

Academic description of partial denture

1. Course Name: Partial denture					
2. Course Code:					
3. Semester / Year: second semester/second year					
4. Description Preparation Date: 24/1/2025					
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: drzahrra@gmail.com					
8. Course Objectives					
Course Objectives		- Introducing the student to the basic steps involved in making an acrylic partial denture - Enabling the student of the Dental Industry Department to know the basic steps followed in the manufacture of partial dentures acrylic			
9. Teaching and Learning Strategies					
Strategy	1– Teaching the student the ability to diagnose each case, distinguish between cases, and choose the appropriate treatment plan 2 – Teaching the student the best choice for dental prosthetics for each case 3– Introducing the student to laboratory tools and the steps for making removable partial denture 4– Enabling the student to manufacture the removable partial denture				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

First	2	Understand the terminology parts of the partial denture induction	Removable Partial Denture (Terms Components)	theoretical	Short exams and discuss
Second	2	Know the types of partial denture	Kennedy classification.	theoretical	Short exams and discuss
Third	2	Partial denture study	Acrylic Removable Partial Denture	theoretical	Short exams and discuss
Forth	2	Learn how to make special tray, occlusal rim, and master die try design	Special tray, occlusal rim, and design the trimming of master cast	theoretical	Short exams and discuss
Fifth	2	Identify low-lying areas in the tooth in order to make partial denture	Surveying procedure	theoretical	Short exams and discuss
Sixth	2	Learn about the articulator, types, and how to use it	Articulating and Mounting procedure	theoretical	Short exams and discuss
Seventh	2	Get to know Types and uses of clasps in manufacture of partial dentures	Clasp assembly	theoretical	Short exams and discuss
Eighth	2	Identify the types and size artificial teeth	Selection of artificial teeth	theoretical	Short exams and discuss
Ninth	2	Learn how to stabilize and set teeth	Setting of artificial teeth	theoretical	Short exams and discuss
Tenth	2	Learn how to arrange wax and it to make a partial denture	Waxing of acrylic partial denture	theoretical	Short exams and discuss
Eleventh	2	Learn how to put the cast in wax flask	Flasking procedure	theoretical	Short exams and discuss
Twelfth	2	Get to know How to cure and polish the partial set	Curing, Finishing Polishing Procedure	theoretical	Short exams and discuss
Thirteenth	2	Learn how to grind the artificial teeth selectively	Selective grinding	theoretical	Short exams and discuss
Fourteenth	2	Learn how to fix and repair a broken partial denture	Repairing of acrylic P.D	theoretical	Short exams and discuss
Fifteenth	2	How to prepare a flexible denture	A flexible removal partial denture	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)	Mickraken
Main references (sources)	Textbook of prosthodontic
Recommended books and references (scientific journals, reports...)	Dental journal
Electronic References, Websites	Google Scholar

Academic description of Crown and Bridge

1. Course Name: Crown and Bridge (Advanced)					
2. Course Code:					
3. Semester / Year: second semester/Second 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 basic steps followed in the manufacture of fixed metal and ceramic crowns. - Enabling dental technology students to manufacture fixed metal and ceramic crowns.			
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 build crowns and bridges and replace missing teeth. This is done by 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 the Fabrication of the wax pattern of the incisors teeth	Fabrication of the wax pattern of the incisors teeth	theoretical	Short exams and discuss
Second	2	Understanding the Fabrication of the wax pattern of the canine tooth	Fabrication of the wax pattern of the canine tooth	theoretical	Short exams and discuss
Third	2	Identify the Fabrication of the wax pattern of the premolar teeth	Fabrication of the wax pattern of the premolar teeth	theoretical	Short exams and discuss
Forth	2	Understanding Fabrication of the wax pattern of the molar teeth	Fabrication of the wax pattern of the molar teeth	theoretical	Short exams and discuss
Fifth	2	Spruing of the anterior wax pattern	Spruing of the anterior wax pattern	theoretical	Short exams and discuss
Sixth	2	Spruing of the posterior wax pattern	Spruing of the posterior wax pattern	theoretical	Short exams and discuss
Seventh	2	Investing the wax pattern, equipment	Investing the wax pattern, equipment	theoretical	Short exams and discuss
Eighth	2	Learn Investing the wax pattern procedure	Investing the wax pattern procedure	theoretical	Short exams and discuss
Ninth	2	Burn out of the wax pattern: procedure	Burn out of the wax pattern: procedure	theoretical	Short exams and discuss
Tenth	2	Burn out of the wax pattern: problems	Burn out of the wax pattern: problems	theoretical	Short exams and discuss
Eleventh	2	Understanding the Casting procedure, equipment	Casting procedure, equipment	theoretical	Short exams and discuss
Twelfth	2	Identify the device that The casting machine	The casting machine	theoretical	Short exams and discuss
Thirteenth	2	The casting technique	The casting technique	theoretical	Short exams and discuss
Fourteenth	2	Finishing procedure of the casting	Finishing procedure of the casting	theoretical	Short exams and discuss

Fifteenth	2	Problems associated with the Finishing procedure of the casting	Problems associated with the Finishing procedure of the casting	theoretical	Short exams and discuss
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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)	Principle and technique of Crowns and Bridge book
Main references (sources)	Contemporary fixed prosthodontic
Recommended books and references (scientific journals, reports...)	Essentials of fixed Prosthodontic
Electronic References, Websites	Google, google scholar, PubMed.

Academic description of Oral Physiology

1. Course Name: Oral Physiology	
2. Course Code:	
3. Semester / Year: Second semester/second year	
4. Description Preparation Date: 23/1/2025	
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 + 30 practical hours/ 2	
7. Course administrator's name (mention all, if more than one name)	
Name: dr. Hakeem Ghani Hassan Email: alhamamy201567@gmail.com	
8. Course Objectives	
Course Objectives	1- Cognitive objectives a- Studying new research that is of interest to the student and how to select good research b-Knowing the principles of writing scientific research c- Study the basics of anatomy d- Study the basics of physiology 2 - The skills objectives of the course. a - Gaining the correct experience to recognize the bones of the face b- Gaining experience to know the functions of the important organs in the human body
9. Teaching and Learning Strategies	
Strategy	1. Active Learning Strategies a. Case-Based Learning (CBL) – Scenario-based learning b. Problem-Based Learning (PBL) – Interdisciplinary approach 2. Laboratory-Based Learning

	a. Hands-On Physiological Experiments – Salivary secretion b. Microscopic Analysis – Salivary gland structure
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10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Introduction and the body function control	theoretical	Short exams and discuss
Second	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of circulatory system and the function of each part	theoretical	Short exams and discuss
Third	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of blood circulation: types and blood circulation	theoretical	Short exams and discuss
Fourth	2	1. Anatomy and Function of Oral Structures Saliva and Its Functions	Blood: definition and composition	theoretical	Short exams and discuss
Fifth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Blood: functions	theoretical	Short exams and discuss
Sixth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Blood: The formed elements of blood and normal values	theoretical	Short exams and discuss
Seventh	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Blood groups: ABO system and Rh system	theoretical	Short exams and discuss
Eighth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of oral cavity and digestion process: Saliva and salivary glands	theoretical	Short exams and discuss
Ninth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Saliva: composition and functions of saliva in mastication and speech	theoretical	Short exams and discuss
Tenth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of tongue and taste sensation	theoretical	Short exams and discuss

Eleventh	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of teeth: the role of teeth arrangement in mastication	theoretical	Short exams and discuss
Twelfth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of muscles in mastication	theoretical	Short exams and discuss
Thirteenth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of pharynx and velopharyngeal competence	theoretical	Short exams and discuss
Fourteenth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Physiology of soft palate	theoretical	Short exams and discuss
Fifteenth	2	1. Anatomy and Function of Oral Structures 2. Saliva and Its Functions	Defects of soft palates	theoretical	Short exams and discuss

2. 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%

3. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Oral Physiology by Nabil F. Bissada and Ashraf J. F.
Main references (sources)	Dental Physiology by Rickne C. Scheid, Eric M. Olsson
Recommended books and references (scientific journals, reports...)	Oral Biology" by S. M. P. Gendron
Electronic References, Websites	Oral Physiology and Nutrition" by K. S. K. Gendron

Academic description of Head and neck anatomy

1. Course Name: head and neck anatomy					
2. Course Code:					
3. Semester / Year: second semester/Second year					
4. Description Preparation Date: 30/1/2025					
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 + 60 practical hours / 3					
7. Course administrator's name (mention all, if more than one name)					
Name: d. Sanaa Noori Ali Email: alyaserim93@gmail.com					
8. Course Objectives					
Course Objectives		- teaching the prosthodontics students the introduction to human head and neck anatomy - teaching the student all maxillofacial anatomy that serve the student in synthesis all maxillofacial prosthesis			
9. Teaching and Learning Strategies					
Strategy	It aims to enable students to study all maxillofacial anatomy and learning him about all anatomical landmark that necessary to applied it in his work.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Introduction to the anatomy of head and neck	Introduction anatomical science	theoretical	Short exams and discuss
Second	2	Anatomical terminology anatomical position	Definition anatomical terms	theoretical	Short exams and discuss

Third	2	The Skull: definition and description of the skull from the Anterior, superior, lateral & posterior views	Definition of skull and studying it from different view	theoretical	Short exams and discuss
Forth	2	Cranial bones: Frontal bone: description, parts, and articulation Parietal bones: description, parts, articulation Sphenoid bone: description, parts, and articulation	Cranial bone -frontal bone -parietal bone	theoretical	Short exams and discuss
Fifth	2	Cranial bones: Temporal bone: description, parts, and articulation Ethmoid bone: description, parts, articulation Occipital bone: description, parts and articulation	Temporal bone -ethmoid bone -occipital bone	theoretical	Short exams and discuss
Sixth	2	Facial bones: Maxillary bone: description, parts and articulation Palatine bone: description, parts and articulation	Study of maxillary and palatine bone	theoretical	Short exams and discuss
Seventh	2	Facial bones: Mandible: description, parts and articulation Zygomatic bone: description, parts and articulation	Study of mandible -zygomatic bone	theoretical	Short exams and discuss
Eighth	2	Facial bones: Nasal bone, lacrimal bone, inferior nasal concha, vomer	Study of nasal bone	theoretical	Short exams and discuss
Ninth	2	Nasal cavity: definition, walls	Study of nasal cavity	theoretical	Short exams and discuss
Tenth	2	Orbit: definition, walls, and margins	Study of orbit cavity	theoretical	Short exams and discuss
Eleventh	2	Muscles of facial expression: muscles: origin insertion and action	Study muscles of facial expression	theoretical	Short exams and discuss
Twelfth	2	Muscles of facial expression: minor muscles: origin insertion and action	Origin and insertion	theoretical	Short exams and discuss
Thirteenth	2	Muscles of mastication: origin, insertion and action	Names of muscles	theoretical	Short exams and discuss
Fourteenth	2	Sensory innervations of the face Facial nerve: course and branches	Innervation of face	theoretical	Short exams and discuss

Fifteenth	2	Motor innervations of the fa Trigeminal nerve: course branches	Trigeminal nerve	theoretical	Short exams and discuss
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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)	General anatomy, head and neck anatomy
Main references (sources)	Oral Anatomy
Recommended books and references (scientific journals, reports...)	journals
Electronic References, Websites	Google

Course Description Form

1. Course Name: Chemistry (Advanced)	
2. Course Code:	
3. Semester / Year: Second semester/Second year	
4. Description Preparation Date: 23/1/2025	
5. Available Attendance Forms: Theoretical (Face to Face), Practical (Lab)	
6. Number of Credit Hours (Total) / Number of Units (Total): 6/4	
7. Course administrator's name (mention all, if more than one name)	
Name: Dr. Sherif Mohamed Abd El-Hamid Email: sherifmohammed@alayen.edu.iq	
8. Course Objectives	
Course Objectives	- Informing the student about all the structural and chemical properties of most dental materials and how to deal with them. - Enabling the student to identify molecular and structural composition dental materials.
9. Teaching and Learning Strategies	
Strategy	Interactive Lectures - Use visual aids (diagrams, charts, and videos) to discuss types of hydrocarbons. Demonstrations and Experiments - Perform simple lab demonstrations (e.g., Benedict's Test: Identify reducing sugars by observing color changes, Biuret Test: Identify proteins using color change reactions). Practice Problems - Provide plenty of opportunities to solve chemistry problems, such as choosing the healthy related nutrients for good life for human.

	Visualization and Drawing Encourage students to show enzyme-substrate interactions with dynamic animations.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Understanding the Basics of Organic Chemistry	Introduction to organic chemistry (hydrocarbons).	interactive-visual	Short exams and discuss
2	2	Defining and classifying alkanes, alkenes, and alkynes as hydrocarbons	Alkanes, alkenes, alkynes	interactive-visual	Short exams and discuss
3	2	Explaining the Physical Properties of Alcohols	Alcohols, classification, properties and their reactions	interactive-visual	Short exams and discuss
4	2	Explaining the Physical Properties of Aldehydes and ketones	Aldehydes and ketones, properties and their reactions	interactive-visual	Short exams and discuss
5	2	Explaining the Physical and chemical Properties of Carboxylic acids	Carboxylic acids, properties and their reactions	interactive-visual	Short exams and discuss
6	2	Define amines as organic compounds derived from	Amines, aromatic hydrocarbons and polynuclear aromatic	interactive-visual	Short exams and discuss

		ammonia (NH ₃) and polynuclear aromatic hydrocarbons	compounds.		
7	2	Classifying carbohydrates based on their structure and function into monosaccharides, disaccharides, oligosaccharides and polysaccharides	Introduction to biochemistry (carbohydrates)	interactive-visual	Short exams and discuss
8	2	Explaining the chemical properties of amino acids	Amino acids and proteins	interactive-visual	Short exams and discuss
9	2	Defining Polymers	Introduction to polymer chemistry	interactive-visual	Short exams and discuss
10	2	Classifying of polymers based on source	Polymers, classification and their properties	interactive-visual	Short exams and discuss
11	2	Understanding polymer reactions as chemical processes.	Reactions of polymer	interactive-visual	Short exams and discuss
12	2	Understanding natural polymers as polymers that occur naturally in plants, animals, and microorganisms.	Natural polymers and their uses	interactive-visual	Short exams and discuss
13	2	Defining Elastic Solids	The mechanics of elastic solids	interactive-visual	Short exams and discuss

14	2	Understanding the Stress-Strain Curve	Stress-Strain curve	interactive-visual	Short exams and discuss
15	2	Defining Green Chemistry	Green chemistry	interactive-visual	Short exam and discuss
Syllabus of The Practical Course					
1	4	Performing Common Methods of Purification	Purification of organic compounds	interactive-visual	Oral-written quiz-practical application
2	4	Performing the separation techniques in organic chemistry for isolating individual compounds from complex mixtures	Separation of organic compounds	interactive-visual	Oral-written quiz-practical application
3	4	Understanding the role of laboratory equipment in characterizing organic compounds, monitoring reactions	Equipment's use in laboratory, IR, UV, etc	interactive-visual	Oral-written quiz-practical application
4	4	Performing Reducing Sugar Test Using Benedict's reagent to test for the presence	Hydrolysis of polysaccharides by saliva	interactive-visual	Oral-written quiz-practical application

		of reducing sugars like maltose during the hydrolysis process			
5	4	Develop clear, fair, and well-structured test or quiz questions that effectively assess knowledge and understanding of the subject matter	Test	interactive-visual	Oral-written quiz-practical application
6	4	Knowledge the components of a flame photometer	Flame photometry	interactive-visual	Oral-written quiz-practical application
7	4	Knowledge equipment for fractional distillation	Fractional distillation	interactive-visual	Oral-written quiz-practical application
8	4	knowledge the components of chromatographic systems	Chromatography	interactive-visual	Oral-written quiz-practical application
9	4	knowledge the components of thin layer chromatography	Thin layer chromatography technique	interactive-visual	Oral-written quiz-practical application
10	4	Develop clear, fair, and well-structured test or quiz questions that effectively assess knowledge and understanding of the subject matter.	Test	interactive-visual	Oral-written quiz-practical application

11	4	Performing alcohol estimation using titration (potassium dichromate method) and calculate the concentration of alcohol	Estimation of alcohol	interactive-visual	Oral-written quiz-practical application
12	4	Performing phenol estimation using one of the described methods (e.g., Folin-Ciocalteu method or Bromometric method) and calculate the phenol concentration	Estimation of phenol	interactive-visual	Oral-written quiz-practical application
13	4	Performing colorimetric methods that use the reaction of aldehydes and ketones with specific reagents, which result in the formation of colored products.	Estimation of aldehydes and ketones	interactive-visual	Oral-written quiz-practical application
14	4	Knowledge how to Form Nylon Fiber	Preparation of nylon	interactive-visual	Oral-written quiz-practical application
15	4	Develop clear,	Test	interactive-	Oral-written

		fair, and well-structured test or quiz questions that effectively assess knowledge and understanding of the subject matter.		visual	quiz-practical application
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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: 60%

Preparing reports: 10%

Discussions in practical: 20%

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Organic Chemistry, 3rd ed by Klein, D. R.
Main references (sources)	Brown, T. L., LeMay, H. E., Bursten, B. E., & Coutinho, A. (2017). Chemistry: The Central Science (14 th ed.) Pearson Education.
Recommended books and references (scientific journals, reports...)	Carey, F. A., & Sundberg, R. J. (2007). Advanced Organic Chemistry: Part Structure and Mechanisms (5th ed) Springer.
Electronic References, Websites	Khan Academy – Chemistry Free lessons on topics of advanced chemistry like https://www.khanacademy.org/science/chemistry