Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department

Academic Program and Course Description Guide

College of Dentistry – University of Mosul

2023 - 2024

Introduction:

The educational program is a well-planned set of courses that include procedures and experiences arranged in the form of an academic syllabus. Its main goal is to improve and build graduates' skills so they are ready for the job market. The program is reviewed and evaluated every year through internal or external audit procedures and programs like the External Examiner Program.

The academic program description is a short summary of the main features of the program and its courses. It shows what skills students are working to develop based on the program's goals. This description is very important because it is the main part of getting the program accredited, and it is written by the teaching staff together under the supervision of scientific committees in the scientific departments.

This guide, in its second version, includes a description of the academic program after updating the subjects and paragraphs of the previous guide in light of the updates and developments of the educational system in Iraq, which included the description of the academic program in its traditional form (annual, quarterly), as well as the adoption of the academic program description circulated according to the letter of the Department of Studies T 3/2906 on 3/5/2023 regarding the programs that adopt the Bologna Process as the basis for their work.

In this regard, we can only emphasize the importance of writing an academic programs and course description to ensure the proper functioning of the educational process.

Concepts and terminology:

Academic Program Description: The academic program description provides a brief summary of its vision, mission and objectives, including an accurate description of the targeted learning outcomes according to specific learning strategies.

Course Description: Provides a brief summary of the most important characteristics of the course and the learning outcomes expected of the students to achieve, proving whether they have made the most of the available learning opportunities. It is derived from the program description.

Program Vision: An ambitious picture for the future of the academic program to be sophisticated, inspiring, stimulating, realistic and applicable.

Program Mission: Briefly outlines the objectives and activities necessary to achieve them and defines the program's development paths and directions.

Program Objectives: They are statements that describe what the academic program intends to achieve within a specific period of time and are measurable and observable.

Curriculum Structure: All courses / subjects included in the academic program according to the approved learning system (quarterly, annual, Bologna Process) whether it is a requirement (ministry, university, college and scientific department) with the number of credit hours.

Learning Outcomes: A compatible set of knowledge, skills and values acquired by students after the successful completion of the academic program and must determine the learning outcomes of each course in a way that achieves the objectives of the program.

Teaching and learning strategies: They are the strategies used by the faculty members to develop students' teaching and learning, and they are plans that are followed to reach the learning goals. They describe all classroom and extra-curricular activities to achieve the learning outcomes of the program.

Academic Program Description Form

University Name: University of Mosul

Faculty/Institute: College of Dentistry

Scientific Department: N/A

Academic or Professional Program Name: Dentistry

Final Certificate Name: Bachelor's Degree in Oral and Maxillofacial Medicine and Surgery

Academic System: Annual

Description Preparation Date: 01 March 2024 for the 2023-2024 academic year

File Completion Date: 31 March 2024

Signature:
Head of Department Name:
Assist. Prov. Dr.
Rayan Salem Hamed
Date: 24.4.2024

Signature:
Scientific Associate Name:
Assist. Prov. Dr
Ali Moayid Rasheed
Date: 24.4.2024

The file is checked by: Assist. Lec. Ahmed Dheyaa Fakhre
Department of Quality Assurance and University Performance
Director of the Quality Assurance and University Performance Department:
Date: 21/4/2024
Signature:

I authenticate the academic program for the academic year 2023-2024

Approval of the Dean

Academic Program Description Form

University Name: University of Mosul

Faculty/Institute: College of Dentistry

Scientific Department: N/A

Academic or Professional Program Name: Dentistry

Final Certificate Name: Bachelor's Degree in Dental Surgery (B.D.S.)

Academic System: Annual

Description Preparation Date: 01 March 2024 for the 2023-2024 academic year

File Completion Date: 31 March 2024

Signature:
Head of Department Name:
Assist Prof Dr Rayan H Salim
Date:

Signature:
Scientific Associate Name:
Assist Prof. Ali M Rasheed
Date:

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Date:

Signature:

Approval of the Dean

1. **Program Vision**
Program vision is written here as stated in the university's catalogue and website.

2. **Program Mission**
Program mission is written here as stated in the university's catalogue and website.

3. Program Objectives
The College of Dentistry was established in the academic year 1982-1983 to be another basic building block to be added to the rest of the colleges at the University of Mosul. It aims to prepare medical staff specialized in oral and maxillofacial medicine and surgery with a distinguished scientific and professional level. The college contains educational medical clinics in which students are trained. Clinically in modern clinics in all specialties and fields of dentistry (oral and maxillofacial surgery, dental industry, pediatric dentistry, preventive dentistry, orthodontics, dental treatment and periodontal diseases) and with the latest technologies. This is in addition to their teaching in various scientific and applied laboratories, and the duration of study in the college is five years.

4. **Program Accreditation**
Does the program have program accreditation? And from which agency? No

5. **Other external influences**
Is there a sponsor for the program? No

6. Program Structure				
Program Structure	**Number of Courses**	**Credit hours**	**Percentage**	**Reviews***
Institution Requirements	N/A			
College Requirements	First year – 9	38	5%	
	Second year - 8	40	10%	
	Third year - 10	45	15%	
	Fourth year - 9	49	30%	
	Fifth year - 9	53	40%	
Department Requirements	N/A			
Summer Training	Forth year	80 hours		
	Fifth year	80 hours		

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

7. Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
First year	**101 MP**	Medical Physics	60	60
	102 PROG	Computer	30	60
	103 MC	Medical Chemistry	60	60
	104 MBIO	Medical Biology	60	60
	105 DENA	Dental Anatomy	60	60
	106 HRD	Human Rights and Democracy	30	N/A
	107 ENG	English Language and Dental Terminology	30	N/A
	108 HUMA	Human Anatomy	30	60
	109 ARL	Arabic Language	30	N/A

7. Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
Second year	**201 HUMA**	Human Anatomy	30	60
	202 PROS	Prosthodontics	30	120
	203 GHIS	General Histology	60	60
	204 MPHS	Medical Physiology	60	60
	205 BICH	Biochemistry	60	60
	206 OHISE	Oral Histology and Embryology	60	60
	207 DM	Dental Materials	30	60
	208 BSBS	Biosecurity and Biosafety	15	30

7. Program Description				
Year/Level	**Course Code**	**Course Name**	**Credit Hours**	
			theoretical	**practical**
Third year	**301 PROS**	Prosthodontics	30	90
	302 OSUR	Oral Surgery	30	60
	303 MICB	Microbiology	60	60
	304 GPATH	General Pathology	60	60
	305 PHAR	Pharmacology	60	60
	306 PCOD	Preclinical Operative Dentistry	30	60
	307 COMD	Community Dentistry	30	60
	308 DRAD	Dental Radiology	30	60
	309 PFP	Preclinical Fixed Prosthodontics	30	60
	310 DETH	Dental Ethics	30	N/A

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
Fourth year	401 PERI	Periodontology	30	90
	402 ORTH	Orthodontics	30	120
	403 OSUR	Oral Surgery	30	120
	404 COND	Operative and Esthetic Dentistry and Endodontics	30	180
	405 OPATH	Oral Pathology	60	90
	406 PROS	Prosthodontics	30	90
	407 GMED	General Medicine	30	60
	408 GSUG	General Surgery	30	60
	409 PED	Paediatric Dentistry	30	60

7. Program Description				
Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
Fifth year	501 PERI	Periodontology	30	90
	502 PRVD	Preventive Dentistry	30	90
	503 OSUR	Oral Surgery	30	180
	504 PROS	Prosthodontics	30	180
	505 CECP	Clinical Endodontics and Clinical Fixed Prosthodontics	30	180
	506 ORTH	Orthodontics	30	120
	507 PEDO	Pedodontics	30	90
	508 OMED	Oral Medicine	30	120
	509 RESP	Research Project	30	N/A

8. Expected learning outcomes of the program

A. Knowledge	
1. The student acquires comprehensive knowledge of the scientific terminology used in dentistry and the theoretical material.	1. Theoretical tests and practical tests.
2. Familiarize the students with different types of materials and devices used in dentistry.	2. Practical laboratories tests.
3. Enhancing the student's confidence to deal with all types of patients.	3. Practical mannequin skills tests.
4. Developing the student's ability to deal with different therapeutic cases.	4. Clinical tests on patients.
5. Strengthening the principle of participation students group discussions to discuss a medical condition and the method of its treatment.	5. Scientific reports and academic studies.
6. Providing the student with complete knowledge to enable him to prepare an integrated treatment plan for the patients.	6. Clinical tests on patients.
B. Skills	
1. Promoting professional ethics and patients' treatment approach between the graduates.	1. Clinical tests on patients.
2. Acquirement of various therapeutic skills for the students.	2. Clinical tests on patients.
3. Promoting the principle of continuous education to continue developing the dental profession.	3. Scientific reports and academic studies.

C. Ethics	
1. The skill of thinking according to the student's ability (let think about thinking ability).	1. The student to believe in what is tangible (the student's ability) and to understand when, what and how he should think and work to improve the ability to think reasonably.
2. Critical thinking skill.	2. Aims to pose a problem, analyze it logically, and reach the solution.
3. The balance between freedom and responsibility.	3. Enhances student's awareness of the necessity of balance between freedom and responsibility, to determine the best treatment for the patients.
4. Decision making ability	4. Enhances student's skill of making the right decision for the benefit of the patient based on logical thinking.

9. Teaching and Learning Strategies

- Giving lectures.
- Providing students with lectures on the college website.
- Educational videos.
- Utilization of projectors and digital cameras.
- Use of educational models.
- Training courses and workshops.
- Applied clinical education.
- Focused student group discussion.

10. Evaluation methods

- Theoretical tests.
- Oral exams.
- Laboratory practical tests.
- Practical mannequin tests.
- Practical tests on patients.
- Scientific reports and academic studies.

- Final year research project (Fifth year).

11. Teaching staff					
Academic Rank	**Specialization**		**Number of the teaching staff**		
	General	**Special**	**Skills**	**Staff**	**Temp**
Professor	Science	Microbiology		1	0
Professor	Dentistry	Oral and dental pharmacology		2	0
Professor	Pharmacy	General pharmacology		2	0
Professor	Dentistry	Conservative dentistry		1	0
Professor	Veterinary medicine	Human anatomy		1	0
Professor	Dentistry	Orthodontics		1	0
Professor	Dentistry	Oral and maxillofacial surgery		2	0
Professor	Dentistry	Operative dentistry		1	0
Assistant professor	Statistics	Applicable statistics		2	0
Assistant professor	Science	Oral microbiology		2	0
Assistant professor	Science	Intelligence technology		1	0
Assistant professor	Dentistry	Conservative dentistry		7	0
Assistant professor	Science	Physics		1	0
Assistant professor	Dentistry	Oral pathology		1	0
Assistant professor	Dentistry	Orthodontics		15	0
Assistant professor	Dentistry	Oral and maxillofacial surgery		5	0

Assistant professor	Dentistry	Prosthodontics		10	0
Assistant professor	Dentistry	Preventive dentistry		2	0
Assistant professor	Dentistry	Oral medicine		1	0
Assistant professor	Science	Biochemistry		2	0
Assistant professor	Science	Industrial chemistry		1	0
Assistant professor	Science	Physiology		1	0
Assistant professor	Literature	Arabic language		1	0
Assistant professor	Dentistry	Operative dentistry		5	0
Lecturer	Dentistry	Oral microbiology		2	0
Lecturer	Pharmacology	Oral pharmacology		3	0
Lecturer	Dentistry	Dental radiology		2	0
Lecturer	Science	Microbiology (bacteria)		1	0
Lecturer	Dentistry	Anatomy and histology		1	0
Lecturer	Dentistry	Endodontics		2	0
Lecturer	Science	Medical physiology		1	0
Lecturer	Science	Chemistry		1	0
Lecturer	Science	Biochemistry		1	0
Lecturer	Dentistry	Periodontology		2	0
Lecturer	Dentistry	Oral histology		2	0
Lecturer	Science	Histology / physiology		2	0
Lecturer	Science	Biotechnology		1	0
Lecturer	Dentistry	Orthodontics		11	0
Lecturer	Dentistry	Oral and maxillofacial surgery		8	0
Lecturer	Dentistry	Prosthodontics		18	0

Lecturer	Dentistry	Preventive dentistry		1	0
Lecturer	Dentistry	Oral medicine		3	0
Lecturer	Dentistry	Conservative dentistry		8	0
Lecturer	Science	Biology		2	0
Lecturer	Science	Physics		1	0
Lecturer	Veterinary medicine	Veterinary physiology		1	0
Lecturer	Science	Medical physics		1	0
Lecturer	Science	Biochemistry		1	0
Lecturer	Science	Organic chemistry		1	0
Lecturer	Dentistry	Operative dentistry		6	0
Lecturer	Dentistry	Oral and maxillofacial tissue engineering		1	0
Assistant lecturer	Business and administration	Strategic administration		1	0
Assistant lecturer	Biology	Oral microbiology		1	0
Assistant lecturer	Literature	Translation		1	0
Assistant lecturer	Economy and administration	Legal accountancy		1	0
Assistant lecturer	Dentistry	General pathology		1	0
Assistant lecturer	Dentistry	General histology		1	0
Assistant lecturer	Dentistry	Orthodontics		9	0
Assistant lecturer	Dentistry	Oral and maxillofacial surgery		9	0
Assistant lecturer	Dentistry	Prosthodontics		13	0
Assistant lecturer	Dentistry	Preventive dentistry		6	0

Assistant lecturer	Dentistry	Conservative dentistry		15	0
Assistant lecturer	Veterinary medicine	Veterinary medicine surgery		1	0
Assistant lecturer	Veterinary medicine surgery	Physiology		2	0
Assistant lecturer	Dentistry	Paediatric dentistry		1	0
Assistant lecturer	Science	Chemistry science		1	0
Assistant lecturer	Engineering	Medical devices engineering		2	0
Assistant lecturer	Engineering	Electrical and computer engineering		1	0
Assistant lecturer	Technical engineering	Medical devices electronic engineering		2	0
Assistant lecturer	Engineering	Computer engineering		2	0

12. Professional Development
Mentoring new faculty members
The enrolment of our teaching staff in the teaching skills development courses held by the University of Mosul through teaching methodologies courses and teaching suitability tests. The enrolment of our teaching staff in English and Arabic language development courses for teaching and promotion purposes organized by the University of Mosul. The enrolment of our teaching staff in computer skills and medical statistics courses to develop their skills in using modern technologies in teaching.
Professional development of faculty members
Continuously working to measure the performance level of the teaching staff and comparing it with their counterpart in similar educational institutions. Also, to evaluate the teaching staff performance continuously by logging it into integrated

database that allows for proper feedback system, which ultimately contributes to the enhancement of the educational level, that is aiming at advancing the level of quality of services provided to patients.
Organizing continuing education programs for the teaching staff and practicing dentists from other health institutions to develop their scientific, professional and research capabilities. Hence, ensuring the continuous renewal of their information and intellectual capabilities through periodic specialized discussion groups.

13. Acceptance Criterion

Admission criteria include students who have a certain cumulative average according to the central admission system. Students who have the physical, mental, and social ability to manage any medical condition or practice required for study are also selected. Most dental schools require personal interviews with candidates to evaluate qualities such as the desire to help people, self-confidence, and ability to take on challenges, ability to work with people and ability to work independently.

14. The most important sources of information about the program

1. The college and university websites.
2. The university guide booklet.
3. College books and scientific sources.

15. Program Development Plan

Striving through twinning with corresponding dental colleges in prestigious universities locally, regionally and internationally to enhance the academic and scientific performance of the teaching staff and students in the college. Also, through the participation in the academic and scientific forums and meeting locally, regionally and internationally.
The continuous discussion to achieve the best benefit of the e-learning and to increase its impact on the education system to adopt it as adjunct to the traditional teaching methods. As well as, the continuous endeavour of the college to develop its teaching

staff in order to advance the educational process to continue the advancement with the latest teaching methods.

Program Skills Outline															
				Required program Learning outcomes											
Year / Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
First year	101 MP	Medical Physics	Basic	√	√			√	√	√	√	√	√	√	√
	102 PROG	Computer	Basic	√	√			√	√	√	√	√	√	√	√
	103 MC	Medical Chemistry	Basic	√	√			√	√	√	√	√	√	√	√
	104 MBIO	Medical Biology	Basic	√	√			√	√	√	√	√	√	√	√
	105 DENA	Dental Anatomy	Basic	√	√			√	√			√	√		
	106 HRD	Human Rights and Democracy	Basic	√	√			√	√	√		√	√	√	√
	107 ENG	English Language and Dental Terminology	Basic	√	√	√	√	√	√			√	√	√	√
	108 HUMA	Human Anatomy	Basic	√	√	√	√	√	√			√	√	√	√
	109 ARL	Arabic Language	Basic	√	√	√		√	√			√	√	√	√

√ Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Program Skills Outline

Year / Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes											
				Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Second year	201 HUMA	Human Anatomy	Basic	√	√	√		√	√		√	√	√		
	202 PROS	Prosthodontics	Basic	√	√			√	√		√	√	√	√	√
	203 GHIS	General Histology	Basic	√	√	√		√	√		√	√	√	√	
	204 MPHS	Medical Physiology	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	205 BICH	Biochemistry	Basic	√	√	√		√	√			√			
	206 OHISE	Oral Histology and Embryology	Basic	√	√			√	√			√	√		
	207 DM	Dental Materials	Basic	√	√			√	√	√	√	√	√	√	√
	208 BSBS	Biosecurity and Biosafety	Basic	√	√			√				√	√	√	

√ Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Program Skills Outline

Year / Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes											
				Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Third year	301 PROS	Prosthodontics	Basic	√	√	√	√	√	√	√	√	√	√		
	302 OSUR	Oral Surgery	Basic	√	√	√	√	√	√		√	√	√		√
	303 MICB	Microbiology	Basic	√	√	√		√	√	√		√	√	√	
	304 GPATH	General Pathology	Basic	√	√			√	√			√	√		√
	305 PHAR	Pharmacology	Basic	√	√	√	√	√	√			√			
	306 PCOD	Preclinical Operative Dentistry	Basic	√	√	√		√	√	√	√	√	√		
	307 COMD	Community Dentistry	Basic	√	√	√		√	√	√		√	√	√	√
	308 DRAD	Dental Radiology	Basic	√	√			√	√	√	√	√	√	√	√
	309 PFP	Preclinical Fixed Prosthodontics	Basic	√				√	√		√	√			
	310 DETH	Dental Ethics	Basic	√				√	√			√			

√ Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Program Skills Outline

Year / Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes											
				Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Fourth year	401 PERI	Periodontology	Basic	√	√	√		√	√			√	√		
	402 ORTH	Orthodontics	Basic	√	√	√	√	√	√			√	√		
	403 OSUR	Oral Surgery	Basic	√	√	√		√	√	√		√	√		
	404 COND	Operative and Esthetic Dentistry and Endodontics	Basic	√	√	√		√	√			√	√	√	
	405 OPATH	Oral Pathology	Basic	√	√	√		√		√		√			
	406 PROS	Prosthodontics	Basic	√	√	√		√	√			√	√		
	407 GMED	General Medicine	Basic	√	√	√		√	√	√		√	√	√	
	408 GSUG	General Surgery	Basic	√	√	√		√	√	√		√	√	√	
	409 PED	Paediatric Dentistry	Basic	√	√	√		√	√			√			

√ Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Program Skills Outline

Year / Level	Course Code	Course Name	Basic or optional	Required program Learning outcomes											
				Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
Fifth year	501 PERI	Periodontology	Basic	√	√	√	√	√	√	√		√	√		
	502 PRVD	Preventive Dentistry	Basic	√	√	√		√	√	√		√	√		
	503 OSUR	Oral Surgery	Basic	√	√			√	√	√	√	√	√		
	504 PROS	Prosthodontics	Basic	√	√	√		√	√	√		√	√	√	√
	505 CECP	Clinical Endodontics and Clinical Fixed Prosthodontics	Basic	√	√	√		√	√	√		√	√		
	506 ORTH	Orthodontics	Basic	√	√	√	√	√	√	√	√	√	√	√	√
	507 PEDO	Pedodontics	Basic	√				√	√			√			
	508 OMED	Oral Medicine	Basic	√	√	√		√	√	√		√	√	√	
	509 RESP	Research Project	Basic	√	√	√		√	√	√		√	√		

√ Please tick the boxes corresponding to the individual program learning outcomes under evaluation.

Course Description – First year

Course Description Form

1. Course Name:	
Medical Physics	
2. Course Code:	
101 MP	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant professor Atyaf Subhi Alrawas Email: atyafalrawas@uomosuledu.iq	
8. Course Objectives	
Course Objectives	- Introduction to basic physics. - Study of medical physics related to dentistry. - Practical experiments for physical properties and phenomena.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure					
Theoretical part					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Terms: Medical Physics, physical medicine, Physical therapy, Health Physics, Radiological Physics, clinical physics.	Terminology	Theory lectures	Theory exam
2	2	Modeling, Accuracy, Precision, False Positive, False Negative.	Terminology	Theory lectures	Theory exam
3	2	Static forces :(type of levers with medical examples).	Force on &in body	Theory lectures	Theory exam
4	2	Dynamic forces (Centrifuge)	Force on &in body	Theory lectures	Theory exam
5	2	Bones:(Function of bones, Composition of bone, bone remodeling, compact and trabecular bone)	Physics of the skeleton	Theory lectures	Theory exam
6	2	Stress-strain curve: (compressive and tensile stress, young modulus). Bone joints: (Synovial fluid, coefficient of a joint).	Physics of the skeleton	Theory lectures	Theory exam
7	2	Physical basis of heat and temperature, Temperature scales, Converting Temperatures, Temperature in Dentistry, Thermal expansion, (Linear, Area, Volume Thermal Expansion).	Heat and cold in medicine	Theory lectures	Theory exam
8	2	Thermometry, Heat therapy, Thermography, Cold in medicine and cryosurgery. Thermal conductivity.	Heat and cold in medicine	Theory lectures	Theory exam
9	2	First law of thermodynamic. Energy change in the body (Met, Basal metabolic rate (BMR).	Energy, work and power of the body	Theory lectures	Theory exam

10	2	Work and power. Efficiency heat losses from the body. Anaerobic phase and aerobic phase. Hypothalamus (body's thermostat).Heat lost by (radiation, convection, evaporation of sweat and respiration).	Energy, work and power of the body	Theory lectures	Theory exam
11	2	Definition, absolute pressure, gauge pressure, negative pressure, unit of pressure. Measurement of pressure in the body (Manometer).	Pressure	Theory lectures	Theory exam
12	2	Pressure inside the skull. Eye pressure. Pressure in the skeleton. Pressure in the urinary bladder. Boyle's law: (pressure while diving). HOT (hyperbaric oxygen therapy).	Pressure	Theory lectures	Theory exam
13	2	Electrical potential of nerves (resting potential, action potential in myelinated and unmyelinated nerves) Electromyogram (EMG).	Electricity within the body	Theory lectures	Theory exam
14	2	Electrical potential in the heart (electrocardiogram Electroencephalogram (EEG).	Electricity within the body	Theory lectures	Theory exam
15	2	Properties of sound.	Sound in medicine	Theory lectures	Theory exam
16	2	Stethoscope (including heart sound), mechanism of hearing.	Sound in medicine	Theory lectures	Theory exam
17	2	(A-scan, B-scan, M-scan and Doppler effect).	Ultrasound	Theory lectures	Theory exam
18	2	Physiological effect of ultrasound in therapy.	Ultrasound	Theory lectures	Theory exam
19	2	Light nature, Planck Equation, (Reflection, Refraction and Absorption of Light, Properties of light).	Light in medicine	Theory lectures	Theory exam

20	2	Diffuse reflection, Specular reflection, Phototherapy, Application of ultraviolet and infrared light in medicine, Tanning and Skin Cancer.	Light in medicine	Theory lectures	Theory exam
21	2	What is laser? Application of laser in medicine. Atomic Transitions, Population inversion, Laser Typical Characteristics.	Laser in medicine	Theory lectures	Theory exam
22	2	General Applications of Laser, Laser Dental. Applications, Reshape gum tissue, Laser aided teeth whitening, Laser Drill.	Laser in medicine	Theory lectures	Theory exam
23	2	Focusing element of the eye (cornea, lens).	Physics of eye and vision	Theory lectures	Theory exam
24	2	Element of the eye (pupil, aqueous humor, vitreous humor, sclera).Visual acuity, Snellen chart, optical density.	Physics of eye and vision	Theory lectures	Theory exam
25	2	Properties of X-ray, production of X-ray. Absorption of X-ray, contrast media-ray image (penumbra, grid, and intensifying screens).	Physics of diagnostic X-ray	Theory lectures	Theory exam
26	2	Radiation to patients from X-ray (filters).	Physics of diagnostic X-ray	Theory lectures	Theory exam
27	2	Radioactivity decay, half-life, units. Basic instrumentation and its medical application (GM-tube, Photomultiplier tube, scintillation detector, solid state detector).	Physics of nuclear medicine	Theory lectures	Theory exam
28	2	Therapy with radioactivity. Radiation doses in nuclear medicine.	Physics of nuclear medicine	Theory lectures	Theory exam
29	2	The dose units (Rad and Gray). Principles of radiation therapy.	Physics of radiation therapy	Theory lectures	Theory exam

30	2	Brach therapy, quality factor (QF).	Physics of radiation therapy	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Guidelines of Medical Physics Lab and Rules must be obeyed by the students	Practical work	Practical exam
2	2	Graphing Techniques	Practical work	Practical exam
3	2	Ohm's law: - verify ohm's law - to find the value of different values of resistance	Practical work	Practical exam
4	2	Ohm's law: - verify ohm's law - to find the value of different values of resistance	Practical work	Practical exam
5	2	Semiconductors (junction diode): To determine the characteristics of the semiconductors Comparison between omic and non-omic resistance	Practical work	Practical exam
6	2	Semiconductors (junction diode): To determine the characteristics of the semiconductors Comparison between omic and non-omic resistance	Practical work	Practical exam
7	2	Cathode ray oscilloscope to measure D.C voltage	Practical work	Practical exam
8	2	Cathode ray oscilloscope to measure A.C voltage	Practical work	Practical exam
9	2	The focal length of convex lens: -Rough value of focal length of different convex lenses, -A graphical method of measuring of focal length, Comparison between these methods and the given value.	Practical work	Practical exam
10	2	The focal length of convex lens: -Rough value of focal length of different convex lenses, -A graphical method of measuring of focal length, Comparison between these methods and the given value.	Practical work	Practical exam
11	2	Hook's law: -To verify Hook's law and determine the force constant of the spring. -To determine the work done by stretching the spring	Practical work	Practical exam
12	2	Hook's law: -To verify Hook's law and determine the force constant of the spring. -To determine the work done by stretching the spring	Practical work	Practical exam
13	2	Focal length of concave mirror: -Locating the radius of curvature Determining the focal length	Practical work	Practical exam

14	2	Focal length of concave mirror: -Locating the radius of curvature Determining the focal length	Practical work	Practical exam
15	2	General review and exam	Practical work	Practical exam
16	2	Laser applications: -To measure the width of a single slit by using a laser To measure the wavelength of laser by using a certain single slit	Practical work	Practical exam
17	2	Laser applications: -To measure the width of a single slit by using a laser To measure the wavelength of laser by using a certain single slit	Practical work	Practical exam
18	2	Boyle's law: -To verify Boyle's law -To measure the pressure of the atmosphere	Practical work	Practical exam
19	2	Boyle's law: -To verify Boyle's law -To measure the pressure of the atmosphere	Practical work	Practical exam
20	2	Inverse Square law: - To verify the inverse square law - Radiation shielding by different thicknesses of a certain material	Practical work	Practical exam
21	2	Inverse Square law: - To verify the inverse square law - Radiation shielding by different thicknesses of a certain material	Practical work	Practical exam
22	2	Viscosity of a liquid - To determine the viscosity of a medium using a small sphere falls with a constant terminal velocity. - To verify Stokes' law	Practical work	Practical exam
23	2	Viscosity of a liquid - To determine the viscosity of a medium using a small sphere falls with a constant terminal velocity. - To verify Stokes' law	Practical work	Practical exam
24	2	Velocity of the sound - To measure the velocity of the sound by using a resonance tube, closed at one end, at room temperature. - Calculated the	Practical work	Practical exam
25	2	theoretical and practical values of the velocity of sound and comparing between them	Practical work	Practical exam
26	2	Velocity of the sound - To measure the velocity of the sound by using a resonance tube, closed at one end, at room temperature. - Calculated the theoretical and practical values of the velocity of sound and comparing between them	Practical work	Practical exam
27	2	The focal length of a converging lens - To determine the focal length of a converging lens by lens	Practical work	Practical exam

		displacement method using conjugate foci. - To calculate curvature value of this converging lens		
28	2	The focal length of a converging lens - To determine the focal length of a converging lens by lens displacement method using conjugate foci. - To calculate curvature value of this converging lens	Practical work	Practical exam
29	2	Simple Pendulum -To determine the periodic time and its variation with the length of the pendulum -To calculate the acceleration of free fall	Practical work	Practical exam
30	2	Simple Pendulum -To determine the periodic time and its variation with the length of the pendulum -To calculate the acceleration of free fall	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Medical Physics (John Cameron) Physics of the human body(Irving Herman)
Main references (sources)	Some other general references
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Computer	
2. Course Code:	
102 PROG	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Professor Reem Ali Aljaraah Email: aljaraah@uomosuledu.iq	
8. Course Objectives	
Course Objectives	- Introduction to computer sciences. - Study of computer software related to dentistry. - Practical hand-on using Microsoft Office suite.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	1	Introduction about computer, Hardware and Software, computer structure, Floppy magnetic disks	Introduction	Theory lectures	Theory exam
2	1	E-learning	E-learning	Theory lectures	Theory exam
3	1	Google Classroom Platform, Google drive	E-learning	Theory lectures	Theory exam
4	1	Google forms	E-learning	Theory lectures	Theory exam
5	1	Online conferencing	E-learning	Theory lectures	Theory exam
6	1	Introduction about Windows, A look at Windows 10, Stating Windows 10, Working with a windows Programs	Windows	Theory lectures	Theory exam
7	1	Working with files and folders, Using My computer	Windows	Theory lectures	Theory exam
8	1	Working with Taskbar and Desktop	Windows	Theory lectures	Theory exam
9	1	Using Windows Accessories	Windows	Theory lectures	Theory exam
10	1	A look at Control Panel	Windows	Theory lectures	Theory exam
11	1	Widows Explorer	Windows	Theory lectures	Theory exam
12	1	Libraries	Windows	Theory lectures	Theory exam
13	1	Introduction about Microsoft Word 2016, A look at Microsoft Word, Editing Document	Microsoft Word	Theory lectures	Theory exam
14	1	Formatting Text	Microsoft Word	Theory lectures	Theory exam
15	1	Formatting paragraphs	Microsoft Word	Theory lectures	Theory exam
16	1	Proofing documents	Microsoft Word	Theory lectures	Theory exam
17	1	Adding Tables	Microsoft Word	Theory lectures	Theory exam
18	1	Inserting Graphic Elements	Microsoft Word	Theory lectures	Theory exam
19	1	Controlling page Appearance	Microsoft Word	Theory lectures	Theory exam
20	1	Introduction about Excel, A Look at Microsoft Excel	Microsoft Excel	Theory lectures	Theory exam
21	1	Modifying A Worksheet , performing Calculations	Microsoft Excel Microsoft Excel	Theory lectures	Theory exam

22	1	Formatting a worksheet, Developing a workbook	Microsoft Excel	Theory lectures	Theory exam
23	1	Printing Workbook Contents, Customizing Layout	Microsoft Excel	Theory lectures	Theory exam
24	1	Introduction about Microsoft Access, A look at Microsoft Access	Microsoft Access	Theory lectures	Theory exam
25	1	Creating Data tables, properties of the fields	Microsoft Access	Theory lectures	Theory exam
26	1	Querying the database, Designing Forms/Producing reports	Microsoft Access	Theory lectures	Theory exam
27	1	Introduction about Microsoft Power point, starting power point 2016	Microsoft Power point	Theory lectures	Theory exam
28	1	Formatting text, Using graphics and Text	Microsoft Power point	Theory lectures	Theory exam
29	1	Manipulating the slides, Using Multimedia Elements	Microsoft Power point	Theory lectures	Theory exam
30	1	Power point Management	Microsoft Power point	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Introduction about computer /Hardware and Software/computer structure/`Floppy magnetic disks	Practical work	Practical exam
2	2	Operating systems/CD-ROM/	Practical work	Practical exam
3	2	Create Files &Folders High level programming language /Constant and variable/Library Function /Arithmetic expression/Type of Monitor /Number of systems	Practical work	Practical exam
4	2	Introduction about MS-DOS Operating systems/DOS drive /Key-Board	Practical work	Practical exam
5	2	DOS commands /Internal Commands/External Commands	Practical work	Practical exam
6	2	Introduction about Windows /A look at Windows 7/Stating Windows	Practical work	Practical exam

		7/Working with a windows Program		
7	2	Working with files and folders/ Using My computer	Practical work	Practical exam
8	2	Working with Taskbar and Desktop	Practical work	Practical exam
9	2	Using Windows Accessories	Practical work	Practical exam
10	2	A look at Control Panel	Practical work	Practical exam
11	2	Windows Explorer	Practical work	Practical exam
12	2	Libraries	Practical work	Practical exam
13	2	Introduction about Microsoft Word A look at Microsoft Word /Editing Document	Practical work	Practical exam
14	2	Formatting Text/	Practical work	Practical exam
15	2	Formatting paragraphs	Practical work	Practical exam
16	2	Proofing documents	Practical work	Practical exam
17	2	Adding Tables	Practical work	Practical exam
18	2	Inserting Graphic Elements	Practical work	Practical exam
19	2	Controlling page Appearance	Practical work	Practical exam
20	2	Introduction about Excels /A Look at Microsoft Excel	Practical work	Practical exam
21	2	Modifying A Worksheet /performing Calculations	Practical work	Practical exam
22	2	Formatting a worksheet/ Developing a work book	Practical work	Practical exam
23	2	Printing Workbook Contents/Customizing Layout	Practical work	Practical exam
24	2	Introduction about Microsoft Access/ A look at Microsoft Access	Practical work	Practical exam
25	2	Creating Data tables /properties of the fields	Practical work	Practical exam

26	2	Querying the database/Designing Forms/Producing reports	Practical work	Practical exam
27	2	Introduction about Microsoft Power point/starting power point	Practical work	Practical exam
28	2	Formatting text/Using graphics and Text	Practical work	Practical exam
29	2	Manipulating the slides/Using Multimedia Elements	Practical work	Practical exam
30	2	Power point Management	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Principles of computers – Volume 1 and Volume 2
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Medical Chemistry	
2. Course Code:	
103 MC	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Ammar Abdulghani Email: drammar@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to basic chemistry. - Study of medical chemistry related to dentistry. - Practical experiments for chemical properties and phenomena.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2	Acid, Base and Salt	Acid, Base	Theory lectures	Theory exam
2	2	Salts, preparation of salts	Salts	Theory lectures	Theory exam
3	2	Fluid and electrolyte	electrolyte	Theory lectures	Theory exam
4	2	Buffer-pH and Acid-Base Balance	Buffer-pH	Theory lectures	Theory exam
5	2	Acid-base balance and blood pH	Buffer-pH	Theory lectures	Theory exam
6	2	Colloids and colloidal dispersions	Colloids	Theory lectures	Theory exam
7	2	Chirality in Biological Systems	Chirality	Theory lectures	Theory exam
8	2	Concentration, preparation of solutions	Concentration	Theory lectures	Theory exam
9	2	Pollution	Pollution	Theory lectures	Theory exam
10	2	Radiochemistry	Radiochemistry	Theory lectures	Theory exam
11	2	Alkanes and Cycloalkanes	Alkanes	Theory lectures	Theory exam

12	2	Alkenes and Alkynes	Alkenes	Theory lectures	Theory exam
13	2	Aromatic compounds	Aromatic compounds	Theory lectures	Theory exam
14	2	Aromatic compounds in Nature	Aromatic compounds	Theory lectures	Theory exam
15	2	Stereoisomers of Carbon	Stereoisomers	Theory lectures	Theory exam
16	2	Diastereomers	Diastereomers	Theory lectures	Theory exam
17	2	Alcohols, Phenols, Ethers and Thiols (preparation, reactions)	Alcohols	Theory lectures	Theory exam
18	2	Carboxylic Acids And Their Derivatives , part 1	Carboxylic Acids	Theory lectures	Theory exam
19	2	Carboxylic Acids And Their Derivatives part 2	Carboxylic Acids	Theory lectures	Theory exam
20	2	Aldehydes and ketones	Aldehydes	Theory lectures	Theory exam
21	2	Carbohydrates	Carbohydrates	Theory lectures	Theory exam
22	2	Monosaccharide's	Monosaccharide	Theory lectures	Theory exam

23	2	Disaccharides Carbohydrates and oral health	Disaccharides	Theory lectures	Theory exam
24	2	Lipids	Lipids	Theory lectures	Theory exam
25	2	Derived lipids, The role of lipids in teeth diseases	Lipids	Theory lectures	Theory exam
26	2	Proteins	Proteins	Theory lectures	Theory exam
27	2	Amino acids, Effects of protein on oral health	Proteins	Theory lectures	Theory exam
28	2	Nucleic Acids	Proteins	Theory lectures	Theory exam
29	2	Nucleosides, Nucleotides	Proteins	Theory lectures	Theory exam
30	2	Deoxy and ribo Nucleic acids	Proteins	Theory lectures	Theory exam

Practical part				
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**
1	2	Action of Strong Base and Acids	Practical work	Practical exam
2	2	Solubility rules and Applications (Solubility rules of salts).	Practical work	Practical exam
3	2	Test for negative ions (Anions).part 1	Practical work	Practical exam
4	2	Test for negative ions (Anions). part 2	Practical work	Practical exam
5	2	PH meter	Practical work	Practical exam
6	2	Test for positive ions (Cations). part 1	Practical work	Practical exam
7	2	Test for positive ions (Cations). part 2	Practical work	Practical exam
8	2	Titration	Practical work	Practical exam
9	2	Safety of chemicals - part 1	Practical work	Practical exam
10	2	Safety of chemicals - part 2	Practical work	Practical exam
11	2	Hydrocarbons	Practical work	Practical exam
12	2	Aliphatic Hydrocarbons	Practical work	Practical exam
13	2	Aromatic hydrocarbons, part 1	Practical work	Practical exam
14	2	Aromatic hydrocarbons, part 2	Practical work	Practical exam

15	2	Preparation of aspirin	Practical work	Practical exam
16	2	Alcohol	Practical work	Practical exam
17	2	Phenols reactions	Practical work	Practical exam
18	2	Carboxylic Acids reactions - part 1	Practical work	Practical exam
19	2	Carboxylic Acids reactions - part 2	Practical work	Practical exam
20	2	Aldehydes and ketones	Practical work	Practical exam
21	2	Carbohydrates reactions	Practical work	Practical exam
22	2	Monosaccharides reactions	Practical work	Practical exam
23	2	Disaccharides reactions	Practical work	Practical exam
24	2	Lipids reactions - part 1	Practical work	Practical exam
25	2	Lipids reactions - part 2	Practical work	Practical exam
26	2	Proteins reactions	Practical work	Practical exam
27	2	Amino acids reactions	Practical work	Practical exam
28	2	Paper chromatography - part 1	Practical work	Practical exam
29	2	Paper chromatography - part 2	Practical work	Practical exam
30	2	Osmosis	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Medical Biology	
2. Course Code:	
104 MBIO	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Maha Khalid Jameel Email: mahaaljameely@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to medical biology. - Study of medical biology related to dentistry. - Study of parasitology, causes and treatment.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion. − Seminars − Critical thinking

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Introduction to Medical and oral Biology	Introduction	Theory lectures	Theory exam
2	2	Prokaryotes and Eukaryotes	Prokaryotes	Theory lectures	Theory exam
3	2	General and oral Immunity	Immunity	Theory lectures	Theory exam
4	2	Bacteria and oral disease	Bacteria	Theory lectures	Theory exam
5	2	Genetics and its role in oral diseases	Genetics	Theory lectures	Theory exam
6	2	Simple epithelial tissue (Tongue)	epithelial tissue	Theory lectures	Theory exam
7	2	Stratified epithelial tissue	epithelial tissue	Theory lectures	Theory exam
8	2	Glandular epithelial tissue (salivary gland)	epithelial tissue	Theory lectures	Theory exam

9	2	General connective tissue (blood)	connective tissue	Theory lectures	Theory exam
10	2	Muscular tissue	connective tissue	Theory lectures	Theory exam
11	2	Nerve tissue	connective tissue	Theory lectures	Theory exam
12	2	Cell structure (oral mucus membrane)	Cells	Theory lectures	Theory exam
13	2	Plasma membrane structure	Cells	Theory lectures	Theory exam
14	2	Passage of Materials across Cell Membrane	Cells	Theory lectures	Theory exam
15	2	Cell cycle	Cells	Theory lectures	Theory exam
16	2	Mitosis and meiosis	Cells	Theory lectures	Theory exam
17	2	Cell energy	Cells	Theory lectures	Theory exam
18	2	Nucleic acid, DNA and RNA	Nucleic acid	Theory lectures	Theory exam
19	2	Introduction to parasitology	parasitology	Theory lectures	Theory exam
20	2	Types of parasites and host	parasitology	Theory lectures	Theory exam

21	2	General and oral protozoa	protozoa	Theory lectures	Theory exam
22	2	Human amoebas, E. histolytica, E.coli, E. gingivalis	protozoa	Theory lectures	Theory exam
23	2	Flagellates, Giardia lamblia, Trichomonas tenax, T. hominas, T. vaginalis	Flagellates	Theory lectures	Theory exam
24	2	Leishmania , cutaneous and vesical	Leishmania	Theory lectures	Theory exam
25	2	Sporozoa, Plasmodium spp.	Sporozoa	Theory lectures	Theory exam
26	2	Toxoplasma gondii	Toxoplasma	Theory lectures	Theory exam
27	2	Nemathelminthes, Ascaris lumbricoides,	Worms	Theory lectures	Theory exam
28	2	Ancylostoma duodenale, Entrobius vermicularis	Worms	Theory lectures	Theory exam

29	2	Platyhelminthes, Fasciola hepatica	Worms	Theory lectures	Theory exam
30	2	Schistosoma spp.	Worms	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**		**Learning method**	**Evaluation method**
1	2	Laboratory safety		Practical work	Practical exam
2	2	Parts of microscope		Practical work	Practical exam
3	2	Types of cells		Practical work	Practical exam
4	2	Simple epithelial tissue		Practical work	Practical exam
5	2	Stratified epithelia tissue		Practical work	Practical exam
6	2	Glandular epithelial tissue		Practical work	Practical exam
7	2	Serous, Mucous, Sero-mucous cell glands		Practical work	Practical exam
8	2	Proper connective tissue, Loose		Practical work	Practical exam
9	2	Proper connective tissue, dense		Practical work	Practical exam
10	2	Special connective tissue, type of cells		Practical work	Practical exam
11	2	Cartilage, Hyaline, Elastic, Fibro		Practical work	Practical exam
12	2	Compact and spongy bone		Practical work	Practical exam
13	2	Human Blood, W.B.C, R.B.C and frog blood		Practical work	Practical exam

14	2	Muscular tissue: Skeletal, cardiac and smooth muscles	Practical work	Practical exam
15	2	Nerve cell	Practical work	Practical exam
16	2	Central and peripheral nerve system	Practical work	Practical exam
17	2	Spinal cord and meninges	Practical work	Practical exam
18	2	Entamoeba histolytica, Entamoeba coli	Practical work	Practical exam
19	2	Giardia lamblia, Trichomonas vaginalis, Trichomonan tenax	Practical work	Practical exam
20	2	Leishmania tropica, Leshmania donovani	Practical work	Practical exam
21	2	Trypanosoma gambiense, T. rhodesiense	Practical work	Practical exam
22	2	Plasmodium vivax, Toxoplasma gondii	Practical work	Practical exam
23	2	Balantidium coli	Practical work	Practical exam
24	2	Echinococcus granulosus, Tania saginata Taenia solium	Practical work	Practical exam
25	2	Ancylostoma, Ascaris, Entrobius	Practical work	Practical exam
26	2	Schistosoma spp, Fasciola hepatica	Practical work	Practical exam
27	2	Endoskeleton of frog	Practical work	Practical exam
28	2	Experiment - examine samples of water	Practical work	Practical exam

29	2	Experiment - examine samples of water (one hour) Experiment - Blood groups (one hour)	Practical work	Practical exam
30	2	Experiment - Blood groups	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Dental Anatomy	
2. Course Code:	
105 DENA	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Zena Mohammad Email: Zenamohammad@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to human teeth anatomy. - Study of teeth tissue contents and eruption timetable. - Practical study and hands-on on teeth drawing and sculpture.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction	Introduction	Theory lectures	Theory exam

2	2	Introduction	Introduction	Theory lectures	Theory exam
3	2	Numbering Systems	Numbering	Theory lectures	Theory exam
4	2	Numbering Systems	Numbering	Theory lectures	Theory exam
5	2	Anatomical Landmarks	Landmarks	Theory lectures	Theory exam
6	2	Anatomical Landmarks	Landmarks	Theory lectures	Theory exam
7	2	Permanent Maxillary Central Incisor	Incisors	Theory lectures	Theory exam
8	2	Permanent Maxillary Central Incisor	Incisors	Theory lectures	Theory exam
9	2	Permanent Maxillary Lateral Incisor	Incisors	Theory lectures	Theory exam
10	2	Permanent Maxillary Lateral Incisor	Incisors	Theory lectures	Theory exam
11	2	Permanent Mandibular Incisors	Incisors	Theory lectures	Theory exam
12	2	Permanent Mandibular Incisors	Incisors	Theory lectures	Theory exam
13	2	Permanent Mandibular Incisors	Incisors	Theory lectures	Theory exam

14	2	Permanent Canines	Canines	Theory lectures	Theory exam
15	2	Permanent Canines	Canines	Theory lectures	Theory exam
16	2	Permanent Maxillary Premolars	Premolars	Theory lectures	Theory exam
17	2	Permanent Maxillary Premolars	Premolars	Theory lectures	Theory exam
18	2	Permanent Mandibular First Premolars	Premolars	Theory lectures	Theory exam
19	2	Permanent Mandibular First Premolars	Premolars	Theory lectures	Theory exam
20	2	Permanent Mandibular Second Premolar	Premolars	Theory lectures	Theory exam
21	2	Permanent Maxillary First Molar, Permanent maxillary second and third molars	Molars	Theory lectures	Theory exam
22	2	Permanent Maxillary First Molar, Permanent maxillary second and third molars	Molars	Theory lectures	Theory exam

23	2	Permanent Mandibular First Molar	Molars	Theory lectures	Theory exam
24	2	Permanent Mandibular Second and third Molars	Molars	Theory lectures	Theory exam
25	2	Tooth Development	Development	Theory lectures	Theory exam
26	2	Tooth Development	Development	Theory lectures	Theory exam
27	2	Pulp Cavities	Pulp	Theory lectures	Theory exam
28	2	Pulp Cavities	Pulp	Theory lectures	Theory exam
29	2	Occlusion and physiologic form of teeth and periodontium	Occlusion	Theory lectures	Theory exam
30	2	Occlusion and physiologic form of teeth and periodontium	Occlusion	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**		**Learning method**	**Evaluation method**
1	2	Introduction to Dental Anatomy & Carving Instruments		Practical work	Practical exam

2	2	Numbering systems	Practical work	Practical exam
3	2	Practical demonstration of Carving a Cube (1cm*1cm*1cm)	Practical work	Practical exam
4	2	Introduction to Anatomical landmarks on Teeth models. Carving of a cube.	Practical work	Practical exam
5	2	Description and Carving of the Labial Aspect of Permanent Maxillary Right Central Incisor.	Practical work	Practical exam
6	2	Description and Carving of the Mesial aspect of Permanent Maxillary Right Central Incisor.	Practical work	Practical exam
7	2	Description, Carving and Finishing of the Incisal Aspect of Permanent Maxillary Right Central Incisor.	Practical work	Practical exam
8	2	Practical Training of Carving of Permanent Maxillary Right Central Incisor	Practical work	Practical exam
9	2	Practical Exam of Carving of Permanent Maxillary Right Central Incisor	Practical work	Practical exam
10	2	Description &Carving of the Labial & Mesial Aspects of Permanent Maxillary Right Canine.	Practical work	Practical exam

11	2	Description, Carving and Finishing of the Incisal Aspect of Permanent Maxillary Right Canine.	Practical work	Practical exam
12	2	Practical Training of Carving of Permanent Maxillary Right Canine.	Practical work	Practical exam
13	2	Practical Exam of Carving of Permanent Maxillary Right Canine.	Practical work	Practical exam
14	2	Mid-Year Practical Examination of Tooth Carving.	Practical work	Practical exam
15	2	Description &Carving of the Buccal and Mesial Aspects of Permanent Maxillary Right 1st Premolar.	Practical work	Practical exam
16	2	Description, Carving & Finishing of the Occlusal Aspect of Permanent Maxillary Right 1st Premolar.	Practical work	Practical exam
17	2	Practical Training of Carving of Permanent Maxillary Right 1st Premolar	Practical work	Practical exam
18	2	Practical Exam of Carving of Permanent Maxillary Right 1st Premolar	Practical work	Practical exam
19	2	Description and Carving of the Buccal & Mesial Aspects of Permanent Mandibular Right 1st Premolar.	Practical work	Practical exam

20	2	Description, Carving and Finishing of the Occlusal Aspect of Permanent Mandibular Right 1st Premolar.	Practical work	Practical exam
21	2	Practical Training of Carving of Permanent Mandibular Right 1st Premolar	Practical work	Practical exam
22	2	Practical Exam of Carving of Permanent Mandibular Right 1st Premolar	Practical work	Practical exam
23	2	Description and Carving of the Buccal & Mesial Aspects of Permanent Maxillary 1st Molar	Practical work	Practical exam
24	2	Description, Carving & Finishing of the Occlusal Aspect of Permanent Maxillary 1st Molar	Practical work	Practical exam
25	2	Practical Training of Carving of Permanent Maxillary 1st Molar	Practical work	Practical exam
26	2	Practical Exam. of Carving of Permanent Maxillary Right 1st molar.	Practical work	Practical exam
27	2	Description and Carving of the Buccal & Mesial Aspects of Permanent Mandibular Right 1st molar.	Practical work	Practical exam
28	2	Description, Carving and Finishing of the Occlusal aspect of Permanent Mandibular Right 1st molar /Practical Training of Carving Permanent Mandibular Right 1st molar	Practical work	Practical exam

29	2	Practical Examination of Carving of Permanent Mandibular Right 1st molar	Practical work	Practical exam
30	2	Final Oral & Practical Examination of Tooth carving	Practical work	Practical exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Human Rights and Democracy	
2. Course Code:	
106 HRD	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours. Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Professor Dr Mohammed Salih Email: drmohammedsalih@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to principles of Human rights. - Study of modern democracy. - Introduction to Ba'ath crimes.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures. - Educational videos and utilization of smart boards. - Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Introduction Chapter One: Human Rights Human rights in ancient civilizations, human rights in Greek and Egyptian civilizations, human rights in ancient civilizations	Human Rights	Theory lectures	Theory exam
2	1	Chapter Two: Human rights in divine laws and religions Human rights in the Christian and Jewish religions, human rights in Islam	Human Rights	Theory lectures	Theory exam
3	1	Chapter Three: Sources of human rights International sources. The Universal Declaration of Human Rights	Sources of human rights	Theory lectures	Theory exam
4	1	The two international covenants on human rights	Sources of human rights	Theory lectures	Theory exam
5	1	National sources The first demand: The French Declaration of the Rights of Man and the Citizen (August 26, 1789)	Sources of human rights	Theory lectures	Theory exam
6	1	The French constitutions and declarations that followed the Declaration of Rights of 1789	Sources of human rights	Theory lectures	Theory exam
7	1	The Constitution of the Republic of Iraq of 2005	Sources of human rights	Theory lectures	Theory exam

8	1	Chapter Four: Human Rights Guarantees Human rights guarantees at the internal level, constitutional guarantees	Sources of human rights	Theory lectures	Theory exam
9	1	Judicial guarantees	Sources of human rights	Theory lectures	Theory exam
10	1	Human rights guarantees in Islam, Approval of the principle of dual responsibility in Islamic society, the religious character of Islamic law.	Sources of human rights	Theory lectures	Theory exam
11	1	Some Islamic systems are for the benefit of the individual, the group, and the ruling authorities	Sources of human rights	Theory lectures	Theory exam
12	1	Human rights guarantees at the international level The Charter of the United Nations United Nations General Assembly	Sources of human rights	Theory lectures	Theory exam
13	1	The Economic and Social Council Human Rights Council	Sources of human rights	Theory lectures	Theory exam
14	1	The role of regional organizations in protecting human rights, the European Convention on Human Rights		Theory lectures	Theory exam

15	1	The American Convention on Human Rights The African Charter on Human and Peoples' Rights The Arab Charter on Human Rights Chapter Five: The future of human rights Technological progress and its impact on rights and freedoms, human rights and public freedoms	Sources of human rights	Theory lectures	Theory exam
16	1	Political parties and human rights The role of media and education Globalization and human rights Privacy and human rights Hegemony and human rights	The future of human rights	Theory lectures	Theory exam
17	1	Chapter One: The concept of democracy, its development, definition and dimensions	Democracy	Theory lectures	Theory exam
18	1	The roots of the concept of democracy and its development	Democracy	Theory lectures	Theory exam
19	1	Definition of democracy	Democracy	Theory lectures	Theory exam
20	1	Democracy between universality and specificity.	Forms of Democracy	Theory lectures	Theory exam
21	1	Chapter Two: Forms of Democracy, Direct Democracy, Content of Direct Democracy Applications of Direct Democracy, Appreciation of the System of Direct Democracy	Forms of Democracy	Theory lectures	Theory exam

22	1	The semi-direct democracy, the concept of semi-direct democracy, aspects of semi-direct democracy	Forms of Democracy	Theory lectures	Theory exam
23	1	Appreciating the system of semi-direct democracy, representative democracy	Forms of Democracy	Theory lectures	Theory exam
24	1	The concept of the representative system and its legal nature The pillars of the representative system	The representative system	Theory lectures	Theory exam
25	1	The problem of the representative parliamentary system	The representative system	Theory lectures	Theory exam
26	1	The Parliament The one-house parliament system and the two-chamber system. The internal organization of the House of Representatives	The Parliament	Theory lectures	Theory exam
27	1	Chapter Three: The mechanism of the representative system Elections The concept of election and its legal adaptation The concept of election The legal adaptation of the election, the electorate, the concept of the electorate. The composition of the electorate	Elections	Theory lectures	Theory exam
28	1	Candidates for election, organizing the election process, defining electoral districts, electoral districts, candidates.	Elections	Theory lectures	Theory exam

29	1	The electoral campaign, voting Organizing elections, individual election and election on the American list (ASEAN)	Elections	Theory lectures	Theory exam
30	1	The majority system and the proportional representation system The system of representation of interests The voting system of choice and compulsory voting The system of secret voting and public voting	Elections	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
English Language and Dental Terminology	
2. Course Code:	
107 HRD	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours. Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Lecturer Areej Mohammed Email: areej_m2018@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Study English grammar. - Study of medical and dental terminology. - Enhancement of verbal and written language.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures. − Educational videos and utilization of smart boards. − Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Prefixes & suffixes	Prefixes	Theory lectures	Theory exam

2	1	Integumentary system	Integumentary system	Theory lectures	Theory exam
3	1	Muscular system	Muscular system	Theory lectures	Theory exam
4	1	Respiratory system	Respiratory system	Theory lectures	Theory exam
5	1	Digestive system	Digestive system	Theory lectures	Theory exam
6	1	Nervous system	Nervous system	Theory lectures	Theory exam
7	1	Cardiovascular system	Cardiovascular system	Theory lectures	Theory exam
8	1	Blood and Lymph	Immune system	Theory lectures	Theory exam
9	1	Immune system Endocrine system	Five sense	Theory lectures	Theory exam
10	1	Five sense	genitourinary system	Theory lectures	Theory exam
11	1	genitourinary system	Dental terminology	Theory lectures	Theory exam
12	1	Dental terminology part 1	Dental terminology	Theory lectures	Theory exam
13	1	Dental terminology part 2	Dental terminology	Theory lectures	Theory exam
14	1	Dental terminology part 3	Small Talks	Theory lectures	Theory exam
15	1	Small Talks	Common Mistakes	Theory lectures	Theory exam

16	1	Common Mistakes	Passive voice	Theory lectures	Theory exam
17	1	Passive voice	Direct and indirect speech	Theory lectures	Theory exam
18	1	Direct and indirect speech	Synonyms	Theory lectures	Theory exam
19	1	Synonyms in English	Adjectives	Theory lectures	Theory exam
20	1	Adjectives	quotation	Theory lectures	Theory exam
21	1	Integrating a quotation into an essay	Prepositions	Theory lectures	Theory exam
22	1	Prepositions in English	Grammar	Theory lectures	Theory exam
23	1	Grammar with Examples	Idioms	Theory lectures	Theory exam
24	1	Idioms and Phrases		Theory lectures	Theory exam
25	1	Writing assignment	Writing assignment	Theory lectures	Theory exam
26	1	Pronunciation rules	Pronunciation	Theory lectures	Theory exam
27	1	Tenses		Theory lectures	Theory exam
28	1	Synonyms and Antonyms	Synonyms	Theory lectures	Theory exam

29	1	Paraphrasing	Paraphrasing	Theory lectures	Theory exam
30	1	Essay writing skills	writing skills	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Human Anatomy	
2. Course Code:	
108 HUMA	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Saif Aldeen Abbas Email: saifaljammas@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to human anatomy. - Head and neck anatomy, chest anatomy. - Practical study and hands-on anatomy.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to anatomy	Introduction	Theory lectures	Theory exam

2	2	Skin, Fasciae, Muscle, Joints, Ligament, Bursae	Basic Structures	Theory lectures	Theory exam
3	2	Bone, Cartilage, Blood Vessels, Lymphatic System and classification of human skeleton	Basic Structures	Theory lectures	Theory exam
4	2	Nervous System, Mucous Membranes, Serous Membranes	Basic Structures	Theory lectures	Theory exam
5	2	Frontal Bone, Parietal bones	Skull	Theory lectures	Theory exam
6	2	Occipital bone	Skull	Theory lectures	Theory exam
7	2	Temporal bones	Skull	Theory lectures	Theory exam
8	2	Sphenoid bone	Cranial Cavity	Theory lectures	Theory exam
9	2	Ethmoid bone	Orbital and nasal regions	Theory lectures	Theory exam
10	2	Zygomatic bones, Maxillae	Orbital and nasal regions	Theory lectures	Theory exam
11	2	Nasal bones , Lacrimal bones, Vomer, Palatine bones, Inferior conchae	Orbital and nasal regions	Theory lectures	Theory exam
12	2	Mandible	Mandible	Theory lectures	Theory exam
13	2	External Views of the Skull	Skull	Theory lectures	Theory exam
14	2	Cranial cavity	Cranial cavity	Theory lectures	Theory exam
15	2	Major Foramina and Fissures locations and structures pass through the skull	Cranial cavity	Theory lectures	Theory exam
16	2	Orbit	Orbit	Theory lectures	Theory exam

17	2	nasal cavity	Nasal cavity	Theory lectures	Theory exam
18	2	Auditory ossicles, Hyoid bone	Auditory ossicles	Theory lectures	Theory exam
19	2	General Characteristics of a Vertebra	Spine	Theory lectures	Theory exam
20	2	Vertebral column	Spine	Theory lectures	Theory exam
21	2	Structure of the Thoracic cage (Sternum, Ribs, Costal Cartilages)	Thoracic cavity	Theory lectures	Theory exam
22	2	Mediastinum, Pleurae, Trachea, Bronchi	Thoracic cavity	Theory lectures	Theory exam
23	2	Lung	Thoracic cavity	Theory lectures	Theory exam
24	2	Anatomy of heart	Thoracic cavity	Theory lectures	Theory exam
25	2	Major arteries, veins and nerves of thorax	Thoracic cavity	Theory lectures	Theory exam
26	2	Bones of the Shoulder (Pectoral girdle) girdles	Upper extremities	Theory lectures	Theory exam
27	2	Bones of the Upper extremities	Upper extremities	Theory lectures	Theory exam
28	2	Bones of the Pelvic girdle	Pelvic	Theory lectures	Theory exam
29	2	Bones of the Lower extremities	Lower extremities	Theory lectures	Theory exam
30	2	Abdominal cavity and organs	Abdomine	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**		**Learning method**	**Evaluation method**
1	2	Introduction to anatomy		Practical work	Practical exam
2	2	Basic structures part 1 (Skin, Fasciae, Muscle, Joints, Ligament, Bursae)		Practical work	Practical exam

3	2	Basic structures part 2 (bone, Cartilage, Blood Vessels, Lymphatic System) and classification of human skeleton	Practical work	Practical exam
4	2	Basic structures part 3 (Nervous System, Mucous Membranes, Serous Membranes)	Practical work	Practical exam
5	2	Frontal Bone, Parietal bones	Practical work	Practical exam
6	2	Occipital bone	Practical work	Practical exam
7	2	Temporal bones	Practical work	Practical exam
8	2	Sphenoid bone	Practical work	Practical exam
9	2	Ethmoid bone	Practical work	Practical exam
10	2	Zygomatic bones, Maxillae	Practical work	Practical exam
11	2	Nasal bones, Lacrimal bones, Vomer, Palatine bones, Inferior conchae	Practical work	Practical exam
12	2	Mandible	Practical work	Practical exam
13	2	External Views of the Skull	Practical work	Practical exam
14	2	Cranial cavity	Practical work	Practical exam
15	2	Major Foramina and Fissures locations and structures pass through the skull	Practical work	Practical exam
16	2	Orbit	Practical work	Practical exam
17	2	Nasal cavity	Practical work	Practical exam
18	2	Auditory ossicles, Hyoid bone	Practical work	Practical exam
19	2	General Characteristics of a Vertebra	Practical work	Practical exam
20	2	Vertebral column	Practical work	Practical exam
21	2	Structure of the Thoracic cage (Sternum, Ribs, Costal Cartilages)	Practical work	Practical exam

22	2	Thoracic cavity (Mediastinum, Pleurae, Trachea, Bronchi)	Practical work	Practical exam
23	2	Lung	Practical work	Practical exam
24	2	Anatomy of heart	Practical work	Practical exam
25	2	Major arteries, veins and nerves of thorax	Practical work	Practical exam
26	2	Bones of the Shoulder (Pectoral girdle) girdles	Practical work	Practical exam
27	2	Bones of the Upper extremities	Practical work	Practical exam
28	2	Bones of the Pelvic girdle	Practical work	Practical exam
29	2	Bones of the Lower extremities	Practical work	Practical exam
30	2	Abdominal cavity and organs	Practical work	Practical exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Arabic Language	
2. Course Code:	
109 ARL	
3. Semester / Year:	
First year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours. Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Prof Dr Mohammed Salih Email: drmohammedsalih@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Study Arabic grammar. - Study of Arabic literature. - Introduction to medical terms in Arabic language.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures. − Educational videos and utilization of smart boards. − Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Al-Motanabi (biography, poetry, and analysis)	Literature	Theory lectures	Theory exam
2	1	Bader Shaker Al-Sayab (biography, poetry, and analysis)	Literature	Theory lectures	Theory exam
3	1	Nazek Al-Malaeka (biography, poetry, and analysis)	Literature	Theory lectures	Theory exam
4	1	Al-Jawaheri (biography, poetry, and analysis)	Literature	Theory lectures	Theory exam
5	1	Nominal sentence	Nominal sentence	Theory lectures	Theory exam
6	1	Verbal sentence	Verbal sentence	Theory lectures	Theory exam
7	1	The subject	The subject	Theory lectures	Theory exam
8	1	The predict	The predict	Theory lectures	Theory exam
9	1	Annular	Annular	Theory lectures	Theory exam
10	1	Main markers in name and present verb	Name and present verb	Theory lectures	Theory exam
11	1	Minor markers in name and present verb	Name and present verb	Theory lectures	Theory exam

12	1	Accusative case markers	Accusative case	Theory lectures	Theory exam
13	1	Prepositions markers	Prepositions	Theory lectures	Theory exam
14	1	Jussive case markers	Jussive case	Theory lectures	Theory exam
15	1	Derivations	Derivations	Theory lectures	Theory exam
16	1	Subject's name	Subject's name	Theory lectures	Theory exam
17	1	Hyperbole forms	Hyperbole forms	Theory lectures	Theory exam
18	1	Verb's name	Verb's name	Theory lectures	Theory exam
19	1	Abstract verbs	Abstract verbs	Theory lectures	Theory exam
20	1	Masculine, feminine, and feminine markers	Masculine and feminine	Theory lectures	Theory exam
21	1	Missing name	Missing name	Theory lectures	Theory exam
22	1	Plural form of missing nouns	Missing name	Theory lectures	Theory exam
23	1	Shortened name	Shortened name	Theory lectures	Theory exam
24	1	Plural form of shortened name	Shortened name	Theory lectures	Theory exam
25	1	Elongated name	Elongated name	Theory lectures	Theory exam
26	1	Plural form of elongated name	Elongated name	Theory lectures	Theory exam
27	1	Irregular plural forms	Irregular plural	Theory lectures	Theory exam
28	1	Deletion and addition, letters to be deleted, letters to be added	Deletion and addition	Theory lectures	Theory exam

29	1	The short alif and the extended alif, the bound ta' and the open ta', the two forms of dhaad	Letters forms	Theory lectures	Theory exam
30	1	The hamza Punctuation marks	Punctuation marks	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description – Second year

Course Description Form

1. Course Name:	
Human Anatomy	
2. Course Code:	
201 HUMA	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Ayad Abdulrahman Alsaraj Email: ayadrehman@uomosul.edu.iq Lecturer Saif Aldeen Abbas Email: saifaljammas@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to human anatomy. - Head and neck anatomy, chest anatomy. - Practical study and hands-on anatomy.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Layers of the scalp, Muscles of the scalp, Sensory Nerve Supply of the Scalp, Arterial Supply of the Scalp	Scalp	Theory lectures	Theory exam
2	1	Venous Drainage of the Scalp, Lymph Drainage of the Scalp, Clinical Notes	Scalp	Theory lectures	Theory exam
3	1	Eyelids, Movements of the Eyelids, Lacrimal Apparatus, Openings into the Orbital Cavity, Nerves of the Orbit	Orbital region	Theory lectures	Theory exam
4	1	Blood and Lymph Vessels of the Orbit, Structure of the Eye, Clinical Notes	Orbital region	Theory lectures	Theory exam
5	1	The Nose, External Nose, Nerve Supply of the External Nose, Blood Supply and Venous Drainage of the External Nose, Nasal Cavity, Nerve Supply of the Nasal Cavity, Blood Supply to the Nasal Cavity, Venous Drainage of the Nasal Cavity, Lymph Drainage of the Nasal Cavity, The Paranasal Sinuses, Drainage of Mucus and Functions of Paranasal Sinuses, Clinical Notes.	The Nasal region	Theory lectures	Theory exam
6	1	Introduction, Branches of the Mandibular Nerve, Otic Ganglion, Clinical Notes	Mandibular nerve	Theory lectures	Theory exam
7	1	Skin of the Face, Muscles of the Face (Muscles of Facial Expression), Sensory Nerves of the Face.	The Face	Theory lectures	Theory exam
8	1	Arterial Supply of the Face, venous drainage of the Face, venous drainage of the Face,	The Face	Theory lectures	Theory exam

		Lymphatic drainage of the face, Facial nerve			
9	1	The Lips, The oral Cavity vestibule and Proper, Sensory innervation of the Mouth Hard Palate & Soft palate	Oral cavity	Theory lectures	Theory exam
10	1	Muscles of the Soft Palate, Palatoglossal Arch & Palatopharyngeal Arch	Oral cavity	Theory lectures	Theory exam
11	1	Muscles of the Tongue, Movements of the Tongue	The Tongue	Theory lectures	Theory exam
12	1	The temporal fossa anatomy, The infratemporal fossa, Communications, Muscles of mastication	Temporal region	Theory lectures	Theory exam
13	1	Parotid Region (Boundaries), Parotid Gland, Parotid Duct, Innervation of Parotid Gland and Related Structures	Parotid gland	Theory lectures	Theory exam
14	1	Arterial Supply, Venous Drainage, Lymph Drainage, The Buccal Pad of Fat, Clinical Notes	Parotid gland	Theory lectures	Theory exam
15	1	Boundaries, Communications and openings, Maxillary nerve, Branches from the pterygopalatine ganglion, The pterygopalatine ganglion, The veins of the pterygopalatine fossa	The Pterygopalatine fossa	Theory lectures	Theory exam
16	1	Introduction, The Articular Disk, Retro-discal Tissue, Capsule, Synovial Membrane, Ligaments, Nerve Supply, Vascular Supply	Temporomandibular joint	Theory lectures	Theory exam
17	1	Movements, Important Relations of the Temporomandibular Joint, Clinical Notes	Temporomandibular joint	Theory lectures	Theory exam
18	1	Overview, Skin of the Neck, Fasciae of the Neck,	The neck	Theory lectures	Theory exam

		Superficial Cervical Fascia, Deep Cervical Fascia, Cervical Ligaments			
19	1	Muscles of the Neck, Cervical Plexus, Bones of Neck, Blood Supply, Key Neck Muscles	The neck	Theory lectures	Theory exam
20	1	Anterior triangle, Submental triangle, Submandibular triangle	Triangles of the neck	Theory lectures	Theory exam
21	1	Carotid triangle, Muscular triangle, Posterior triangle, Thyroid gland, Blood supply & venous drainage, Nerve supply	Triangles of the neck	Theory lectures	Theory exam
22	1	Muscles of the submandibular region, The submandibular gland, Sublingual gland	Submandi bular region	Theory lectures	Theory exam
23	1	Muscles of the Root of the Neck, The Thoracic Duct, Main Nerves of the Neck	Root of the neck	Theory lectures	Theory exam
24	1	Cervical Plexus & Brachial Plexus, Lymph Drainage of the Head and Neck, Veins of the Head and Neck	Root of the neck	Theory lectures	Theory exam
25	1	Common Carotid Artery, Carotid Sinus, Carotid Body, External Carotid Artery	Arteries of the neck	Theory lectures	Theory exam
26	1	Internal Carotid Artery, Subclavian Arteries (3 parts), Circle of Willis	Arteries of the neck	Theory lectures	Theory exam
27	1	Nervous System, Gross Anatomy of the Brain, Parts of the Brain, Ventricular System of the Brain, The Venous Blood Sinuses (Dural Sinuses), Blood Supply of the Brain, Cranial Meninges, Dural Nerve Supply, Dural Arterial Supply Dural Venous Drainage Clinical Focus	Brain	Theory lectures	Theory exam
28	1	Introduction, Functional Components, Summary of cranial nerves	Cranial nerves	Theory lectures	Theory exam

29	1	Muscles of the Pharynx, Pharynx divisions, Palatine Tonsils, Waldeyer's Ring of Lymphoid Tissue	Pharynx	Theory lectures	Theory exam
30	1	Cartilages of the Larynx, Membranes and Ligaments of the Larynx, Inlet of the Larynx, Laryngeal Folds, Muscles of the Larynx, Nerve & blood Supply of the Larynx	Larynx	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**	
1	2	Study Unit Title	Practical work	Practical exam	
2	2	Anatomy of scalp	Practical work	Practical exam	
3	2	Anatomy of face part 1	Practical work	Practical exam	
4	2	Anatomy of face part 2	Practical work	Practical exam	
5	2	Anatomy of parotid region	Practical work	Practical exam	
6	2	Temporal, infratemporal fossa	Practical work	Practical exam	
7	2	muscles of mastication	Practical work	Practical exam	
8	2	Mandibular nerve	Practical work	Practical exam	
9	2	Maxillary artery	Practical work	Practical exam	
10	2	Pterygopalatine fossa	Practical work	Practical exam	
11	2	Maxillary nerve	Practical work	Practical exam	
12	2	Nasal cavity and paranasal sinuses	Practical work	Practical exam	
13	2	Tempromandibular joint (TMJ)	Practical work	Practical exam	

14	2	Orbital region and Muscles of the eye	Practical work	Practical exam
15	2	Ophthalmic nerve, artery and vein 2	Practical work	Practical exam
16	2	anatomy of eyeball	Practical work	Practical exam
17	2	Anatomy of mouth(The Lips ,oral Cavity,Tongue)	Practical work	Practical exam
18	2	The Palate	Practical work	Practical exam
19	2	Superficial anatomy of neck	Practical work	Practical exam
20	2	Triangles of neck	Practical work	Practical exam
21	2	Arteries of head and neck (internal carotid artery)	Practical work	Practical exam
22	2	External carotid artery	Practical work	Practical exam
23	2	Subclavian artery	Practical work	Practical exam
24	2	Veins of the Head and Neck (internal jugular vein, subclavian vein, and venus sinuses)	Practical work	Practical exam
25	2	Anatomy of brain	Practical work	Practical exam
26	2	Submandibular region	Practical work	Practical exam
27	2	Anatomy of pharynx	Practical work	Practical exam
28	2	Lymph drainage of head and neck	Practical work	Practical exam
29	2	Anatomy of larynx	Practical work	Practical exam
30	2	Root of neck	Practical work	Practical exam
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				

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Bernard Liebgott. The anatomical basis of dentistry 4th edition. Mosby.
Main references (sources)	Snell RS. Clinical Anatomy by Regions. h edition. Philadelphia, PA: Lippincott Williams & Wilkins. 2012
Recommended books and references (scientific journals, reports...)	Head and neck anatomy Dr. Ayad AL-Saraj College of Dentistry- Mosul University
Electronic References, Websites	https://www.kenhub.com https://teachmeanatomy.info

Course Description Form

1. Course Name:	
Biochemistry	
2. Course Code:	
205 BICH	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assit Prof. Dr. Ahmed Shihab Altaweel Email: altaweel@uomosul.edu.iq Dr. Eman Salim Email: eman_salim@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to biochemistry. - Knowledge about the organic materials and compounds. - Study different systems in the body related to biochemistry.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.
10. Course Structure	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Enzymes: Definition ,Terminology , and Classification	Enzymes	Theory lectures	Theory exam
2	2	Mechanism of enzyme action	Enzymes	Theory lectures	Theory exam
3	2	Clinical significance of enzyme assays	Enzymes	Theory lectures	Theory exam
4	2	Vitamins, definition, classification	Vitamins	Theory lectures	Theory exam
5	2	Digestion and absorption of carbohydrates, lipids ,and proteins	Digestion and absorption	Theory lectures	Theory exam
6	2	Chemistry of carbohydrates	Carbohydrates	Theory lectures	Theory exam
7	2	Metabolism of Carbohydrates - Part 1	Carbohydrates	Theory lectures	Theory exam
8	2	Metabolism of Carbohydrates - Part 2	Carbohydrates	Theory lectures	Theory exam
9	2	Carbohydrates metabolism regulation	Carbohydrates	Theory lectures	Theory exam
10	2	Chemistry of Proteins and amino acids	Proteins	Theory lectures	Theory exam
11	2	Metabolism of Proteins and amino acids	Proteins	Theory lectures	Theory exam
12	2	Metabolism of Protein and amino acid regulation	Proteins	Theory lectures	Theory exam
13	2	Metabolism of Protein and amino acid inherited disorder	Proteins	Theory lectures	Theory exam
14	2	Exam	Exam	Theory lectures	Theory exam
15	2	Lipids, definition and classification	Lipids	Theory lectures	Theory exam
16	2	Metabolism of Lipids Oxidation of Fatty Acids	Lipids	Theory lectures	Theory exam
17	2	Biosynthesis of Fatty Acids	Lipids	Theory lectures	Theory exam

18	2	Integration of metabolism of carbohydrates, lipid ,and Proteins	Metabolism	Theory lectures	Theory exam
19	2	Metabolism of Purines and pyrimidines	Metabolism	Theory lectures	Theory exam
20	2	Metabolism of Purines and pyrimidines disorder	Metabolism	Theory lectures	Theory exam
21	2	Nucleic Acids Definition and Protein synthesis	Nucleic Acids	Theory lectures	Theory exam
22	2	Hormone definition, classification	Hormones	Theory lectures	Theory exam
23	2	Hormone disorder	Hormones	Theory lectures	Theory exam
24	2	Acid-base balance	Acid-base	Theory lectures	Theory exam
25	2	Trace elements disorder	Trace elements	Theory lectures	Theory exam
26	2	Salivary secretion (saliva), Pancreatic juice	Saliva	Theory lectures	Theory exam
27	2	electrolytes	Electrolytes	Theory lectures	Theory exam
28	2	Liver Function Test	Liver Function	Theory lectures	Theory exam
29	2	Kidney Function Test	Kidney Function	Theory lectures	Theory exam
30	2	Exam	Exam	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**	
1	2	Lab safety	Practical work	Practical exam	
2	2	Sample collection - part 1	Practical work	Practical exam	
3	2	Sample collection – part 2	Practical work	Practical exam	
4	2	Spectrophotometer	Practical work	Practical exam	
5	2	Standard Curve	Practical work	Practical exam	
6	2	Blood glucose+ HbA1c	Practical work	Practical exam	
7	2	Total Protein	Practical work	Practical exam	
8	2	Albumin+ Globulin	Practical work	Practical exam	
9	2	Troponin	Practical work	Practical exam	
10	2	Liver function test (Bilirubin)	Practical work	Practical exam	

11	2	Alkaline Phosphatase	Practical work	Practical exam
12	2	Transaminases (ALT & AST)	Practical work	Practical exam
13	2	Lipid in blood (cholesterol & lipoprotein)	Practical work	Practical exam
14	2	Triglyceride	Practical work	Practical exam
15	2	Kidney function Test (urea)	Practical work	Practical exam
16	2	Serum creatinine & creatinine clearness	Practical work	Practical exam
17	2	General Urine Analysis – part 1	Practical work	Practical exam
18	2	General Urine Analysis – part 2	Practical work	Practical exam
19	2	Uric acid	Practical work	Practical exam
20	2	Amylase in serum+ saliva	Practical work	Practical exam
21	2	Creatine phosphokinase	Practical work	Practical exam
22	2	lactate Dehydrogenase	Practical work	Practical exam
23	2	Serum calcium	Practical work	Practical exam
24	2	Serum phosphorus	Practical work	Practical exam
25	2	Serum Na	Practical work	Practical exam
26	2	Serum K	Practical work	Practical exam
27	2	Serum Iron	Practical work	Practical exam
28	2	Vitamin D	Practical work	Practical exam
29	2	Vitamin C	Practical work	Practical exam
30	2	Acid phosphatase	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Harper's Illustrated Biochemistry, a LANGE medical book
Main references (sources)	Lippincott's Illustrated Reviews: Biochemistry Fifth Edition
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Medical Physiology	
2. Course Code:	
204 MPHS	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect. Saba Khairaldeen Altaie Email: saba_physiology4@uomosul.edu.iq Assit Prof Salwan Waadallah Yousif Email: salwan@uomosul.edu.iq Lect Sinan Thanoon Abdullah Email: sinantag2016@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to medical physiology. - Knowledge about the basics of the physiology of human body. - Study different systems in the body and their functions.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Function organization of the human body, Cell physiology, Cell membrane , Cell components , Cell Junction)	Introduction	Theory lectures	Theory exam
2	2	Type of body fluids, Intracellular and extracellular, Daily intake of water, Daily loss of body water, Constituents of extracellular and intracellular fluids, Major factors contribute to the movement of fluid, Specialized Fluids of the Body. Types of Edema, Causes of edema, Measurement of body fluid volume, Dehydration, Types of dehydration, Classification, Causes, Signs and Symptoms of Dehydrations.	Body fluid and Edema	Theory lectures	Theory exam
3	2	Diffusion (passive), Carrier-mediated transport (passive or active), Vesicular transport).	Homeostasis and Transport across cell membrane	Theory lectures	Theory exam
4	2	Functions of Mouth, Salivary Glands Structure, Development, Major glands, Minor glands, Clinical correlations, Regulation of Salivary Secretion, Factors Influencing Salivary Flow and Composition. Mastication, Deglutition, Bolus Formation for Swallowing, Digestion. Speech: Definition, Mechanism, Nervous Control, Applied Physiology.	Oral cavity and salivary glands	Theory lectures	Theory exam

5	2	Composition of Saliva, Saliva Components, Properties of Saliva, Functions of Saliva, Effect of Drugs and Chemicals on Salivary Secretion, Maintenance of Tooth Integrity, The Diagnostic Applications of Saliva and forensic uses of saliva, Disadvantages/Limitations of Saliva.	Salivary functions and Regulation of Salivary Secretion	Theory lectures	Theory exam
6	2	Composition of blood, Hematocrit, Plasma, Functions of blood, Red blood cells, Genesis of R.B.C, polycythemia, Anemia, Destruction of R.B.C.s.	Blood	Theory lectures	Theory exam
7	2	Types of W.B.C., Genesis of the leukocytes, Life span of the W.B.C, Phagocytosis, Inflammation, Leukemia's, Leukopenia.	White Blood Cells	Theory lectures	Theory exam
8	2	Formation of Hemoglobin, Iron Metabolism, Hb Compounds, Destruction of Hb, The common causes of jaundice.	Haemoglobin	Theory lectures	Theory exam
9	2	Agglutination, Agglutinins, The Rh Group, Formation of Anti-Rh, agglutinins, Erythroblastosis Fetalis , Effect of the Mother's Antibodies on the Fetus, Transfusion Reactions resulting from mismatched Blood Types, Nature of Antibodies.	Blood groups	Theory lectures	Theory exam
10	2	Vascular Spasm, Formation of a Platelet Plug, Mechanism of the Platelet Plug , Mechanism of Blood Coagulation , Prevention of Clotting in the Normal Vascular System , Prevention of Blood Coagulation outside the Body , Blood Disease.	Haemostasis and blood coagulation	Theory lectures	Theory exam

11	2	Heart: Layers, Valves, Actions of heart, Blood Vessels, Division of circulation, Properties of Cardiac Muscle, Action Potential and Ionic Basis, Conductive system of Human Heart.	Cardiovascular system: Blood vessels	Theory lectures	Theory exam
12	2	Cardiac Cycle, Heart Sounds, Cardiac Output, Heart Rate and Regulation, Arterial Blood Pressure and Regulation of ABP Venous Pressure and Capillary Pressure, Arterial Pulse and Venous Pulse, Regional Circulation.	Cardiovascular system: Blood pressure	Theory lectures	Theory exam
13	2	Electrocardiogram, Hemorrhage, Circulatory Shock and Heart Failure, Cardiovascular Adjustments during Exercise.	Cardiovasculars ystem	Theory lectures	Theory exam
14	2	Types of Respiration, Stages of Respiration, Respiratory tract, Non respiratory functions of respiratory tract, Mechanics of Pulmonary Ventilation, Types of Respiratory pressures, Factors causing and preventing collapsing tendency of lungs)	Respiratory system	Theory lectures	Theory exam
15	2	Compliance, Variation in Compliance, The resistance and the work of breathing, Dead space, Lung volume and Lung capacity, Ventilation, Respiratory Protective Reflexes.	Respiratory system	Theory lectures	Theory exam
16	2	Pulmonary function tests, Regulation of Respiration, The relationship between oral health and respiratory disease.	Respiratory system	Theory lectures	Theory exam
17	2	Vision, Hearing, taste & smell, Structure of Eye, Visual Process and Field of Vision, Visual Pathway Pupillary Reflexes, Color Vision, and Errors of Refraction. Structure of Ear and Auditory Pathway, Mechanism of Hearing and Auditory Defects, Sensation of Taste and Smell.	Special sensations	Theory lectures	Theory exam

18	2	Normal body Temperatures, Physiological Variations of body temperature, Heat Balance, Heat gain or heat production in the body, Heat loss from the body, Insulator System of the Body, Blood flow to the skin from the body core provides heat transfer, Regulation of body temperature, Mechanisms to decrease or increase body temperature, Sympathetic "Chemical" Excitation of heat production.	Temperature of the Body	Theory lectures	Theory exam
19	2	Parts of Renal system, The Kidney, Functions of kidneys, Components of kidney, Parenchyma of kidney, Nephron and Juxtaglomerular Apparatus, Renal corpuscle, Structure of renal corpuscle, Tubular portion of nephron, Collecting duct.	Urinary system	Theory lectures	Theory exam
20	2	Urine formation, Mechanism of urine formation, Glomerular Filtration, Pressure determining filtration, Tubular Reabsorption, Tubular secretion, Micturition, Nerve supply to urinary bladder and sphincters, Renal Function Tests, Relation between renal disease & oral health.	Urinary system	Theory lectures	Theory exam
21	2	Introduction, Endocrine glands, Hormones, Nature of Hormones, Classification of hormones, Hormone Secretors, Hormonal action Hormone receptors, Synthesis and storage of hormones, Mechanism of hormonal function, Measurement of Hormone Concentrations in the Blood.	Endocrine system	Theory lectures	Theory exam
22	2	Oral manifestations of endocrine dysfunction, Control Systems Involving Hypothalamus and Pituitary glands, The pituitary gland, Thyroid gland, Pancreas gland, Adrenal glands.	Major endocrine glands	Theory lectures	Theory exam

23	2	The Functions of the digestive, Structural layers of digestive, Stomach, Secretions of the Stomach, Regulation of Stomach Secretion , Mixing of Stomach Contents, Stomach Emptying	Digestive system	Theory lectures	Theory exam
24	2	Small intestine , Secretions of the Small Intestine, Movement in the Small Intestine, Liver, Functions of the Liver, Pancreatic Secretions, Regulation of Pancreatic Secretion, Large Intestine, Movement in the Large Intestine. Digestion, Absorption, and Transport)	Digestive system	Theory lectures	Theory exam
25	2	Muscle structure, Types, Structure, Microscopic Structure, Muscle Physiology, Properties, Contraction and contractile elements, Tone, Electrical and Molecular Changes during Muscular Contraction.	Muscular system	Theory lectures	Theory exam
26	2	Muscular system: Tone, contraction, Molecular Changes During Muscular Contraction, Neuromuscular Junction- Neuromuscular Transmission and Blockers, Nutrition and Metabolism (Energy Requirements).	Muscular system	Theory lectures	Theory exam
27	2	Nerve impulse, synapses, Nervous System Division, Cranial nerves , Neuron and Neuroglia, Receptors, Nerve impulse, Synapse and Neurotransmitters.	Nervous system	Theory lectures	Theory exam
28	2	Reflex Activity, Somatosensory System and Somatomotor System, Physiology of Pain.	Nervous system	Theory lectures	Theory exam
29	2	Aging & reproductive system, Male Reproductive System Female Reproductive System, Meiosis, Aging and Reproductive system.	Reproductive system	Theory lectures	Theory exam

30	2	Body Response in high altitudes, physiological Changes in the Sea deep. Nutrition and metabolism, daily energy requirement, obesity and fitness.	Aviation and Deep physiology and Nutrition	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Microscope	Practical work	Practical exam
2	2	Collection of Blood Samples	Practical work	Practical exam
3	2	Blood Smears	Practical work	Practical exam
4	2	Functions of Saliva & Taste Sensation	Practical work	Practical exam
5	2	Stimulation and collection of salivary secretion	Practical work	Practical exam
6	2	Separation of blood samples	Practical work	Practical exam
7	2	Differential WBCs	Practical work	Practical exam
8	2	Total Count of WBCs	Practical work	Practical exam
9	2	Total Count of RBCs	Practical work	Practical exam
10	2	Blood groups	Practical work	Practical exam
11	2	Estimation of Hemoglobin	Practical work	Practical exam
12	2	Bleeding and clotting time	Practical work	Practical exam
13	2	Self-Monitoring of blood glucose test	Practical work	Practical exam
14	2	Measurement of blood pressure &pulse rate	Practical work	Practical exam
15	2	Effect of exercise on blood pressure and respiratory rate	Practical work	Practical exam
16	2	Mid Exam	Practical work	Practical exam
17	2	Physiology of vision test	Practical work	Practical exam
18	2	Physiology of hearing test	Practical work	Practical exam
19	2	Physiology of Smell sensation	Practical work	Practical exam
20	2	Measurement of body temperature	Practical work	Practical exam
21	2	Thyroid function (Body mass index)	Practical work	Practical exam
22	2	Thyroid function (Body mass index)	Practical work	Practical exam
23	2	Resuscitation &Artificial respiration	Practical work	Practical exam
24	2	Resuscitation &Artificial respiration	Practical work	Practical exam

25	2	Physiology of Skeletal muscles	Practical work	Practical exam
26	2	Physiology of Skeletal muscles	Practical work	Practical exam
27	2	Physiology of Skeletal muscles	Practical work	Practical exam
28	2	Examination of reflexes (Motor Function)	Practical work	Practical exam
29	2	Seminars and examinations	Practical work	Practical exam
30	2	Seminars and examinations	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Essentials of Physiology for Dental Students 2016 (K Sembulingam and Prema).
Main references (sources)	Text book of medical physiology 2017 (Guyton).
Recommended books and references (scientific journals, reports...)	Text book of medical physiology 2014 (N Geetha). Text book of Human physiology 2014 (Vanders).
Electronic References, Websites	Miscellaneous sources

Course Description Form

1. Course Name:	
General Histology	
2. Course Code:	
203 GHIS	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr. Maha Khaled	Email: mahaaljameely@uomosul.edu.iq
Lecturer Dr. Taghreed Hazim	Email: taghreedhazem@uomosul.edu.iq
8. Course Objectives	
Course Objectives	- Introduction to Histology. - Knowledge about tissues and skeleton. - Study different systems in the body and their tissue structures.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Cells, Basic Tissue	Basic Tissue	Theory lectures	Theory exam

2	2	Epithelial Tissue	Epithelial Tissue	Theory lectures	Theory exam
3	2	Connective Tissue	Connective Tissue	Theory lectures	Theory exam
4	2	Respiratory System: conducting portion	Respiratory System:	Theory lectures	Theory exam
5	2	Respiratory System: respiratory portion	Respiratory System:	Theory lectures	Theory exam
6	2	Urinary System: kidney nephrons, collecting tubules and ducts	Urinary System	Theory lectures	Theory exam
7	2	Urinary System: ureter, urinary bladder, and male and female urethra	Urinary System	Theory lectures	Theory exam
8	2	Integumentary System: Skin: epidermis, dermis	Integumentary System	Theory lectures	Theory exam
9	2	Integumentary System: skin glands, hair, and nails	Integumentary System	Theory lectures	Theory exam
10	2	Hemopoiesis: bone marrow	Hemopoiesis	Theory lectures	Theory exam
11	2	Hemopoiesis: blood cells	Hemopoiesis	Theory lectures	Theory exam
12	2	Circulatory System	Circulatory System	Theory lectures	Theory exam
13	2	Circulatory System	Circulatory System	Theory lectures	Theory exam
14	2	Lymphoid System	Lymphoid System	Theory lectures	Theory exam
15	2	Lymphoid System	Lymphoid System	Theory lectures	Theory exam
16	2	Nervous System	Nervous System	Theory lectures	Theory exam
17	2	Nervous System	Nervous System	Theory lectures	Theory exam
18	2	Endocrine System	Endocrine System	Theory lectures	Theory exam
19	2	Endocrine System	Endocrine System	Theory lectures	Theory exam
20	2	Endocrine System	Endocrine System	Theory lectures	Theory exam

21	2	Digestive System	Digestive System	Theory lectures	Theory exam
22	2	Digestive System	Digestive System	Theory lectures	Theory exam
23	2	Digestive System	Digestive System	Theory lectures	Theory exam
24	2	Digestive System	Digestive System	Theory lectures	Theory exam
25	2	Male Reproductive System	Reproductive System	Theory lectures	Theory exam
26	2	Male Reproductive System	Reproductive System	Theory lectures	Theory exam
27	2	Female Reproductive System	Reproductive System	Theory lectures	Theory exam
28	2	Female Reproductive System	Reproductive System	Theory lectures	Theory exam
29	2	Eye	Special Sense Organs	Theory lectures	Theory exam
30	2	Ear	Special Sense Organs	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**	
1	2	Slides of basic types of tissue	Practical work	Practical exam	
2	2	Slides of types of epithelial tissue	Practical work	Practical exam	
3	2	Slides of types of blood cells in blood smears	Practical work	Practical exam	
4	2	Slides of larynx, trachea	Practical work	Practical exam	
5	2	Slides of lungs including bronchi and bronchioles	Practical work	Practical exam	
6	2	Slides of kidney	Practical work	Practical exam	
7	2	Slides of ureter, urinary bladder	Practical work	Practical exam	
8	2	Slides of layers of epidermis, dermis	Practical work	Practical exam	

9	2	Slides of skin glands, hair	Practical work	Practical exam
10	2	Slides of bone marrow types	Practical work	Practical exam
11	2	Slides of blood cells development	Practical work	Practical exam
12	2	Slides of large artery (aorta), small artery	Practical work	Practical exam
13	2	Slides of medium sized vein	Practical work	Practical exam
14	2	Slides of lymph nodes, palatine tonsils	Practical work	Practical exam
15	2	Slides of thymus, spleen	Practical work	Practical exam
16	2	Slides of nerve fibers, spinal cord	Practical work	Practical exam
17	2	Slides of ganglia, cerebrum, and cerebellum	Practical work	Practical exam
18	2	Slides of pituitary gland, thyroid gland	Practical work	Practical exam
19	2	Slides of parathyroid glands, adrenal glands	Practical work	Practical exam
20	2	Slides of pineal gland, endocrine pancreas	Practical work	Practical exam
21	2	Slides of lip, tongue, and salivary glands	Practical work	Practical exam
22	2	Slides of esophagus, stomach	Practical work	Practical exam
23	2	Slides of duodenum, ileum, and colon	Practical work	Practical exam
24	2	Slides of appendix, liver, pancreas, and gallbladder	Practical work	Practical exam
25	2	Slides of testes, duct of the epididymis	Practical work	Practical exam
26	2	Slides of prostate gland, seminal vesicles, and penis	Practical work	Practical exam
27	2	Slides of ovaries, corpus luteum, and uterus	Practical work	Practical exam

28	2	Slides of placenta, vagina, and mammary glands	Practical work	Practical exam
29	2	Slides of vertical section of cornea, retina	Practical work	Practical exam
30	2	Slides of vertical section of internal ear	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Junqueira's Basic Histology Text Atlas
Main references (sources)	Anthony L. MESCHER
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	https://www.kenhub.com https://teachmeanatomy.info

Course Description Form

1. Course Name:	
Prosthodontics	
2. Course Code:	
202 PROS	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 120 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Hala Khudhur Email: halaka2008@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to Complete Denture. - Steps of complete denture primary and final impression. - Steps of trial denture fabrication. - Complete denture construction.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	1	Complete denture, Objective of complete denture, General consideration in complete denture construction, Complete denture component parts	Introduction	Theory lectures	Theory exam
2	1	Anatomical landmarks, Maxillary arch anatomical landmarks, Supporting structures, Limiting structures, Relief areas	Anatomical landmarks	Theory lectures	Theory exam
3	1	Anatomical landmarks, Mandibular arch anatomical landmarks, Supporting structures, Limiting structures, Relief areas	Anatomical landmarks	Theory lectures	Theory exam
4	1	Impression tray, Definition, Parts of the impression tray, Types of tray, Stock tray – Definition, Types of stock trays, Factors effect in selection of stock tray	Complete Denture Impression	Theory lectures	Theory exam
5	1	Special tray, Advantages of special tray, Materials used for construction of special tray, Types of special tray, Techniques or methods for construction of special tray, Criteria for special tray construction	Complete Denture Impression	Theory lectures	Theory exam
6	1	Dental impression, Definition, Complete denture impression, Definition, Objective of impression making. Primary impression, Definition, Materials used for making primary impression. Primary cast, Definition, Production of study cast. Secondary impression, Definition, Master cast Definition, Materials used for final impression, Technique used for making final impression, Boxing an impression and making the casts, Advantages of boxing, Common fault in impression making	Complete Denture Impression	Theory lectures	Theory exam
7	1	Record base – Definition, Requirements of record base, Types of materials used in construction of record base	Record Base	Theory lectures	Theory exam

8	1	Occlusion rims Definition, Requirements of occlusion rim, Materials used in construction of occlusion rim, Measurements of maxillary occlusion rim, Measurements of mandibular occlusion rim, Uses of occlusion rim, Occlusal plane, Fox bite	Occlusion Rims	Theory lectures	Theory exam
9	1	Temporomandibular joint (TMJ) – Definition, Ligaments, Muscles	Anatomy And Physiology Of Temporomandibular Joint	Theory lectures	Theory exam
10	1	Mandibular axes and mandibular movements, Knowledge of mandibular movements, Mandibular movements	Anatomy And Physiology Of Temporomandibular Joint	Theory lectures	Theory exam
11	1	Types of jaw relation, Vertical jaw relation, Rest position, Inter – occlusal distance, Importance of vertical dimension, Increased vertical dimension, Decreased vertical dimension	Maxillomandibular relation	Theory lectures	Theory exam
12	1	Method of recording rest vertical dimension, Method of recording occlusal vertical dimension, Pre – extraction records, Methods without pre – extraction record	Methods Of Recording Vertical Relation	Theory lectures	Theory exam
13	1	Centric jaw relation, Importance of centric jaw relation, Methods of recording jaw relation, Factors that complicates centric jaw relation, Methods of recording eccentric jaw relation	Horizontal Jaw Relation	Theory lectures	Theory exam
14	1	Dental articulator, Definition Functions of articulator, Requirements of articulator, Types of articulator	Dental Articulators	Theory lectures	Theory exam
15	1	Face- bow, Definition, Parts of face – bow, Types of face – bow, Important of the face – bow	Face – Bow	Theory lectures	Theory exam

16	1	Mounting, Definition, Preparation of articulator, Preparation of the casts and mounting the upper cast on CL II articulator, Mounting the lower cast, Errors occurred during mounting	Mounting	Theory lectures	Theory exam
17	1	Selection of anterior teeth, The factors of shade selection, Size selection, Length, Width, Form selection, Materials of anterior teeth, Difference between acrylic and porcelain teeth	Selection Of Artificial Teeth	Theory lectures	Theory exam
18	1	Shade, Bucco-lingual width, Mesio-distal length, Occluso-gingival height, Occlusal form, Advantages of cusp form teeth, Advantages of non- cusp form teeth	Selection Of Posterior Teeth	Theory lectures	Theory exam
19	1	Guideline of artificial teeth arrangement, Arrangement of anterior teeth, Arrangement of upper anterior teeth	Arrangement Of Artificial Teeth	Theory lectures	Theory exam
20	1	Curve of Spee, Compensatory curves, Arrangement of lower posterior teeth, Arrangement of upper posterior teeth, Common errors in arrangement of teeth	Arrangement Of Posterior Teeth	Theory lectures	Theory exam
21	1	Waxing, Definition, Requirements of waxing the polish surfaces, The procedure of waxing, Establishing the posterior palatal seal area Procedure for carving of posterior palatal seal area, Advantages of posterior palatal seal, Esthetic consideration in complete denture	Waxing And Carving	Theory lectures	Theory exam
22	1	Occlusion, Occlusion of complete denture, Centric occlusion, Centric relation	Complete Denture Occlusion	Theory lectures	Theory exam
23	1	Eccentric occlusion, Concepts of complete denture occlusion, Try-in appointment	Complete Denture Occlusion	Theory lectures	Theory exam

24	1	Flasking of the denture, Flasking techniques	Processing Of The Denture (Flasking)	Theory lectures	Theory exam
25	1	Causes of errors in occlusion, Selective grinding, Correction of occlusal errors, Disadvantages of intra – oral correction, Advantages of extra – oral correction, Rules for selective grinding	Occlusal Correction	Theory lectures	Theory exam
26	1	Procedure of finishing, Grinding and cutting instruments, Polishing of complete denture, Principles of polishing, Procedures of polishing	Finishing And Polishing Of Complete Denture	Theory lectures	Theory exam
27	1	Types of material used in repair, Causes of denture fracture, Types of repair, Laboratory procedure for repairing fractured denture base	Repair Of Complete Denture	Theory lectures	Theory exam
28	1	Replacement of broken or missing tooth, Replacement of missing or lost part, Requirement of repair	Repair Of Complete Denture	Theory lectures	Theory exam
29	1	Indication for relining or rebasing, Relining Contraindications of relining and rebasing, The impression techniques for relining and rebasing	Relining And Rebasing	Theory lectures	Theory exam
30	1	Laboratory procedures for relining, Rebasing, The chair – side reline technique	Relining And Rebasing	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**	
1	4	Anatomical landmarks upper	Practical work	Practical exam	
2	4	Anatomical landmarks lower	Practical work	Practical exam	
3	4	Pouring edentulous model	Practical work	Practical exam	
4	4	Pouring edentulous model	Practical work	Practical exam	

5	4	Primary impression	Practical work	Practical exam
6	4	Primary impression	Practical work	Practical exam
7	4	Pouring Primary impression	Practical work	Practical exam
8	4	Special tray	Practical work	Practical exam
9	4	Final impression	Practical work	Practical exam
10	4	Record base and bite rim	Practical work	Practical exam
11	4	Record base and bite rim	Practical work	Practical exam
12	4	Sealing and Mounting	Practical work	Practical exam
13	4	Arrangement upper anterior teeth	Practical work	Practical exam
14	4	Arrangement upper anterior teeth	Practical work	Practical exam
15	4	Arrangement lower anterior teeth	Practical work	Practical exam
16	4	Arrangement lower anterior teeth	Practical work	Practical exam
17	4	Arrangement upper posterior	Practical work	Practical exam
18	4	Arrangement lower posterior	Practical work	Practical exam
19	4	Festooning	Practical work	Practical exam
20	4	Flasking	Practical work	Practical exam
21	4	Wax elimination	Practical work	Practical exam
22	4	Packing	Practical work	Practical exam
23	4	Curing	Practical work	Practical exam

24	4	Curing	Practical work	Practical exam
25	4	Finishing	Practical work	Practical exam
26	4	Finishing	Practical work	Practical exam
27	4	Finishing	Practical work	Practical exam
28	4	Polishing	Practical work	Practical exam
29	4	Polishing	Practical work	Practical exam
30	4	Repair	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	Syllabus of complete denture (text book of complete denture) Dental laboratory technology for removable prosthodontics
Recommended books and references (scientific journals, reports...)	S. Yamashita, M. Shimizu, and H. Katada, "A newly proposed method to predict optimum occlusal vertical dimension," Journal of Prosthodontics, vol. 24, no. 4, pp. 287–290, 2015. J. Abduo and K. Lyons, "Clinical considerations for increasing occlusal vertical dimension: a review," Australian Dental Journal, vol. 57, no. 1.
Electronic References, Websites	

Course Description Form

1. Course Name:	
Oral Histology and Embryology	
2. Course Code:	
206 OHISE	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Abdulsattar Salim Email: abdulsattarsalim@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to Oral Histology. - Knowledge about the histology of oral tissues. - Study different stages of the development of oral cavity parts.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Embryogenesis, ovulation, fertilization and implantation	Embryogenesis	Theory lectures	Theory exam

2	2	Bilaminar germ layer	Bilaminar germ	Theory lectures	Theory exam
3	2	Trilaminar germ layer: gastrulation and neurulation	Trilaminar germ	Theory lectures	Theory exam
4	2	Development of head and neck (pharyngeal arch, pouch and cleft	Development of head and neck	Theory lectures	Theory exam
5	2	Development of face and anomalies	Development of face	Theory lectures	Theory exam
6	2	Development of tongue and anomalies	Development of tongue	Theory lectures	Theory exam
7	2	Development of palate and anomalies	Development of palate	Theory lectures	Theory exam
8	2	Slide preparation	Slide preparation	Theory lectures	Theory exam
9	2	Tooth development and developmental disturbances of teeth	Tooth development	Theory lectures	Theory exam
10	2	Dentinogenesis and dentin structure	Dentine	Theory lectures	Theory exam
11	2	Amelogenesis, Enamel structures	Enamel	Theory lectures	Theory exam
12	2	Clinical consideration for dentin and enamel	Clinical consideration	Theory lectures	Theory exam
13	2	Dental Pulp	Pulp	Theory lectures	Theory exam
14	2	Cementum and clinical consideration	Cementum	Theory lectures	Theory exam
15	2	Root formation and Cementogenesis	Cementum	Theory lectures	Theory exam
16	2	Periodontal ligaments	Periodontium	Theory lectures	Theory exam
17	2	Principles fiber of pdl and gingival fibers	Periodontium	Theory lectures	Theory exam
18	2	Alveolar bone	Bone	Theory lectures	Theory exam
19	2	Bone formation and resorption	Bone	Theory lectures	Theory exam

20	2	Proteins involve in mineralization of bone and dentin	Bone	Theory lectures	Theory exam
21	2	Oral mucosa and their types	Oral mucosa	Theory lectures	Theory exam
22	2	Gingiva and dentogingival junction	Oral mucosa	Theory lectures	Theory exam
23	2	Eruption of teeth	Eruption	Theory lectures	Theory exam
24	2	Shedding of teeth	Shedding	Theory lectures	Theory exam
25	2	Salivary gland	Salivary gland	Theory lectures	Theory exam
26	2	Salivary proteins	Salivary gland	Theory lectures	Theory exam
27	2	TMJ	TMJ	Theory lectures	Theory exam
28	2	Maxillary sinus	Sinuses	Theory lectures	Theory exam
29	2	Histochemistry	Histochemistry	Theory lectures	Theory exam
30	2	Age changes of soft and hard tissues	Age changes	Theory lectures	Theory exam
Practical part					
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**	
1	2	First week of development ovulation and implantation	Practical work	Practical exam	
2	2	Second week of development: bilaminar germ layer	Practical work	Practical exam	
3	2	Third week of development trilaminar germ layer	Practical work	Practical exam	
4	2	Development of prechodral plate and primitive streak	Practical work	Practical exam	
5	2	Pharyngeal arch, pouch and cleft	Practical work	Practical exam	
6	2	Development of the face and tongue	Practical work	Practical exam	

7	2	Development of the Palate and its annomalies	Practical work	Practical exam
8	2	Slide preparation, Tooth development and growth	Practical work	Practical exam
9	2	Tooth development and growth	Practical work	Practical exam
10	2	Dentinogenesis, Dentin structures	Practical work	Practical exam
11	2	Amelogenesis, Enamelstructures	Practical work	Practical exam
12	2	Clinical consideration in enamel and dentin,Dentin hypersensitivity.	Practical work	Practical exam
13	2	Pulp development, pulp structures	Practical work	Practical exam
14	2	Root formation, Cementogenesis	Practical work	Practical exam
15	2	Cementum structures, Clinical consideration of cementum	Practical work	Practical exam
16	2	Periodontium, Periodontal ligaments	Practical work	Practical exam
17	2	Maxilla, mandible , alveolar bone	Practical work	Practical exam
18	2	Oral mucosa membrane, Types of mucosa	Practical work	Practical exam
19	2	Eruption of teeth, Mechanism of eruption	Practical work	Practical exam
20	2	Shedding of the deciduous teeth, Dentino-gingival junction	Practical work	Practical exam
21	2	Tempro-mandibular joints, Maxillary sinus	Practical work	Practical exam
22	2	Histochemistry, Types of histochemical stain	Practical work	Practical exam
23	2	Facial anomalies ,Types of Twins	Practical work	Practical exam

24	2	Development of Digestive system, Congenital anomalies of Digestive system	Practical work	Practical exam
25	2	Development of nervous system, Congenital anomalies of nervous system	Practical work	Practical exam
26	2	Development of muscular system, Congenital anomalies of muscular system	Practical work	Practical exam
27	2	Development of skeletal system, Congenital anomalies of skeletal system	Practical work	Practical exam
28	2	Characterization of proteins involved in Dentin and Bone Mineralization	Practical work	Practical exam
29	2	Bone formation and resorption	Practical work	Practical exam
30	2	Salivary proteins and their relevance to mineral homeostasis	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Tencate oral histology and embryology
Main references (sources)	Essential oral histology and embryology
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Atlas of oral histology

Course Description Form

1. Course Name:	
Dental Materials	
2. Course Code:	
207 DM	
3. Semester / Year:	
Second year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Ali Salah Khaza'al Email: alisk2012@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to Dental Materials. - Study of principles of material mechanical properties. - Study of the requirements for a variety of dental materials . - Practical manipulation of a variety of dental materials.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Introduction to dental materials, Physical, chemical and biological properties of	Introduction and physical properties of dental material	Theory lectures	Theory exam

		dental materials			
2	1	Mechanical properties	Mechanical properties	Theory lectures	Theory exam
3	1	Definition, requirement, types, gypsum bonded investment	Gypsum materials	Theory lectures	Theory exam
4	1	phosphate bonded investment, ethyl silicate bonded	Gypsum materials	Theory lectures	Theory exam
5	1	Definition, Ideal properties of impression materials,	Impression materials	Theory lectures	Theory exam
6	1	Classification of impression materials, Non elastic impression materials	Impression materials	Theory lectures	Theory exam
7	1	Impression plaster, Impression compound	Impression materials	Theory lectures	Theory exam
8	1	Zinc oxide – eugenol,	Impression materials	Theory lectures	Theory exam
9	1	Elastomeric impression material	Impression materials	Theory lectures	Theory exam
10	1	Definition, Requirements, classification of wax according to origin & melting point,	Waxes	Theory lectures	Theory exam
11	1	classification of wax according to uses, properties of dental waxes.	Waxes	Theory lectures	Theory exam
12	1	Polymers and polymerization Definition of polymer, co-polymer, cross-link polymer and Degree of polymerization Factors which control structure and properties of polymer Types of polymerization, Heat activated acrylic, Composition, Properties Chemically activated resin, Composition, Properties	Polymers	Theory lectures	Theory exam
13	1	Light activated resin, Composition, Properties Chemically activated resin	Polymers	Theory lectures	Theory exam

		compared to heat activated resins Polymers used in dentistry Processing errors			
14	1	factors affecting setting time, setting expansion, strength, storage and manipulation of gypsum products, and hygroscopic expansion	Investment materials	Theory lectures	Theory exam
15	1	Classification of dental cements, Definition, Requirements	Cement materials	Theory lectures	Theory exam
16	1	Definition, indication, Types, Requirements	Temporary filling	Theory lectures	Theory exam
17	1	Metallic denture base materials, Types of metal and metal alloys, Definition of alloy, Requirement of casting alloy, Application of dental alloy	Metal and metal alloy	Theory lectures	Theory exam
18	1	Classification of metal, classification of dental alloy, gold foil (advantage, disadvantages), gold alloys, Composition, Properties	Metal and metal alloy	Theory lectures	Theory exam
19	1	Alternative of gold alloys Metal ceramic alloys, Requirement, Types Removable denture base alloys, Requirements, Types Co-Cr alloy, Application, Composition, properties, Advantages, Disadvantages	Metal and metal alloy	Theory lectures	Theory exam
20	1	Titanium and Titanium alloys, Applications, Properties, Ni/Cr alloys, Composition, Indications, Wrought stainless steel alloy	Metal and metal alloy	Theory lectures	Theory exam
21	1	Direct filling material, Definition, Factors causing loss of tooth substance	Filling materials	Theory lectures	Theory exam
22	1	Requirement of an ideal filling material. Classification of filling material	Filling materials	Theory lectures	Theory exam

		Anterior filling materials, Disadvantages			
23	1	Composite filling materials composition and structure, Types of composite	Filling materials	Theory lectures	Theory exam
24	1	Posterior filling materials Dental amalgam Classification of amalgam alloys Properties of set amalgam Shaping and finishing Mercury toxicity	Filling materials	Theory lectures	Theory exam
25	1	Preventive materials	Preventive materials	Theory lectures	Theory exam
26	1	Root canal filling materials (obturating materials)	Root canal filling materials	Theory lectures	Theory exam
27	1	Finishing and polishing material	Finishing and polishing	Theory lectures	Theory exam
28	1	Definition, Types, Requirements, Indication, Soft liners, Types, Requirements, Indication, Properties	Relining material	Theory lectures	Theory exam
29	1	Implant materials	Implant materials	Theory lectures	Theory exam
30	1	Maxillofacial materials	Maxillofacial materials	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Introduction and physical properties of dental material	Practical work	Practical exam
2	2	Mechanical properties (stress strain curve)	Practical work	Practical exam
3	2	Showing different types of gypsum materials (plaster and stone)	Practical work	Practical exam
4	2	Steps of mixing plaster and demonstrate the steps of setting	Practical work	Practical exam
5	2	Impression plaster, demonstrate the manipulation of impression compound	Practical work	Practical exam
6	2	Zinc oxide impression material and agar impression demonstrate the mixing of zinc oxide impression	Practical work	Practical exam

7	2	Alginate impression (elastic impression) showing the trays used and mixing of alginate and water according to manufacturer instructions	Practical work	Practical exam
8	2	Polysulphide, condensation and addition silicon\mixing of heavy body and light body	Practical work	Practical exam
9	2	Polyether, hybrid impression, digital impression	Practical work	Practical exam
10	2	Showing different types of wax (denture base plate, denture casting wax and others	Practical work	Practical exam
11	2	Demonstrate how to use wax material and its manipulation	Practical work	Practical exam
12	2	Introduction to polymers	Practical work	Practical exam
13	2	Different types of denture base materials(heat, cold and light	Practical work	Practical exam
14	2	activated polymers) demonstrate the mixing of polymer and monomer	Practical work	Practical exam
15	2	Thermoplastic polymers (flexible denture base material)	Practical work	Practical exam
16	2	Investment materials (showing the method of the investment)	Practical work	Practical exam
17	2	Introduction to cement materials	Practical work	Practical exam
18	2	Showing different types of cement materials and the method of mixing of cement	Practical work	Practical exam
19	2	Temporary filling (use and manipulation)	Practical work	Practical exam
20	2	Introduction to metal and metal alloy	Practical work	Practical exam
21	2	Showing the different types of metal and metal alloy	Practical work	Practical exam
22	2	Introduction to crown and bridge material	Practical work	Practical exam
23	2	Introduction to filling material	Practical work	Practical exam
24	2	Amalgam filling showing the amalgam capsules and mixing of amalgam	Practical work	Practical exam
25	2	Composite filing (chemical and light activated)	Practical work	Practical exam
26	2	Micro filled, hybrid, and nano-composite	Practical work	Practical exam
27	2	Demonstrate the setting of chemical and light activated composite filling material	Practical work	Practical exam
28	2	Showing different types of preventive materials (tooth pastes, gargles. Mouth wash fluoride varnishes and resin sealers)	Practical work	Practical exam
29	2	Demonstrate the obturating materials (Gutta percha, sealers) and endodontic instruments	Practical work	Practical exam
30	2	Finishing and polishing materials	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Criag restorative dental materials Philips Applied Dental Materials Dental materials their selection and use
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:					
Biosafety and biosecurity					
2. Course Code:					
208 BSBS					
3. Semester / Year:					
Second year					
4. Description Preparation Date:					
01 March 2024					
5. Available Attendance Forms:					
Theoretical and practical					
6. Number of Credit Hours (Total) / Number of Units (Total)					
Theoretical: 15 hours, practical: 30 hours. Total units: 4					
7. Course administrator's name (mention all, if more than one name)					
Name: Dr. Eman Salim Email: eman_salim@uomosul.edu.iq					
8. Course Objectives					
Course Objectives	- Introduction to biosafety. - Study of principles of biosafety and biosecurity. - Study of the biosafety practices . - Occupational hazards safety and security.				
9. Teaching and Learning Strategies					
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.				
10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**

1	1	Occupational safety and health Key components of bio-risk management Definition & concepts of biosecurity & biosafety	Introduction to biosafety and biosecurity	Theory lectures	Theory exam
2	1	Components of biosafety in all labs Biosafety barriers in labs Personal Protective Equipment (PPE) Facility design	Universal safety precaution	Theory lectures	Theory exam
3	1	Risk assessment strategy Risk groups, biosafety levels Standard practices required in bio lab A biosafety cabinet(BSC)	Biosafety level	Theory lectures	Theory exam
4	1	COSHH: control of substances hazardous to health Assessing risk for work with blood &human tissue	Biorisk and Biohazard	Theory lectures	Theory exam
5	1	Assess the capability of the laboratory Staff control Relation of risk groups of biosafety level, practices and equipment	Biorisk Management System	Theory lectures	Theory exam
6	1	Sustainability of biorisk management system Strengthening biorisk management	Mitigation control measurement	Theory lectures	Theory exam
7	1	Categories of biological wastes Decontamination of biological wastes	Types of biological wastes	Theory lectures	Theory exam
8	1	International transport regulation The basic triple packaging system	Transportation of biological material	Theory lectures	Theory exam
9	1	Spill clean-up procedure Investigating an Incident	The accident response	Theory lectures	Theory exam
10	1	Overview of biological safety &security equipment	Biological safety	Theory lectures	Theory exam
11	1	Risk characterization in biosecurity Vulnerability assessment Components of laboratory biosecurity	Introduction to Biosecurity	Theory lectures	Theory exam

12	1	Biosafety rules simulations	Biosafety practices	Theory lectures	Theory exam
13	1	Laboratory Hygiene Engineering and building maintenance services	Safety for support staff	Theory lectures	Theory exam
14	1	Hazardous chemical Decontamination and biological waste Disposal	Disinfection and Sterilization	Theory lectures	Theory exam
15	1	Biosafety training	Biosafety training	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	1	Introduction to biosafety and biosecurity Occupational safety and health Key components of biorisk management	Practical work	Practical exam
2	1	Definition & concepts of biosecurity & biosafety	Practical work	Practical exam
3	1	Universal safety precaution Components of biosafety in all labs	Practical work	Practical exam
4	1	Biosafety barriers in labs Personal Protective Equipment (PPE) Facility design	Practical work	Practical exam
5	1	Biosafety level Risk assessment strategy Risk groups, biosafety levels, level 1 &2 practices and equipment	Practical work	Practical exam
6	1	Level 3, 4 &5	Practical work	Practical exam
7	1	Standard practices required in bio lab	Practical work	Practical exam
8	1	Biological agents Routes of infections Basis of control measures	Practical work	Practical exam
9	1	Hazard group classification system A biosafety cabinet (BSC)	Practical work	Practical exam
10	1	Biorisk and Biohazard COSHH: control of substances hazardous to health Assessing risk for work with blood &human tissue	Practical work	Practical exam
11	1	Hazards Control measures for work with blood and human tissues	Practical work	Practical exam

12	1	Containment level	Practical work	Practical exam
13	1	Biorisk Management System Assess the capability of the laboratory Staff control	Practical work	Practical exam
14	1	Relation of risk groups of biosafety level, practices and equipment	Practical work	Practical exam
15	1	Mitigation control measurement Sustainability of biorisk management system Strengthening biorisk management	Practical work	Practical exam
16	1	Types of biological wastes Categories of biological wastes Decontamination of biological wastes	Practical work	Practical exam
17	1	Transportation of biological material International transport regulation The basic triple packaging system	Practical work	Practical exam
18	1	The accident response Spill clean-up procedure Investigating an Incident	Practical work	Practical exam
19	1	Overview of biological safety &security Equipment	Practical work	Practical exam
20	1	Introduction to Biosecurity Risk characterization in biosecurity	Practical work	Practical exam
21	1	Vulnerability assessment Components of laboratory biosecurity	Practical work	Practical exam
22	1	Biosafety practices part	Practical work	Practical exam
23	1	Biosafety rules simulations 3D	Practical work	Practical exam
24	1	Decontamination and biological waste disposal	Practical work	Practical exam
25	1	Safety for support staff Laboratory Hygiene Engineering and building maintenance services	Practical work	Practical exam
26	1	Disinfection &Sterilization	Practical work	Practical exam
27	1	Hazardous chemical	Practical work	Practical exam
28	1	Hazardous chemical		
29	1	Biosafety training	Practical work	Practical exam

30	1	Biosafety training	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description – Third year

Course Description Form

1. Course Name:	
Prosthodontics	
2. Course Code:	
301 PROS	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 5	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Prof Luma Muthafar Email: Luma2005@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to partial dentures. - Study of principles of biomechanics. - Study types of clasps, major and minor connectors. - Denture base materials for partial dentures.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Removable partial denture (RPD), Objectives for RPD construction, Causes of teeth loss, Indications of removable partial dentures. Fixed partial denture, Indications for fixed partial denture. Dental implant therapy, Contraindications for dental implant therapy. Terminology and re- finishing	Introduction to Removable Partial Dentures	Theory lectures	Theory exam
2	1	Need for classification Requirements of an acceptable method of classification Removable partial dentures may be classified according to the type of support Removable partial dentures may be classified according to the type of material Removable partial dentures may be classified according to the type of treatment Classification based on arch configuration Kennedy – Applegate – Fiset classification system. Applegate's rules governing the application of the Kennedy classification method	Classification of Partially Edentulous arches	Theory lectures	Theory exam
3	1	The ideal requirements for successful removable partial denture Purposes (Objective) of Surveying the Diagnostic Cast Advantages of single path of placement (insertion) Guiding planes Dental surveyor Types of dental surveyors Parts of dental surveyor (Ney type surveyor)	Surveying	Theory lectures	Theory exam

4	1	Principles of surveying Types of undercuts established by surveying Factors that determine and affect the path of placement (insertion) and removal of the RPD, rules of surveying	Surveying	Theory lectures	Theory exam
5	1	Main components of RPD Major connectors; Requirements of major connectors Guidelines for design and location of major connectors Characteristics of major connectors	Parts of Removable Partial Denture	Theory lectures	Theory exam
6	1	SpecialStructural Requirements for Maxillary Major Connectors Types of Maxillary Major Connector; Single palatal bar, Single palatal strap, Anterior-posterior palatal bars, Combination anterior and posterior palatal strap– type connector, Palatal plate-type connector, U-shaped palatal connector.	Maxillary Major Connectors	Theory lectures	Theory exam
7	1	Specialstructural requirements Types of mandibular major connectors; Lingual bar, Methods that may be used to determine the relative height of the floor of the mouth. Lingual plate (linguoplate), The indications for the use of linguoplate. Double lingual bar (lingual bar with cingulum bar), Indications for use of double lingual bar Labial bar, Indications for use of labial bar Characteristics and location	Mandibular Major Connectors	Theory lectures	Theory exam
8	1	Definition, Functions Form & location Basic types of minor connectors; Tissue stops, Finishing lines Reaction of Tissue to Metallic Coverage	Minor Connectors	Theory lectures	Theory exam

9	1	The purposes of the rest in general Occlusal Rest, Extended Occlusal Rest, Interproximal Occlusal Rest, Internal Occlusal Rests, Occlusal Rest Seat Preparation, Occlusal Rests on Amalgam Restorations, Occlusal Rest on Crowns, Lingual Rests (Cingulum Rest), Incisal Rests and Rest Seats, Implants as a Rest	Rests and Rest Seats	Theory lectures	Theory exam
10	1	Direct retainers Indirect retainers The extra coronal retainer (Clasp type), Component parts, Function, and position of clasp assembly parts, Factors affecting the magnitude of retention, The basic principles of clasp design	Retention and Removable Partial Denture Retainers	Theory lectures	Theory exam
11	1	Clasps designed without movement accommodation. Circumferential (Circle or Akers) clasp Ring-type clasp Embrasure (double Akers) clasp Back action clasp Multiple clasps Half-and-half Clasp Reverse-actionclasp (Hairpin) Disadvantages of circumferential clasps in summary Clasps designed to accommodate distal extension functional movement RPI clasp, Bar-type clasp assembly, RPA clasp; Akers clasp, Infra-bulge clasp, Combination clasp	Extra Coronal Direct Retainers (Types of clasp assemblies)	Theory lectures	Theory exam
12	1	Internal attachments Precision Attachments Some indications for precision attachments Some of the contraindications for precision attachments The main types of precision attachments Selection of an Attachment for a Removable Partial Denture	Intra-coronal Direct Retainers (Internal Attachments, Precision Attachments	Theory lectures	Theory exam

13	1	Stress breakers Types of stress breakers	Stress-Breakers	Theory lectures	Theory exam
14	1	The main factors influencing the effectiveness of an indirect retainer The auxiliary functions of indirect retainers Forms of Indirect Retainers	Indirect Retainers	Theory lectures	Theory exam
15	1	Auxiliary occlusal rest Lingual rest, Incisal rest Canine extensions from occlusal rest, Cingulum bars (continuous bars) and linguo-plates Modification areas, Rugae support	Indirect Retainers (continue)	Theory lectures	Theory exam
16	1	Block-out and relief Cast preparation Types of block-out of master cast; Parallel block-out, Shaped block-out, Arbitrary block-out, Relieving the master cast Purpose of relief Sites Tissue Stops	Laboratory procedures: Blockout and Relief	Theory lectures	Theory exam
17	1	Duplicating a stone cast Duplicating material and flask Impression Refractory cast	Laboratory procedures: Duplication and Refractory Cast Construction	Theory lectures	Theory exam
18	1	Waxing the framework Spruing General rules for spruing Investing the sprued pattern Purpose of investment Burnout	Laboratory: Wax Pattern	Theory lectures	Theory exam
19	1	Casting Casting recovery Finishing the framework Sprue removal	Laboratory procedures: Casting and Finishing	Theory lectures	Theory exam

20	1	The primary function of denture base Types of denture base according to support Types of the denture base according to materials Advantages of metal denture base Disadvantages of metal denture base Design consideration of denture base Periodontal consideration of denture base design Types of artificial teeth	Denture Base in RPD	Theory lectures	Theory exam
21	1	Record bases Types of record bases according to materials constructed from it Occlusion rims: Occlusion rims for static jaw relation records Occlusion rims for recording functional or dynamic jaw relationship record Mounting casts on the articulator Arrangement of artificial teeth to the opposing cast Principles that should be taken during arrangement of artificial teeth Laboratory procedure of arrangement teeth	Record Bases, Occlusion Rims, Mounting and Arrangement of Teeth	Theory lectures	Theory exam
22	1	Biomechanical considerations Possible movements of partial dentures Tooth-tissue–supported prosthesis	Biomechanics of Removable Partial Dentures	Theory lectures	Theory exam
23	1	Tooth-supported partial denture Occlusal Rest Seat Preparation and Denture Movement Impact of Implants on Movements of Partial Dentures	Biomechanics of Removable Partial Dentures (continue)	Theory lectures	Theory exam
24	1	Difference in Prosthesis Support and Influence on Design Differentiation Between Two Main Types of Removable Partial Dentures	Principles of Removable Partial Denture Design	Theory lectures	Theory exam
25	1	Components of Partial Denture Design Implant Considerations in Design	Principles of Removable Partial Denture Design	Theory lectures	Theory exam

26	1	1st Phase: Education of patient 2nd Phase: Diagnosis, Treatment Planning, Design, Treatment Sequencing, and Mouth Preparation 3rd Phase: Support for Distal Extension Denture Bases 4th Phase: Establishment and Verification of Occlusal Relations and Tooth Arrangements 5th Phase: Initial Placement Procedures 6th phase: Periodic Recall	Clinical Phases of Removable Partial Denture Construction.	Theory lectures	Theory exam
27	1	Acrylic removable partial dentures Appearance Maintenance of space Reestablishment of occlusal relationships Conditioning of teeth and residual ridges Interim restoration during treatment Conditioning the patient for wearing a prosthesis Clinical procedure for placement	Acrylic Removable Partial Dentures	Theory lectures	Theory exam
28	1	Flexible removable partial dentures Type of material used for the flexible denture, Support and Retention	Flexible Removable Partial Dentures	Theory lectures	Theory exam
29	1	Broken clasp arms Several reasons for breakage of clasp arms Fractured occlusal rests Distortion or breakage of other components – major and minor connectors Addition of a new artificial tooth to a RPD Repair by soldering	Repairs and Additions to Removable Partial Dentures	Theory lectures	Theory exam
30	1	Components of CAD/CAM system Types of Digital Scanner Digital RPD Framework Design (step by step) Digital Fabrication Process	Digitally Designed & Fabrication Process of RPD Framework Using CAD/CAM System	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Oral Surgery
2. Course Code:
302 OSUR
3. Semester / Year:
Third year
4. Description Preparation Date:
01 March 2024
5. Available Attendance Forms:
Theoretical and practical
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical: 30 hours, practical: 60 hours. Total units: 4
7. Course administrator's name (mention all, if more than one name)
Name: Assistant Lecturer Rayan Al-Mallah Email: rayyanalmallah@uomosul.edu.iq
8. Course Objectives

Course Objectives	- Introduction to minor oral surgery and tooth extraction. - Study of instruments and tools for use in oral surgery. - Study of anaesthesia in oral surgery. - Knowledge about complications and issues related to anesthesia and tooth extraction.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	History taking, Demographic data Chief complaint History of present complaint Past dental and medical history	Diagnosis in oral surgery	Theory lectures	Theory exam

		Social and family history			
2	1	Examination Extra-oral examination Intra-oral examination Differential diagnosis Diagnosis of pain, lump, and ulcer Consent	Diagnosis in oral surgery	Theory lectures	Theory exam
3	1	Communicable pathogenic organisms Aseptic techniques, Terminology, Concepts Techniques of Instrument Sterilization; Sterilization with Heat; Sterilization with Gas Techniques of Instrument Disinfection	Infection Control in Surgical Practice	Theory lectures	Theory exam
4	1	Maintenance of Sterility Surgical Field Maintenance Operatory Disinfection Surgical Staff Preparation Postsurgical Asepsis	Infection Control in Surgical Practice	Theory lectures	Theory exam
5	1	Extraction of teeth and Contra indications of extraction Extraction of teeth (exodontia), Definition, Methods of extraction. Indications of teeth extraction, Severe caries, Severe periodontal disease, Pulp pathology, Apical pathology, Orthodontic reasons. Prosthetic considerations. Impacted teeth. Supernumerary teeth. Tooth in the line of fracture of the jaws. Teeth in relation with pathological conditions. Retained roots. Prior to irradiation, Focal sepsis. Aesthetic.	Extraction of teeth	Theory lectures	Theory exam
6	1	Contra-indications of teeth extraction. Local contra-indications. Systemic contra-indications. Pre-extraction evaluation.	Contra indications of extraction	Theory lectures	Theory exam

		Clinical preoperative evaluation. General evaluation. Local evaluation. Radiological evaluation. Objectives and benefits			
7	1	Light illumination. Position of the operator. Position of the patient. Height of the dental chair. Parts of dental forceps. Forceps for the maxillary teeth. Forceps of upper anterior teeth. Forceps of upper premolars. Forceps of upper molars. Bayonet of upper posterior teeth.	General arrangement for extraction and Dental forceps	Theory lectures	Theory exam
8	1	Forceps for the mandibular teeth. Forceps of lower anterior teeth. Forceps of lower premolars. Forceps of lower molars. Bayonet of lower posterior teeth. Mechanical principle of forceps (traditional) extraction. Physic forceps. Parts, Mechanical principle and technique	General arrangement for extraction and Dental forceps	Theory lectures	Theory exam
9	1	Soft tissue retraction. Handling of the forceps. Cheek retraction and support (the use of the non-working hand). The application of the forceps blades to the tooth (tooth grasp). The displacement of the tooth from its socket. Post-operative care to the extraction socket. Instruction to the patient.	Techniques of forceps extraction and post-operative instructions	Theory lectures	Theory exam
10	1	Line of withdrawal. Point of application. Parts of dental elevators. Mechanical principles of using dental elevators. Wheel and axil.	Elevators	Theory lectures	Theory exam

		Fulcrum. Wedging. Combination of mechanical principles.			
11	1	Clinical uses of elevators. Straight elevators. Coupland's chisel. Cryer's elevator. Winter's elevator. Apexo elevator. Warwick-James elevator. Guiding principles for using dental elevators. Complications of using dental elevators.	Elevators	Theory lectures	Theory exam
12	1	Failure to secure anaesthesia. Failure to remove the tooth with either forceps or elevator. Fracture of crowns and roots, alveolar bone, maxillary tuberosity, adjacent or opposing tooth, mandible. Dislocation of the tempro-mandibular joint (T.M.J.). Displacement of a root into the soft tissue and tissue spaces and the maxillary antrum	Complications of dental extraction	Theory lectures	Theory exam
13	1	Excessive bleeding after extraction. Damage to the surrounding soft tissues. Post -operative pain. Post-operative swelling. Creation of an oro-anrtal communication. Trismus.	Complications of dental extraction	Theory lectures	Theory exam
14	1	Instruments of basic oral surgery. Instruments to incise tissues. Instruments for elevating mucoperiosteum. Instruments for controlling hemorrhage. Hemostat (artery forceps). Instruments to grasp tissues. Toothed-tissue forceps.	Basic surgical instruments	Theory lectures	Theory exam

		Allis tissue forceps. Instruments for removing bone. Rounger forceps (bone cutter and bone nibbler). Chisel and mallet. Bone file. Surgical burs and handpiece. Instruments to remove soft tissues from bony defects. Surgical curette. Instruments for suturing mucosa. Needle holder. Needles. Suture materials Scissors. Instruments for retraction of soft tissues. Cheek retractor. Mucoperiosteal flap retractor. Instruments for irrigation and for providing suction. Instrument of draping			
15	1	Neurophysiology Mode and site of action of local anesthetic Active forms of local anesthetics	Introduction to local anesthesia	Theory lectures	Theory exam
16	1	Pharmacokinetics of local anesthetics, Metabolism Systemic actions of local anesthetics	Pharmacology of local anesthesia	Theory lectures	Theory exam
17	1	Vasoconstrictors Mode of action Dilutions of vasoconstrictors Specific agents	Pharmacology of local anesthesia	Theory lectures	Theory exam
18	1	Trigeminal nerve, Ophthalmic branch, Maxillary branch, Mandibular branch	Surgical anatomy in local anesthesia	Theory lectures	Theory exam
19	1	Osteology of the maxilla, Osteology of the mandible	Surgical anatomy in local anesthesia	Theory lectures	Theory exam

20	1	The Syringe The Needle The Cartridge Additional Armamentarium Preparation of the Armamentarium	Instruments of local anesthesia	Theory lectures	Theory exam
21	1	Basic injection techniques Techniques of maxillary anesthesia Local infiltration. Posterior superior alveolar nerve block Middle superior alveolar nerve block Anterior superior alveolar nerve block (infraorbital nerve block) Greater palatine nerve block Nasopalatine nerve block Maxillary nerve block	Techniques of local anesthesia	Theory lectures	Theory exam
22	1	Techniques of mandibular anesthesia Inferior alveolar nerve block Buccal nerve block Mandibular nerve block: The Gow-Gates technique Vazirani-Akinosi closed-mouth mandibular block Mental nerve block Incisive nerve block	Techniques of local anesthesia	Theory lectures	Theory exam
23	1	Supplemental injection techniques Intraosseous injection Periodontal ligament injection Intraseptal injection Intrapulpal injection	Techniques of local anesthesia	Theory lectures	Theory exam
24	1	Local Complications Needle breakage Prolonged anesthesia (paresthesia) Facial nerve paralysis Ocular complications Trismus Soft tissue injury Hematoma	Complications of local anesthesia	Theory lectures	Theory exam
25	1	Pain on injection Burning on injection Infection, Edema Sloughing of tissues Postanesthetic intraoral lesions	Complications of local anesthesia	Theory lectures	Theory exam

26	1	Systemic complications Overdose, Allergy	Complications of local anesthesia	Theory lectures	Theory exam
27	1	Computer controlled local anesthetic delivery Articaine hydrochloride Local anesthesia reversal Buffering of local anesthetic solution Nasal local anesthetic mist for maxillary nonmolar teeth	Advances in local anesthesia	Theory lectures	Theory exam
28	1	Sedation techniques: Oral, sublingual, transdermal, intranasal, intramuscular, intravenous and inhalational Nitrous oxide Complications and medicolegal considerations	Conscious sedation	Theory lectures	Theory exam
29	1	Types of general anesthesia used in dentistry Advantages, Disadvantages Indications, Contraindications	Fundamentals of general anesthesia	Theory lectures	Theory exam
30	1	Overview of medical emergencies Basic measures, equipment, and drugs Common emergencies: Collapse, Anaphylaxis, Cardiac arrest, Diabetic collapse due to hypoglycemia Fits and convulsions, Adrenal crisis, Acute severe asthma, Chest pain	Medical emergencies during dental treatment	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Microbiology	
2. Course Code:	
303 MICB	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Prof Dr Ghada Kahwaji Email: ghada.kahwaji@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to microbiology. - Knowledge about the bacteria associated with oral disease. - Study different techniques for culturing and bacterial identification. - Study human immunity. - Knowledge about viruses, types, identification and treatment.
9. Teaching and Learning Strategies	
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	2	Eukaryotic & Prokaryotic cells Cell structure of prokaryotes Comparison between G+ve & G-ve cell wall	Morphology, Ultra structures, physiology and metabolism of microorganisms	Theory lectures	Theory exam
2	2	Growth curve Metabolism of microorganisms Molecular biology & bacterial genetics	Microbial growth	Theory lectures	Theory exam
3	2	-Sterilization and Disinfection	Sterilization	Theory lectures	Theory exam
4	2	Antibiotic, sources Mode of action of antibiotic Anti-microbial sensitivity tests Bacterial resistance Prophylactic use	Antibiotic and chemotherapy	Theory lectures	Theory exam
5	2	Non-specific and specific immunity Antigen, Immunoglobulin Humeral and Cellular Immunity	Introduction to general immunology and oral immunology	Theory lectures	Theory exam
6	2	Complement system Human leukocyte antigen Role of complement and HLA in oral disease	Cells and organs of the immune system	Theory lectures	Theory exam
7	2	Autoimmunity and immune tolerance	Oral and mucosal immunity	Theory lectures	Theory exam
8	2	Antimicrobial and immunological defenses of saliva and gingival crevicular fluid components	Hypersensitivity reactions	Theory lectures	Theory exam
9	2	Symbiosis, Commensalism, Amphibiosis, Antagonistic Sources of infection in hospital and -nosocomial infections Post-operative wound infection, burns infections	Host-parasite relationship & Nosocomial infection	Theory lectures	Theory exam

10	2	Pyogenic Streptococci Lancefield group Pathogenesis of streptococci Epidemiology, treatment and prevention Viridans streptococci Pneumococci	Streptococci	Theory lectures	Theory exam
11	2	Virulence factors and pathogenesis Epidemiology, treatment and prevention	Staphylococci	Theory lectures	Theory exam
12	2	Vellionella and Moraxella Neisseria gonorrhea, N. meningitidis	G-ve diplococcic	Theory lectures	Theory exam
13	2	Lactobacilli, Actinomyces and Corynebacterium diphtheriae & Diphtheroids	Lactobacilli	Theory lectures	Theory exam
14	2	B. subtilis, B. anthracis and B.ceres	Bacillus	Theory lectures	Theory exam
15	2	C. perfringenis , C. tetani, C. botulinum, and difficile	Clostridium	Theory lectures	Theory exam
16	2	E.coli, Salmonella, Shigella,	Enterobacteriaceae	Theory lectures	Theory exam
17	2	Enterobacter, Klebsiella, proteus, Yersinia	Enterobacter	Theory lectures	Theory exam
18	2	Tuberculosis & Leprae	Mycobacteruim	Theory lectures	Theory exam
19	2	Brucella, Haemophilus, Vibirio	Brucella	Theory lectures	Theory exam
20	2	porphyromonas, prevotella, Bacteroids	Aggregatibacter	Theory lectures	Theory exam
21	2	Fusobacterium, leptotichia	Fusiforms and Spirochaetes	Theory lectures	Theory exam
22	2	Treponema and oral Treponema	Treponema	Theory lectures	Theory exam
23	2	Mycoplasma, Chlamydia and Rickittsiae	Mycoplasma	Theory lectures	Theory exam

24	2	Indigenous flora Supplemental flora Transient flora Sources of oral bacteria Factors modulating growth of bacteria in the oral cavity	Ecology of oral flora	Theory lectures	Theory exam
25	2	Dental plaque & plaque metabolism plaque homeostasis Cariogenic microorganisms Mutans Streptococci Lactobacilli and Actinomyces-	Microbiology of dental caries	Theory lectures	Theory exam
26	2	Antibacterial factors in saliva Vaccination against dental caries	Microbial colonization	Theory lectures	Theory exam
27	2	Subgingival microbial complex specific, non-specific and Ecological plaque hypothesis Porphyromonas, prevotella, Aggregatibacter virulence factors of periodontal pathogens endodontic microbiota and Routes of root canal infection Ecology of endodontic microbiology	Microbiology of periodontal disease and Endodontics	Theory lectures	Theory exam
28	2	General structure of viruses Classification	Virology	Theory lectures	Theory exam
29	2	Isolation & diagnosis Oral virology	Viral replication	Theory lectures	Theory exam
30	2	Introduction, epidemiology, transmission E.histolotica, E.gingivalis, T.tenax, Fungal cells Classification, Candida	Oral mycology and Oral parasitology	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Orientation to the Microbiology laboratory	Experiment	Practical
2	2	The microscope	Experiment	Practical
3	2	Sterilisation and disinfection:	Experiment	Practical
4	2	Bacterial growth	Experiment	Practical
5	2	Types of culture media	Experiment	Practical
6	2	Sampling and transport of test material	Experiment	Practical
7	2	Laboratory cultivation of microorganisms	Experiment	Practical

8	2	Bacterial identification:1-Macroscopical characteristics (colonial morphology and cultural characteristics).	Experiment	Practical
9	2	2. Microscopical examination (morphology of bacterial cells).	Experiment	Practical
10	2	Staining	Experiment	Practical
11	2	Biochemical tests (part 1).	Experiment	Practical
12	2	Biochemical tests(part2).	Experiment	Practical
13	2	Biochemical tests(part3).	Experiment	Practical
14	2	Antibiotic sensitivity test(part 1).	Experiment	Practical
15	2	Antibiotic sensitivity test(part 2).	Experiment	Practical
16	2	Serological tests (antigen and antibody detection tests) (part 1).	Experiment	Practical
17	2	Serological tests (antigen and antibody detection tests) (part 2).	Experiment	Practical
18	2	Nucleic acid assays, Animal pathogenicity test	Experiment	Practical
19	2	Staphylococci	Experiment	Practical
20	2	Streptococci	Experiment	Practical
21	2	Corynebacterium	Experiment	Practical
22	2	Spore-forming Gram-positive bacilli: Bacillus spp.	Experiment	Practical
23	2	Clostridium spp.	Experiment	Practical
24	2	Mycobacterium spp.	Experiment	Practical
25	2	Enterobacteriaceae (part1)	Experiment	Practical
26	2	Enterobacteriaceae (part2)	Experiment	Practical
27	2	Enterobacteriaceae(part3)	Experiment	Practical
28	2	Neisseriae spp.	Experiment	Practical
29	2	Virology	Experiment	Practical
30	2	Mycology	Experiment	Practical

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
General Pathology	
2. Course Code:	
304 GPATH	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Prof Dr Shahbaa Khalil Email: shahbaa_khal@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to pathology. - Knowledge about the pathology of oral diseases. - Study different pathological conditions. - Causes and prevention of pathological conditions.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.
10. Course Structure	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Clinical pathology Molecular pathology Cell damage reversible cell injury	Introduction to pathology	Theory lectures	Theory exam
2	2	Irreversible cell injury Deposits and pigmentation	Introduction to pathology	Theory lectures	Theory exam
3	2	External and internal pigmentation	Introduction to pathology	Theory lectures	Theory exam
4	2	Acute inflammation	Inflammation	Theory lectures	Theory exam
5	2	Chronic pathology Chemical mediators	Inflammation	Theory lectures	Theory exam
6	2	Healing of skin wound	Healing and repair	Theory lectures	Theory exam
7	2	Healing of bone	Healing and repair	Theory lectures	Theory exam
8	2	Hemodynamic Disorders	Hemodynamic Disorders	Theory lectures	Theory exam
9	2	Thromboembolic Disease, and Shock	Hemodynamic Disorders	Theory lectures	Theory exam
10	2	Genetics	Genetics	Theory lectures	Theory exam
11	2	Genetics	Genetics	Theory lectures	Theory exam
12	2	Diseases of the Immune System Hypersensitivity	Immune System	Theory lectures	Theory exam
13	2	Autoimmune diseases Transplantation	Immune System	Theory lectures	Theory exam
14	2	Neoplasia	Neoplasia	Theory lectures	Theory exam
15	2	Bengin and malignant tumors	Neoplasia	Theory lectures	Theory exam
16	2	Molecular basis of tumors	Neoplasia	Theory lectures	Theory exam
17	2	Bacterial and viral infection	Infections	Theory lectures	Theory exam

18	2	Environmental and Nutritional Diseases	Environmental and Nutritional Diseases	Theory lectures	Theory exam
19	2	Blood Vessels	Blood Vessels	Theory lectures	Theory exam
20	2	The Heart	The Heart	Theory lectures	Theory exam
21	2	Red Blood Cell and Bleeding Disorders	Red Blood Cell	Theory lectures	Theory exam
22	2	Diseases of White Blood Cells	White Blood Cells	Theory lectures	Theory exam
23	2	Diseases of G.I.T.	G.I.T.	Theory lectures	Theory exam
24	2	Diseases of G.I.T.	G.I.T.	Theory lectures	Theory exam
25	2	Diseases of liver	Liver	Theory lectures	Theory exam
26	2	Pancreas and gall bladder	Pancreas	Theory lectures	Theory exam
27	2	Diseases of respiratory system	Respiratory system	Theory lectures	Theory exam
28	2	Bone diseases	Bone diseases	Theory lectures	Theory exam
29	2	Kidney	Kidney	Theory lectures	Theory exam
30	2	Urinary system	Urinary system	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Pharmacology	
2. Course Code:	
305 PHAR	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 60 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof Dr Jaunaa Khalid Email: jawnaakhalid@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to pharmacology. - Knowledge about the pharmaceutical for oral uses. - Study different pharmacokinetics and pharmacological actions. - Study chemical structure and mode of actions of medicines.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Pharmacology: General concepts	Introduction	Theory lectures	Theory exam

2	2	Pharmacokinetics and pharmacodynamics	Pharmacokinetics	Theory lectures	Theory exam
3	2	Autonomic nervous system from a pharmacological perspective (including cholinergic agonist and antagonist)	Autonomic nervous system	Theory lectures	Theory exam
4	2	Adrenergic agonists	Adrenergic agonists	Theory lectures	Theory exam
5	2	Adrenergic antagonists	Adrenergic antagonists	Theory lectures	Theory exam
6	2	Antihypertensive drugs	Antihypertensive drugs	Theory lectures	Theory exam
7	2	Management of angina and heart failure	Angina and heart failure	Theory lectures	Theory exam
8	2	Management of arrhythmia	Arrhythmia	Theory lectures	Theory exam
9	2	Anticoagulants, antiplatelet and anti-hyperlipidemic drugs	Anticoagulants	Theory lectures	Theory exam
10	2	Introduction the pharmacology of CNS drugs, sedative, hypnotics and antiseizures drugs	CNS drugs	Theory lectures	Theory exam
11	2	Antipsychotic and antidepressant drugs	Antipsychotic and antidepressant	Theory lectures	Theory exam
12	2	Local and general anesthetics	Anassthesia	Theory lectures	Theory exam
13	2	Drug of abuse and opioid analgesics	Opioid analgesics	Theory lectures	Theory exam
14	2	Managements of diabetes mellitus	Diabetes mellitus	Theory lectures	Theory exam
15	2	Drugs affecting GIT	G.I.T.	Theory lectures	Theory exam
16	2	Drugs acting on respiratory system (antihistamines and corticosteroids)	Respiratory system	Theory lectures	Theory exam
17	2	Non-steroidal anti-inflammatory drugs (NSAIDs), part 1	NSAIDs	Theory lectures	Theory exam
18	2	Non-steroidal anti-inflammatory drugs (NSAIDs) part2 and Steriods in Dentistry	NSAIDs	Theory lectures	Theory exam
19	2	Chemotherapeutic drugs	Chemotherapeutic drugs	Theory lectures	Theory exam

20	2	Cell wall inhibitors (part1)	Principles of antimicrobial therapy	Theory lectures	Theory exam
21	2	Cell wall inhibitors (part 2)	Principles of antimicrobial therapy	Theory lectures	Theory exam
22	2	Protein synthesis inhibitors	Principles of antimicrobial therapy	Theory lectures	Theory exam
23	2	Quinolones, Folic acid antagonists and antimycobacterial	Quinolones	Theory lectures	Theory exam
24	2	Antifungal, antiviral and antiprotozoal drugs	Antifungal	Theory lectures	Theory exam
25	2	Sex hormone and contraceptive	Sex hormone	Theory lectures	Theory exam
26	2	Thyroid hormones and anti-thyroid drugs	Thyroid hormones	Theory lectures	Theory exam
27	2	Anticancer drugs	Anticancer drugs	Theory lectures	Theory exam
28	2	Dental Pharmacology: drugs and chemicals used in dental clinic	Dental Pharmacology	Theory lectures	Theory exam
29	2	Anticaries and drugs used in prevention of dental plaque	Dental Pharmacology	Theory lectures	Theory exam
30	2	Essential emergency drugs in dental clinic	Emergency drugs	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Preclinical Operative Dentistry
2. Course Code:
306 PCOD
3. Semester / Year:
Third year
4. Description Preparation Date:
01 March 2024
5. Available Attendance Forms:
Theoretical and practical
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical: 30 hours, practical: 60 hours. Total units: 4
7. Course administrator's name (mention all, if more than one name)
Name: Assistant Lecturer Mohammed Abduladhim Email: rayyanalmallah@uomosul.edu.iq
8. Course Objectives

Course Objectives	- Introduction to operative dentistry. - Study the principles of cavity preparation. - Study different types of tooth filling techniques and materials. - Introduction to crown and bridge.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Definition of operative dentistry	Introduction	Theory lectures	Theory exam

2	1	Definition of operative dentistry	Introduction	Theory lectures	Theory exam
3	1	Instruments and general instrumentation of cavity preparation	Instruments	Theory lectures	Theory exam
4	1	Instruments and general instrumentation of cavity preparation	Instruments	Theory lectures	Theory exam
5	1	Sterilization of operative instruments	Sterilization	Theory lectures	Theory exam
6	1	Sterilization of operative instruments	Sterilization	Theory lectures	Theory exam
7	1	Amalgam cavity preparations for class I	Amalgam cavity	Theory lectures	Theory exam
8	1	Amalgam cavity preparations for class I	Amalgam cavity	Theory lectures	Theory exam
9	1	Amalgam cavity preparations for class II	Amalgam cavity	Theory lectures	Theory exam
10	1	Amalgam cavity preparations for class II	Amalgam cavity	Theory lectures	Theory exam
11	1	Amalgam cavity preparations for class II (MOD)	Amalgam cavity	Theory lectures	Theory exam
12	1	Amalgam cavity preparations for class II (MOD)	Amalgam cavity	Theory lectures	Theory exam
13	1	Amalgam cavity preparations for class III and class V	Amalgam cavity	Theory lectures	Theory exam
14	1	Amalgam cavity preparations for class III and class V	Amalgam cavity	Theory lectures	Theory exam
15	1	Cavity liners and cement bases (part 1)	Cavity liners	Theory lectures	Theory exam
16	1	Cavity liners and cement bases (part 1)	Cavity liners	Theory lectures	Theory exam
17	1	Cavity liners and cement bases (part 2)	Cement bases	Theory lectures	Theory exam
18	1	Cavity liners and cement bases (part 2)	Cement bases	Theory lectures	Theory exam
19	1	Dental amalgam alloys (material)	Amalgam alloys	Theory lectures	Theory exam
20	1	Dental amalgam alloys (material)	Amalgam alloys	Theory lectures	Theory exam

21	1	Complex amalgam restoration	Complex restoration	Theory lectures	Theory exam
22	1	Complex amalgam restoration	Complex restoration	Theory lectures	Theory exam
23	1	Failures in amalgam restorations	Failures	Theory lectures	Theory exam
24	1	Failures in amalgam restorations	Failures	Theory lectures	Theory exam
25	1	Tooth colored restorations (composite)	Composites	Theory lectures	Theory exam
26	1	Tooth colored restorations (composite)	Composites	Theory lectures	Theory exam
27	1	Cavity preparation for anterior restorations	Anterior restorations	Theory lectures	Theory exam
28	1	Cavity preparation for anterior restorations	Anterior restorations	Theory lectures	Theory exam
29	1	Resin material	Resin material	Theory lectures	Theory exam
30	1	Resin material	Resin material	Theory lectures	Theory exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Community Dentistry	
2. Course Code:	
307 COMD	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Reem Raad Email: reem_raad@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to community dentistry and public health. - Study the epidemiology and experimental studies. - Study the dental indices of dental caries and periodontal disease. - Introduction to biostatistics.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Dental public health Public health and Dental Public health definition. Community Dentistry. Dental public health practitioners. Public health impact of dental disease. Tools of dental public health: Epidemiology, Biostatistics, Social sciences, Principles of administration, Preventive dentistry.	Introduction	Theory lectures	Theory exam
2	1	Steps in planning dental care for the patient Steps in planning dental care for the community Similarities between personal and community health care: Differences between private dental practice and public health dentistry	Dental public care	Theory lectures	Theory exam
3	1	Objectives of epidemiology. Components of epidemiological study. Essential steps in an epidemiological study. Hypothesis. Population at risk. Morbidity. Measurements of disease frequency. Epidemiological approach. Measurement tools in epidemiology.	Epidemiology	Theory lectures	Theory exam
4	1	Types of Epidemiological studies: Observational studies Types of observational studies, Descriptive studies, Analytical studies, Case control studies Cohort studies, Ecological studies.	Epidemiological studies	Theory lectures	Theory exam
5	1	Intervention Types of experimental studies	Experimental studies	Theory lectures	Theory exam

6	1	Definition of dental caries Epidemiology Etiological factors of dental caries Types of dental caries according to their anatomical (location) site. Factors affecting epidemiology of dental caries	Epidemiology of dental caries	Theory lectures	Theory exam
7	1	Periodontal Diseases definition Structure of the periodontal tissues Epidemiology Etiology of periodontal disease	Epidemiology of Periodontal Disease	Theory lectures	Theory exam
8	1	Types of cancers Etiology of oral cancer Constituents of tobacco smoke Potentially malignant lesions Levels of prevention for oral cancer Rehabilitation after Oral Cancer	Epidemiology of Oral Cancer	Theory lectures	Theory exam
9	1	Index Uses of dental index Classification of indices	Dental indices	Theory lectures	Theory exam
10	1	Indices used for assessment of dental caries DMF index, Principles in recording DMF index Calculation of DMFT/DMFS Dental caries severity index DMF index	Dental caries indices	Theory lectures	Theory exam
11	1	Oral Hygiene Indices: Gingival inflammation indices Periodontal indices	Periodontal disease indices	Theory lectures	Theory exam
12	1	Indices for assessment of dental fluorosis	Dental fluorosis	Theory lectures	Theory exam
13	1	Data, Types of data Methods of Data Collection Sampling Technique Types of sample design	Biostatistics	Theory lectures	Theory exam
14	1	Methods of data presentation The tabulation of data. The graphical representation of data	Data presentation	Theory lectures	Theory exam
15	1	Measures of central tendency Measures of dispersion.	Central tendency and dispersion	Theory lectures	Theory exam

16	1	Fluoridation as a public health measure History: Sources of Fluoride, Water fluoridation, Types of fluoride	Fluoridation	Theory lectures	Theory exam
17	1	Fluoridation Mechanism and Effects Mechanism of action, Anti-caries effects of fluoride. Metabolism of fluoride, Dental Fluorosis, Side effects of fluoride	Fluoridation	Theory lectures	Theory exam
18	1	Major occupational hazards in dentistry Biological health hazards. Physical hazards, Chemical hazards, Musculoskeletal disorders and diseases of the peripheral nervous system Hearing loss Radiation exposure Stress, Legal hazards Other risks	Occupational hazards	Theory lectures	Theory exam
19	1	Environment and health Environment Physical environment: Biological environment: Psychological environment Environmental indicators	Environment	Theory lectures	Theory exam
20	1	Effects of air pollution on health Prevention and control of air pollution Effects of radiation Noise pollution	Air pollution	Theory lectures	Theory exam
21	1	Purpose of School Health Program Guidelines for an ideal school dental program School dental survey phases in school oral health program	School Dental Health Program	Theory lectures	Theory exam
22	1	Categories of need Demands Factors affecting dental demands	Treatment need and demand need	Theory lectures	Theory exam
23	1	Manpower definition Dental health manpower planning Steps in dental health manpower planning	Dental manpower	Theory lectures	Theory exam

24	1	Definition of ethics Dentistry as a profession Ethical principles	Ethics in dentistry	Theory lectures	Theory exam
25	1	The main oral effects of aging Pregnant women Special Care Dentistry Patients with special health care	Oral health care for special populations	Theory lectures	Theory exam
26	1	Application of forensic dentistry. Bite marks, Person identification. Dental identification.	Forensic dentistry	Theory lectures	Theory exam
27	1	Introduction, Dental auxiliary classification. Non operatory auxiliary. Operatory auxiliary, Four handed relationship.	Dental auxiliary personnel	Theory lectures	Theory exam
28	1	Introduction, Elements (components) of Primary health care. Principles of Primary health care. Primary dental health care. Community dental health services.	Primary health care and Primary dental health care	Theory lectures	Theory exam
29	1	Introduction, Concept of disease transmission. The acquisition means of pathogens. Transmission of infectious diseases. Control of infectious diseases. Personal barrier techniques. Instrument processing (sterilization).	Infection control	Theory lectures	Theory exam
30	1	Introduction, Aims of health education. Objective of health education., Objective of dental health education. Principle of health education. Planning a health education.	Dental health education	Theory lectures	Theory exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Dental Radiology	
2. Course Code:	
308 DRAD	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Shahrazad Sami Email: shahrazadsaeed@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to dental radiography. - Study the principle of x-ray generation. - Study dental practices and radiographical techniques. - Practical hand-on on dental radiography.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Physics of radiation Introduction and definitions of nature of radiation, type of radiation.	Introduction	Theory lectures	Theory exam
2	1	Production of radiation: x-ray machine, interaction of x-ray with matter, composition of matter	Principles of x-ray	Theory lectures	Theory exam
3	1	Film imaging: types of x-ray films, processing cycle, dark room, intensifying screen	Film imaging	Theory lectures	Theory exam
4	1	Factors controlling x-ray beam, dosimetry and invers square low	x-ray beam	Theory lectures	Theory exam
5	1	Projection geometry Sharpness, distortion, image characteristic and artifacts.	Projections	Theory lectures	Theory exam
6	1	Biological effects of radiation; direct & indirect effects, determistic and stochastic effect	Biological effects of radiation	Theory lectures	Theory exam
7	1	Safety and Protection Source of exposure , dose limits , exposure and risk and reducing dental exposure	Safety and Protection	Theory lectures	Theory exam
8	1	Intraoral projection Periapical, bitewing, and occlusal radiography)	Intraoral projection	Theory lectures	Theory exam
9	1	Digital radiography Strength , limitations , comparing with conventional radiography and indications	Digital radiography	Theory lectures	Theory exam
10	1	Patient's management Management of child, contrast media & localization technique	Patient's management	Theory lectures	Theory exam

11	1	Cephalometric imaging technique, indications, evaluation of the Image	Cephalometric imaging	Theory lectures	Theory exam
12	1	Panoramic radiography Principles, techniques, position and interpretation.	Panoramic radiography	Theory lectures	Theory exam
13	1	Craniofacial imaging: types, indication and interpretation	Craniofacial imaging	Theory lectures	Theory exam
14	1	Principles, components, strength and limitations.	CBCT	Theory lectures	Theory exam
15	1	Clinical applications in maxillofacial region, anatomy and interpretations.	CBCT	Theory lectures	Theory exam
16	1	Part1: teeth, supporting dento-alveolar structures, maxilla and mid facial bones.	Radiographic anatomy	Theory lectures	Theory exam
17	1	Part 2: mandible, TMJ, base of skull, air way, restorative materials.	Radiographic anatomy	Theory lectures	Theory exam
18	1	CT, MRI and ULTRASOUND	Advanced imaging	Theory lectures	Theory exam
19	1	Radiography & Implantology (modalities, indications)	Radiography & Implantology	Theory lectures	Theory exam
20	1	Infection control in radiography clinic, protection of patients, protection of workers.	Infection control	Theory lectures	Theory exam
21	1	Radiologic examination and guide lines for ordering imaging.	Prescribing diagnostic imaging	Theory lectures	Theory exam
22	1	Radiographical interpretations of common diseases: interpretation of dental caries, and periodontal disease	Radiographical interpretations	Theory lectures	Theory exam
23	1	Cysts of the jaw: odontogenic and non odontogenic cysts.	Cysts of the jaw	Theory lectures	Theory exam
24	1	Dental anomalies (acquired and developmental)	Dental anomalies	Theory lectures	Theory exam

25	1	Inflammatory conditions of the jaws (periapical inf disease, osteomylitis, pericoronitis)	Inflammatory conditions	Theory lectures	Theory exam
26	1	Trauma (dento alveolar trauma, dental fractures and bone fractures.	Trauma	Theory lectures	Theory exam
27	1	TMJ abnormalities (anatomy of TMJ, application)	TMJ abnormalities	Theory lectures	Theory exam
28	1	Salivary gland disease (imaging modalities, interpretation)	Salivary gland	Theory lectures	Theory exam
29	1	Craniofacial anomalies (Cleft lip and palate)	Craniofacial anomalies	Theory lectures	Theory exam
30	1	Computed tomography (indications ,strength, limitations)	Computed tomography	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Preclinical Fixed Prosthodontics	
2. Course Code:	
309 PFP	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 60 hours. Total units: 4	
7. Course administrator's name (mention all, if more than one name)	
Name: Assit Lecturer Amjad Loqman Shehab Email: dentamjad@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to fixed prosthodontics. - Study the principle of fixed prosthesis attachment and support. - Study teeth preparation required for fixed prosthodontics. - Practical hand-on on teeth preparation.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Definitions	Introduction	Theory lectures	Theory exam

2	1	Definitions	Introduction	Theory lectures	Theory exam
3	1	Definitions	Introduction	Theory lectures	Theory exam
4	1	Biomechanical principles of tooth preparation:	Biomechanical principles	Theory lectures	Theory exam
5	1	Biomechanical principles of tooth preparation:	Biomechanical principles	Theory lectures	Theory exam
6	1	Biomechanical principles of tooth preparation:	Biomechanical principles	Theory lectures	Theory exam
7	1	Full metal crown	Metal crown	Theory lectures	Theory exam
8	1	Full metal crown	Metal crown	Theory lectures	Theory exam
9	1	Porcelain fused to metal crown	Fused porcelain	Theory lectures	Theory exam
10	1	Porcelain fused to metal crown	Fused porcelain	Theory lectures	Theory exam
11	1	Complete ceramic crown (Porcelain Jacket Crown)	Ceramic crown	Theory lectures	Theory exam
12	1	Complete ceramic crown (Porcelain Jacket Crown)	Ceramic crown	Theory lectures	Theory exam
13	1	Partial veneer crown (three-quarter crown)	Veneer	Theory lectures	Theory exam
14	1	Partial veneer crown (three-quarter crown)	Veneer	Theory lectures	Theory exam
15	1	Post crown	Post crown	Theory lectures	Theory exam
16	1	Post crown	Post crown	Theory lectures	Theory exam
17	1	Impression for crown and bridge work	Impression	Theory lectures	Theory exam
18	1	Impression for crown and bridge work	Impression	Theory lectures	Theory exam
19	1	Provisional restoration	Provisional restoration	Theory lectures	Theory exam
20	1	Provisional restoration	Provisional restoration	Theory lectures	Theory exam
21	1	Working cast and dies	Cast and dies	Theory lectures	Theory exam
22	1	Working cast and dies	Cast and dies	Theory lectures	Theory exam
23	1	Waxing, investing, casting	Waxing and investing	Theory lectures	Theory exam
24	1	Waxing, investing, casting	Casting	Theory lectures	Theory exam
25	1	Finishing of the casting and clinical try-in	Finishing	Theory lectures	Theory exam
26	1	Finishing of the casting and clinical try-in	Finishing	Theory lectures	Theory exam

27	1	Cementation	Cementation	Theory lectures	Theory exam
28	1	Cementation	Cementation	Theory lectures	Theory exam
29	1	CAD /CAM Technology for crown construction	CAD /CAM	Theory lectures	Theory exam
30	1	CAD /CAM Technology for crown construction	CAD /CAM	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Dental Ethics	
2. Course Code:	
310 DETH	
3. Semester / Year:	
Third year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: N/A. Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Assistant Prof Dr Manar Muthafar Al-Nema Email: manaralnema@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to dental ethics. - Study the principle dental ethics in treatment. - Study dental ethics for geriatric patients.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	What is meant by "ethics? Why are ethics important? Evolution and philosophy of ethics The terms moral and ethical, obligation and principle	Professional Ethics Review	Theory lectures	Theory exam
2	1	Dental ethics, professionalism, Human Rights and Law What is a "profession?" What is a "professional?" What is "professionalism?" Dentistry as a Profession Dentistry: The Commercial Picture Dentistry: The Normative Picture The Content of Professional Obligations	Professional Ethics Review	Theory lectures	Theory exam
3	1	What is meant by the "best interests" of our patients? What is "paternalism?" Is good risk management good ethics? What about compromising quality?	Professional Ethics Review	Theory lectures	Theory exam
4	1	What are codes of ethics? Should I care more about being legal or being ethical? Do we really have obligations to patients? Can dentistry be both a business and a profession?	Professional Ethics Review	Theory lectures	Theory exam
5	1	What's special about Dentistry? What's special about dental ethics? Who decides what is ethical? Does dental ethics change? Does dental ethics differ from one country to another?	Principal Features of Dental Ethics	Theory lectures	Theory exam

6	1	The role of the FDI How does the FDI decide what is ethical? How do individuals decide what is ethical? How do individuals decide what is ethical?	Principal Features of Dental Ethics	Theory lectures	Theory exam
7	1	History and basic ethical theory History of medical ethics Hammurabi's code of law ippocratic oath Basic grounding of Ethics Humanities (universal standards) Religious& nonreligious:	Ethical Law and ethical Theories	Theory lectures	Theory exam
8	1	Political& dogmatic strategies of the state Other groundings of Ethics (theories of ethics): Action theory: Consequentiality theory: Value theory (why theory): Ethics and the law Sources of Ethical Views and Convictions	Ethical Law and ethical Theories	Theory lectures	Theory exam
9	1	Patient autonomy Non-maleficence	Fundamental Principles of dental ethics	Theory lectures	Theory exam
10	1	Beneficence Justice Veracity	Fundamental Principles of dental ethics	Theory lectures	Theory exam
11	1	Duties and obligation of dentists in general	Duties and obligation of dentists	Theory lectures	Theory exam
12	1	Duties and obligation of dentists in general	Duties and obligation of dentists	Theory lectures	Theory exam
13	1	The Ideal Relationship between Dentist and Patient Duties and obligation of dentists toward their patients	Duties and obligation of dentists	Theory lectures	Theory exam
14	1	The dentist-patient relationship Four models of the dentist-patient relationship: The Guild Model. The Agent Model The Commercial Model The Interactive Model	Duties and obligation of dentists	Theory lectures	Theory exam

15	1	Duties and obligation of dentists towards the public and the paramedical profession The Relationship between Dentistry and the Larger Community	Duties and obligation of dentists	Theory lectures	Theory exam
16	1	Duties of dental surgeons and specialists in consultations	Duties and obligation of dentists	Theory lectures	Theory exam
17	1	Responsibilities of dental surgeons to one another Ideal Relationships between Co-professionals	Duties and obligation of dentists	Theory lectures	Theory exam
18	1	Ethical Issues in Dental Practice Ethical Questions and Legal Questions Choosing to Re-ethical Published Codes of Conduct and Ethics Committees	Ethical issues and challenges in dental practice	Theory lectures	Theory exam
19	1	Examples of ethical issues and challenges Access to dental care Abuse of prescriptions by patients, advertising, emergency care, financial arrangements, disclosure and misrepresentation, child abuse	Ethical issues and challenges in dental practice	Theory lectures	Theory exam
20	1	Competence and judgment confidentiality Dating patients Delegation of duties Digital communication and social media Harassment Consent	Ethical issues and challenges in dental practice	Theory lectures	Theory exam
21	1	Patients with compromised capacity Treatment decisions for patients with compromised capacity The role of parents and legal guardians The capacity for autonomous decision making. Dealing with patients with partially compromised capacity	Ethical issues and challenges in dental practice	Theory lectures	Theory exam

22	1	Conflict of interest Personal interest versus patient interest Public versus patient interest Third-party interests Professional versus business ethics	The impact of business on dentistry	Theory lectures	Theory exam
23	1	Importance of dental research Research in dental practice.	Ethics and dental research	Theory lectures	Theory exam
24	1	Ethical requirements Ethics review committee approval	Ethics and dental research	Theory lectures	Theory exam
25	1	Scientific Merit Social Value Risks and Benefits Informed Consent	Ethics and dental research	Theory lectures	Theory exam
26	1	Confidentiality Conflict of Roles Honest Reporting of Results:	Ethics and dental research	Theory lectures	Theory exam
27	1	Who determines how a dentist should behave? A local or a global standard of care? Transparency of care, guidelines, and protocols. Shared decision-making, evidence informed decision making, and evidence-guided Individualization and the standard of care based on a long-term goal for dental treatment.	The standard of care	Theory lectures	Theory exam
28	1	Difficult Professional-Ethical Judgments A Model of Professional-Ethical Decision Making Conflicting Professional Obligations Conflicts Between Professional and Other Obligations Conscientious Disobedience of Professional Obligations	Ethical Decision Making and Conflicting Obligations	Theory lectures	Theory exam

29	1	The Central Values of Dental Practice The Patient's Life and General Health The Patient's Oral Health The Patient's Autonomy The Dentist's Preferred Patterns of Practice Aesthetic Values Efficiency in the Use of Resources Ranking Dentistry's Central Values Thinking about the Case	Studying a Profession's Central Values	Theory lectures	Theory exam
30	1	Does the duty to treat depend on a prior relationship between dentist and patient? The duty to treat: Patients of record versus prior unknown patients. Requested treatment and the duty to treat Duty to treat and the characteristics of the patient who seeks help Is a dentist obliged to accept a patient as a patient of record? Terminating the relationship with a patient of record	The duty to treat	Theory lectures	Theory exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description – Fourth year

Course Description Form

1. Course Name:	
Periodontics	
2. Course Code:	
401 PERI	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 5	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Gayath Abdulbarry Al-Jawadi Email: ghayathaljawady@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to periodontics. - Study the aitiology of periodontal disease. - Study the principle of hand instruments, grasping and support. - Study the principles of manual scaling and polishing.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Terms & definitions frequently used in periodontology	Definitions	Theory lectures	Theory exam
2	1	Anatomy of the periodontium	Anatomy	Theory lectures	Theory exam
3	1	Oral mucosa: Gingiva Macroscopic features: Marginal gingiva, Attached gingiva, Interdental papilla. Microscopic features: Oral epithelium, Sulcular epithelium, Junctional epithelium, Epithelial connective tissue interface. Gingival connective tissue (gingival fibers and cellular elements) Gingival sulcus and gingival crevicular fluid Blood Supply, Lymphatics, and Nerves Clinical features of gingiva in health and diseased gingiva: Color, Physiologic pigmentation, Size, Contour, Shape, Consistency, Texture, Position	Oral mucosa: Gingiva	Theory lectures	Theory exam
4	1	Periodontal ligaments (PDL) Cellular elements Ground substance Development of principal fibers of PDL Functions of periodontal ligaments: Physical functions, Formative and Remodeling Function, Nutritional and sensory functions. Clinical consideration	Periodontal ligaments	Theory lectures	Theory exam

5	1	Cementum: Definition Function of cementum Classification of cementum: Acellular afibrillar cementum, Acellular extrinsic fiber cementum, Cellular mixed stratified cementum, Cellular intrinsic fiber cementum Development and mineralization of cementum Cementoenamel junction Cementodentinal junction Thickness of Cementum in response to physiologic and pathologic conditions, Normal thickness Cemental aplasia, Hypercementosis, Ankylosis neoplastic and nonneoplastic	Anatomy of the periodontium	Theory lectures	Theory exam
6	1	Alveolar process: Definition, Function of alveolar process, Parts of the alveolar process, Alveolar bone proper, An external plate of cortical bone Cancellous trabeculae or spongy bone Basal bone Anatomic division of the alveolar process: Interproximal bone, Inter radicular bone Radicular bone: Composition of the bone, Cellular elements, Organic components, Inorganic components Haversian system or Osteon Periosteum and Endosteum Remodeling of alveolar bone	Anatomy of the periodontium	Theory lectures	Theory exam

7	1	Classification of periodontal diseases and conditions (2017) Reasons for classification Major changes from previous classification Periodontal health and gingival diseases and conditions Periodontal health and gingival health: Clinical gingival health on an intact periodontium Clinical gingival health on a reduced periodontium: Stable periodontitis Non-periodontitis patients The classification of dental biofilm induced gingivitis: Associated with bacterial dental biofilm only Mediated by systemic or local risk factors Systemic conditions Oral factors enhancing plaque accumulation Drug-influenced gingival enlargements Case definition of gingivitis: Gingivitis on an intact periodontium Gingivitis on a reduced periodontium Non-dental biofilm induced gingival disease: Genetic/developmental disorders Specific infections Inflammatory and immune conditions and lesions Reactive processes Neoplasms Endocrine, nutritional, and metabolic diseases Traumatic lesions Gingival pigmentation	Classification of periodontal disease	Theory lectures	Theory exam

8	1	Classification of periodontal diseases and conditions (2017) Periodontitis Periodontitis (Extent, Staging, Grading, Status, Risk factors) Necrotizing periodontal diseases: Necrotizing gingivitis, Necrotizing periodontitis, Necrotizing Stomatitis) Periodontitis as a manifestation of systemic disease Peri-implant disease and conditions: Peri- implant health, Peri-implant mucositis, Peri-implantitis, Peri-implant soft and hard tissues deficiency	Classification of periodontal disease	Theory lectures	Theory exam
9	1	Classification of periodontal diseases and conditions (2017) Other conditions affecting the periodontium Periodontal abscess: Periodontal abscess in periodontitis patients Periodontal abscess in non-periodontitis patients Endodontic periodontal lesions: Endo-periodontal lesions associated with endodontic and periodontal infections Endo-periodontal lesions associated with trauma and iatrogenic factors Mucogingival deformity and conditions Traumatic occlusal force Tooth and prosthetic related factors	Classification of periodontal disease	Theory lectures	Theory exam

10	1	Etiology of periodontal disease Periodontal disease pathogenesis Mechanisms of pathogenicity Histopathology of periodontal disease: Clinically healthy gingival tissues Histopathology of gingivitis and periodontitis: The initial lesion The early lesion, The established lesion The advanced lesion: Inflammatory responses in the periodontium: Microbial virulence factors: Lipopolysaccharide, Bacterial enzymes, Microbial invasion Fimbriae, Bacterial DNA, Host-Derived Inflammatory Mediators: Cytokines, Prostaglandins, Matrix metalloproteinases	Etiology of periodontal disease	Theory lectures	Theory exam
11	1	Etiology of periodontal disease and risk factors Dental plaque biofilm and periodontal microbiology Definitions: Supragingival plaque, Subgingival plaque, Structure of a mature dental plaque biofilm Accumulation of a dental plaque biofilm: Formation of the pellicle, Initial adhesion/attachment of bacteria, Colonization and plaque maturation Factors affecting supragingival dental plaque formation: Topography of supragingival plaque, Surface microroughness, Individual variables that influence plaque formation, Variation within the dentition Impact of gingival inflammation and saliva Impact of patient's age Spontaneous tooth cleaning	Etiology of periodontal disease and risk factors	Theory lectures	Theory exam

		Metabolism of dental plaque bacteria Communication between biofilm bacteria Biofilms and antimicrobial resistance			
12	1	Dental calculus Clinical appearance and distribution (Supragingival and Subgingival Calculus) Calculus formation: Theories of calculus formation Calculus composition: Inorganic content, Organic content Attachment to tooth surfaces and implants Clinical significance	Dental calculus	Theory lectures	Theory exam
13	1	Dental stain Color and color perception Classification of tooth discoloration: Intrinsic discoloration, Extrinsic discoloration, Internalized discoloration The mechanisms of tooth discoloration Prevention Treatment approaches	Dental stain	Theory lectures	Theory exam
14	1	Etiology of periodontal disease Risk factors for periodontal diseases: o Definitions of risk factors Systemic risk factors: Modifiable risk factors, Non-modifiable risk factors Local predisposing factors: Calculus, Iatrogenic factors, Margins of restorations, Malocclusion Associated with orthodontic therapy Local anatomic risk factors	Etiology of periodontal disease	Theory lectures	Theory exam

15	1	Etiology of periodontal disease Molecular biology of host–microbe interactions Microbe-associated molecular patterns Toll-like receptors: Toll-like receptor-4–lipopolysaccharide recognition, Toll-like receptor-2–lipoprotein/lipoteichoic acid/peptidoglycan recognition Role of toll-like receptors in periodontitis Complement system: Classical/Lectin/Alternative pathways, Role of complement in periodontitis	Etiology of periodontal disease	Theory lectures	Theory exam
16	1	Etiology of periodontal disease and risk factors Smoking and Periodontal Disease Effects of smoking on the prevalence and severity of periodontal diseases: Gingivitis, Periodontitis Effects of smoking on the etiology and pathogenesis of periodontal disease: Microbiology Immune–inflammatory responses Physiology Effects of smoking on the response to periodontal therapy: Nonsurgical Therapy, Surgical Therapy and Implants, Maintenance Therapy Effects of smoking cessation on periodontal treatment outcomes	Etiology of periodontal disease and risk factors	Theory lectures	Theory exam

17	1	Impact of periodontal infection on systemic health Focal infection theory revisited Subgingival environment as a reservoir for bacteria Periodontal disease, coronary heart disease, and atherosclerosis: Ischemic heart disease Atherosclerosis Periodontal disease and stroke Periodontal disease and diabetes mellitus: o Periodontal infection associated with glycemic control in diabetes	Impact of periodontal infection on systemic health	Theory lectures	Theory exam
18	1	Impact of periodontal infection on systemic health Periodontal disease and asthma Periodontal disease and pregnancy outcome Periodontal disease and chronic obstructive pulmonary disease Periodontal disease and acute respiratory infections	Impact of periodontal infection on systemic health	Theory lectures	Theory exam
19	1	Periodontal indices Definitions Gingival index (Loe and Silness) Plaque index (Silness and Loe) Plaque index (O'leary) Plaque index (Quigely Hein) Probing pocket depth Clinical attachment loss Basic Periodontal Examination (BPE) Modified Gingival Index Bleeding on probing Furcation involvement index Calculus index Recession index (Miller) Recession index (Cairo)	Periodontal indices	Theory lectures	Theory exam

20	1	The periodontal pocket Classification Clinical features Pathogenesis Histopathology: Bacterial invasion Microtopography of the gingival wall Periodontal pockets as healing lesions Pocket contents Root surface walls	The periodontal pocket	Theory lectures	Theory exam
21	1	The periodontal pocket Periodontal disease activity Pulp changes associated with periodontal pockets Relationship of attachment loss and bone loss to pocket depth Area between base of pocket and alveolar bone Relationship of pocket to bone Periodontal abscess Lateral periodontal cyst	The periodontal pocket	Theory lectures	Theory exam
22	1	Treatment plan guidelines Phase 1 (behavior change, removal of supragingival dental biofilm and risk factor control): o Self-performed supragingival biofilm control: Oral hygiene practices to control gingival inflammation Behavioral change for oral hygiene improvement Motivational interviewing and cognitive behavioral therapy Adjunctive therapies for gingival inflammation Professional supragingival dental biofilm control Risk factor control: Local risk factor control Tobacco smoking cessation interventions Promotion of diabetes control interventions	Treatment plan guidelines	Theory lectures	Theory exam

23	1	Treatment plan guidelines Phase 2 (cause-related therapy) Subgingival instrumentation: Scaling Root planning Removal of plaque-retentive factors Use of adjunctive systemically administered antibiotics to subgingival instrumentation Re-evaluation of the cause-related therapy Decision to refer for specialist	Treatment plan guidelines	Theory lectures	Theory exam
24	1	Treatment plan guidelines Phase 3 (corrective/surgical phase) Objectives of surgical therapy Periodontal access surgery: Respective Regenerative Extraction of hopeless teeth Periodontal plastic surgery: Mucogingival surgery Aesthetic crown lengthening Pre-prosthetic surgery: Crown lengthening Implant site preparation	Treatment plan guidelines	Theory lectures	Theory exam
25	1	Treatment plan guidelines Phase 4 (maintenance therapy) Clinical recommendations Self-performed supragingival dental biofilm control Adjunctive therapies for gingival inflammation Professional supragingival dental biofilm control Risk factor control	Treatment plan guidelines	Theory lectures	Theory exam

26	1	Plaque biofilm control for the periodontal patient The toothbrush: Toothbrush design, Powered toothbrushes Dentifrices, Toothbrushing methods Interdental cleaning aids: Dental floss, Interdental brushes, Other interdental cleaning devices Oral irrigation: Supragingival irrigation, Subgingival irrigation Caries control	Plaque biofilm control for the periodontal patient	Theory lectures	Theory exam
27	1	Plaque biofilm control for the periodontal patient Chemical plaque biofilm control with oral rinses: Chlorhexidine digluconate: Mode of action, Clinical use, Side-effects Nonprescription essential oil rinse Other products Disclosing agents Patient motivation and education: Motivation for effective plaque biofilm control Education and scoring systems: Plaque biofilm control record (O'Leary Index) Bleeding points index Instruction and demonstration	Plaque biofilm control for the periodontal patient	Theory lectures	Theory exam

28	1	Periodontal instruments and sharpening Types of periodontal instruments: Diagnostic instruments, Scaling, root planning, and curettage instruments, Plastic and Titanium Instruments for Implants Cleansing and polishing instruments Surgical instruments Instrument stabilization: Instrument Grasping, Finger Rest Condition of the instruments and resharpening	Periodontal instruments and sharpening	Theory lectures	Theory exam
29	1	Breath Malodor (Halitosis) Definitions, Epidemiology, Classification Etiology: Intraoral Causes: Tongue and tongue coating, Periodontal infections, Dental disorders, Dry mouth Extraoral Causes: Pseudo-halitosis or Halitophobia, Diagnosis of malodor Prevention and management: Mechanical reduction of intraoral nutrients and microorganisms Chemical reduction of oral microbial load: Chlorhexidine, Essential oils, Chlorine dioxide, Two-phase oil-water rinse, Triclosan, Hydrogen Peroxide Amine Fluoride or Stannous Fluoride Conversion of volatile sulfur compounds: Metal Salt Solutions, Masking the Malodor	Breath Malodor (Halitosis)	Theory lectures	Theory exam

30	1	Systemic anti-infective therapy for periodontal diseases Definitions Common antibiotic regimens used to treat periodontal diseases Tetracyclines: Specific agents: Tetracycline, Minocycline, Doxycycline, Metronidazole Penicillin derivatives: Amoxicillin, Amoxicillin–Clavulanate Potassium, Cephalosporins, Clindamycin Ciprofloxacin, Macrolides Single vs combination antibiotic therapy Clinical implications	Systemic anti-infective therapy for periodontal diseases	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Orthodontics	
2. Course Code:	
402 ORTH	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 120 hours. Total units: 5	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Prof Dr Enas Talab Mohsin Email: enastallb@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to orthodontics. - Study the effect of tooth movement. - Study the principle of removable orthodontic appliance . - Study the principles of manual wire bending. - Study the biomechanics
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Definition of orthodontics Definition of occlusion, normal occlusion, ideal occlusion and malocclusion Six keys of normal occlusion	Introduction	Theory lectures	Theory exam
2	1	Orthodontic definitions (overjet, overbite, crossbite, spacing, crowding, midline deviation, rotation, displacement, proclination, retroclination, protrusion, retrusion, imbrication, overlap, impaction) – including types	Aims of orthodontic treatment	Theory lectures	Theory exam
3	1	Classification of malocclusion a. Angle's classification including divis and subdivisions	Malocclusion	Theory lectures	Theory exam
4	1	b. molar, canine, incisor classifications c. classification of deciduous and mix dentitions	Malocclusion	Theory lectures	Theory exam
5	1	Definitions of growth, development and maturity Stages of development (ovum till birth) Theories of bone growth (cartiligeneous, sutural, endosteal-periosteal, matrix theories)	Definitions of growth	Theory lectures	Theory exam
6	1	Definitions of growth site, growth center, displacement, and drift Growth curve and maximum growth spurt	Definitions of growth	Theory lectures	Theory exam
7	1	Growth and development of hard tissues (cranial base, cranial vault, nasomaxillary complex, mandible) including prenatal and postnatal Growth and development of soft tissues (lip, nose, cheek and tongue) including prenatal and postnatal	Definitions of growth	Theory lectures	Theory exam

8	1	Jaw rotation and adaptation	Developmental anomalies	Theory lectures	Theory exam
9	1	Deciduous and permanent dentition Stages of tooth development: Formation, calcification and root completion		Theory lectures	Theory exam
10	1	Tooth eruption (stages and theories) Sequences and timing of eruption	Tooth eruption	Theory lectures	Theory exam
11	1	new born oral cavity (relationship of gum pads, neonatal jaw relationships, natal and neonatal teeth) Deciduous dentition stage - Dental changes till 6 years of age (jaw relationship, attrition, primary spaces	Development of occlusion	Theory lectures	Theory exam
12	1	c-Early mixed dentition stage - eruption of first molars and incisors (occlusal relationships of primary and permanent molars, early mesial shift, ugly duckling stage, secondary spaces) d. Late mixed dentition stage - eruption of canines and premolars (Leeway space and late mesial shift) e.Permanent dentition - eruption second and third molars (mesial migration)	Development of occlusion	Theory lectures	Theory exam
13	1	Genetic factors and inherited factors Classification of etiological factors a. General factors i. Skeletal (dental base and cranial base, variation of position and size of the jaws)	Etiology of malocclusion:	Theory lectures	Theory exam

14	1	ii- Soft tissue (muscles of face and mastication, muscles of lip and tongue, relation to skeletal factors, abnormalities of oro-facial musculature, interference with soft tissue function) iii. Tooth size and arch length relationship (Crowding and spacing) including types	Etiology of malocclusion:	Theory lectures	Theory exam
15	1	b. Local factor i-Extra-teeth (supernumerary) and missing teeth (hypodontia) ii. Anomalies of tooth size and shape	Etiology of malocclusion:	Theory lectures	Theory exam
16	1	iii- Early loss of deciduous teeth iv. Retained deciduous teeth, delayed eruption of permanent teeth, impacted teeth, ankylosis	Etiology of malocclusion:	Theory lectures	Theory exam
17	1	Abnormal eruptive behavior (displacement, transposition) vi. Large frenum (labial and lingual), periodontal diseases	Etiology of malocclusion:	Theory lectures	Theory exam
18	1	Oral habit Dental caries, improper dental restoration	Etiology of malocclusion:	Theory lectures	Theory exam
19	1	Tooth movement a. Tissue changes associated with tooth movement: Histology of periodontium Theories of tooth movement (pressure tension theory, blood flow theory, and piezoelectric theory)	Tooth movement	Theory lectures	Theory exam
20	1	b. Biomechanics Force (application, type, magnitude, duration and direction) Center of resistance and rotation, moment of force and moment of couple.	Tooth movement	Theory lectures	Theory exam
21	1	Types of tooth movement Rate of tooth movement and factors affecting it	Tooth movement	Theory lectures	Theory exam

22	1	Orthodontic appliances a. Overview: i. passive orthodontic appliances (habit breaker, retainer and space maintainer) ii. active orthodontic appliances (removable, fixed, orthopedic and myofunctional, and combination)	Orthodontic appliances	Theory lectures	Theory exam
23	1	b. Removable Orthodontic Appliance: Properties of various components (SS wire, acrylic) Components: 1) active components (springs, screws and elastics)	Orthodontic appliances	Theory lectures	Theory exam
24	1	retentive components (clasps) acrylic base plate and bite planes anchorage	Orthodontic appliances	Theory lectures	Theory exam
25	1	Design of a removable orthodontic appliance Construction of a removable orthodontic appliance	Orthodontic appliances	Theory lectures	Theory exam
26	1	V. Soldering and welding vi. Post-insertion instructions and guidelines	Orthodontic appliances	Theory lectures	Theory exam
27	1	c. Fixed orthodontic appliance: Types, components, advantages, limitation, biomechanics, banding vs. bonding	Orthodontic appliances	Theory lectures	Theory exam
28	1	Use of extra-oral anchorage, temporary anchorage devices (TADs), and lingual fixed appliance	Orthodontic appliances	Theory lectures	Theory exam
29	1	d. Orthopedic and Myofunctional appliance: - Types, components, advantages, limitation, mode of action e. Other active appliances: combination appliances, Invisalign	Orthodontic appliances	Theory lectures	Theory exam

30	1	f. Retention and retainers - Retention (definition, reason, time) Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)	Orthodontic appliances	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	• Orthodontics; current principles and technique - Introduction to orthodontic • -Contemporary Orthodontics, William R. Proffit Sixth edition -Textbook of Orthodontics Singh 2007
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Oral Surgery	
2. Course Code:	
403 OSUR	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 120 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Lect Saja Mahmood Mohammed Email: saja.dep5@student.uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to Oral Surgery. - Study the methods of tooth extraction. - Study the principle of surgical treatment of infection. - Study the dental management of compromised patients.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure					
Theoretical Part					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Cardiovascular diseases	Cardiovascular diseases	Theory lectures	Theory exam
2	1	Cardiac arrhythmia	Cardiac arrhythmia	Theory lectures	Theory exam
3	1	Bleeding disorder	Bleeding disorder	Theory lectures	Theory exam
4	1	Endocrinology	Endocrinology	Theory lectures	Theory exam
5	1	Pulmonary diseases	Pulmonary diseases	Theory lectures	Theory exam
6	1	Liver Diseases	Liver Diseases	Theory lectures	Theory exam
7	1	Chronic kidney disease and dialysis	Chronic kidney disease and dialysis	Theory lectures	Theory exam
8	1	Neurologic disorders	Neurologic disorders	Theory lectures	Theory exam
9	1	Pregnancy	Pregnancy	Theory lectures	Theory exam
10	1	AIDS and HIV infection	AIDS and HIV infection	Theory lectures	Theory exam
11	1	Rheumatologic and connective tissue disorders	Rheumatologic and connective tissue disorders	Theory lectures	Theory exam
12	1	Allergy	Allergy	Theory lectures	Theory exam
13	1	Patients on radiotherapy and chemotherapy	Patients on radiotherapy and chemotherapy	Theory lectures	Theory exam

14	1	Odontogenic infections and fascial space infections	Odontogenic infections and fascial space infections	Theory lectures	Theory exam
15	1	Fascial space infections	Fascial space infections	Theory lectures	Theory exam
16	1	Principles of treatment of odontogenic infections	Principles of treatment of odontogenic infections	Theory lectures	Theory exam
17	1	Principles of Flaps, suturing and management of difficult extraction	Principles of Flaps, suturing and management of difficult extraction	Theory lectures	Theory exam
18	1	Management of difficult extraction	Management of difficult extraction	Theory lectures	Theory exam
19	1	Principles of management of impacted teeth	Principles of management of impacted teeth	Theory lectures	Theory exam
20	1	Impacted upper third molars	Impacted upper third molars	Theory lectures	Theory exam
21	1	Impacted mandibular canines	Impacted mandibular canines	Theory lectures	Theory exam
22	1	Surgical aids to orthodontics	Surgical aids to orthodontics	Theory lectures	Theory exam
23	1	Principles of endodontic surgery	Principles of endodontic surgery	Theory lectures	Theory exam
24	1	Surgical procedure	Surgical procedure	Theory lectures	Theory exam

25	1	Osteomyelitis and osteonecrosis of the jaw	Osteomyelitis and osteonecrosis of the jaw	Theory lectures	Theory exam
26	1	Radiation induced osteomyelitis and osteoradionecrosis	Radiation induced osteomyelitis and osteoradionecrosis	Theory lectures	Theory exam
27	1	Dental Implants: Basic Concepts and Techniques	Dental Implants: Basic Concepts and Techniques	Theory lectures	Theory exam
28	1	Surgical Treatment Planning Considerations	Surgical Treatment Planning Considerations	Theory lectures	Theory exam
29	1	Biopsy in oral and maxillofacial surgery	Biopsy in oral and maxillofacial surgery	Theory lectures	Theory exam
30	1	Diagnostic imaging in oral and maxillofacial surgery	Diagnostic imaging in oral and maxillofacial surgery	Theory lectures	Theory exam

Clinical Part	
Oral Surgery Clinics	
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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Little and Falace's Dental Management of the Medically Compromised Patient 9th Edition 2. Contemporary Oral and Maxillofacial Surgery, 7th Edition
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Operative and Esthetic Dentistry and Endodontics	
2. Course Code:	
404 COND	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 180 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect Fanar Turki Abdulhammed Email: fanarturki@uomosul.edu.com	
8. Course Objectives	
Course Objectives	A. Cognitive Objectives - Structuring and programming information in a way that enables the student to comprehend and enhance knowledge regarding both theoretical and practical aspects. - Providing essential information and treatment steps. B. Skill-Based Objectives Specific to the Course - Training students on the process of tooth preparation according to the types of fillings. - Teaching students how to perform fillings and root canal treatments on extracted teeth fixed in acrylic. C. Affective and Value-Based Objectives - Preparing the student practically in terms of applying the acquired knowledge to treat patients' teeth.

9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Enamel structure	Theory lectures	Theory exam
2	1	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Enamel structure	Theory lectures	Theory exam
3	1	Biologic Considerations of Dentin structure & its Clinical Significance in Operative Dentistry	Dentin structure	Theory lectures	Theory exam
4	1	Biologic Considerations of Dentin structure & its Clinical Significance in Operative Dentistry	Dentin structure	Theory lectures	Theory exam
5	1	Patient Evaluation , Diagnosis & Treatment Planning	Patient Evaluation	Theory lectures	Theory exam
6	1	Caries Management (Diagnosis & treatment strategies)	Caries Management	Theory lectures	Theory exam
7	1	Cervical Lesions(carious and non carious lesions)	Caries Management	Theory lectures	Theory exam
8	1	Restorative Dentistry and Pulpal Health	Caries Management	Theory lectures	Theory exam
9	1	Management of Deep Seated Caries	Caries Management	Theory lectures	Theory exam
10	1	Inflammatory Conditions of the Pulp	Inflammatory Conditions of the Pulp	Theory lectures	Theory exam

11	1	Treatment of Deep Seated Caries Simplified anatomical modeling.	Inflammatory Conditions of the Pulp	Theory lectures	Theory exam
12	1	Fluoride – Releasing Materials	Fluoride	Theory lectures	Theory exam
13	1	Indirect aesthetic adhesive restorations Inlays and Onlays (materials ,techniques) CAD/CAM Technology.	Indirect aesthetic adhesive restorations	Theory lectures	Theory exam
14	1	Direct tooth-colored restorations(Composite)	Direct tooth-colored restorations	Theory lectures	Theory exam
15	1	Dental Laser	Laser	Theory lectures	Theory exam
16	1	Application of Laser in Conservative Dentistry.	Laser	Theory lectures	Theory exam
17	1	Application of Laser in Conservative Dentistry.	Laser	Theory lectures	Theory exam
18	1	Indirect tooth-colored restorations	Indirect tooth-colored restorations	Theory lectures	Theory exam
19	1	Techniques of posterior composite Inlay/Onlay restoration system Laboratory-processed composite inlays and onlays.	Indirect tooth-colored restorations	Theory lectures	Theory exam
20	1	Ceramic veneers, inlays and onlays, clinical procedures.	Ceramic	Theory lectures	Theory exam
21	1	Ceramic veneers, inlays and onlays, clinical procedures.	Ceramic	Theory lectures	Theory exam
22	1	CAD/CAM techniques	CAD/CAM techniques	Theory lectures	Theory exam
23	1	CAD/CAM techniques	CAD/CAM techniques	Theory lectures	Theory exam
24	1	Objective of endodontic treatment	Endodontic treatment	Theory lectures	Theory exam
25	1	2- Basic Phases of Treatment	Endodontic treatment	Theory lectures	Theory exam
26	1	3- Pulp pathologies	Endodontic treatment	Theory lectures	Theory exam
27	1	Classification of periapical diseases	Endodontic treatment	Theory lectures	Theory exam

28	1	Access Opening Preparation	Endodontic treatment	Theory lectures	Theory exam
29	1	Endodontic Instruments	Endodontic treatment	Theory lectures	Theory exam
30	1	Roentgenography in Endodontics and Root canal preparation	Endodontic treatment	Theory lectures	Theory exam

Clinical Part

The students are required to complete the following restorations:-
First term clinic (90 hours) – 6 hr/week
a. Amalgam Restorations
Class I, Class II
b. Composite (tooth colored) Restorations
Class III,or Class IV
c. mid examination class I on patient
Second term clinic (90 hours) – 6 hr/week
a. Amalgam Restorations
Class I, Class II
b. Composite (tooth colored) Restorations
Class III,or Class IV
C.preclinic root canal treatment on extracted tooth
d. final examination class II on patient

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

12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Ingle's endodontics 7ed Clinical endodontic 3rd ed Text books of endodontics Advanced operative dentistry
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Oral Pathology	
2. Course Code:	
405 OPATH	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 60 hours, practical: 90 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Prof Dr Manar M Al-Nema Email: manaralnema@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	Correlating clinical pathological cases with their microscopic observations Linking clinical disease cases with their microscopic appearance
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Biopsy in oral pathology	Biopsy in oral pathology	Theory lectures	Theory exam

2	2	Healing in oral pathology	Healing in oral pathology	Theory lectures	Theory exam
3	2	Caries	Caries	Theory lectures	Theory exam
4	2	Pulpitis	Pulpitis	Theory lectures	Theory exam
5	2	Periapical pathology	Periapical pathology	Theory lectures	Theory exam
6	2	Osteomyelitis	Osteomyelitis	Theory lectures	Theory exam
7	2	Developmental disorders of teeth	Developmental disorders of teeth	Theory lectures	Theory exam
8	2	Developmental disorders of hard & soft tissues	Developmental disorders of hard & soft tissues	Theory lectures	Theory exam
9	2	Non odontogenic cysts	Non odontogenic cysts	Theory lectures	Theory exam
10	2	Odontogenic cysts	Odontogenic cysts	Theory lectures	Theory exam
11	2	Odontogenic tumors 1	Odontogenic tumors 1	Theory lectures	Theory exam
12	2	Odontogenic tumors2	Odontogenic tumors2	Theory lectures	Theory exam
13	2	Benign epithelial lesions,leukoplakia	Benign epithelial lesions,leukoplakia	Theory lectures	Theory exam
14	2	Epithelial hyperplasia,atrophy & dysplasia	Epithelial hyperplasia,atrophy & dysplasia	Theory lectures	Theory exam
15	2	Squamous cell carcinoma & other malignant leoplasms	Squamous cell carcinoma & other malignant leoplasms	Theory lectures	Theory exam
16	2	fibro osseous lesions, metabolic and genetic conditions	fibro osseous lesions, metabolic and genetic conditions	Theory lectures	Theory exam

17	2	Giant cell lesions	Giant cell lesions	Theory lectures	Theory exam
18	2	Benign tumors of the bone	Benign tumors of the bone	Theory lectures	Theory exam
19	2	malignant tumors of the bone	malignant tumors of the bone	Theory lectures	Theory exam
20	2	viral infection	viral infection	Theory lectures	Theory exam
21	2	bacterial and fungal infection	bacterial and fungal infection	Theory lectures	Theory exam
22	2	Immune mediated disorder 1	Immune mediated disorder 1	Theory lectures	Theory exam
23	2	Immune mediated disorder 2	Immune mediated disorder 2	Theory lectures	Theory exam
24	2	connective tissue lesions 1	connective tissue lesions 1	Theory lectures	Theory exam
25	2	connective tissue lesions 2	connective tissue lesions 2	Theory lectures	Theory exam
26	2	salivary gland disorders	salivary gland disorders	Theory lectures	Theory exam
27	2	salivary gland neoplasms	salivary gland neoplasms	Theory lectures	Theory exam
28	2	physical and chemical injuries	physical and chemical injuries	Theory lectures	Theory exam
29	2	Hematopoietic tumors	Hematopoietic tumors	Theory lectures	Theory exam
30	2	Forensic dentistry	Forensic dentistry	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	3	Data show and demonstration of biopsy processing	Practical work	Practical exam
2	3	Data show about Healing in oral pathology	Practical work	Practical exam

3	3	Acute and chronic dental caries	Practical work	Practical exam
4	3	Acute pulpitis, chronic pulpitis and pulp polyp	Practical work	Practical exam
5	3	Periapical granuloma, cyst and abscess	Practical work	Practical exam
6	3	Acute and chronic osteomyelitis and squestrum	Practical work	Practical exam
7	3	Data show about developmental disorder of teeth	Practical work	Practical exam
8	3	Data show about developmental disorder of soft tissue	Practical work	Practical exam
9	3	Data show about non odontogenic cysts	Practical work	Practical exam
10	3	Dentigerous cyst, kertatocyst ,calcifying odontogentic cyst and eruption cyst	Practical work	Practical exam
11	3	Ameloblastoma,adenomatoid odontogenic tumor and odontoma	Practical work	Practical exam
12	3	Ameloblastic fibroma odontoma	Practical work	Practical exam
13	3	Leukoplakia, squamous cell papilloma	Practical work	Practical exam
14	3	Epithelial dysplasia	Practical work	Practical exam
15	3	Squamous cell carcinoma	Practical work	Practical exam
16	3	Fibro dysplasia, ossifying fibroma	Practical work	Practical exam
17	3	Giant cell lesions ,central and peripheral giant cell granuloma	Practical work	Practical exam
18	3	Osteoma	Practical work	Practical exam
19	3	Osteosarcoma	Practical work	Practical exam
20	3	Data show about viral infections	Practical work	Practical exam
21	3	Data show about bacterial and fungal infection	Practical work	Practical exam

22	3	Lichen planus	Practical work	Practical exam
23	3	Pemphigus vulgaris	Practical work	Practical exam
24	3	Fibroma, and pyogenic granuloma	Practical work	Practical exam
25	3	Hemangioma, and lymphangioma	Practical work	Practical exam
26	3	Mucocele and data show	Practical work	Practical exam
27	3	Pleomorphic adenoma and mucoepidermoid carcinoma	Practical work	Practical exam
28	3	Data show physical and chemical injuries	Practical work	Practical exam
29	3	Hematological neoplasms	Practical work	Practical exam
30	3	Data show about forensic dentistry	Practical work	Practical exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Cawson's Essentialis of oral pathology & oral medicine(ninth edition) by E.W.Odell
Main references (sources)	Cawson's Essentialis of oral pathology & oral medicine(ninth edition) by E.W.Odell
Recommended books and references (scientific journals, reports...)	Oral & maxillofacial pathology(fourth edition)by Neville,Damm,Allen & Chi Oral pathology (fourth edition)by Soames & Southam Rosai & Ackerman's surgical pathology(tenth edition) by Juan Rosai Also many important case reports published in dental journals
Electronic References, Websites	Cawson's Essentialis of oral pathology & oral medicine(ninth edition) by E.W.Odell

Course Description Form

1. Course Name:	
Prosthodontics	
2. Course Code:	
406 PROS	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect Dr Inas Aziz Mohammed Email: inasjawad2016@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	Educating and training students on the proper scientific principles and methods for treating patients, including the use of modern materials and techniques in the fabrication of complete and partial dentures.
9. Teaching and Learning Strategies	
Strategy	- Theory lectures and practical laboratories. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.
10. Course Structure	
Theoretical Part	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Anatomy and physiology as related to dental prosthesis (osteology)	Prosthodontics	Theory lectures	Theory exam

2	1	Anatomy and physiology as related to dental prosthesis (Myology)	Prosthodontics	Theory lectures	Theory exam
3	1	Diagnosis and treatment plan for RPD	Prosthodontics	Theory lectures	Theory exam
4	1	Diagnosis and treatment (continued)	Prosthodontics	Theory lectures	Theory exam
5	1	Preparation of the mouth to receive an RPD	Prosthodontics	Theory lectures	Theory exam
6	1	Preparation of the mouth to receive an RPD (Continued).	Prosthodontics	Theory lectures	Theory exam
7	1	Classification of impression technique	Prosthodontics	Theory lectures	Theory exam
8	1	Classification of impression technique (continued)	Prosthodontics	Theory lectures	Theory exam
9	1	Designing Support	Prosthodontics	Theory lectures	Theory exam
10	1	Fitting the removable partial denture framework	Prosthodontics	Theory lectures	Theory exam
11	1	Occlusal Relationship forRemovable Partial Denture	Prosthodontics	Theory lectures	Theory exam
12	1	Jaw relation in RPD	Prosthodontics	Theory lectures	Theory exam
13	1	Trial RPD	Prosthodontics	Theory lectures	Theory exam
14	1	Initial placement and adjustment of RPD	Prosthodontics	Theory lectures	Theory exam
15	1	Pre- prosthetic surgery	Prosthodontics	Theory lectures	Theory exam
16	1	Pre-prosthetic Surgical Considerations (Continued).	Prosthodontics	Theory lectures	Theory exam
17	1	Diagnosis and treatment plan CD	Prosthodontics	Theory lectures	Theory exam
18	1	diagnosis and treatment plan for CD (continued)	Prosthodontics	Theory lectures	Theory exam
19	1	Impression in CD	Prosthodontics	Theory lectures	Theory exam
20	1	TMJ and mandibular movement.	Prosthodontics	Theory lectures	Theory exam

21	1	Digital RPD	Prosthodontics	Theory lectures	Theory exam
22	1	Vertical jaw relation	Prosthodontics	Theory lectures	Theory exam
23	1	Horizontal jaw relation (Centric occlusion)	Prosthodontics	Theory lectures	Theory exam
24	1	Try in stage in CD	Prosthodontics	Theory lectures	Theory exam
25	1	Insertion of CD	Prosthodontics	Theory lectures	Theory exam
26	1	Adjustments of CD	Prosthodontics	Theory lectures	Theory exam
27	1	Post insertion complications in CD	Prosthodontics	Theory lectures	Theory exam
28	1	relining and rebasing of CD	Prosthodontics	Theory lectures	Theory exam
29	1	Repair of fractured RPD	Prosthodontics	Theory lectures	Theory exam
30	1	Esthetic denture materials	Prosthodontics	Theory lectures	Theory exam

Clinical Part

The students are required to complete the following requirements:-

First term clinic (45 hours) – 3 hr/week

a. Impression for partially edentulous patient

b. Impression for edentulous patient

Partial Denture

c. Bounded partial denture

Second term clinic (45 hours) – 3 hr/week

a. Complete Denture

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Carr and Brown. McCracken's Removable Partial Prosthodontics, 13th edition2016 by Elsevier, Inc. Zarb, Hobkirk, Eckert, Jacob et al. Prosthodontic treatment for edentulous patients: Complete dentures and implant-supported prostheses.13th edition 2013 by Mosby, Elsevier Inc. Phoenix, Cagna, DeFreest. Stewart's Clinical Removable Partial Prosthodontics, 4th edition, 2008 Quintessence Publishing Co, Inc.
Main references (sources)	Golden and Driscoll. Treating the complete denture patient. 1st edition 2020 John Wiley & Sons, Inc. Rahn, Ivanhoe and Plummer. Textbook of complete dentures. 6th edition 2009 People's Medical Publishing House-USA. Veeriayan, Ramalingam, Bhat. Textbook of Prosthodontics. 1st edition 2003 Jaypee Brothers Medical Publishers (p) Ltd. Jones and Garcia. Removable Partial Dentures a clinician's guide. 1st edition, A John Wiley and Sons, Inc., Publication.
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
General Medicine	
2. Course Code:	
407 GMED	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect Dr Waqas Saad Thanoon Email: Waqas.Saad@umosul.edu.iq	
8. Course Objectives	
Course Objectives	Teaching theoretical subjects related to internal medicine and providing students with general medical knowledge
9. Teaching and Learning Strategies	
Strategy	- Theory lectures. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.
10. Course Structure	
Theoretical Part	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Diabetes Mellitus	Medicine	Theory lectures	Theory exam
2	1	White Blood Cells Disorders	Medicine	Theory lectures	Theory exam

3	1	Hemostasis and Bleeding Disorders	Medicine	Theory lectures	Theory exam
4	1	Adrenal Gland Disorders	Medicine	Theory lectures	Theory exam
5	1	Gastrointestinal Diseases	Medicine	Theory lectures	Theory exam
6	1	Inflammatory Bowel Disease	Medicine	Theory lectures	Theory exam
7	1	Pseudomembranous Colitis	Medicine	Theory lectures	Theory exam
8	1	Hypertension	Medicine	Theory lectures	Theory exam
9	1	Infective Endocarditis	Medicine	Theory lectures	Theory exam
10	1	Ischemic Heart Disease	Medicine	Theory lectures	Theory exam
11	1	Heart Failure	Medicine	Theory lectures	Theory exam
12	1	Cardiac Arrhythmias	Medicine	Theory lectures	Theory exam
13	1	Thyroid Diseases	Medicine	Theory lectures	Theory exam
14	1	Kidney Diseases	Medicine	Theory lectures	Theory exam
15	1	Immunologic Diseases	Medicine	Theory lectures	Theory exam
16	1	Liver Diseases	Medicine	Theory lectures	Theory exam
17	1	Pulmonary Diseases	Medicine	Theory lectures	Theory exam
18	1	Red Blood Cells Disorders	Medicine	Theory lectures	Theory exam
19	1	Drug and Alcohol Abuse	Medicine	Theory lectures	Theory exam
20	1	Neurologic Disorders	Medicine	Theory lectures	Theory exam
21	1	Cardiac Arrhythmias	Medicine	Theory lectures	Theory exam

22	1	Thyroid Diseases	Medicine	Theory lectures	Theory exam
23	1	Kidney Diseases	Medicine	Theory lectures	Theory exam
24	1	Immunologic Diseases	Medicine	Theory lectures	Theory exam
25	1	Liver Diseases	Medicine	Theory lectures	Theory exam
26	1	Pulmonary Diseases	Medicine	Theory lectures	Theory exam
27	1	Red Blood Cells Disorders	Medicine	Theory lectures	Theory exam
28	1	Drug and Alcohol Abuse	Medicine	Theory lectures	Theory exam
29	1	Psychiatric Disorders	Medicine	Theory lectures	Theory exam
30	1	Anxiety and Eating Disorders	Medicine	Theory lectures	Theory exam

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Dental Management of the Medically Compromised Patient, Ninth Edition, 2018 2. Essentials of Medicine for Dental Students
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
General Surgery	
2. Course Code:	
408 GSUG	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, Total units: 2	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect Dr Sufyan Humadee Email: sufyan_humadee@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	Teaching theoretical subjects related to general surgery and providing students with general surgery knowledge
9. Teaching and Learning Strategies	
Strategy	- Theory lectures. - Educational videos and utilization of smart boards. - Use of educational models. - Focused student group discussion.
10. Course Structure	
Theoretical Part	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Preoperative preparation (History Taking)	Surgery	Theory lectures	Theory exam
2	2	Parenteral feeding	Surgery	Theory lectures	Theory exam

3	1	Fluid balance	Surgery	Theory lectures	Theory exam
4	1	Blood transfusion	Surgery	Theory lectures	Theory exam
5	1	Wound healing	Surgery	Theory lectures	Theory exam
6	1	Surgical wound infections	Surgery	Theory lectures	Theory exam
7	2	Anesthesia & Pain	Surgery	Theory lectures	Theory exam
8	2	Perioperative care	Surgery	Theory lectures	Theory exam
9	2	Postoperative care	Surgery	Theory lectures	Theory exam
10	2	General postoperative problems and management	Surgery	Theory lectures	Theory exam
11	1	Metabolic response to injury	Surgery	Theory lectures	Theory exam
12	1	Shock	Surgery	Theory lectures	Theory exam
13	1	Hemorrhage	Surgery	Theory lectures	Theory exam
14	2	Electrolytes balance	Surgery	Theory lectures	Theory exam
15	2	Head injury	Surgery	Theory lectures	Theory exam
16	2	Day case surgery	Surgery	Theory lectures	Theory exam
17	2	Surgical ethics and law	Surgery	Theory lectures	Theory exam
18	2	Patient safety	Surgery	Theory lectures	Theory exam

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

12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Baily and Love's short practice of surgery 27th edition 2018
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Paediatric Dentistry	
2. Course Code:	
409 PED	
3. Semester / Year:	
Fourth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lect Ghufran Muhammed Email: Ghufran_Muhammed@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	Educating and training students on the proper scientific principles and methods for treating pediatric patients, including the use of modern materials and techniques in the treatment of children.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Theoretical Part					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	Eruption of teeth , normal eruption process	Eruption of teeth	Theory lectures	Theory exam
2	1	Teething and difficult eruption	Eruption of teeth	Theory lectures	Theory exam
3	1	Eruption haematoma , sequestrum ,ectopic eruption	Eruption of teeth	Theory lectures	Theory exam
4	1	Epstein pearls, Bohn nodules, Dental lamina cysts, Shedding of the primary teeth, Mechanism of resorption and shedding, Factors causes differences in time of eruption	Eruption of teeth	Theory lectures	Theory exam
5	1	Systemic (disease) Factors which cause late eruption Deciduous Dentition Period, Ugly Duckling Stage	Eruption of teeth	Theory lectures	Theory exam
6	1	Morphology of the primary teeth	Morphology of the primary teeth	Theory lectures	Theory exam
7	1	Normal morphology of all primary teeth and their clinical consideration	Morphology of the primary teeth	Theory lectures	Theory exam
8	1	Morphological differences between primary and permanent teeth	Morphology of the primary teeth	Theory lectures	Theory exam
9	1	Functions of primary teeth	Functions of primary teeth	Theory lectures	Theory exam
10	1	Dental caries; Definition and Classification	Dental caries	Theory lectures	Theory exam
11	1	Rampant dental caries, Early childhood caries,	Dental caries	Theory lectures	Theory exam
12	1	Restorative dentistry for children Isolation & maintenance of dry field and application of the rubber Dam	Restorative dentistry	Theory lectures	Theory exam
13	1	Morphological consideration ,cavity preparation Cavity preparation on primary teeth,	Restorative dentistry	Theory lectures	Theory exam

14	1	Restorative materials used on pediatric dentistry	Restorative dentistry	Theory lectures	Theory exam
15	1	Matrices & retainers	Matrices & retainers	Theory lectures	Theory exam
16	1	Chrome steel crowns, ART	Crowns	Theory lectures	Theory exam
17	1	Treatment of deep caries	Deep caries	Theory lectures	Theory exam
18	1	Indirect pulp treatment	Deep caries	Theory lectures	Theory exam
19	1	Vital pulp therapy pulpotomy	Pulpotomy	Theory lectures	Theory exam
20	1	Non vital pulp therapy technique	Non vital pulp	Theory lectures	Theory exam
21	1	Reaction of pulp to various capping material	Non vital pulp	Theory lectures	Theory exam
22	1	Local anesthesia and pain control for children Type of space maintainer (indication and contraindication Type of space maintainer (indication and contraindication Type of space maintainer (indication and contraindication Type of space maintainer(indication and contraindication	Local anesthesia	Theory lectures	Theory exam
23	1	Anesthetizing mandibular and maxillary teeth and soft tissue	Local anesthesia	Theory lectures	Theory exam
24	1	complications after a local anesthetic	Local anesthesia	Theory lectures	Theory exam
25	1	supplemental injection techniques	Local anesthesia	Theory lectures	Theory exam
26	1	Oral surgery for children, indication and contraindications for extraction of primary teeth,	Oral surgery	Theory lectures	Theory exam
27	1	technique for extraction of primary teeth	Oral surgery	Theory lectures	Theory exam
28	1	extraction complications	Oral surgery	Theory lectures	Theory exam

29	1	postoperative extraction complications, radiographic survey of teeth extracted	Oral surgery	Theory lectures	Theory exam
30	1	Infections manifestation and management	Oral surgery	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	3	Hypodontia among children	Seminar	Exams
2	3	Anodontia among children	Seminar	Exams
3	3	Rampant caries among children	Seminar	Exams
4	3	Staining among children	Seminar	Exams
5	3	Types of Caries removal techniques	Seminar	Exams
6	3	Restoration of primary and young permanent teeth with variety types of restorative materials	Seminar	Exams
7	3	Rubber dam	Seminar	Exams
8	3	Minor oral surgery	Seminar	Exams
9	3	Thumb sucking habits	Seminar	Exams
10	3	Pulp therapy for permanent dentition	Seminar	Exams
11	3	Pulp therapy for primary dentition	Seminar	Exams
12	3	Materials used for pulp therapy	Seminar	Exams
13	3	Crowns in pediatric dentistry	Seminar	Exams
14	3	Nail biting among children	Seminar	Exams
15	3	Maintenance of pulp vitality by use of regenerative materials	Seminar	Exams
16	3	Root canal treatment for anterior non vital teeth	Seminar	Exams
17	3	Root canal treatment	Seminar	Exams
18	3	Management of molar incisor hypomineralization MIH	Seminar	Exams
19	3	Behavior management for young patients	Seminar	Exams
20	3	Infection control re-assurance and guidance of students	Seminar	Exams
21	3	Tooth colored restoration technique	Seminar	Exams
22	3	Radiographic prescription and interpretation of results	Seminar	Exams
23	3	Space maintainers	Seminar	Exams
24	3	Fluoride application as a preventive measure	Seminar	Exams
25	3	Cleft lip and palate	Seminar	Exams
26	3	Supernumerary teeth and their impact on teeth eruption	Seminar	Exams
27	3	Management of medically compromised children	Seminar	Exams

28	3	Diagnosis and treatment plan	Seminar	Exams
29	3	ART technique	Seminar	Exams
30	3	Periodontal diseases in children	Seminar	Exams

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Mcdonald and avery's dentistry for child and adolescent 2022 by Elsevier Hand book of pediatric dentistry (Cameron) Mosby
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description - Fifth Year

Course Description Form

1. Course Name:	
Periodontology	
2. Course Code:	
501 PERI	
3. Semester / Year:	
Fifth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Gayath Abdulbarry Al-Jawadi Email: ghayathaljawady@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to clinical periodontics. - Study the aitiology of pocket formation and loss of attachement. - Study the principle of root planning hand instruments, grasping and support. - Study the principles of ultrasonic scaling and polishing.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure					
Theoretical Part					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**
1	1	- Periodontal examination and diagnosis - Overall appraisal of the patient Medical history Dental history: - Chief complaint - Photographic documentation - Clinical Examination: Extraoral examination Intraoral examination Examination of the periodontium Visual examination of biofilm and calculus Visual examination of the gingiva - Probing force and angulation - Periodontal examination: Suppuration Probing depth Probing around implants Bleeding on probing Attachment loss and level Attached gingiva Wasting disease of the teeth Tooth mobility Furcation involvement Trauma from occlusion Pathologic migration of the teeth - Radiographic examination - Laboratory aids to clinical diagnosis	Periodontal examination and diagnosis	Theory lectures	Theory exam
2	1	Bone loss and patterns of bone destruction Bone destruction caused by the extension of gingival inflammation: Histopathology Rate of bone loss Mechanisms of bone destruction	Bone loss	Theory lectures	Theory exam

		Bone destruction caused by trauma from occlusion Bone destruction caused by systemic disorders Factors determining bone morphology in periodontal disease: Normal variation in alveolar bone Exostoses Trauma from occlusion Buttressing bone formation Food impaction Bone destruction patterns in periodontal disease: Horizontal bone loss Vertical or angular defects Osseous craters Bulbous bone contours Reversed architecture Ledges Furcation involvement			
3	1	Radiographic aids in the diagnosis of periodontal disease Normal interdental bone Radiographic techniques Bone Loss: o Amount o Distribution Radiographic appearance of periodontal disease o Periodontitis o Interdental craters o Furcation involvement o Periodontal abscess o Clinical probing o Trauma from occlusion Digital intraoral radiography	Radiographic aids	Theory lectures	Theory exam
4	1	Advanced diagnosis - Objectives of diagnosis - Advances in periodontal probing Generations of periodontal probes First-generation (conventional) probes Second-generation (constant-pressure) probes Pressure-sensitive probe	Advanced diagnosis	Theory lectures	Theory exam

		- Electronic pressure-sensitive (Yeaple) probe Third-generation (automated) probes: - Foster-Miller probe Florida Probe® - Toronto Automated probe - InterProbe™ Fourth-generation probes: - Three-dimensional (3D) probes Fifth-generation probes: i- UltraSonographic (US) probe Advances in microbiologic/biochemical analyses Conventional culture techniques Molecular biology techniques: DNA-analysis method Checkboard DNA-DNA hybridization - Polymerase Chain Reaction (PCR) Immunologic-based tests for putative pathogens: - Immunofluorescent microscopy ELISA - Flow cytometry - Latex agglutination test Microbiologic enzyme assay Advances in characterizing host response Assessment of the susceptible host using makers in peripheral blood Identification of host constituent in GCF Salivary biomarkers Subgingival temperature Advanced Imaging Modalities Conventional radiograph Digital radiograph Subtraction radiography Computer-assisted-densitometric-image-analysis (CADIA) Cone Beam Computed Tomography (CBCT)			

5	1	Periodontal response to external forces Occlusion Assessment of occlusion Adaptive capacity of the periodontium to occlusal forces Trauma from occlusion: Classification of trauma from occlusion: i- Acute and chronic ii- Primary and secondary Stages of tissue response to trauma from occlusion: o Stage I: Injury o Stage II: Repair o Stage III: Adaptive remodeling of the periodontium Relationship between plaque-induced periodontal diseases and trauma from occlusion Clinical and radiographic signs of trauma from occlusion Pathologic tooth migration: o Pathogenesis: i- Weakened periodontal support ii- Changes in the forces exerted on the teeth - Treatment	Periodontal response	Theory lectures	Theory exam
6	1	Immunology Innate immunity Components of innate immunity: Saliva: Salivary peroxidase system Lactoferrin Lysozyme - Gingival epithelial barrier - Gingival crevicular fluid Pathogen recognition and activation of cellular innate responses: i- Toll like receptors ii- Pro inflammatory cytokines Cells of innate immunity: - Neutrophils Macrophages	Immunology	Theory lectures	Theory exam
7	1	Immunology Adaptive immunity	Immunology	Theory lectures	Theory exam

		○ Characteristics ○ Cellular elements ○ Cellular immunity to dental plaque ○ The humoral response to plaque ○ Osteo-immunology in periodontal diseases Therapeutic Strategies			
8	1	Tooth mobility - Introduction - Types: ○ Physiologic mobility ○ Pathologic mobility - Directions of movement: ○ Horizontal ○ Vertical - Factors influencing tooth mobility - Classification of tooth mobility - Initial & secondary tooth mobility Sign & symptoms - Treatment: ○ Situation I: Increased mobility of a tooth with increased width of PDL but normal height of the alveolar bone ○ Situation II: Increased mobility of a tooth with increased width of PDL & reduced height of alveolar bone ○ Situation III: Increased mobility of a tooth with reduced height of alveolar bone & normal width of PDL ○ Situation IV: progressive mobility of a tooth (teeth) as a result of gradually increasing width of PDL in teeth with reduced height of alveolar bone Situation V: Increased bridge mobility despite splinting	Tooth mobility	Theory lectures	Theory exam
9	1	Epidemiology of periodontal diseases - Introduction: The need for epidemiology - Measuring the occurrence of conditions or diseases:	Epidemiology	Theory lectures	Theory exam

		○ Prevalence ○ Risk ○ The odds ○ Incidence - Typical measurement of periodontal disease - True and surrogate measures of the periodontal condition - Epidemiologic study designs: ○ Randomized controlled trials ○ Cohort studies ○ Case–control studies - Suspected modifiable causative factors for periodontal disease: ○ Tobacco smoking ○ Nutrition Dental plaque			
10	1	Determination of prognosis - Definitions - Types of prognosis - Overall versus individual tooth prognosis - Detrimental factors: ○ Overall clinical factors: i. Patient age ii. Disease severity iii. Biofilm control iv. Patient compliance ○ Systemic and environmental factors: i. Smoking ii. Systemic disease or condition iii. Genetic factors iv. Stress ○ Local factors i. Biofilm and calculus Subgingival restorations ○ Anatomic factors i- Short, tapered roots ii- Cervical enamel projections iii- Enamel pearls iv- Bifurcation ridges v- Root concavities vi- Developmental grooves vii- Root proximity viii- Furcation invasion	Determination of prognosis	Theory lectures	Theory exam

		ix- Tooth mobility x- Caries xi- Tooth vitality xii- Root resorption o Prosthetic and Restorative Factors - Prognosis of specific periodontal diseases: o Prognosis for patients with gingival disease: *i*- Biofilm-induced gingival diseases *ii*- Prognosis for patients with periodontitis § - Determination and reassessment of prognosis			
11	1	Interrelationships of periodontal disease and therapy with other dental disciplines Restorative interrelationships - Biologic considerations: o Margin placement and biologic width o Biologic width evaluation o Margin placement guidelines o Marginal fit o Crown contour - Aesthetic tissue management: o Managing o interproximal embrasures o Pontic design o Correcting open gingival embrasures Periodontal – orthodontic interaction - Orthodontic tooth movement in adults with periodontal tissue breakdown - Orthodontic treatment considerations Periodontal surgery associated with ortho therapy Prosthodontic and Periodontic interaction	Interrelationships of periodontal disease and therapy	Theory lectures	Theory exam

12	1	Periodontal surgery. General principles - Rationale for periodontal surgery - Indications - Contraindication - Surgical instruments o Excisional and incisional instruments i- Periodontal knives (gingivectomy knives) ii- Interdental knives Surgical blades o Surgical curettes and sickles o Periosteal elevators o Surgical chisels o Tissue forceps o Scissors and nippers o Needleholders o Additional instruments - Fundamentals of periodontal surgery: o Incisions: i- Horizontal incisions ii- Vertical incisions - Papilla management Flap elevation	Periodontal surgery	Theory lectures	Theory exam
13	1	Sonic and ultrasonic instrumentation and irrigation - Power-driven instruments: overview - Mechanism of action of power scalers - Type of power instruments - Mechanized instruments vs manual instruments - Clinical outcomes of power-driven instruments: o Special considerations o Root surface roughness o Aerosol production o Cardiac pacemakers - Principles of instrumentation - Power-driven devices and	Sonic and ultrasonic instrumentation	Theory lectures	Theory exam

		COVID-19- associated limitations - Irrigators: o Mechanism of action of irrigation o Clinical outcomes of irrigation Individuals with special considerations			
14	1	Gingivectomy and local excision - Gingivectomy: o Indications and contraindication o Advantages and disadvantages o Surgical procedure - Gingivoplasty - Gingival curettage - Periodontal dressings (Periodontal Packs) o Zinc oxide–eugenol dressing o Non-eugenol dressing - Postoperative instructions Management of postoperative pain	Gingivectomy	Theory lectures	Theory exam
15	1	Flap surgery - Objectives, indication, and contraindications - Flap techniques: § o Modified Widman flap Undisplaced flap o Apically displaced flap o Distal wedge flap o Papilla preservation flap - Full and partial thickness flap - Osteoplasty - Suturing techniques	Flap surgery	Theory lectures	Theory exam
16	1	Mucogingival and aesthetic surgery - Objectives - Techniques to increase attached gingiva: o Gingival augmentation apical to recession:	Mucogingival and aesthetic surgery	Theory lectures	Theory exam

		i- Free gingival graft ii- Free connective tissue graft iii- Apically displaced flap § o Gingival augmentation coronal to recession i- Free gingival graft ii- Subepithelial connective tissue graft iii- Pouch and tunnel technique - Techniques to deepen the vestibule - Techniques to remove the frenum: o Frenectomy and frenotomy: i- Procedure - Techniques to improve aesthetics: o Root coverage o Papilla reconstruction - Therapy to correct excessive gingival display: o Surgical techniques o Osseous surgery § This technique has been described sufficiently in previous lecture. Brief reminder of the concept and technique is only required			
17	1	Furcation: involvement and treatment - Introduction - Anatomy of furcation area: o Root complex o Root trunk o Root cone o Furcation entrance - Local anatomic factors - Classification of furcation involvement - Diagnosis: o Clinical o Radiographic analysis - Differential diagnosis: o Pulpal pathologies o Trauma from occlusion - Treatment:	Furcation: involvement and treatment	Theory lectures	Theory exam

		Objectives o Scaling and root planing o Furcation plasty o Tunnel preparation o Root resection/separation, tooth division& hemisection o Tooth extraction o Treatment guidelines according to degree of involvement o Regeneration of Furcation Defects: i- Guided tissue regeneration &Bone grafting o Failures of furcation therapy - Prognosis			
18	1	Laser therapy Laser physics and biologic interactions - Laser Types: o Diode Laser o Neodymium:Yttrium-Aluminum-Garnet Laser o Erbium:Yttrium-Aluminum-Garnet Laser o Er,Cr:YSGG Laser o CO_2 Laser - Laser applications in periodontics: o Aesthetic and pre-prosthetic surgeries o Nonsurgical periodontal therapy: i- Lasers in the management of periodontitis ii- Lasers in the management of peri-implantitis - Advantages and disadvantages - Complications and risks of laser therapy § Case scenario, questions about decision whether using laser or not should be formulated	Laser therapy	Theory lectures	Theory exam

19	1	Locally delivered, controlled-release antimicrobials - Objectives - Types: o Chlorhexidine-based products: i- Chlorhexidine chip ii- PerioCol-CG iii- Chlo-Site o Doxycycline-based products: i- Ligosan slow release ii- Doxycycline gel o Periodontal Plus AB o Minocycline Microspheres - Rationale for local delivery and controlled release - Clinical significance - Clinical indications: o Adjunctive therapy o Surgical therapy o Peri-implantitis o Tobacco smoking Adverse effects	Locally delivered, controlled-release antimicrobials	Theory lectures	Theory exam
20	1	Management of medically compromised patients Cardiovascular diseases: Hypertension Angina pectoris Myocardial infarction Previous cerebrovascular accident Congestive heart failure Cardiac pacemakers Infective endocarditis Renal disease Chemotherapy	Management of medically compromised	Theory lectures	Theory exam
21	1	Management of medically compromised patients Endocrine/metabolic disorders: Diabetes mellitus Thyroid disorders Adrenal Insufficiency Pregnancy Hemorrhagic disorders Blood dyscrasias Liver diseases Neurologic Disorders: Epilepsy	Management of medically compromised	Theory lectures	Theory exam

		Infectious diseases: - COVID-19 - Hepatitis - AIDS Tuberculosis			
22	1	Gingival crevicular fluid (GCF) Introduction Permeability of junctional and sulcular epithelia Function Amount: - Methods for estimating GCF amount Composition: - Cellular elements - Electrolytes - Organic compounds Methods of collection: - Absorbing paper strip: i- Intra-crevicular method ii- Extra-crevicular method - Crevicular washing - Micropipettes or capillary tubes Cellular and humoral activity in GCF Clinical significance: - Circadian periodicity - Sex hormones - Mechanical stimulation Smoking Periodontal therapy Drugs in GCF GCF as a diagnostic/prognostic tool for periodontal disease	Gingival crevicular fluid	Theory lectures	Theory exam
23	1	Dentin hypersensitivity Introduction Epidemiology Etiology Theories of dentin hypersensitivity: - Direct innervation - Odontoblast receptor - Fluid movement/hydrodynamic Diagnosis Measurement methods Prevention and management - Classification of desensitizing agents:	Dentin hypersensitivity	Theory lectures	Theory exam

		i- Mode of administration Mechanism of action			
24	1	Tissue regeneration. General principles Periodontal Wound Healing Wound healing: Outcomes and definitions Healing patterns in the periodontal tissues Outcomes of periodontal wound healing: i- Repair i- Reattachment ii- New attachment v- Regeneration - Resorption i- Ankylosis Phases of wound healing: Inflammation phase Granulation phase Matrix formation and remodeling (maturation) phase Factors that affect healing: Local factors Systemic factors Periodontal wound healing: Healing after nonsurgical treatment Healing after periodontal surgery: i- Gingivectomy - Flap operation i- Grafting procedures Healing after regenerative therapy Healing after implant placement: i- bone tissue interface Mucosal interface	Tissue regeneration	Theory lectures	Theory exam
25	1	Regenerative periodontal therapy Regenerative capacity of bone cells Regenerative capacity of gingival connective tissue cells Regenerative capacity of periodontal ligament cells - Role of epithelium in periodontal wound healing - The possible outcomes of periodontal therapy - Regenerative concepts: o Grafting procedures	Regenerative periodontal therapy	Theory lectures	Theory exam

		○ Root surface biomodification ○ Guided tissue regeneration - Assessment of periodontal regeneration: ○ Clinical assessment i- Pocket probing. ii- Attachment level iii- Gingival indices iv- Alveolar bone level ○ Radiographic methods ○ Re-entry operations Histologic methods			
26	1	Reconstructive surgical techniques: ○ Non- bone graft associated new attachment: i- Principles ii- Procedure Bone Graft associated new attachment or combination of both approaches i- Types of bone graft: ● Autogenous graft ● Allograft ● Xenograft ● Alloplastic (synthetic) materials - Guided tissue regeneration (principle, advantages, disadvantages, and indications)	Reconstructive surgical techniques	Theory lectures	Theory exam
27	1	Advanced regenerative approaches Enamel matrix Derivatives Acellular dermal matrix allograft Clinical applications of growth factors Cell therapy for periodontal regeneration Gene therapeutics for periodontal tissue repair Factors influencing the success or failure of all regeneration techniques	Advanced regenerative approaches	Theory lectures	Theory exam
28	1	Oral implantology Peri-implant anatomy and Peri-implant diseases classification - Introduction - Epithelial structure around natural tooth	Oral implantology	Theory lectures	Theory exam

		- Epithelial structure around dental implant - Structure of the interface between the tooth and gingivae - Structure of the interface between implant and oral epithelium - Structure of the interface between the implant and connective tissue - Keratinized tissue (attached gingiva) around implant - Clinical Comparison of Teeth and Implants - Peri-implant health Peri-implant mucositis: Diagnosis Treatment Peri-implantitis Diagnosis Treatment			
29	1	Oral implantology Implant-related complications and failure Definitions of implant survival and success Types and prevalence of implant complications Surgical complications: Hemorrhage and hematoma Neurosensory disturbances Implant malposition Biologic Complications: Inflammation and proliferation Dehiscence and recession Peri-implantitis and bone loss Implant loss or failure Prosthetic or mechanical complications: Screw loosening and fracture Implant fracture Fracture of restorative materials Aesthetic and phonetic complications: Aesthetic complications	Oral implantology	Theory lectures	Theory exam

		Phonetic problems			
30	1	Oral implantology Supportive implant treatment Rationale for supportive implant treatment Examination of implants Peri-implant probing Microbial testing Stability measures Implant percussion Radiographic examination Assessment of peri-implant health Evaluation of biofilm control Evaluation of peri-implant health and disease Evaluation of implant osseointegration Evaluation of implant restorations Implant maintenance Methods for patient oral hygiene Methods for professional recall maintenance Treatment of peri-implant diseases Peri-implant mucositis Peri-implantitis Referral of patients to the periodontist	Oral implantology	Theory lectures	Theory exam

Clinical part

3 h/week (90 h/year)

- Recording medical and dental history
- Patient's education and motivation
- Oral hygiene instructions (OHI)
- Recording periodontal indices:
  - Bleeding on probing (BOP)
  - Plaque index (% of plaque)
  - Probing pocket depth (PPD)
  - Clinical attachment loss (CAL)
- For periodontitis cases, determination of bone loss level by radiograph or clinically
- Diagnosis according to classification of periodontal disease and conditions (2017)
- Non-surgical periodontal therapy (manual/ultrasonic scaling, root planing) and removal of all plaque retentive factors
- Referral of cases that potentially requiring surgical therapy
- Maintenance and follow-up after 3 months

Requirements: - Recording periodontal indices and diagnosis (min= 15) - Non-surgical periodontal treatment: ● Scaling (min= 8) ● Root planing (min= 3 teeth) Periodontal surgery assistant (one case optional)
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
12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Mcdonald and avery's dentistry for child and adolescent 2022 by Elsevier Hand book of pediatric dentistry (Cameron) Mosby
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Preventive Dentistry	
2. Course Code:	
502 PRVD	
3. Semester / Year:	
Fifth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 90 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Lecturer Ahmed Salah Albasso Email: ahmedalbaso@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to clinical preventive dentistry - Study the aitiology of dental caries. - Study the principle of caries prevention. - Study the principles of periodontal disease prevention.
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Prevention of oral diseases (introduction)	Introduction	Theory lectures	Theory exam

		What is preventive dentistry? prevention is better than a cure Is preventive dentistry still needed? Levels of prevention Caries prevention: how far it had come in one century!			
2	1	Dental caries development Etiology of dental caries Inorganic and organic components of tooth Terminology of dental caries Dynamics Process of De-/Remineralization • The development of a carious lesion • Root caries • Clinical appearance of root caries Classification of root caries	Dental caries	Theory lectures	Theory exam
3	1	Diagnosis of dental caries Detection systems of caries visual and tactile examinations Radiographic techniques Electrical current measurement (electronic resistant method) Fiber Optic Transillumination (FOTI and DiFOTI) (Enhanced visual techniques) Fluorescent techniques Other techniques like Dyes, Ultrasound techniques, Photo-thermal Radiometry (PTR).	Diagnosis of dental caries	Theory lectures	Theory exam
4	1	Fluoride in Dentistry • Introduction • Fluoride in Environment Fluoride Metabolism (Absorption, Distribution and Excretion of Fluoride in the Body).	Fluoride in Dentistry	Theory lectures	Theory exam

5	1	Fluorides in prevention and controlling dental caries • Mechanism of action • Fluoride's effect on tooth mineral Fluoride effect on plaque and bacterial metabolism	Fluorides in prevention	Theory lectures	Theory exam
6	1	Topical fluoride therapy Professionally applied fluoride • Introduction • Advantages and disadvantages of topical fluoride application • Fluoride Compounds Classification of Professionally applied fluoride.	Topical fluoride therapy	Theory lectures	Theory exam
7	1	Topical fluoride therapy :Self-applied fluoride • Requisites for self-applied fluoride agents • Fluoride dentifrices and Mechanism of Action Fluoride mouth rinses, Indications and Recommendations.	Fluorides in prevention	Theory lectures	Theory exam
8	1	Safety and toxicity of fluoride • Fluoride Toxicity • Factors influencing acute toxicity • Management of acute toxicity • Recommendations for parents Chronic Toxicity(Dental fluorosis and bone fluorosis)	Safety and toxicity of fluoride	Theory lectures	Theory exam
9	1	Dental sealants • definition • History • indication and contraindication • sealant in adult • Ideal sealants materials • Requisites for Sealant Retention	Dental sealants	Theory lectures	Theory exam

		• Sealant Placement Guidelines • Fluoride-Releasing Sealants • Glass ionomer sealants • Colored Versus Clear Sealants • Sealants for proximal enamel surfaces Sealing over caries lesions			
10	1	New approach in restorative dentistry • Minimally Invasive Treatment Technique • Minimally Invasive Cavity Preparation • Non-machinery Preparation • LASER • Chemo mechanical Caries Removal • Preventive Resin Restorations Remineralization Treatment	New approach in restorative dentistry	Theory lectures	Theory exam
11	1	Microbiology of dental caries • Microbial ecology in the oral cavity • Acquisition of the resident oral microflora • Site distribution of oral bacteria • Ecological factors affecting the growth and metabolism of oral bacteria • Dental biofilms: development, structure, composition and properties • Development of dental biofilms • Pellicle formation • Microbial colonization	Microbiology of dental caries	Theory lectures	Theory exam

		• Initial microbial colonization • Microbial succession • Microbial composition of the climax community (mature biofilm) • Virulence of microorganisms • Major dental caries-associated bacteria Other caries-associated bacteria			
12	1	Saliva and host defense mechanism Function of saliva Composition of saliva Salivary flow rate Influence of saliva on dental caries Oral immune system Non-specific immune factors Specific immune factors Immunization of dental caries	Saliva	Theory lectures	Theory exam
13	1	Caries risk assessment • Goals of Caries Risk Assesment • Caries Disease Indicators • Caries Risk Factors • Caries Protective Factors • Factors in Low, Moderate and High Caries Cariogram	Caries risk assessment	Theory lectures	Theory exam
14	1	infection control • Transmission of infection • Standard precautions • Components of infection control • Treatment room features • Single use disposable instruments Biomedical waste management	infection control	Theory lectures	Theory exam
15	1	Oral hygiene measures (Mechanical)	Oral hygiene measure	Theory lectures	Theory exam

		• Acquired pellicle • Dental plaque • Dental calculus • Mechanical plaque control aids • Toothbrushes • Tooth brushing methods • Powered toothbrush • Objectives of toothbrushing • Interdental Cleaning aids • Dental floss • Wooden tips • Interdental brushes • Miswak • Oral irrigation devices - Gingival massage			
16	1	Oral hygiene measures (Chemical) • Ideal properties of chemical plaque control agents • Modes of action • Chlorhexidine • Triclosan • Essential oil mouthwashes or Listerine Enzymes • Sanguinarine extracts • Metal ions • Antibiotics • Dentifrices Composition of dentifrices	Oral hygiene measures	Theory lectures	Theory exam
17	1	Diet and dental caries • Role of carbohydrates in caries development • Evidences • Factors affecting food cariogenicity • Physical form of food and clearance time • Types of fermentable carbohydrate • The basic Stephan curve	Diet and dental caries	Theory lectures	Theory exam

		Frequency of intake sugar and dental caries			
18	1	Non- sugar sweeteners • The sweetness of sugars • Non- sugar sweeteners • Bulk sweeteners • Intense sweeteners • Protective factors in food • Fruit and dental caries Testing food cariogenicity	Diet and dental caries	Theory lectures	Theory exam
19	1	Dietary counseling in dental practice • Nutritional status assessment ▪ Body Mass Index • Assessment of dietary intake • Objectives of dietary assessment • 24-hour recall • Dietary record • Food frequency questionnaires • Evaluation of cariogenic potentiall • Evaluation of nutritive value • Dietary counseling • Approach to counseling Motivation	Diet and dental caries	Theory lectures	Theory exam
20	1	Nutrition and dental health • Nutrition dental caries • Systemic effect ▪ Morphology of the teeth ▪ The quality of the hard tissues • Quality of saliva • Evidences of the effect of some nutrients on dental caries Nutrition and eruption of teeth	Diet and dental caries	Theory lectures	Theory exam

21	1	Prevention of periodontal disease and oral cancer by nutrition • Nutrition and periodontal health • The mechanisms by which nutrition may affect periodontal disease • Effect of food texture on periodontal health • Nutrition and oral mucosal disease • Nutrition and oral cancer • Primary prevention Secondary prevention	Prevention of periodontal disease	Theory lectures	Theory exam
22	1	Probiotics and dental health • Caries-related mechanisms of probiotic activity • Probiotics and counts of *mutans streptococci* • Probiotics and caries occurrence Probiotics and periodontal health	Probiotics and dental health	Theory lectures	Theory exam
23	1	Diagnosis and prevention of dental erosion • Prevalence • Early detection • Etiology • Protection against erosion Prevention of erosion	Diagnosis and prevention of dental erosion	Theory lectures	Theory exam
24	1	Prevention of malocclusion • Normal development • Etiology of malocclusion • Interceptive measures • Tooth anomalies Risk assessment	Prevention of malocclusion	Theory lectures	Theory exam
25	1	Preventive measure for population with developmental disabilities • Disability definition • Classification of disabling conditions • The issues regarding the	Preventive measure for population with developmental disabilities	Theory lectures	Theory exam

		delivery of care to people with disabilities • Dental management and preventive measures among disabled individuals • The risk factors for dental caries among disabled individuals • People with physical (neurological) impairment • Visual Deficits • Hearing problems • Mentally retardation • Specialized Equipment for disabled patient management Dental care for Institutionalized disabled individual			
26	1	Preventive treatment strategies for medically compromised populations • Introduction • Eating disorders: Characteristics and preventive treatment strategies • Depression: Characteristics and preventive treatment strategies • Diabetes mellitus: Characteristics and preventive treatment strategies • Epilepsy: Characteristics and preventive treatment strategies Blood disorders: Characteristics and preventive treatment strategies	Preventive treatment strategies for medically compromised populations	Theory lectures	Theory exam
27	1	Ozone in the prevention of dental diseases • Definition and physical	Ozone in the prevention of dental	Theory lectures	Theory exam

		properties • Mode of action • Safety • Application of ozone in dentistry • Effects of ozone on oral microorganisms and oral cells • Ozone for disinfecting dentures • Ozone instruments designed for dentistry • Ozone in the management of incipient caries • Ozone in the management of open caries Treating root caries with ozone	diseases		
28	1	Geriatric dentistry • population characteristics • Physiologic Changes • Functional status • common oral manifestation • preventive measures long term care	Geriatric dentistry	Theory lectures	Theory exam
29	1	Implant care • Dental implant parts • Dental implant and biofilm • Implant Maintenance • Professional care in dental clinic Home care	Implant care	Theory lectures	Theory exam
30	1	Protection of the dentition • Impact of dental trauma • Types of traumatic dental injuries to teeth • Sports dentistry • Protective mouth-guards • Evidence of effectiveness mouth-guards and oral & systemic infections	Protection of the dentition	Theory lectures	Theory exam

Practical part				
Week	**Hr**	**Laboratory subject**	**Learning method**	**Evaluation method**
1	3	Diagnosis and treatment planning	Seminar	Exams
2	3	Diagnosis and treatment planning	Seminar	Exams
3	3	Preliminary medical and dental history, Clinical examination , Radio graphic examination	Seminar	Exams
4	3	Preliminary medical and dental history,Clinical examination , Radio graphic examination	Seminar	Exams
5	3	Demonstration and use of Primary prevention program by removal of dental plaque and calculus and application of fluoride and fissure sealants	Seminar	Exams
6	3	Demonstration and use of Primary prevention program by removal of dental plaque and calculus and application of fluoride and fissure sealants	Seminar	Exams
7	3	Monitoring of developing dentition and recognition and prevention (through use of space maintainers) or interception of any occurrence of malocclusion	Seminar	Exams
8	3	Monitoring of developing dentition and recognition and prevention (through use of space maintainers) or interception of any occurrence of malocclusion	Seminar	Exams
9	3	Caries removal and restoration of primary and young developing permanent dentition with variety of restorative materials	Seminar	Exams
10	3	Caries removal and restoration of primary and young developing permanent dentition with variety of restorative materials	Seminar	Exams
11	3	Trauma management in anterior teeth	Seminar	Exams
12	3	Trauma management in anterior teeth	Seminar	Exams
13	3	Minimal intervention dentistry by removal of dental decay and choice of suitable restorative material	Seminar	Exams
14	3	Minimal intervention dentistry by removal of dental decay and choice of suitable restorative material	Seminar	Exams
15	3	Pulp therapy for primary dentition	Seminar	Exams
16	3	Pulp therapy for primary dentition	Seminar	Exams
17	3	Management of simple cases of dental anomalies and other developmental defects	Seminar	Exams
18	3	Management of simple cases of dental anomalies and other developmental defects	Seminar	Exams

19	3	Maintenance of pulp vitality by use of regenerative materials and Root canal treatment for anterior non vital teeth	Seminar	Exams
20	3	Maintenance of pulp vitality by use of regenerative materials and Root canal treatment for anterior non vital teeth	Seminar	Exams
21	3	Extraction for non restorable primary and permanent teeth or over- retained primary dentition and permanent teeth for space creation for orthodontic treatment	Seminar	Exams
22	3	Extraction for non restorable primary and permanent teeth or over- retained primary dentition and permanent teeth for space creation for orthodontic treatment	Seminar	Exams
23	3	Management of molar incisor hypomineralization MIH	Seminar	Exams
24	3	Behavior management for young patients	Seminar	Exams
25	3	Behavior management for young patients	Seminar	Exams
26	3	Infection control re-assurance and guidance of students	Seminar	Exams
27	3	Infection control re-assurance and guidance of students	Seminar	Exams
28	3	Tooth colored restoration technique	Seminar	Exams
29	3	Tooth colored restoration technique	Seminar	Exams
30	3	Radiographic prescription and interpretation of results	Seminar	Exams

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Primary Preventive Dentistry by Harris NO Garcia-GodoyF-NatheCN 8th Ed (. 20014) Comprehensive preventive dentistry (2012) Edited by Hardy Limeback
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Oral Surgery	
2. Course Code:	
503 OSUR	
3. Semester / Year:	
Fifth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 180 hours. Total units: 8	
7. Course administrator's name (mention all, if more than one name)	
Name: Lecturer Dr Dhafar Almela Email: tkdalmela@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to clinical oral surgery - Study the advanced minor oral surgery operation. - Study the principle of impact tooth extraction. - Study the bone fracture (skull, maxilla, mandible … etc).
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.
10. Course Structure	
Theoretical Part	

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Orofacial pain • Classification; somatic and	Orofacial pain	Theory lectures	Theory exam

		neuropathic • Diagnosis • Somatic pain; odontogenic pain, oral mucous membrane disorders, temporomandibular joint disorders, muscle disorders • Neuropathic pain; trigeminal neuralgia, glossopharyngeal neuralgia, atypical odontalgia, postherpetic neuralgia Vascular pain; giant cell arteritis and migraine.			
2	1	Preliminary management of patients with facial fractures • Etiology of maxillofacial trauma • Primary survey and advanced trauma life support (ATLS) Secondary survey.	Preliminary management of patients with facial fractures	Theory lectures	Theory exam
3	1	Fractures of the mandible • Classification • Clinical features • Imaging • Treatment; closed treatment, methods of immobilization, period of treatment, open reduction and internal fixation (ORIF) • Teeth in the fracture line Complications	Fractures of the mandible	Theory lectures	Theory exam
4	1	Fractures of the mandible Mandibular fractures that require special consideration: • Pediatric fractures, • Fractures of edentulous mandible • Condylar fractures Comminuted fractures	Fractures of the mandible	Theory lectures	Theory exam
5	1	Fractures of the middle third of facial skeleton • Classification, clinical presentation imaging and treatment of:	Fractures of the middle third of facial skeleton	Theory lectures	Theory exam

		✓ Le Fort fractures Zygomatic complex fractures			
6	1	Fractures of the middle third of facial skeleton • Classification, clinical presentation imaging and treatment of: • Orbital floor fractures • Nasal bone fractures Complications of fractures of middle third of facial skeleton	Fractures of the middle third of facial skeleton	Theory lectures	Theory exam
7	1	Dentoalveolar and soft tissue injuries • Factors affecting dentoalveolar injuries • Classification • Clinical presentation • Radiographic evaluation • Treatment • Splinting techniques • Complications. Soft tissue injures; classification, treatment and soft tissue injuries of special significance	Dentoalveolar and soft tissue injuries	Theory lectures	Theory exam
8	1	Preprosthetic surgery • Definition. • Preoperative assessment • Clinical examination and radiographic evaluation. Bony recontouring procedures: alveoloplasty, maxillary tuberosity reduction, exostoses and excessive undercuts, mylohyoid ridge and genial tubercle reduction and torus removal.	Preprosthetic surgery	Theory lectures	Theory exam
9	1	Preprosthetic surgery • Soft tissue procedures: unsupported hypermobile tissue on the alveolar ridge, inflammatory fibrous hyperplasia (epulis fissuratum), labial frenectomy, lingual frenectomy, ridge	Preprosthetic surgery	Theory lectures	Theory exam

		extension (vestibuloplasty) • Immediate dentures • Alveolar ridge preservation Correction of abnormal ridge relationships			
10	1	Potentially malignant disorders of the oral mucosa • Classification and terminology • Risk factors, • Diagnostic methods and diagnostic aids Potentially malignant disorders: leukoplakia, erythroplakia, palatal changes associated with reverse smoking, oral submucous fibrosis, actinic cheilitis and lichen planus.	Potentially malignant disorders	Theory lectures	Theory exam
11	1	Odontogenic diseases of the maxillary sinus • Overview of the maxillary sinus • Clinical and radiographic examination • Non-odontogenic infections of the maxillary sinus • Odontogenic infections of the maxillary sinus • Oroantral communications and fistulae Treatment Treatment of: ✓ Orbital floor fractures ✓ Nasal bone fractures Complications of fractures of middle third of facial skeleton	Odontogenic diseases	Theory lectures	Theory exam
12	1	Benign cystic lesions of the oral cavity • Definition • Classification of cysts (according to the WHO classification 2017) • Odontogenic cysts of inflammatory origin	Benign cystic lesions	Theory lectures	Theory exam

		• Odontogenic and non-odontogenic developmental cysts • Clinical features • Radiographic features • Surgical management of cystic lesions • Enucleation: indications, advantages and disadvantages • Adjunctive treatment ✓ Peripheral ostectomy and curettage ✓ Cryotherapy ✓ Chemical treatment ✓ Topical 5-fluorouracil Marsupialization			
13	1	Odontogenic tumors • Definition • Classification of Odontogenic Tumors (according to the WHO classification of odontogenic cysts, tumors and maxillofacial bone tumors 2017) ✓ Epithelial odontogenic tumors ✓ Mixed epithelial and mesenchymal odontogenic tumors ✓ Mesenchymal odontogenic tumors. • Clinical features • Radiographic features • Ameloblastoma ✓ Ameloblastoma ✓ Unicystic ameloblastoma ✓ Peripheral/extraosseous) • Odontoma ✓ Compound type ✓ Complex type • Surgical treatment of odontogenic tumors	Odontogenic tumors	Theory lectures	Theory exam

		• Enucleation and/or curettage, adjunctive treatment Resection			
14	1	Non-odontogenic tumors and fibro-osseous lesions of the jaw • Classification (according to the WHO classification of odontogenic and maxillofacial bone tumors 4th edition 2017) • Giant cell lesions ✓ Central giant cell granuloma ✓ Brown tumor of hyperparathyroidism ✓ Cherubism ✓ Aneurysmal bone cyst Fibro-osseous lesions ✓ Fibrous dysplasia ✓ Ossifying fibroma ✓ Cemento-osseous dysplasia • Osteoma Osteosarcoma	Non-odontogenic tumors	Theory lectures	Theory exam
15	1	Oral cancer • Natural history of squamous cell carcinoma • Etiology • Site distribution • Clinical presentation • Staging (using the 8th edition of the cancer staging manual) and grading • Radiographic assessment - Surgical treatment, access to the oral cavity	Oral cancer	Theory lectures	Theory exam
16	1	Oral cancer • Management of the neck • Postoperative follow up • Radiotherapy, radiotherapy techniques and fractionation • Chemotherapy, agents and scheduling Palliative treatment and terminal care	Oral cancer	Theory lectures	Theory exam

17	1	Implant Treatment: Advanced Concepts • Immediate post-extraction implants • Immediate loading versus delayed loading • Bone grafts and graft substitutes Sinus lift procedure	Implant Treatment: Advanced Concepts	Theory lectures	Theory exam
18	1	Implant Treatment: Advanced Concepts • Inferior alveolar nerve lateralization • Narrow and short implants • Image-guided implantology • Computer-Assisted Implant Surgery Special implants (zygomatic and extra-oral implants)	Implant Treatment: Advanced Concepts	Theory lectures	Theory exam
19	1	Salivary gland diseases • Overview of major and minor salivary glands • Clinical assessment • Imaging • Classification: ✓ Developmental ✓ Inflammatory ✓ Obstructive and traumatic lesion ✓ Functional ✓ Autoimmune conditions ✓ Neoplastic lesions Inflammatory conditions (sialadenitis): Viral sialadenitis and Bacterial sialadenitis , • Obstructive conditions • Functional conditions: Xerostomia, Sialorrhea Conditions of possible traumatic origin: Mucocele, Ranula	Salivary gland diseases	Theory lectures	Theory exam
20	1	Salivary gland diseases • Autoimmune conditions: Sjögren syndrome, Immunoglobulin G4-related salivary gland disease	Salivary gland diseases	Theory lectures	Theory exam

		• Other salivary gland conditions: Salivary duct cyst (Mucus retention cyst), Necrotizing sialometaplasia, Sarcoidosis, Sialadenosis (sialosis), Radioactive iodine sialadenitis • Neoplasms: benign and malignant (according to 4th edition of the WHO classification 2017). Principles and complications of salivary gland surgery			
21	1	Temporomandibular joint (TMJ) disorders • TMJ anatomy • Evaluation and Radiographic examination of the TMJ • Disorders of the TMJ: • Structural (internal derangement) • Wilkes classification of internal derangement • Functional (myofascial pain) Management: non-surgical, minimally invasive (arthocentesis and arthroscopy) and surgery	Temporoman dibular joint (TMJ) disorders	Theory lectures	Theory exam
22	1	Temporomandibular joint (TMJ) disorders • Hypermobility of TMJ • Hypomobility of TMJ: • Classification of TMJ ankyloses Treatment	Temporoman dibular joint (TMJ) disorders	Theory lectures	Theory exam
23	1	Orthognathic surgery • Definition • Treatment objectives • Clinical examination (facial evaluation in frontal and profile views) • Radiographic evaluation (Lateral cephalometric analysis) • Pre-surgical Orthodontic	Orthognathic surgery	Theory lectures	Theory exam

		Considerations Treatment Timing			
24	1	Orthognathic surgery • Mock surgery and fabrication of splints • Surgical treatment phase (mandibular excess, mandibular deficiency, maxillary excess, Maxillary and Midface Deficiency) Distraction osteogenesis	Orthognathic surgery	Theory lectures	Theory exam
25	1	Cleft lip and palate • Epidemiology • Etiology • Classification • Prenatal diagnosis • Clinical manifestations • Management; presurgical orthopedics, primary operative management, treatment planning and timing, surgical procedures of cleft lip	Cleft lip and palate	Theory lectures	Theory exam
26	1	Cleft lip and palate • Management; Surgical procedures of cleft palate, complications • Secondary operative management; alveolar bone grafting, goals and timing, procedure, source of bone graft, complications.	Cleft lip and palate	Theory lectures	Theory exam
27	1	Laser and Cryosurgery in oral and maxillofacial surgery • Laser • Classification of laser according to power: low-energy and high-energy • The advantages of laser • Hazards and precautions required when using laser • Cryosurgery • Cryosurgery techniques • Uses of cryosurgery • The advantages of using cryosurgery	Laser and Cryosurgery	Theory lectures	Theory exam

		The disadvantages of using cryosurgery			
28	1	Vascular anomalies • Classification (according to ISSVA 2018) ➢ Hemangioma • Clinical presentation and staging • Investigations • Treatment ✓ In the proliferative phase ✓ In the involutive phase ✓ Residual lesions ➢ Vascular malformations • Classification according to the vessel type and whether high or low flow • Clinical presentation with emphasis on the intraosseous venous malformation • Investigations Treatment	Vascular anomalies	Theory lectures	Theory exam
29	1	Principles of reconstructive surgery of defects of the jaws • Goals of reconstruction • Biologic basis of bone reconstruction • Types of grafts (autogenous, allogeneic, xenogeneic) • Osteoinduction, Osteoconduction and Osteogenesis • Assessment of patient in need for reconstruction • Goals of mandibular reconstruction • Defect types and localizations • Mandibular reconstruction Surgical principles of maxillofacial bone grafting procedures	Principles of reconstructive surgery of defects of the jaws	Theory lectures	Theory exam
30	1	Principles of reconstructive surgery of defects of the jaws • Maxillary reconstruction • Goals of maxillary	Principles of reconstructive surgery of defects of the	Theory lectures	Theory exam

		reconstructive surgery • Computer-assisted surgical planning • Flaps for maxillofacial reconstruction • Definition • Classifications • Examples of flaps in maxilla-mandibular reconstruction (palatal flap, tongue flap, buccal fat pad flap, Facial Artery Musculomucosal Flap, Temporalis muscle flap, Submental Flap, Vascularized Iliac Crest Grafts	jaws		

Practical part
Clinical requirements (6 hours/ week - 180 hours/ year) • Extraction of teeth (simple extraction) • Surgical extraction of teeth • Surgical assistant in minor oral surgery and dental implants. • Participating in oral and maxillofacial surgery ward rounds
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
12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Contemporary oral and maxillofacial surgery 7th edition 2019 (Elsevier (. 2. Perry M, Brown A, Banks P (2015). Fractures of The Facial Skeleton, second edition. Wiley Blackwell.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Prosthodontics	
2. Course Code:	
504 PROS	
3. Semester / Year:	
Fifth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 180 hours. Total units: 8	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Prof Dr Nada Zuhair Email: nada2005@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to Overdenture - Study the advanced attachment techniques. - Study the principle of Implant Prosthodontics. - Study the principles of maxillofacial prosthodontics
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	• Occlusion • Articulation	Occlusion in Complete	Theory lectures	Theory exam

		• Centric relation • Centric occlusion • Occlusal balance • Occlusal harmony • Occlusal interference • Maximum intercuspation ✓ Requirements of ideal complete denture occlusion ✓ Objectives of occlusion in complete denture • Requirement of complete denture occlusion • Types of occlusion • Balance occlusion ✓ Advantages of balance occlusion	Denture		
2	1	• Factors affecting the balanced occlusion (laws of articulation) ✓ Condylar guidance ✓ Incisal guidance ✓ Plane of occlusion ✓ The compensating curve ✓ Cuspal angulations • Interaction of the five factor • *Lingualized occlusion* • Monoplane or occlusion (neutrocentric) • Types of occlusal scheme ✓ retention, stability and support of complete denture	Occlusion in Complete Denture	Theory lectures	Theory exam
3	1	• Retention • Factors affect in the retention of CD ✓ Mechanical factors ✓ Muscular factor • Denture surface ✓ Occlusal surface Polished surface	Retention, Stability and Support	Theory lectures	Theory exam
4	1	✓ Impression surface • Stability ✓ Various factors that affecting the stability • Support • Nature of the Supporting tissue • Mandibular anatomical consideration • Mandibular residual ridge • Maxillary anatomic consideration	Retention, Stability and Support	Theory lectures	Theory exam

		○ Factors that influence the form and size of the supporting bone			
5	1	• Classification of Post-Insertion Denture problems ✓ Complaints about comfort of the denture ✓ Complaints about function of the denture ✓ Complaints about esthetics ✓ Complaints about phonetics • Complaints about comfort of the denture ✓ Sore spot ✓ Burning sensation ✓ Redness ✓ Pain in TMJ ✓ Tongue and cheek biting ✓ Swallowing & sore throat ✓ Nausea and gagging ✓ Clicking of teeth ✓ Fatigue of the muscles of mastication	Post Insertion Problems	Theory lectures	Theory exam
6	1	• Complaints about function of the denture ✓ Loose denture (poor retention) ✓ Unstable denture • Complaints about esthetics • Complaints about phonetics • Oral mucosal Lesions induced by removable dentures • Causes of Mucosal Irritation • Types of these lesions ✓ Denture stomatitis ✓ Angular Cheilitis ✓ Flabby ridge ✓ Denture irritation hyperplasia ✓ Traumatic ulcer ✓ Burning Mouth Syndrome Hypersensitivity	Post Insertion Problems	Theory lectures	Theory exam
7	1	▪ Changes occurred required Long term recall appointments ▪ Some Clinical Problems and Solutions associated with complete denture Problems of reduced salivary flow	Complications Of Complete Denture	Theory lectures	Theory exam

		✓Aetiology of reduced salivary flow ✓Management of dry mouth ▪ Hard and soft materials for modifying the impression surface of dentures			
8	1	▪ Other complications ✓Flabby ridge ✓Denture breakages ✓Debonding of teeth ✓Gagging reflex (retching) ✓Burning mouth syndrome Disturbance of speech	Complications Of Complete Denture	Theory lectures	Theory exam
9	1	▪ Introduction, Definition, Indications, Contraindications, Advantages, Disadvantages ▪ Types of immediate dentures ▪ Explanation to the Patient Concerning Immediate Dentures	Immediate Denture	Theory lectures	Theory exam
10	1	▪ Diagnostic steps, Impression techniques, Jaw relations record, Try-in, Cast trimming, Waxing and flasking, Surgical splints, Setting of teeth, Processing and finishing, Insertion Post-operative care and instructions	Immediate Denture	Theory lectures	Theory exam
11	1	▪ Development of the classification system ▪ Diagnostic Criteria ▪ Integration of Diagnostic Findings ▪ Diagnostic Classification of Complete Edentulism ▪ Reasons for a Classification System ▪ Features govern classes differentiation from each other ▪ Guidelines for Use of the Complete Edentulism Classification System ▪ Bone height-mandible only ▪ Residual ridge morphology-	Classification system for completely edentulous patients	Theory lectures	Theory exam

		maxilla only ▪ Muscle Attachments: Mandible only ▪ Maxillomandibular Relationship ▪ Integration of Diagnostic Findings ▪ Arrangement of artificial teeth in abnormal jaw relations			
12	1	▪ Arrangement of anterior teeth in maxillary protrusion ▪ Arrangement of artificial teeth in abnormal jaw relations ▪ Arrangement of anterior teeth in mandibular protrusion	Classification system for completely edentulous patients	Theory lectures	Theory exam
13	1	▪ Anatomical and Physiological Considerations for Posterior Palatal Seal ▪ Methods of location of anterior vibrating line (AVL) ▪ Classification of soft palate ▪ Designs of the posterior palatal seal ▪ Methods or techniques of recording posterior palatal Seal area Error in recording of posterior palatal seal	Posterior palatal seal area	Theory lectures	Theory exam
14	1	• Maxillary complete denture opposing by complete mandibular dentition • Techniques used to determine occlusal modifications prior to denture construction • Upper complete denture opposing by mandibular partial denture • Complications of single CD ✓Combination Syndrome and Associated Changes	Single CD	Theory lectures	Theory exam

		(Kelly's Syndrome) ✓Setting of teeth and occlusal concept ✓fracture of Denture ✓Wear of Teeth • Mandibular single denture Steps for Single Denture construction			
15	1	- Factors influencing Aging - Goal of Geriatric dentistry - Objectives of Geriatric dentistry - Psychological disorders of elderly patients generally seen by prosthodontist - Factors that influence the patient's response - Seven basic personality traits will be considered in the light of their influence on success in dentistry - Systemic Diseases and its dental relation - Geriatric dentistry related to prosthetic part 2	Single CD	Theory lectures	Theory exam
16	1	▪ Objectives of maxillofacial prosthesis ▪ Maxillofacial Classification ▪ Extra Oral Appliances ▪ Intra Oral Appliances	Maxillofacial Prosthesis	Theory lectures	Theory exam
17	1	▪ Retentive Aids in Maxillofacial Prosthodontics Steps of maxillofacial prostheses construction	Maxillofacial Prosthesis	Theory lectures	Theory exam
18	1	Structural characteristics of alveolar bone • Pathology of RRR • Pathogenesis of RRR • Direction of bone resorption • Patterns of bone resorption • Consequences of RRR	Residual Ridge resorption	Theory lectures	Theory exam
19	1	• Etiology of RRR • RRR is a multi-	Residual Ridge resorption	Theory lectures	Theory exam

		factorial, biomechanical disease ✓Metabolic factors ✓Dietary Factors • Osteoporosis and residual ridge modeling • Prosthetic factors Treatment and Prevention of RRR			
20	1	• implant classification ✓Classification of endosseous implants according to their design ✓Classification of endosseous implants according to their material ✓Classification of endosseous implants according to surface characteristics ✓Classification of endosseous implants according to the insertion technique ✓Classification of endosseous implants according to surgical stages ✓6.classification of endosseous implants according to the time of installation ✓7.classification of endosseous implants according to time of prosthetic loading • Factors affecting healing ✓Surgical technique ✓Premature loading ✓Surgical fit ✓Bone quality and quantity ✓Physical condition of the patient • Components of branemark implant system • Prosthetic options in implant dentistry • Overdenture (implant supported overdenture) Occlusal form and scheme	Dental implantology	Theory lectures	Theory exam

21	1	• Basic sequence of procedures in implants treatment ✓Radiographic stent • Implant success and survival • Indications of implant denture • Contradictions of implant denture • Characteristics of the osseointegrated implant Basic guidingfactors of osseointegration • Occlusion in implant-supported prostheses	Dental implantology	Theory lectures	Theory exam
22	1	▪ Definition ▪ Factors Influencing the Appearance of Dentures ▪ Steps in achieving esthetic complete denture ▪ Additional clinical and technical considerations in anterior tooth selection patient preferences ▪ Gingival Contour ▪ Denture base factors ▪ Characterization Final Decision for Esthetics	Esthetics in CD	Theory lectures	Theory exam
23	1	▪ osseointegration ▪ Biomaterials ▪ Selection of Biomedical Materials ▪ Classification of implant materials Guided Bone Regeneration	Characteristics Of Ideal Materials For Dental Implant	Theory lectures	Theory exam
24	1	▪ Types of surface modification: ▪ Surface design ▪ Ceramic coating ▪ Super structure	Characteristics Of Ideal Materials For Dental Implant	Theory lectures	Theory exam
25	1	• Definition • Aims • Indication • Technique for denture duplication • Laboratory procedure for denture duplication	Copy denture	Theory lectures	Theory exam

		• Denture duplication technique ✓ The silicon putty ✓ The agar- Agar ✓ Modification/ Further application Problem Areas in Fabrication and Solutions			
26	1	▪ The important goals of overdenture ▪ Indications of Overdenture. ▪ Contraindications of Overdenture ▪ Advantages of overdenture prosthesis ▪ Disadvantage of overdenture ▪ Overdenture Classification ▪ Sequence of Treatment of Patient Who Need an Overdenture	Over Denture	Theory lectures	Theory exam
27	1	▪ Impressions of the Abutment Teeth ▪ Denture Base designing ▪ Implant supported overdenture ▪ Type of implant overdenture ▪ Indication of Implant supported overdenture ▪ Contraindication ▪ Advantages of implant supported over denture ▪ Disadvantages of implant supported over denture	Over Denture	Theory lectures	Theory exam
28	1	▪ Definitions ▪ Neutral Zone Concept ▪ Objectives of Neutral zone Techniques ▪ Indications of Neutral zone Techniques ▪ Recording neutral zone in final impression stage ▪ Recording neutral zone in jaw relation visit ▪ Recording neutral zone in try in stage ▪ Recording neutral zone in finished denture	Neutral zone in CD	Theory lectures	Theory exam

		Limitation for the success of neutral zone impression technique			
29	1	• Function of attachment • Factors affecting attachment selection • Retentive Mechanism	Attachments in over denture	Theory lectures	Theory exam
30	1	• Classification of Attachments • Types of attachments Overdenture care	Attachments in over denture	Theory lectures	Theory exam

Practical part
Clinical Requirements: (5 hrs / week – total 180 hrs / year) Cases of upper and lower complete dentures Single complete denture against partial denture or natural teeth. Immediate or flexible RPD. Case of repair.
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
12.Learning and Teaching Resources

Required textbooks (curricular books, if any)	Zarb, Hobkirk, Eckert, Jacob et al. Prosthodontic treatment for edentulous patients: Complete dentures and implant-supported prostheses.13th edition 2013 by Mosby, Elsevier Inc. ▪ Golden and Driscoll. Treating the complete denture patient. 1st edition
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:					
Clinical Endodontics and Clinical Fixed Prosthodontics					
2. Course Code:					
505 CECP					
3. Semester / Year:					
Fifth year					
4. Description Preparation Date:					
01 March 2024					
5. Available Attendance Forms:					
Theoretical and practical					
6. Number of Credit Hours (Total) / Number of Units (Total)					
Theoretical: 30 hours, (15 hr Clinical Endodontics and 15 hr Clinical Fixed Prosthodontics) practical: 180 hours. Total units: 6					
7. Course administrator's name (mention all, if more than one name)					
Name: Assist Prof Dr Alaa Idrees Dawood Email: alaa.edrees@uomosul.edu.iq					
8. Course Objectives					
Course Objectives	- Introduction to Endodontics - Study the advanced Endodontic treatment techniques. - Study the principle of fixed prosthodontics. - Study the principles of crown/bridge prosthodontics				
9. Teaching and Learning Strategies					
Strategy	− Theory lectures and practical laboratories. − Educational videos and utilization of smart boards. − Use of educational models. − Focused student group discussion.				
10. Course Structure					
Theoretical Part					
Week	**Hr**	**Required Learning Outcomes**	**Unit or subject name**	**Learning method**	**Evaluation method**

1	1	Endodontic diagnosis	Clinical Endodontics	Theory lectures	Theory exam
2	1	Pain control in Endodontics	Clinical Endodontics	Theory lectures	Theory exam
3	1	Endodontic radiography	Clinical Endodontics	Theory lectures	Theory exam
4	1	Working length Determination	Clinical Endodontics	Theory lectures	Theory exam
5	1	Microbiology	Clinical Endodontics	Theory lectures	Theory exam
6	1	Microbiology	Clinical Endodontics	Theory lectures	Theory exam
7	1	Intracanal instruments	Clinical Endodontics	Theory lectures	Theory exam
8	1	Intracanal instruments	Clinical Endodontics	Theory lectures	Theory exam
9	1	Obturation of the root canal system	Clinical Endodontics	Theory lectures	Theory exam
10	1	Obturation of the root canal system	Clinical Endodontics	Theory lectures	Theory exam
11	1	Endodontic Emergency Treatment	Clinical Endodontics	Theory lectures	Theory exam
12	1	Restoration of Endodontically Treated Teeth	Clinical Endodontics	Theory lectures	Theory exam
13	1	Endodontic-Periodontal Relations	Clinical Endodontics	Theory lectures	Theory exam
14	1	Tooth discoloration and bleaching.	Clinical Endodontics	Theory lectures	Theory exam
15	1	Tooth discoloration and bleaching.	Clinical Endodontics	Theory lectures	Theory exam
16	1	Terminology, definition of fixed partial denture , Effect of Tooth Loss, Comparism with R.P.D	Fixed Prosthodontics	Theory lectures	Theory exam
17	1	Types of Fixed Bridge including Basic Bridge Design	Fixed Prosthodontics	Theory lectures	Theory exam
18	1	Components of Fixed Bridge; Retainers	Fixed Prosthodontics	Theory lectures	Theory exam
19	1	Components of Fixed Bridge; Pontics Connectors.	Fixed Prosthodontics	Theory lectures	Theory exam

20	1	Clinical Consideration for Bridge Construction.- _Abutment Tooth(evaluation and selection) _Crown/Root Ratio. _Splinting of teeth. _Patient Occlusal Status. _General Factors.	Fixed Prosthodontics	Theory lectures	Theory exam
21	1	Clinical Situations affecting Bridge Design; (Post. Tilted Abutments, Span Length, Pier Abut., Arch	Fixed Prosthodontics	Theory lectures	Theory exam
22	1	Resin bonded bridge	Fixed Prosthodontics	Theory lectures	Theory exam
23	1	Diagnosis And Treatment Plan. Intra-oral Examination. X-Rays Examination. Diagnostic Cast Examination.	Fixed Prosthodontics	Theory lectures	Theory exam
24	1	Gingival retraction and impression(techniques)and impression disinfection	Fixed Prosthodontics	Theory lectures	Theory exam
25	1	provisional Restoration , Oclussion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registeration, and Articulation	Fixed Prosthodontics	Theory lectures	Theory exam
26	1	provisional Restoration , Oclussion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registeration, and Articulation	Fixed Prosthodontics	Theory lectures	Theory exam
27	1	Try-in and Shade Selection (Colour dimensions Hue,Chroma,and Value).	Fixed Prosthodontics	Theory lectures	Theory exam
28	1	Final Cementation of F.P.Ds.(Techniques)	Fixed Prosthodontics	Theory lectures	Theory exam
29	1	Failure in Fixed Prosthodontics.	Fixed Prosthodontics	Theory lectures	Theory exam
30	1	Porcelain in Fixed Prosthodontics (Current Ceramic).	Fixed Prosthodontics	Theory lectures	Theory exam

Practical part	
Clinical requirements (6 hrs / week) The students are required to complete the following restorations:- a. Amalgam Restorations Class I, Class II, Compound and complex restorations. b. Composite (tooth colored) Restorations Class I, Class II, Class III, Class IV ,and Class V. c. Fixed prosthesis including crown and bridge work. d. Endodontic treatment for anterior teeth and premolars. e. Seminars	
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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Cohen's Pathways of the Dental Pulp. 12th ed. Louis H. Berman and Kenneth M. Hargreaves. Fundamentals of Fixed Prosthodontics, 2012, Quintessence Pub. SHILLINGBURG, H. T. & SATHER, D. A. 2- Contemporary Fixed Prosthodontics, 2016 Elsevier. ROSENSTIEL, S. F., LAND, M. F. & FUJIMOTO, J.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:	
Orthodontics	
2. Course Code:	
506 ORTH	
3. Semester / Year:	
Fifth year	
4. Description Preparation Date:	
01 March 2024	
5. Available Attendance Forms:	
Theoretical and practical	
6. Number of Credit Hours (Total) / Number of Units (Total)	
Theoretical: 30 hours, practical: 120 hours. Total units: 6	
7. Course administrator's name (mention all, if more than one name)	
Name: Assist Prof Dr Sarmad Sobhi Salih Email: Sarmadsobhi@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	- Introduction to clinical orthodontics - Study the advanced orthodontic treatment techniques. - Study the principle of fixed orthodontics. - Study the manufacturing of removable orthodontics
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Orthodontic diagnosis and treatment planning:	Orthodontic diagnosis	Theory lectures	Theory exam

		Personal data Consent form Clinical examination i. General body stature			
2	1	Face examination in 3 dimensions skeletal examination Soft tissue examination	Face examination	Theory lectures	Theory exam
3	1	v. Occlusion	Occlusion	Theory lectures	Theory exam
4	1	Dentition Temporomandibular joint	TMJ	Theory lectures	Theory exam
5	1	d- Diagnostic aids i. Cephalometrics	Diagnostic aids	Theory lectures	Theory exam
6	1	Orthopantomography Other views	Diagnostic aids	Theory lectures	Theory exam
7	1	iv. Study models	Diagnostic aids	Theory lectures	Theory exam
8	1	Photography 3D imaging	Diagnostic aids	Theory lectures	Theory exam
9	1	e- Treatment planning	Treatment planning	Theory lectures	Theory exam
10	1	f- Treatment of Medically compromised patients	Treatment planning	Theory lectures	Theory exam
11	1	g- Orthodontic indices	Treatment planning	Theory lectures	Theory exam
12	1	Space analysis, Bolton's ratio	Space analysis	Theory lectures	Theory exam
13	1	Teeth extraction in orthodontics	Teeth extraction in orthodontics	Theory lectures	Theory exam
14	1	Serial extraction	Serial extraction	Theory lectures	Theory exam
15	1	Vertical and transverse problems: a. Deep bite	Vertical and transverse problems	Theory lectures	Theory exam
16	1	b. Open bite	Vertical and transverse problems	Theory lectures	Theory exam
17	1	c. Crossbite and scissors bite	Vertical and transverse problems	Theory lectures	Theory exam

18	1	Treatment of common local factors: supernumerary and hypodontia Early loss of deciduous teeth Retained teeth, delayed eruption, impaction, ankylosis Abnormal eruptive behavior Large frenum	Treatment of common local factors	Theory lectures	Theory exam
19	1	f. Bad oral habits	Bad oral habits	Theory lectures	Theory exam
20	1	Treatment of aberrant position of canines	Canines	Theory lectures	Theory exam
21	1	Treatment of general factors: Class I treatment (crowding, spacing, biprotrusion)	Class I	Theory lectures	Theory exam
22	1	Continue class I treatment (method of space creation)	Class I	Theory lectures	Theory exam
23	1	b. Class II div. 1 treatment	Class II	Theory lectures	Theory exam
24	1	c. Class II div. 2 treatment	Class II	Theory lectures	Theory exam
25	1	d. Class III treatment	Class III	Theory lectures	Theory exam
26	1	Treatment of adults Periodontal problems	Periodontal problems	Theory lectures	Theory exam
27	1	b- Orthognathic surgery	Orthognathic surgery	Theory lectures	Theory exam
28	1	Cleft lip and palate	Cleft lip and palate	Theory lectures	Theory exam
29	1	Continue cleft lip and palate	Cleft lip and palate	Theory lectures	Theory exam
30	1	Digital orthodontics (digital approach in orthodontic diagnosis and treatment)	Digital orthodontics	Theory lectures	Theory exam

Practical part	
Clinical requirements (4 hrs / week) Treatment of at least one patient: 1- Diagnosis :(Mandatory) a- Case sheet filling & presentation b- Upper and lower impression. c- Study models preparation d- Extra & intra oral photographs e- Cephalometric tracing 2- Treatment plan:(Mandatory) 3- Insertion(Optional) 4- Adjustment or Activation(Optional)	
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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. An Introduction to Orthodontics 5th Edition Simon J. Littlewood and Laura Mitchell 2019. 2. Orthodontics: Principles and Practice: Principles and Practice 2nd Edition 2017
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Pedodontics
2. Course Code:
507 PEDO
3. Semester / Year:
Fifth year
4. Description Preparation Date:
01 March 2024
5. Available Attendance Forms:
Theoretical and practical
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical: 30 hours, practical: 90 hours. Total units: 4
7. Course administrator's name (mention all, if more than one name)
Name: Assit Lect Leqaa Hashim Salim Qibi Email: dr.leqaa@uomosul.edu.iq
8. Course Objectives

Course Objectives	- Introduction to clinical Pedodontics - Study the advanced Pedodontics treatment techniques. - Study the principle of Pedodontics teeth extraction - Study the manufacturing of space maintainer
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Advantages of treatment planning, The diagnostic methods,	Diagnosis and treatment	Theory lectures	Theory exam

		Components of oral examination and diagnosis	planning		
2	1	Clinical examination , Radio graphic examination	Preliminary medical and dental history	Theory lectures	Theory exam
3	1	Child development, Major area of development, Variables influencing children's dental behaviors ,classification of children's behavior	Art and science of behavior management	Theory lectures	Theory exam
4	1	, Purpose, Classifying children, s cooperative behavior	Non pharmacologic management of patient behavior	Theory lectures	Theory exam
5	1	Degree of sedation, Indications for pharmacological behavior management technique, Pre-treatment documentation and assessment,	Pharmacologic management of patient behavior	Theory lectures	Theory exam
6	1	Conscious sedation, Routes of drug administration, Enteral sedation ,Rectal route, Intra muscular route, Intravenous route, Inhalation, Drugs and agents used for sedation, General anesthesia	Sedation in pediatric dentistry	Theory lectures	Theory exam
7	1	Management of traumatic injuries to the teeth and supporting tissues of children,	Management of traumatic injuries	Theory lectures	Theory exam
8	1	classification of injuries to the anterior teeth of children classification methods of clinical examination	Classification of injuries	Theory lectures	Theory exam
9	1	Traumatic injuries of the primary teeth and its effect on permanent teeth	Traumatic injuries	Theory lectures	Theory exam
10	1	Treatment of injury of permanent teeth, emergency treatment, temporary restoration of fractured teeth	Treatment of injury of permanent teeth	Theory lectures	Theory exam

11	1	Advances in Pediatric Dentistry: Advances in diagnostic aids, Advances in cavity preparation methods	Advances in Pediatric Dentistry	Theory lectures	Theory exam
12	1	Advances in endodontics, Advances in local anesthesia	Advances in Pediatric Dentistry	Theory lectures	Theory exam
13	1	Advances in restorative materials, Advances in surgical procedures, miscellaneous	Advances in Pediatric Dentistry	Theory lectures	Theory exam
14	1	Acquired disturbances of oral structures	Acquired disturbances of oral structures	Theory lectures	Theory exam
15	1	Developmental disturbances of oral structures	Developmental disturbances of oral structures	Theory lectures	Theory exam
16	1	Introduction simple gingivitis, eruption gingivitis, acute gingival disease; herpes simplex viral infection.	Gingivitis and periodontal disease in children:	Theory lectures	Theory exam
17	1	Acute candidacies (thrush), acute bacterial infection, chronic non specific gingivitis, gingival diseases modified by systemic factors.	Acute candidacies	Theory lectures	Theory exam
18	1	Gingival lesions of genetic origin, ascorbic acid deficiency gingivitis.	Gingival lesions	Theory lectures	Theory exam
19	1	Periodontal diseases in children, early onset periodontitis, prepubertal periodontitis, localized juvenile periodontitis.	Periodontal diseases	Theory lectures	Theory exam
20	1	Papillon – Lefevere syndrome, gingival recession, extrinsic stains and deposits on teeth	Periodontal diseases	Theory lectures	Theory exam
21	1	Management of space problems, planning for space maintenance, loss of primary incisors	Management of space problems	Theory lectures	Theory exam
22	1	Space Maintenance for the First and Second Primary Molar and the Primary Canine Area, premature loss of second primary molar	Space Maintenance	Theory lectures	Theory exam

23	1	Development of dental arch and occlusion;	Development	Theory lectures	Theory exam
24	1	Development of dental arch and occlusion;	Development	Theory lectures	Theory exam
25	1	Nance analysis, Moyers mixed dentition analysis, Tanaka and Johnston analysis, Bolton analysis.	Arch length analysis;	Theory lectures	Theory exam
26	1	first dental visit, Radiographic examination, Preventive dentistry, Management of a child with special care needs during dental treatment , immobilization,	Dental problems of the disabled child	Theory lectures	Theory exam
27	1	Mental disability, Down syndrome, Intellectual disability, Learning disability	Mental disability	Theory lectures	Theory exam
28	1	Fragile X syndrome, cerebral palsy, autism,	Fragile X syndrome	Theory lectures	Theory exam
29	1	Respiratory diseases, hearing loss, visual impairment, epilepsy	Respiratory diseases	Theory lectures	Theory exam
30	1	Heart disease, hemophilia, ,sickle cell anemia, viral hepatitis, AIDS, children with systemic diseases	Heart disease	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	3	Diagnosis and treatment planning	Seminar	Exams
2	3	Preliminary medical and dental history,Clinical examination , Radio graphic examination	Seminar	Exams
3	3	Demonstration how to obtain a complete case sheet	Seminar	Exams
4	3	Monitoring the developing dentition and recognition of any sign of malocclusion	Seminar	Exams
5	3	Types of Caries removal techniques	Seminar	Exams
6	3	Restoration of primary and young permanent teeth with variety types of restorative materials	Seminar	Exams
7	3	Management of traumatic injuries of the anterior teeth	Seminar	Exams
8	3	Minor oral surgery	Seminar	Exams
9	3	Minimal intervention dentistry	Seminar	Exams
10	3	Pulp therapy for permanent dentition	Seminar	Exams
11	3	Pulp therapy for primary dentition	Seminar	Exams
12	3	Materials used for pulp therapy	Seminar	Exams

13	3	Chrome steel crowns	Seminar	Exams
14	3	Management of simple cases of dental anomalies and other developmental defects	Seminar	Exams
15	3	Maintenance of pulp vitality by use of regenerative materials	Seminar	Exams
16	3	Root canal treatment for anterior non vital teeth	Seminar	Exams
17	3	Extraction for non restorable primary and permanent teeth or over- retained primary dentition and permanent teeth for space creation for orthodontic treatment	Seminar	Exams
18	3	Management of molar incisor hypomineralization MIH	Seminar	Exams
19	3	Behavior management for young patients	Seminar	Exams
20	3	Infection control re-assurance and guidance of students	Seminar	Exams
21	3	Tooth colored restoration technique	Seminar	Exams
22	3	Radiographic prescription and interpretation of results	Seminar	Exams
23	3	Space maintainers	Seminar	Exams
24	3	Fluoride application as a preventive measure	Seminar	Exams
25	3	Amelogenesis imperfecta	Seminar	Exams
26	3	Supernumerary teeth and their impact on teeth eruption	Seminar	Exams
27	3	Management of medically compromised children	Seminar	Exams
28	3	Peg teeth management	Seminar	Exams
29	3	ART technique	Seminar	Exams
30	3	Prosthesis usage in pediatric dentistry	Seminar	Exams

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Mcdonald and Avery's dentistry for child and adolescent 2022 by elsevier Text book of pediatric dentistry nikhil marwa 2nd ed. 2019 new delhi
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Oral Medicine
2. Course Code:
508 OMED
3. Semester / Year:
Fifth year
4. Description Preparation Date:
01 March 2024
5. Available Attendance Forms:
Theoretical and practical
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical: 30 hours, practical: 120 hours. Total units: 6
7. Course administrator's name (mention all, if more than one name)
Name: Lect Dr Ahmed Salih Khudhur Email: a.s.khudhur@uomosul.edu.iq
8. Course Objectives

Course Objectives	- Introduction to clinical Oral Medicine - Study the aitiology of oral lesions. - Study the principle of diagnostic techniques - Study the issues related to oral cancer
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	The principles of oral diagnosis Clinical examinations	The principles of oral	Theory lectures	Theory exam

			diagnosis Clinical examinations		
2	1	The principles of oral diagnosis Clinical examinations	The principles of oral diagnosis Clinical examinations	Theory lectures	Theory exam
3	1	Laboratory investigations in dentistry	Laboratory investigations in dentistry	Theory lectures	Theory exam
4	1	Laboratory investigations in dentistry	Laboratory investigations in dentistry	Theory lectures	Theory exam
5	1	orofacial pain	orofacial pain	Theory lectures	Theory exam
6	1	orofacial pain	orofacial pain	Theory lectures	Theory exam
7	1	T.M.J	T.M.J	Theory lectures	Theory exam
8	1	T.M.J	T.M.J	Theory lectures	Theory exam
9	1	Oral ulceration and Vesiculo-bullus lesions	Oral ulceration and Vesiculo-bullus lesions	Theory lectures	Theory exam
10	1	Oral ulceration and Vesiculo-bullus lesions	Oral ulceration and Vesiculo-bullus lesions	Theory lectures	Theory exam
11	1	Oral ulceration and Vesiculo-bullus lesions	Oral ulceration and Vesiculo-bullus lesions	Theory lectures	Theory exam
12	1	White & red lesions	White & red lesions	Theory lectures	Theory exam
13	1	White & red lesions	White & red lesions	Theory lectures	Theory exam
14	1	Early detection of oral cancer	Early detection of oral cancer	Theory lectures	Theory exam
15	1	Early detection of oral cancer	Early detection of oral cancer	Theory lectures	Theory exam

16	1	Pigmented oral lesions	Pigmented oral lesions	Theory lectures	Theory exam
17	1	Pigmented oral lesions	Pigmented oral lesions	Theory lectures	Theory exam
18	1	Benign, Premalignant and malignant lesions of the oral cavity	Benign, Premalignant and malignant lesions of the oral cavity	Theory lectures	Theory exam
19	1	Benign, Premalignant and malignant lesions of the oral cavity	Benign, Premalignant and malignant lesions of the oral cavity	Theory lectures	Theory exam
20	1	Benign, Premalignant and malignant lesions of the oral cavity	Benign, Premalignant and malignant lesions of the oral cavity	Theory lectures	Theory exam
21	1	Benign, Premalignant and malignant lesions of the oral cavity	Benign, Premalignant and malignant lesions of the oral cavity	Theory lectures	Theory exam
22	1	Neuromuscular disorder	Neuromuscular disorder	Theory lectures	Theory exam
23	1	Neuromuscular disorder	Neuromuscular disorder	Theory lectures	Theory exam
24	1	Salivary gland diseases	Salivary gland diseases	Theory lectures	Theory exam
25	1	Salivary gland diseases	Salivary gland diseases	Theory lectures	Theory exam
26	1	Autoimmune diseases	Autoimmune diseases	Theory lectures	Theory exam
27	1	Autoimmune diseases	Autoimmune diseases	Theory lectures	Theory exam
28	1	Autoimmune diseases	Autoimmune diseases	Theory lectures	Theory exam
29	1	Oral manifestation of allergic reaction	Oral manifestation	Theory lectures	Theory exam

			of allergic reaction		
30	1	Oral manifestation of allergic reaction	Oral manifestation of allergic reaction	Theory lectures	Theory exam

Practical part

Week	Hr	Laboratory subject	Learning method	Evaluation method
1	2	Laboratory investigations in dentistry	Clinic	Exams
2	2	Viral infection	Clinic	Exams
3	2	Bacterial infection	Clinic	Exams
4	2	Fungal infection	Clinic	Exams
5	2	Diseases of Respiratory tract	Clinic	Exams
6	2	Diseases of cardiovascular system	Clinic	Exams
7	2	Diseases of gastrointestinal tract	Clinic	Exams
8	2	Renal diseases	Clinic	Exams
9	2	Anemia	Clinic	Exams
10	2	Leukemia	Clinic	Exams
11	2	Bleeding and clotting disorders	Clinic	Exams
12	2	Immunologic diseases	Clinic	Exams
13	2	Diseases of thyroid gland	Clinic	Exams
14	2	Diabetes mellitus	Clinic	Exams
15	2	Neuromuscular diseases	Clinic	Exams
16	2	Temporomandibular disorders	Clinic	Exams
17	2	Salivary gland disorders	Clinic	Exams
18	2	Drugs in dentistry	Clinic	Exams
19	2	Drugs induced oral lesions	Clinic	Exams
20	2	Panoramic image interpretation	Clinic	Exams
21	2	Drugs induced oral lesions	Clinic	Exams
22	2	Panoramic image interpretation	Clinic	Exams
23	2	Allergy	Clinic	Exams
24	2	Ulcerative ,vesicular, and bullous lesions	Clinic	Exams
25	2	Red and white lesions of the oral mucosa	Clinic	Exams
26	2	Pigmented lesions of the oral mucosa	Clinic	Exams
27	2	Benign lesions of the oral cavity and the jaw	Clinic	Exams
28	2	Oral and oropharyngeal cancer	Clinic	Exams
29	2	LASER in oral medicine	Clinic	Exams
30	2	Geriatric oral medicine	Clinic	Exams

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	
12.Learning and Teaching Resources	
Required textbooks (curricular books, if any)	1. Burket's oral medicine. Michael Glick, Martin Greenberg, Peter Lockhart and Dtephen Challacombe. 13th edition.2021, Wiley Black well. 2. Bumann, A., & Lotzmann, U. TMJ disorders and orofacial pain. The role of dentistry in a multidisciplinary approach. 2011, Thieme.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	

Course Description Form

1. Course Name:
Research Project
2. Course Code:
509 RESP
3. Semester / Year:
Fifth year
4. Description Preparation Date:
01 March 2024
5. Available Attendance Forms:
Theoretical and practical
6. Number of Credit Hours (Total) / Number of Units (Total)
Theoretical: 15 hours. Total units: 2
7. Course administrator's name (mention all, if more than one name)
Name: Lect Dr Ahmed Salih Khudhur Email: a.s.khudhur@uomosul.edu.iq
8. Course Objectives

Course Objectives	- Introduction to research methodology - Study the statistics - Study the principle of medical research ethics - Study the academic writing and research planning
9. Teaching and Learning Strategies	
Strategy	– Theory lectures and practical laboratories. – Educational videos and utilization of smart boards. – Use of educational models. – Focused student group discussion.

10. Course Structure

Theoretical Part

Week	Hr	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	Statistics	Statistics	Theory lectures	Theory exam

2	1	Statistics	Statistics	Theory lectures	Theory exam
3	1	Statistics	Statistics	Theory lectures	Theory exam
4	1	Medical research ethics	Medical research ethics	Theory lectures	Theory exam
5	1	Medical research ethics	Medical research ethics	Theory lectures	Theory exam
6	1	Biosafety	Biosafety	Theory lectures	Theory exam
7	1	Biosafety	Biosafety	Theory lectures	Theory exam
8	1	Designing research	Designing research	Theory lectures	Theory exam
9	1	Designing research	Designing research	Theory lectures	Theory exam
10	1	Designing research	Designing research	Theory lectures	Theory exam
11	1	Citation in academic writing	Citation in academic writing	Theory lectures	Theory exam
12	1	Citation in academic writing	Citation in academic writing	Theory lectures	Theory exam
13	1	Citation in academic writing	Citation in academic writing	Theory lectures	Theory exam
14	1	Planning a research protocol	Research protocol	Theory lectures	Theory exam
15	1	Planning a research protocol	Research protocol	Theory lectures	Theory exam
Practical part					
Research project dissertation – writing and presentation					
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					
12.Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (sources)					
Recommended books and references (scientific journals, reports...)					
Electronic References, Websites					