discuss
Thirteenth	2	Induction wax modelling and Dipping wax unit	Procedure	theoretical	Short exams and discuss
Fourteenth	2	General measurement instruments and Hopper duplicator	Types and uses	theoretical	Short exams and discuss
Fifteenth	2	CAD-CAM production methods	Definition and uses	theoretical	Short exams and discuss

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Daily exams: 10%

Semester exams: 70%

Preparing reports: 10%

Discussions in practical: 10%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Contemporary of prosthodontics

Main references (sources)

Fixed prosthodontics

Recommended books and references (scientific journals, reports...)

Dental journals

Electronic References, Websites

Google

Academic description of Dental Anatomy

1. Course Name: Dental Anatomy (Advanced)					
2. Course Code:					
3. Semester / Year: second semester/ First year					
4. Description Preparation Date: 23/2/2025					
5. Available Attendance Forms: Theoretical and practical in the classroom and laboratory					
6. Number of Credit Hours (Total) / Number of Units (Total): 30 theoretical hours + 75 practical hours/ 4					
7. Course administrator's name (mention all, if more than one name)					
Name: dr. Yasir Mohammed Kareem Email: yasserasadi1994@gmail.com					
8. Course Objectives					
Course Objectives	- Informing the student about the anatomy and features of each tooth - Enabling the student of the Department of Dental Anatomy a characteristics of each tooth in the dental arch				
9. Teaching and Learning Strategies					
Strategy	1. Learning based on explaining theoretical lectures in classrooms. The content of lectures is to learn about the anatomy of teeth, their shapes and characteristics, and measurement of each tooth. Also, how to carve crowns and roots of teeth. This is done showing pictures of clinical cases during lectures and explaining each case. 2. Apply everything that was explained theoretically in the laboratory and build crowns and bridges from wax to replace missing teeth in the form of single crowns as well as in the form of connected bridges.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Understand Maxillary 1st premolar teeth: description and anatomical landmarks	Maxillary 1st premolar teeth:	theoretical	Short exams and discuss

			description and anatomical landmarks		
Second	2	Understand Maxillary 1st premolar teeth: description buccal, lingual, mesial, distal, and occlusal aspects	Maxillary 1st premolar teeth: description buccal, lingual, mesial, distal, and occlusal aspects	theoretical	Short exams and discuss
Third	2	Understand Maxillary 2nd premolar teeth: description and comparison to the maxillary 1st premolar	Maxillary 2nd premolar teeth: description and comparison to the maxillary 1st premolar	theoretical	Short exams and discuss
Forth	2	Understand Mandibular 1st premolar: description, aspects, and anatomical landmarks	Mandibular 1st premolar: description, aspects, and anatomical landmarks	theoretical	Short exams and discuss
Fifth	2	Understand Mandibular 2nd premolar: description, aspects, and anatomical landmarks	Mandibular 2nd premolar: description, aspects, and anatomical landmarks	theoretical	Short exams and discuss
Sixth	2	Understand Maxillary 1st molar teeth: description the buccal, lingual, mesial, distal, and occlusal aspect	Maxillary 1st molar teeth: description the buccal, lingual, mesial, distal, and occlusal aspect	theoretical	Short exams and discuss
Seventh	2	Understand Maxillary 1st molar teeth: description and anatomical landmarks of maxillary first mola	Maxillary 1st molar teeth: description and anatomical landmarks of	theoretical	Short exams and discuss

			maxillary first mola		
Eighth	2	Understand Maxillary 2nd molar teeth: description the aspects in comparison to the Maxillary 1st molar	Maxillary 2nd molar teeth: description the aspects in comparison to the Maxillary 1st molar	theoretical	Short exams and discuss
Ninth	2	Understand Maxillary 3rd molar teeth: description the aspects in comparison to the Maxillary 1st molar and 2nd mol	Maxillary 3rd molar teeth: description the aspects in comparison to the Maxillary 1st molar and 2nd mol	theoretical	Short exams and discuss
Tenth	2	Understand Mandibular 1st molar teeth: description and anatomical landmarks	Mandibular 1st molar teeth: description and anatomical landmarks	theoretical	Short exams and discuss
Eleventh	2	Understand Mandibular 1st molar teeth: description the buccal, lingual, mesial, distal, and occlusal aspect	Mandibular 1st molar teeth: description the buccal, lingual, mesial, distal, and occlusal aspect	theoretical	Short exams and discuss
Twelfth	2	Understand Mandibular 2nd molar: description the aspects in comparison to the Mandibular 1st mo	Mandibular 2nd molar: description the aspects in comparison to the Mandibular 1st mo	theoretical	Short exams and discuss
Thirteenth	2	Understand Mandibular 3rd molar: variation and comparison to the Mandibular 2nd molar	Mandibular 3rd molar: variation and comparison to the Mandibular 2nd molar	theoretical	Short exams and discuss

Fourteenth	2	Understand Occlusion: definition, types, and features	Occlusion: definition, types, and features	theoretical	Short exams and discuss
Fifteenth	2	Understand Review of the posterior teeth	Review of the posterior teeth	theoretical	Short exams and discuss

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Daily exams: 10%

Semester exams: 70%

Preparing reports: 10%

Discussions in practical: 10%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Woelfel's Dental Anatomy book
Main references (sources)	Dental Anatomy and Morphology
Recommended books and references (scientific journals, reports...)	Clinical oral anatomy
Electronic References, Websites	Google, google scholar, PubMed.

Academic description of General physics

1. Course Name:					
General physics					
2. Course Code:					
3. Semester / Year:					
Second semester/first year					
4. Description Preparation Date:					
27/2/2025					
5. Available Attendance Forms:					
Theoretical in the classroom @ Practical in the Lab					
6. Number of Credit Hours (Total) / Number of Units (Total):					
15 theoretical hours / 2 & 15 Practical hours /3					
7. Course administrator's name (mention all, if more than one name)					
Name: Emad Sadiq Tayeh Email: imad.sadeq@alayen.edu.iq					
8. Course Objectives					
Course Objectives	1. Introducing students to the general principles of physics 2. and enabling students to conduct analytical scientific experiments in physics.				
9. Teaching and Learning Strategies					
Strategy	- the explanation - Brainstorming - Dialogue and discussion - Secret test				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	5	Understand the lecture	Review of general physics, concept and laws, Ohms law	Theoretical & Practical	Question answer
Second	5	Understand the lecture	Atomic structure , Ohms law	Theoretical & Practical	Question answer

Third	5	Understand the lecture	Ohms law, series and parallel circuits	Theoretical & Practical	Question answer
Forth	5	Understand the lecture	Capacitor, series and parallel capacitors	Theoretical & Practical	Question answer
Fifth	5	Understand the lecture	Electromotive force (e.m.f) , Test	Theoretical & Practical	Question answer
Sixth	5	Understand the lecture	Mechanics of elastic solid, Test	Theoretical & Practical	Question answer
Seventh	5	Understand the lecture	Stress–Strain curve , Hooks law	Theoretical & Practical	Question answer
Eighth	5		Heat and latent heat , The simple pendulum	Theoretical & Practical	Question answer
Ninth	5	Understand the lecture	Heat and first law of thermodynamics , Test	theoretical	Question answer
Tenth	5	Understand the lecture	Heat transfer by conduction. transition and radiation ,The moment of inertia of a flywheel	Theoretical & Practical	Question answer
Eleventh	5	Understand the lecture	Sound , The moment of inertia of a flywheel	Theoretical & Practical	Question answer
Twelfth	5	Understand the lecture	Work, Power, Energy ,Test	Theoretical & Practical	Question answer
Thirteenth	5	Understand the lecture	Velocity, Acceleration, Newton's law, Test	Theoretical & Practical	Question answer
Fourteenth	5	Understand the lecture	Gases, pressure, law of pressure , Test	Theoretical & Practical	Question answer
Fifteenth	5	Understand the lecture	Force and momentum , Test	Theoretical & Practical	Question answer

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc

Daily exams: 20%

Semester exams: 70%

Preparing reports: 10%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any) University Physics.

Main references (sources)	Principles of Physics
Electronic References, Websites	https://www.google.com/search?q=phys-encyclopedia.com

Course Description Form

1. Course: Computer Applications	
2. Course Code:	
3. Semester / Year second Semester / 2024-2025 / First Stage	
4. Date of preparation of this description 24/1/2025	
5. Available attendance forms Physical presence within the university	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours 1 (theoretical) 2 (practical)	
7. Course administrator's name (if more than one name)	
Name: Eng. Mustafa Abdel Ghani Nasser mustafmustaf952@gmail.com Email:	
8. Course Objectives	
Other skills related to employability and personal development. Encourage the student to write simple research towards previous lectures to create a state of balance between methodological information and source information Urging the student to make practical projects on the computer and holding seminars among students about the methodology of the subject Encourage the student to evaluate the answer of fellow students from other students to develop Self-development	Course Objectives: The teaching of the course aims to provide students with knowledge about Basic computer in general
9. Teaching and Learning Strategies	
	Strategy

10. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week

11. Course structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Daily tests	theoretical	Computer Fundamentals	s' The student knowledge of malware and viruses and their 2 types	2	The first
Daily tests	Explanatory video	Computer Security and Software Licenses	Create the electronic world and forms of transgressions and security Computer	2	Second
Daily tests	theoretical	Computer Security and software licenses	Computer Software Licenses And types of licenses	2	Third
Daily tests	theoretical	Computer Security and software licenses	Intellectual Property and Penetration Electronic	2	Fourth
Daily tests	theoretical	Computer Security and software licenses	Electronic penetration and types of Hack	2	V
Daily tests	view	Computer Security and software licenses	Sources of penetration and risks The most common minia	2	Sixth

Daily tests	theoretical	Computer Security and Software Licenses	Malware – Viruses Computer	2	Seventh
Daily tests	Video tutorial and illustrative	Computer Security and software licenses	Damages caused by Viruses Recipes	2	Eighth
Daily tests	Explanatory video	Computer Security and Software Licenses	Create the electronic world and forms of transgressions and security Computer	2	Ninth
Daily tests	theoretical	Computer Security and software licenses	Computer Software Licenses And types of licenses	2	X
Daily tests	theoretical	Computer Security and software licenses	Intellectual Property and Penetration Electronic	2	Eleventh
Daily tests	theoretical	Computer Security and software licenses	Electronic penetration and types of Hack	2	Twelfth
Daily tests	view	Computer Security and software licenses	Sources of penetration and risks The most common minia	2	Thirteenth
Daily tests	theoretical	Computer Security and Software Licenses	Malware – Viruses Computer	2	Fourteenth
Daily tests	Video tutorial and illustrative	Computer Security and software licenses	Damages caused by Viruses Recipes	2	V ten
Computer Fundamentals and Office Applications - 2 And the Ministry of Higher Education and Scientific Research - Research and Development Department				1 Required textbooks	

Basics of Computer and Internet"Yusr Al-Mustafa Series for S Dr. Ziad Muhammad Abboud, Dar Al-Dr. for , 0202 Office Publishing and Distribution, Baghdad 0202	2 Main references (sources)
Using two researches from my research 1. Encryption a text using affine cipher and hiding it in the colored image by using the Quantization stage, <u>Nada Abdul Aziz Mustafa, Iraq, Baghdad, University of Baghdad, College of Languages</u> 2. The Effect of the Smoothing Filter on an Image Encrypted By the Blowfish Algorithm Then Hiding It in A BMP Image <u>Nada Abdul Aziz Mustafa, Iraq, Baghdad, University of Baghdad, College of Languages</u> 3.Computer literacy BASICS 2012, LeBlanc, Brandon." A closer look at the, windows 7. 2009 4.Computing Fundamentals, Innovative training works USA, Inc, 2006	Recommended books and references ,) reports , Scientific fields(
. Word 2010 Digital Classroom Book https://www.agitraining.com/books/microsoft-office-books/word-2010-digital-classroom-book	WebsitesReferences, Web