

1. Course Name:					
Orthodontics					
2. Course Code:					
MTDE3104					
3. Semester / Year:					
1 st semester / 2025–2026					
4. Description Preparation Date:					
1/12/2025					
5. Available Attendance Forms:					
Attendance in the classroom					
6. Number of Credit Hours (Total) / Number of Units (Total):					
2 hours of theory					
7. Course administrator's name (mention all, if more than one name)					
Name: TA Ali Abdulkadhim jasim					
Email: almiahjali99@gmail.com					
8. Course Objectives					
Course Objectives:		By the end of this course, students will be able to: • Understand basic concepts of orthodontics and why orthodontic appliances are needed. • Identify common types of malocclusion in a simple and practical way. • Recognize the main parts of orthodontic appliances and their functions.			
9. Teaching and Learning Strategies					
Strategy		• Brief theoretical explanation of basic orthodontic concepts. • Instructor demonstration of wire bending and appliance construction. • Hands-on practical work by students with step-by-step guidance. • Use of visual aids like models and diagrams. • Continuous feedback to improve accuracy and technique. • Practical assessment through fabricating a simple orthodontic appliance			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Syllabus of The Theoretical Course					
1	2	Six keys to normal occlusion	Lecture	Attendance in the classroom	Daily quiz
2	2	Adams clasp construction	Lecture	Attendance in the classroom	Daily quiz

3	2	Development of oral cavity	Lecture	Attendance in the classroom	Daily quiz
4	2	Development of teeth	Lecture	Attendance in the classroom	Daily quiz
5	2	Hawley labial arch, Robert retractor, and Fitted labial arch	Lecture	Attendance in the classroom	Daily quiz
6	2	Buccal canine retractor and modification	Lecture	Attendance in the classroom	Daily quiz
7	2	Finger spring and Modified finger spring	Lecture	Attendance in the classroom	Daily quiz
8	2	Z spring and Recurved Z-Spring	Lecture	Attendance in the classroom	Daily quiz
9	2	Myofunctional appliance	Lecture	Attendance in the classroom	Daily quiz
10	2	Anchorage and fixed orthodontic appliance	Lecture	Attendance in the classroom	Daily quiz
11	2	Introduction and malocclusion	Lecture	Attendance in the classroom	Daily quiz
12	2	Orthodontic wires properties and removable orthodontic appliance	Lecture	Attendance in the classroom	Daily quiz
13	2	welding & Soldering	Lecture	Attendance in the classroom	Daily quiz
14	2	Open bite, Deep bite and Space maintenance in orthodontics	Lecture	Attendance in the classroom	Daily quiz
15	2	Crossbite in orthodontics	Lecture	Attendance in the classroom	Daily quiz
16	2	Bad habits and Habit breaker	Lecture	Attendance in the classroom	

Syllabus of The Practical Course

1	3	Wire bending figures	Lecture	Attendance in the laboratory	Daily quiz
2	3	Adams clasp and Modification	Lecture	Attendance in the laboratory	Daily quiz
3	3	Hawley labial arch construction	Lecture	Attendance in the classroom	Daily quiz
4	3	Robert retractor construction	Lecture	Attendance in the classroom	Daily quiz
5	3	Buccal canine retractor construction	Lecture	Attendance in the classroom	Daily quiz
6	3	Modified Buccal canine retractor	Lecture	Attendance in the classroom	Daily quiz

		construction			
7	3	Finger spring construction	Lecture	Attendance in the classro	Daily quiz
8	3	Modified finger spring constructi	Lecture	Attendance in the classro	Daily quiz
9	3	Z- Spring construction	Lecture	Attendance in the classro	Daily quiz
10	3	Recurved Z –spring construction	Lecture	Attendance in the classro	Daily quiz
11	3	bite plate construction	Lecture	Attendance in the classro	Daily quiz
12	3	Fitted labial arch construction	Lecture	Attendance in the classro	Daily quiz
13	3	Base plate construction	Lecture	Attendance in the classro	Daily quiz
14	3	Flasking procedure	Lecture	Attendance in the classro	Daily quiz
15	3	Finishing and Polishing	Lecture	Attendance in the classro	Daily quiz

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, or med and final exams, etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Singh, G. (2015). Textbook of orthodontics (2nd ed.). Elsevier Health Sciences. 2. Graber, L. W., Vanarsdall, R. L., Vig, K. W. L., & Huang, G. J. (2016). Orthodontics: Current principles and techniques (6th ed.). Elsevier. 3. Millett, D. T., & Welbury, R. (2015). Handbook of orthodontics (2nd ed.). Elsevier. 4. Proffit, W. R., Fields, H. W., Larson, B., & Sarver, D. M. (2018). Contemporary orthodontics (6th ed.). Elsevier.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	

Academic description of complete denture

1. Course Name: Complete Denture					
2. Course Code:					
MTDE3102					
3. Semester / Year: first semester/third year					
4. Description Preparation Date: 1/10/2025					
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/ 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		- Introducing the student to the materials and basic steps involved in fabrication of an acrylic complete denture - Enabling the student of the Dental Industry Department in the manufacture of acrylic complete dentures			
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 a removable complete denture 4– Enabling the student to manufacture the removable complete denture				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

First	2	Learning about what retention, stability and support are and how to obtain them	Retention, stability and support	theoretical	Short exams and discuss
Second	2	Know the method of mandibular movement and its relation with denture fabrication	Mandibular movements	theoretical	Short exams and discuss
Third	2	Learn about the different types of occlusion	Eccentric occlusion and Lingualized occlusion	theoretical	Short exams and discuss
Forth	2	Learn about method of arrangement of teeth in class 2 and 3	Arrangement of maxillary and mandibular teeth Cl. II & Cl. III	theoretical	Short exams and discuss
Fifth	2	Identify how to determine the neutral zone	Neutral zone	theoretical	Short exams and discuss
Sixth	2	Learning about the methods of teeth grinding and its importance	Selective grinding	theoretical	Short exams and discuss
Seventh	2	Learn about the method and type of denture fracture and repair	Repair of a complete denture	theoretical	Short exams and discuss
Eighth	2	Learn the method and type of relining	Relining of complete denture	theoretical	Short exams and discuss
Ninth	2	Identify method, indication and contraindication of rebasing	Rebasing of complete denture	theoretical	Short exams and discuss
Tenth	2	Learn how to duplicate and uses it to make a complete denture	Duplication of complete denture	theoretical	Short exams and discuss
Eleventh	2	Learn about the material used and how to make an immediate denture: part 1	Immediate complete denture: part 1	theoretical	Short exams and discuss
Twelfth	2	Learn about different methods used to make an immediate denture: part 2	Immediate complete denture: part 2	theoretical	Short exams and discuss
Thirteenth	2	Learn about overdenture: definition, indication, contraindication, advantages and disadvantages	Overdenture	theoretical	Short exams and discuss

Fourteenth	2	Identify how to make single Denture and its difference from two dentures	Single complete denture opposing natural or artificial teeth	theoretical	Short exams and discuss
Fifteenth	2	Learning about the digital system and its method of use	Digital system for complete denture procedure	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)	Boucher's Prosthodontic Treatment of Edentulous Patients
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 (basic)					
2. Course Code: 3					
MTDE3103					
3. Semester / Year: First semester/third year					
4. Description Preparation Date: 27/10/2025					
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 + 60practical hours/ 4					
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	• Informing the student the basic steps for fabrication of crown and bridge -Enabling the prosthodontic student to fabricate different types metal and ceramic crown.				
9. Teaching and Learning Strategies					
Strategy	1. Introducing the student to crown and bridge 2. Introducing the student to fabricate crown and bridge 3. Introducing the student to the laboratory tools and steps of crown and bridge 4. Introducing the student to the classical and new techniques of manufacturing crown and bridge				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Fixed design, types and indications	Types of crown and indication of	theoretical	Short exams and discuss

			each one		
Second	2	Pontic design	Different design of pontic	theoretical	Short exams and discuss
Third	2	connector	Types of connector	theoretical	Short exams and discuss
Forth	2	)A framework design for metal ceramic restoration	Design used in fabrication of ceramic crown	theoretical	Short exams and discuss
Fifth	2	Methods of waxing framework (coping)	How to do wax coping	theoretical	Short exams and discuss
Sixth	2	tThe procedure of waxing framework (coping)	All steps of procedure of waxing	theoretical	Short exams and discuss
Seventh	2	Spruing procedure, investing	How to do spruing	theoretical	Short exams and discuss
Eighth	2	Alloys and metal selection for metal ceramic restoration	How to select matel and alloy for fabrication of crown	theoretical	Short exams and discuss
Ninth	2	Casting ring and liner, Burn out and casting	Procedure of casting and burnout	theoretical	Short exams and discuss
Tenth	2	Types of ceramic, classification, indication	All ceramic restoration	theoretical	Short exams and discuss
Eleventh	2	Preparation of metal copy for metal ceramic restoration (anterior)	Making a copy from wax for anterior teeth	theoretical	Short exams and discuss
Twelfth	2	Preparation of metal copy for metal ceramic restoration (posterior	Making a wax coping for posterior teeth	theoretical	Short exams and discuss
Thirteent h	2	Bonding of ceramic to metal .	Types and technique of bonding	theoretical	Short exams and discuss
Fourteen th	2	Provisional restoration: introduction, types	Types of provisional restoration	theoretical	Short exams and discuss

Fifteenth	2	Provisional restoration materials and technique	Material that used and technique in provitional restoration	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)	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 Removable Partial Denture (intermediate)

1. Course Name:	
Removable Partial Denture (intermediate)	
2. Course Code:	
MTDE3101	
3. Semester / Year: first semester/third year	
4. Description Preparation Date: 29/9/2025	
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/ 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Asst. Lec. Eba'a Enad Hameed Email: ebaaenad@gmail.com	
8. Course Objectives	
Course Objectives	● The students can introduce and use material for a partial denture ● Enabling the students of the prosthodontic Department to make the partial denture.
9. Teaching and Learning Strategies	
Strategy	1– Teaching the student the ability to take an impression, distinguish between cases, choose the appropriate treatment plan. 2 – Teaching the student the best choice for dental prosthetics for each case 3– Introducing and enabling the student to laboratory tools and the steps for making partial denture

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	The ideal component of chrome-cobalt removable partial denture	parts of chrome cobalt	theoretical	Short exams and discuss
Second	2	Maxillary major connector	Types of Maxillary major connector	theoretical	Short exams and discuss
Third	2	Mandibular major connector	Types of Mandibular major connector	theoretical	Short exams and discuss
Forth	2	Minor connector	Types of Minor connector	theoretical	Short exams and discuss
Fifth	2	Direct retainer	Classification of Direct Retainer	theoretical	Short exams and discuss
Sixth	2	Indirect retainer	Functions, types, fulcrum line	theoretical	Short exams and discuss
Seventh	2	Rest and rest seat	Types of rest and rest seat	theoretical	Short exams and discuss
Eighth	2	Denture base	Requirement, types, Advantages	theoretical	Short exams and discuss
Ninth	2	Support for the distal extension denture base.	Support, retention, Stability	theoretical	Short exams and discuss
Tenth	2	Establishment of occlusal relationship for R.P.D.	Centric occlusion, Centric relation, articulation	theoretical	Short exams and discuss
Eleventh	2	Duplicating of the master (Refractory cast)	Preparation of master cast for duplication, procedure	theoretical	Short exams and discuss
Twelfth	2	Wax pattern	Procedure of waxing framework	theoretical	Short exams and discuss
Thirteenth	2	Spruing and investing	Definitions, procedure, requirement and types of investment materials	theoretical	Short exams and discuss
Fourteenth	2	Burnout and Casting	Definitions and procedure	theoretical	Short exams and discuss

Fifteenth	2	Finishing and polishing	Procedure and material used	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)	McCraken's -removable partial prosthodontic
Recommended books and references (scientific journals, reports...)	Dental journal
Electronic References, Websites	Google scholar

Course Description Form (Oral Pathology)

Course name	
Skin and Hair Biology	
Course Code .1	
Semester / Year .2	
First Semester / 2025–2026 / Third Stage	
Date of preparation of this description .3	
2025	
Available attendance forms .4	
Daily live attendance in the halls and laboratory	
Number of Credit Hours (Total) / Number of Units (Total) .5	
3 hours 1 (theoretical) 2 (practical) 4 units	
Course administrator's name (if more than one name) .6	
Name: Prof. Asmahan Munir Zinab Email: asmahanzinab@gmail.com	
Course Objectives .7	
Objectives: <u>General Goals</u> Providing students with the knowledge and skills necessary to diagnose oral diseases, understand their relationship to the patient's general health condition, and link diagnostic findings to clinical reality. <u>Specific Goals</u> The course aims to enable the student to identify appropriate therapeutic methods and apply them in a sequential and coordinated manner, identify various oral diseases, and identify deviations from the normal state of the oral organs.	course aims to provide students with basic knowledge of Oral Pathology

Teaching and Learning Strategies .8					
1-interactive lecture 2-Dialogue and discussion 3-Laboratory experiment 4-Brainstorming 5-E-learning					Strategy
Course structure .9					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Weekly, semester and final theoretical tests	Theoretical using computer and laboratory experiments	Oral pathology Slide preparation	(1 ^h) Oral pathology Slide preparation	2	1
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	Microscopy and slide preparation of -Slides of Biopsy	(1 ^h) Microscopy and slide preparation -Slides of Biopsy	2	2
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	Biopsy, definition, types, technique -Slides Dental caries	(1 ^h) Biopsy, definition, types, technique -Slides Dental caries	2	3
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	Dental caries, definition, classification, clinical feature, radiological -Slides of acute&chronic pulpitis.	(1 ^h) Dental caries, definition, classification, clinical feature, radiological -Slides of acute&chronic pulpitis	2	4

Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Pulp disease, acute pulpitis -Slides of dental granuloma	(1 ¹) Pulp disease, acute pulpitis -Slides of dental granuloma	2	5
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Pulp disease, dental granuloma -Slides of periapical pathology & changes	(1 ¹) Pulp disease, dental granuloma -Slides of periapical pathology & changes	2	6
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Periapical pathology & changes -Slides of cyst of the Jaw	(1 ¹) Periapical pathology & changes -Slides of cyst of the Jaw	2	7
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Cyst of the Jaw -Slides of white lesions	(1 ¹) Cyst of the Jaw ides of white ions	2	8
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Aging in Skin and Hair Oxidative stress, free radicals, glycation, photoaging	(1 ¹) Aging in Skin and Hair Oxidative stress, free radicals, glycation, photoaging	2	9
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Ulceration oral lesions -Slides of developmental disturbance of oral mucosa	(1 ¹) Chronological Aging and Hormonal Effects on Hair Chronological aging, hair thinning, graying	2	10

Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Developmental disturbance of the mucosa -Slides of developmental disturbance of tongue	(1 ¹) Developmental disturbance of the mucosa -Slides of developmental disturbance of tongue	2	11
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Developmental disturbance of the tongue --Slides of developmental disturbance of teeth	(1 ¹) Developmental disturbance of the tongue --Slides of developmental disturbance of teeth.	2	12
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Developmental disturbance of teeth -Slides of Bone disease	(1 ¹) Developmental disturbance of teeth -Slides of Bone disease	2	13
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Bone disease -Slides of salivary gland disease	(1 ¹) Bone disease -Slides of salivary gland disease	2	14
Weekly, semester and final theoretical tests	Theoretical computer laboratory experiments	u Salivary gland disease -Review and examination of oral pathology slides	(1 ¹) Salivary gland disease -Review and examination of oral pathology slides	2	15
Course Evaluation .10					
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 1. Final Exam 60 Marks					

2. Monthly Exam 30 Marks 3. Interaction 5 Marks 4. Quizes 5 Marks	
Learning and teaching resources .11	
	Required textbooks methodology, if any
1. Michael S. Glik, Martin S. Greenberg, Peter B. Lockhart, Stephen J. Challacombe. Burket'S Oral Medicine. 2021. 2. Anil Govindrao Ghom, Savita Anil Ghom, Textbook of Oral Medicine. Third Edition. 3. Essentials of Oral Pathology by Swapan Kumar Purkait	Main references (sources)
	Recommended supporting books and references (scientific journals, reports)

Course Description Form

1. Course Title: Computer Applications	
2. Course Code:	
MTDE3106	
3. Semester / Year Semester One / 2025–2026 / Phase Three	
4. Date of preparation for this description 3/10/2025	
5. Available Forms of Attendance	
6. Number of Hours (Total) / Number of Credits (Total)	
3 Hours 1 (Theoretical) 2 (Practical)	
7. Course administrator name (if more than one name mentioned)	
Name: Eng. Mustafa Abdel Ghani Nasser mustafmustaf952@gmail.com Email:	
8. Course Objectives	
Other skills related to employability and personal development. Urging the student to write simple research towards the previous lectures to create a state of balance between the methodological information and the source information Urging students to make practical projects on the computer and holding seminars among students on the methodology of the subject. Urge the student to evaluate the answers of his fellow students to develop the Self-development	Course Objectives
9. Teaching and Learning Strategies	
	Strategy

10. Course Structure					
Evaluation Method	Learning method	Unit Name or Subject	Required Learning Outcomes	Hours	Week
& Testing Application	Interactive	Excel	Getting to know Excel, its benefits, specifications, concept, operation method Recognize the home screen, its components, its tools, and the menu bar	3	.1
& Testing Application	Interactive	Cell Handling	Cell Concept , Basic Data Types and How to Insert Them HOW TO SAVE THE WORK BOOK FILE CLOSE THE FILE AND CLOSE THE PROGRAM	3	.2
Test and Application	Interactive	File Handling	Open a saved file Enter data and perform simple calculations and cell formatting methods Identify methods of data collection or group of cells in their different forms and sort data	3	.3
Test and Application	Interactive	Use of Functions	Use some common functions Count , Sqrt, Average, Sum, Min, Max Cell Retouching Process Copy data, move it, copy absolute and relative cell calculations	3	.4

Test and Application	Interactive	Cell Coordination	Control cell width Change its pattern through formatting tools	3	.5
Test and Application	Interactive	Format Tables	Dealing with charts , their different components and elements, and learning about their types.	3	.6
Test and Application	Interactive	Format Tables	Methods of creating diagrams and choosing different types of diagrams and their concept	3	.7
Test and Application	Interactive	Cell Handling	How to Add or Delete Rows or Columns How to print a worksheet as data and charts.	3	.8
Test and Application	Interactive	Statistical Program	The statistical software SPSS is a concept that runs the steps of data analysis .	3	.9
Test and Application	Interactive	Statistical Program	Main screen components data entry, save and retrieve file data types directly and calculated.	3	.10
Test and Application	Interactive		Sort and switch data, select a variable insertion statistical procedure or merge status files.	3	.11

		File a Data Handling			
Test and Application	Interact ive	Applic ation of Analysi s Descrip tive	Meta-analysis Statistical data summary, data exploration reports by row or column	3	.12
Test and Application	Interact ive	Apply Averag es and Compa risons	Comparison of Averages, Comparison of Linear Regression Variables	3	.13
Test and Application	Interact ive	Applic ation of statistic al packag es	Applications of Quality Control	3	.14
Test and Application	Interact ive	Dealing with Charts	Dealing with charts, lines, columns, pie representation of ratios, spread chart and others	3	.15
11. Course Evaluation					
The score is distributed out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports... etc					
12. Learning and Teaching Resources					
Computer Basics and Office Applications - I Higher Education and Scientific Research Department – Research Development Department			Required Textbooks (Methodology, if any)		
Fundamentals of Computer"Yusr Al-Mustafa Science S			Main Reference(s)		

Dr. Ziad Mohamed , 0202 and Internet Office ,Abboud, Dar Al-Dr. for Publishing and Distribution Baghdad 0202	
Using two research papers from my research Encryption a text using affine cipher and .1 hiding it in the colored image by using the Quantization stage, <u>Nada Abdul Aziz Mustafa</u> <u>.Iraq, Baghdad, University of Baghdad, College of Languages</u> The Effect of the Smoothing Filter on an .2 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> Computer literacy BASICS 2012, LeBlanc, .3 Brandon." A closer look at the, windows 7. 2009 Computing Fundamentals, Innovative .4 training works USA, Inc, 2006	Recommended books and references (scientific journals, reports...)
. Word 2010 Digital Classroom B https://www.agitraining.com/books/microsoft-office- books/word-2010-digital-classroom-book	References, Websites

Academic description of Advanced Bridges

1. Course Name:					
Advanced Bridges					
2. Course Code:					
3. Semester / Year: second semester/third year					
4. Description Preparation Date: 23/1/2026					
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: M.c.s Alameer ali Email: Alameera491@gmail.com					
8. Course Objectives					
Course Objectives	- To familiarize students with the materials used in crown and bridge fabrication and how to handle them. - To enable dental technology students to fabricate fixed crowns and bridges				
9. Teaching and Learning Strategies					
Strategy	1. Teaching students about crown and bridge concepts. 2. Teaching students about the tools used in crown and bridge laboratories. 3. Teaching students how to choose the appropriate case and treatment plan. 4. Teaching students how to fabricate ceramic crowns and bridges.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Identify types and designs of fixed prostheses	Laboratory failure the bridge	theoretical	Short exams and discuss
Second	2	Understand terminology and types	Soldering and welding	theoretical	Short exams and discuss

Third	2	Types and designs of connect between bridge components	Types of ceramic according to composition and temperature	theoretical	Short exams and discuss
Forth	2	Understand designs of metal-cera prostheses.	Step-by-step procedure of porcelain build-up (1)	theoretical	Short exams and discuss
Fifth	2	Identify wax pattern fabrication methods.	Step-by-step procedure of porcelain build-up (2)	theoretical	Short exams and discuss
Sixth	2	Identify wax pattern fabrication methods.	Step-by-step procedure of porcelain build-up (3)	theoretical	Short exams and discuss
Seventh	2	Identify the wax pattern investment process.	All ceramic restoration: types	theoretical	Short exams and discuss
Eighth	2	How to select metals used in ceramic fabrication	All ceramic restoration techniques	theoretical	Short exams and discuss
Ninth	2	Learn metal burning and casting methods.	Retainer for a removable partial denture: types and indications	theoretical	Short exams and discuss
Tenth	2	Learn types of ceramics, ceramic classifications, and fabrication methods.	Retainer for a removable partial denture: technique	theoretical	Short exams and discuss
Eleventh	2	Prepare metal similar to ceramic for anterior teeth.	Resin bonded bridge: types	theoretical	Short exams and discuss
Twelfth	2	Prepare metal similar to ceramic for posterior teeth	Resin bonded bridge: procedure of fabrication	theoretical	Short exams and discuss
Thirteenth	2	Methods of bonding metal-ceramic restorations.	Implant-supported fixed prosthesis types	theoretical	Short exams and discuss
Fourteenth	2	Identify bridges and their types.	Implant-supported fixed prosthesis: procedure	theoretical	Short exams and discuss
Fifteenth	2	Identify materials and methods used in bridge fabrication.	Clinical Failure in bridge	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)	Principle and technique of Crowns and Bridge bc
Main references (sources)	Contemporary fixed prosthodontics
Recommended books and references (scientific journals, reports...)	Microbiology of the Crowns and Bridge " edited by S. F. U. Bostanci, J. F. Will, and J. M. P. Lopez
Electronic References, Websites	Google, Google Scholar, PubMed

Academic Program Description Form

University Name: Al Ayen University of Iraq

Faculty/Institute: Faculty of Health and Medical Technologies

Scientific Department: Department of Radiology

Academic or Professional Program Name: College of Health and
Medical Technologies / Department of Prosthodontics

Final Certificate Name: Bachelor of Radiology Technology

Academic System: Semester

Description Setup Date: 2026

File filling: 21/3/2023

Signature :

Scientific Associate Name:

Date :

Signature :

Head of Department

Name:

Date :

Check the file before

Division of Quality Assurance and University Performance

Name of the Director of the Quality Assurance and University

Performance Division:

Date

Signature

Approval of the Dean

1. Program Vision

To be a distinguished academic and research center at the local and international levels, contributing to the development of the field of prosthodontics and the provision of quality health services

2. Program Mission

Preparing specialized cadres in the field of prosthodontics capable of providing distinguished medical services, and promoting scientific research to develop medical technologies in a way that contributes to community service and sustainable development.

3. Program Objectives

1. Providing high-quality education in the field of radiology techniques through an advanced academic environment.
2. Establishing advanced laboratories that allow practical training according to the latest medical technologies.
3. Encouraging scientific research and creativity in the field of anesthesia and related disciplines.
4. Strengthening cooperation with health institutions and research centers locally and internationally.
5. Qualifying graduates who are able to meet the needs of the labor market and contribute to improving health care.
6. Establishing virtual laboratories that simulate what is in teaching hospitals
7. Utilizing artificial intelligence techniques to develop students' skills

4. Program Accreditation

5. Other external influences

Theoretical study + educational and practical laboratories

6. Program Structure				
Reviews*	Percentage	Unit of study	Number of Courses	Program Structure
				Requirements of the institution
				College Requirements
				Department Requirements
				Summer Training
				Other

* It can include notes whether the course is basic or optional.

7. Program Description				
Credit Hours		Course Name	Course or Course Code	Year/Level

8. Expected learning outcomes of the program	
Knowledge	
1- The amount of student comprehension of the scientific material 2- The student's ability to keep pace with scientific developments in prosthodontics 3- The evaluation should be carried out through the presentation of the material among students in the laboratory and then applied by them	
Skills	
Values	
1- Accurate and correct understanding of prosthodontics and correct knowledge of the resident bacteria in the normal dental cavity, and differentiating between bacteria used only in dental science and the role of bacteria used in the diagnosis of tooth decay and oral diseases, which serves other medical teaching courses in the second	

and third educational stages in dental technology.	
2- Interaction with recent developments in the field of prosthodontics	
3- Commitment to updating knowledge and skills through participation in training courses and scientific conferences	

9. Teaching and Learning Strategies
• Live lectures (interactive) • Practical laboratory experiments (developing the spirit of scientific cooperation and preparing scientific report) • Use strategy, cooperative learning, discussion, brainstorming and practical discussion • Scientific analysis

10. Evaluation methods
1- Midterm and final exams 2- Written exams 3- Practical exams 4- Laboratory Reports

11. Faculty						
Faculty Members						
Preparation of the teaching staff		Special Requirements/Skills (if applicable)		Specialization		Academic Rank
					Microbiology–bacteria	
						Prof. Asmahan Munir Zinab

Professional Development
Mentoring new faculty members
Professional development of faculty members
1. Participate in training courses held within the college. 2. Participate in professional courses held at the college within the prescribed curricula, as well as vocational education courses

12. Acceptance Criterion
This is done according to the acceptance rate in the medical group (College of Medical and Health Technologies) within the electronic form approved by the Ministry of Higher Education and Scientific Research

13. The most important sources of information about the program

14. Program Development Plan

Program Skills Outline		
Learning outcomes required from the program		

Values				Skills				Knowledge				Basic or optional	Course Name	Course Code	Year / Level	
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1					
√	√	√	√	√	√	√	√	√	√	√	√	fundamental	Oral Microbiology		2024-2025/Phase I	

● the program under evaluation.

Please tick the boxes corresponding to the individual learning outcomes from

Al-Ayen Iraqi University
College of Health and Medical Technology
'Course Description form for Oral Microbiology

1. Course Name :					
Oral Microbiology					
2. Course Code					
3. Semester / Year:					
second semester-third stage					
4. Description Preparation Date:					
21/3/2026					
5. Available Attendance Forms:					
Daily live attendance in the halls and laboratory					
6. Number of Credit Hours (Total) / Number of Units (Total):					
Theoretical: 30 hours + Practical: 90 hours /4 units					
7. Course administrator's name (mention all, if more than one name)					
Name: Prof. Asmahan Munir Zinab			Email:		
asmahanzinab@gmail.com					
8. Course Objectives					
<u>General Goals</u>					
<u>Specific Goals</u>					
9. Teaching and Learning Strategies					
Strategy	-Effective discussion -Scientific thinking -Cooperative learning -Scientific report				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Syllabus of Theoretical part for Oral Microbiology					
1	2	-Study, knowledge, ad clarification with	Oral bacteriology	theoretical	oral tests-written quiz

		examples			
2	2	-Study, knowledge, and clarification with example	The cellular structure of bacteria	Theoretical	oral tests-written quiz
3	2	-Study, knowledge, and clarification with example	Dent Bacterial classification	Theoretical	oral tests-written quiz
4	2	-Study, knowledge, and clarification with example	Bacterial growth phases and curve	Theoretical	oral tests-written quiz
5	2	-Study, knowledge, and clarification with example	Grams stain steps and procedures	Theoretical	oral tests-written quiz
6	2	-Study, knowledge, and clarification with example	Basic requirements of Bacteria	Theoretical	oral tests-written quiz
7	2	-Study, knowledge, and clarification with example	Oral microbiology and oral environments	Theoretical	oral tests-written quiz
8	2	-Study, knowledge, and clarification with example	Dental plaque, definition, clinical feature, development	Theoretical	oral tests-written quiz
9	2	-Study, knowledge, and clarification with example	Oral streptococci, types ,morphology ,characteristics ,selective media	Theoretical	oral tests-written quiz
10	2	-Study, knowledge, and clarification with example	Mutans streptococci, types, morphology, characteristics, selective media	Theoretical	oral tests-written quiz
11	2	-Study, knowledge, and clarification with example	The role of Bacteria in dental caries(cariogenic bacteria)	Theoretical	oral tests-written quiz
12	2	-Study, knowledge, and clarification with example	The role of streptococcus in the	Theoretical	oral tests-written quiz

		clarification with example	development of dental caries		
13	2	-Study, knowledge, a clarification with example	The role of bacteria in periodontal disease	theoretical	oral tests-written quiz
14	2	-Study, knowledge, a clarification with example	Gingivitis	Theoretical	oral tests-written quiz
15	2	-Study, knowledge, a clarification with example	Periodontal pockets and periodontal abscess	theoretical	oral tests-written quiz
Details of the practical vocabulary of the oral microbiology					
1	3	Work skill-cooperative work-report preparation	Sterilization and disinfection	Practical and slides	oral tests-written quiz
2	3	Work skill-cooperative work-report preparation	Sterilization of laboratory instrument	Practical and slides	oral tests-written quiz
3	3	Work skill-cooperative work-report preparation	Slides of dental plaque	Practical and slides	oral tests-written quiz
4	3	Work skill-cooperative work-report preparation	Types of cultural media	Practical and slides	oral tests-written quiz
5	3	Work skill-cooperative work-report preparation	Salivary sample collection	Practical and slides	oral tests-written quiz
6	3	Work skill-cooperative work-report preparation	Gram stains procedure	Practical and slides	oral tests-written quiz
7	3	Work skill-cooperative work-report preparation	Slides of streptococcus bacteria	Practical and slides	oral tests-written quiz
8	3	Work skill-cooperative work-report	Slides of Mutans Streptococcus	Practical and slides	oral tests-written quiz

		preparation			
9	3	Work skill-cooperative work-report preparation	Slides of dental caries and gingivitis	Practical and slides	oral tests-written quiz
10	3	Work skill-cooperative work-report preparation	Types of agar media	Practical and slides	oral tests-written quiz
11	3	Work skill-cooperative work-report preparation	Slide spirochete	Practical and slides	oral tests-written quiz
12	3	Work skill-cooperative work-report preparation	Slides of periodontitis and periapical abscess	Practical and slides	oral tests-written quiz
13	3	Work skill-cooperative work-report preparation	bacteria on blood agar α -hemolytic, β -hemolytic and gamma-hemolytic	Practical and slides	oral tests-written quiz
14	3	Work skill-cooperative work-report preparation	Slide of dental plaque bacteria	Practical and slides	oral tests-written quiz
15	3	Work skill-cooperative work-report preparation	Review and examination of oral bacteriology	Practical and slides	oral tests-written quiz

11. Course Evaluation oral tests- written quiz

The following evaluation methods are adopted:

1. Weekly theoretical
2. Weekly practical tests
3. Termly and weekly theoretical tests
4. Termly and weekly practical tests
5. Final theoretical and practical exam

Distribution of grades:

1. 35 points for practical exams
2. 5 points for quizzes and student attendance
3. 60 points for theoretical exam

Final score: 100	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	1-Medical Microbiology, 25th Edition 2-Clinical Microbiology, 6th Edition 3- Lippincott's Illustrated Reviews 4- Medical Microbiology, 200
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Academic description of Oral Microbiology - Third Stage

Signature :

Name : Prof. Asmahan Munir Zinab

Academic description of Maxillofacial prosthesis (Basic)

1. Course Name: Maxillofacial prosthesis (Basic)	
2. Course Code:	
3. Semester / Year: second semester/Third year	
4. Description Preparation Date: 27/1/2026	
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	● Introducing the student to the contents and supplies of the maxillofacial prosthetics laboratory, in addition to the materials used + making some Prosthetic devices for the jaws ● Preparing the student for the next stage, during which the student will be equipped with theoretical and practical information in order to master work in Prosthetics laboratories for the face and jaws, specifically prosthetics for chin, lip, uvula, and roof
9. Teaching and Learning Strategies	
Strategy	1. Introducing the student to the contents and supplies of the maxillofacial prosthetic laboratory 2- Introducing the student to the characteristics of the necessary materials, the materials used in the manufacture of prosthetic devices for the jaws 3- Introducing the student to laboratory tools and the steps for making the prosthetic devices 4- Introducing the student to the techniques of manufacturing prosthetic devices for the jaws

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Learn how to make maxillofacial prosthetics	Maxillofacial prosthesis work	theoretical	Short exams and discuss
Second	2	Identify the parts of the skin and the wrinkles formed in it and the types	Facial skin, wrinkles and structures landmarks	theoretical	Short exams and discuss
Third	2	Studying the treatment of deficiency or deformity in the face and jaws	Prosthetic treatment of maxillofacial defects	theoretical	Short exams and discuss
Forth	2	Study of materials used in maxillofacial prosthetics	Materials used for maxillofacial restoration construction	theoretical	Short exams and discuss
Fifth	2	Learn the anatomical parts, impression, and how to make a mold to treat cleft lip and uvula	Cleft lip and palate (anatomy, impression and cast construction)	theoretical	Short exams and discuss
Sixth	2	Learn how to make a prosthetic part to treat cleft lip and uvula	Cleft lip and palate (feeding plate construction)	theoretical	Short exams and discuss
Seventh	2	Knowing the anatomical parts of uvula	Maxillary cleft (anatomy of the palate)	theoretical	Short exams and discuss
Eighth	2	Study of anatomy, impressions, and methods for making molds close the cleft in the upper jaw	Obturator (Anatomy, Impression and construction)	theoretical	Short exams and discuss
Ninth	2	Study of methods of making prostheses to close the cleft in upper jaw	Obturator construction	theoretical	Short exams and discuss
Tenth	2	Learn the steps to replace a missing eye	Ocular prosthesis	theoretical	Short exams and discuss
Eleventh	2	Learn the steps to replace a missing eye	Orbital prosthesis	theoretical	Short exams and discuss
Twelfth	2	Learn the steps to replace a missing ear	Auricular prosthesis	theoretical	Short exams and discuss
Thirteenth	2	Learn the steps to replace a missing nose	Nasal prosthesis	theoretical	Short exams and discuss
Fourteenth	2	Learn the steps to replace a missing nose and ear	Nasal and maxillary opening devices	theoretical	Short exams and discuss

Fifteenth	2	An interesting study on fixation of maxillofacial prosthetics	Retention for maxillofacial prosthesis	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)			Textbook of maxillofacial prosthesis		
Recommended books and references (scientific journals, reports...)			Dental journals		
Electronic References, Websites			Google		

1. Course Name:					
Orthodontics					
2. Course Code:					
3. Semester / Year:					
2 nd semester / 2025–2026					
4. Description Preparation Date:					
17/5/2026					
5. Available Attendance Forms:					
Attendance in the classroom					
6. Number of Credit Hours (Total) / Number of Units (Total):					
2 hours of theory					
7. Course administrator's name (mention all, if more than one name)					
Name: TA Ali Abdulkadhim jasim					
Email: almiahjali99@gmail.com					
8. Course Objectives					
Course Objectives:		By the end of this course, students will be able to: • Understand advanced concepts of orthodontics and why orthodontic appliances are needed. • Identify common types of malocclusion in a simple and practical way. • Recognize the advanced parts of orthodontic appliances and their functions.			
9. Teaching and Learning Strategies					
Strategy		• Theoretical explanation of advanced orthodontic concepts. • Instructor demonstration of wire bending and appliance construction. • Hands-on practical work by students with step-by-step guidance. • Use of visual aids like models and diagrams. • Continuous feedback to improve accuracy and technique. • Practical assessment through fabricating a simple orthodontic appliance			
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
Syllabus of The Theoretical Course					
1	2	Six keys to normal occlusion	Lecture	Attendance in the classroom	Daily quiz
2	2	Adams clasp	Lecture	Attendance in the classroom	Daily quiz

		construction			
3	2	Development of oral cavity	Lecture	Attendance in the classroom	Daily quiz
4	2	Development of teeth	Lecture	Attendance in the classroom	Daily quiz
5	2	Hawley labial arch, Robert retractor, and Fitted labial arch	Lecture	Attendance in the classroom	Daily quiz
6	2	Buccal canine retractor and modification	Lecture	Attendance in the classroom	Daily quiz
7	2	Finger spring and Modified finger spring	Lecture	Attendance in the classroom	Daily quiz
8	2	Z spring and Recurved Z-Spring	Lecture	Attendance in the classroom	Daily quiz
9	2	Myofunctional appliance	Lecture	Attendance in the classroom	Daily quiz
10	2	Anchorage and fixed orthodontic appliance	Lecture	Attendance in the classroom	Daily quiz
11	2	Introduction and malocclusion	Lecture	Attendance in the classroom	Daily quiz
12	2	Orthodontic wires properties and removable orthodontic appliance	Lecture	Attendance in the classroom	Daily quiz
13	2	welding & Soldering	Lecture	Attendance in the classroom	Daily quiz
14	2	Open bite, Deep bite and Space maintenance in orthodontics	Lecture	Attendance in the classroom	Daily quiz
15	2	Crossbite in orthodontics	Lecture	Attendance in the classroom	Daily quiz
16	2	Bad habits and Habit breaker	Lecture	Attendance in the classroom	

Syllabus of The Practical Course

1	3	Wire bending figures	Lecture	Attendance in the laboratory	Daily quiz
2	3	Adams clasp and Modification	Lecture	Attendance in the laboratory	Daily quiz
3	3	Hawley labial arch construction	Lecture	Attendance in the classroom	Daily quiz
4	3	Robert retractor construction	Lecture	Attendance in the classroom	Daily quiz
5	3	Buccal canine retractor construction	Lecture	Attendance in the classroom	Daily quiz

6	3	Modified Buccal canine retractor construction	Lecture	Attendance in the classro	Daily quiz
7	3	Finger spring construction	Lecture	Attendance in the classro	Daily quiz
8	3	Modified finger spring constructi	Lecture	Attendance in the classro	Daily quiz
9	3	Z- Spring construction	Lecture	Attendance in the classro	Daily quiz
10	3	Recurved Z –spring construction	Lecture	Attendance in the classro	Daily quiz
11	3	bite plate construction	Lecture	Attendance in the classro	Daily quiz
12	3	Fitted labial arch construction	Lecture	Attendance in the classro	Daily quiz
13	3	Base plate construction	Lecture	Attendance in the classro	Daily quiz
14	3	Flasking procedure	Lecture	Attendance in the classro	Daily quiz
15	3	Finishing and Polishing	Lecture	Attendance in the classro	Daily quiz

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, or med and final exams, etc

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Singh, G. (2015). Textbook of orthodontics (2nd ed.). Elsevier Health Sciences. 2. Graber, L. W., Vanarsdall, R. L., Vig, K. W. L., & Huang, G. J. (2016). Orthodontics: Current principles and techniques (6th ed.). Elsevier. 3. Millett, D. T., & Welbury, R. (2015). Handbook of orthodontics (2nd ed.). Elsevier. 4. Proffit, W. R., Fields, H. W., Larson, B., & Sarver, D. M. (2018). Contemporary orthodontics (6th ed.). Elsevier.
Main references (sources)	
Recommended books and references (scientific	

journals, reports...)	
Electronic References, Websites	

Academic description of Research Methods

1. Course Name:					
Research Methods					
2. Course Code:					
MTML4108					
3. Semester / Year: second semester/third year					
4. Description Preparation Date: 23/1/2026					
5. Available Attendance Forms: Theoretical and practical in the classroom and laboratory					
6. Number of Credit Hours (Total) / Number of Units (Total): 15 theoretical hours / 2					
7. Course administrator's name (mention all, if more than one name)					
Name: M.c.s Abdullah Neama Abdul Jalil					
Email: Abdullahalaskary89@gmail.com					
8. Course Objectives					
Course Objectives	To teach students the fundamentals of scientific research.				
9. Teaching and Learning Strategies					
Strategy	1. Teaching students about research concepts. 2. Teaching students how to write research.				
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2		Principles of research	theoretical	Short exams and discuss
Second	2		Scientific methods	theoretical	Short exams and discuss
Third	2		Designing the research plan	theoretical	Short exams and discuss
Forth	2		The research process	theoretical	Short exams and discuss

Fifth	2		Classification of research	theoretical	Short exams and discuss
Sixth	2		Fundamental research	theoretical	Short exams and discuss
Seventh	2		Applied research	theoretical	Short exams and discuss
Eighth	2		Clinical trials	theoretical	Short exams and discuss
Ninth	2		Research problem formation	theoretical	Short exams and discuss
Tenth	2		Pilot study	theoretical	Short exams and discuss
Eleventh	2		Research elements (Introduction)	theoretical	Short exams and discuss
Twelfth	2		Research elements (Literature review)	theoretical	Short exams and discuss
Thirteenth	2		Implant-supported fixed prostheses types	theoretical	Short exams and discuss
Fourteenth	2		Research elements (materials and methods)	theoretical	Short exams and discuss
Fifteenth	2		Research elements (Results, discussion, and conclusion)	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 any)	Research Methods Handbook
Main references (sources)	The scientific research methods types
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Google, Google Scholar, PubMed

