



Ministry Of Higher Education and Scientific Research
Scientific Supervision and Evaluation Authority
Quality Assurance and Academic Accreditation Department
Accreditation Department

Guide Academic Program and Course Description

2024-2025

Academic Program Description Form

University Name: Tikrit University

Faculty/Institute: College of Dentistry

Scientific Department: oral diagnosis

Academic or Professional Program Name: oral diagnosis

Final Certificate Name: Bachelor of Dental Surgery

Academic System: Annual

Description Preparation Date: 15/9/2024

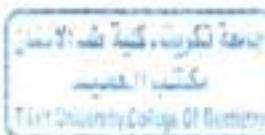


Signature:

Head of Department Name:

Assist.Prof.Dr. Mohammed Raheel

Date: 146/9/2024



Signature: 

Scientific Associate Name:

lect. Lec. Dr. Ahmed Khalf Al-Juburi

Date: 18/9/2024

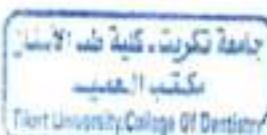
The file is checked by: Assist. Lec. Asma Noory Hamied

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department: Date:

Signature: 

Approval of the Dean



Assist.Prof.Dr. Mohammed Raheel Ali

The College of Dentistry at Tikrit University seeks to be a leading global center in the field of dentistry, distinguished by providing distinguished education that keeps pace with the latest scientific and technological developments. The college also aims to prepare dentists capable of competing locally, regionally and internationally, by promoting innovation in scientific research and developing practical skills. The college aspires to be a scientific and service reference that contributes to improving oral and dental health at the community level, while adhering to the highest standards of academic and professional quality.

2. Program Mission

The College of Dentistry at Tikrit University is committed to achieving excellence and leadership in the field of dental education locally and regionally. The college seeks to prepare highly qualified dentists by providing innovative educational programs, based on the latest scientific and technological methods in education and training. The college also places scientific research at the forefront of its priorities, as it encourages faculty members and students to innovate and contribute to achieving knowledge that contributes to the development of the field of dentistry. In addition, the college pays great attention to serving the community, by providing specialized health care, contributing to spreading health awareness and enhancing cooperation with various health institutions. The college strives to achieve these goals with the highest standards of quality and professionalism, to become a leading center for medical education, scientific research and community service.

3. Program Objectives

1. Clinical and practical skills:

- Demonstrate comprehensive knowledge of biomedical, clinical, and behavioral sciences** relevant to oral health and general patient care.
- Perform thorough clinical examinations, diagnoses, and treatment planning** for a wide range of dental and oral conditions, with emphasis on evidence-based practice.
- Deliver preventive, restorative, surgical, periodontal and prosthodontic care** using appropriate techniques, materials, and technologies in accordance with ethical and regulatory standards.
- Apply principles of infection control, patient safety, and cross-infection prevention** in all clinical settings.
- Understand and comply with national and international standards** for dental education, clinical governance, and professional conduct.

2. Community engagement

- Communicate effectively and empathetically** with patients, families, and interdisciplinary teams across diverse cultural and social backgrounds.
- Collaborate in community outreach and public health initiatives**, promoting oral health awareness and addressing population-specific needs.

3. **Scientific research knowledge**
 - a. **Critically evaluate scientific literature and research findings** to support clinical decision-making and lifelong learning.
 - b. **Demonstrating knowledge and literacy regarding study designs and basic medical statistics**
 - c. **Ability to interpret the statistical results of scientific research.**
4. **Engage in professional development and reflective practice**, demonstrating accountability, integrity, and commitment to continuous improvement.
5. **Developing technology skills:**
 - a. The ability to utilize digital tools, dental software and emerging technologies in diagnosis.
 - b. Ability to use digital radiography and CAD/CAM systems
 - c. Familiarity with advanced technology and equipment used in dentistry

4. Program Accreditation

None

5. Other External Influences

1. Technological Developments in Dentistry
2. Cooperation with International Academic Institutions
3. International Conferences and Workshops
4. Funding and Scientific Research
5. Interaction with the Local Community
6. Academic Competition between Colleges
7. Graduate Support

6. Program Structure

Program Structure	Number of courses	Study unit	percentage	comments *
Institutional Requirements	7	14	6	
College Requirements	40	214	94	
Department Requirements				
Summer training	8			Summer training degree within the annual pursuit degree for clinical courses
Other				

7. Program Description

Year/Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
First	HAN141	General Anatomy	4	1	2
	DAN162	Dental Anatomy	6	2	2
	BIO163	Biology	6	2	2
	MDT128	Medical Terminology	2	1	0
	MCH164	Medical Chemistry	6	2	2
	IPH166	Medical Physics	6	2	2
	HRT127	Human Rights	2	1	0
	COP125	Computer Science	2	1	0
Total			34		

Year/Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
Second	GAN241	General Anatomy	4	1	2
	PRO262	Prosthodontics	6	1	4
	DEM243	Dental materials	4	1	2
	GHS264	General Histology	6	2	2
	GPH267	General Physiology	6	2	2
	BCH265	Biochemistry	6	2	2
	COP228	Computer Science	2	1	0
	OHE266	Oral Histology & Embryology	6	2	2
Total			40		

Year/Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
Third	GPT361	General Pathology	6	2	2
	POD342	Preclinical Operative Dentistry	4	1	2
	CMD345	Community Dentistry	4	1	2
	DRD347	Dental Radiology	4	1	2
	PHC368	Pharmacology	6	2	2
	PFP343	Preclinical Fixed Prosthodontics	4	1	2
	DET3210	Dental ethics	2	1	0
	MCB364	Microbiology	6	2	2
	PRO349	Prosthodontics	4	1	2
	OSR346	Oral Surgery	4	1	2
Total			44		

Year/Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
Fourth	PER452	Periodontics	5	1	3
	PRO455	Prosthodontics	5	1	3
	OPT467	Oral Pathology	6	2	2
	CND488	Conservative Dentistry	8	1	6
	OSR461	Oral Surgery	6	1	4
	GSR443	General Surgery	2	1	0
	GMD444	General Medicine	2	1	0
	ORT466	Orthodontics	6	1	4
	PED449	Pediatric Dentistry	4	1	2
	Total			44	

Year/Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
Fifth	ORS581	Oral and maxillofacial Surgery	8	1	6
	PER552	Periodontics	5	1	3
	PRO585	Prosthodontics	8	1	6
	CND588	Conservative Dentistry	8	1	6
	PVD554	Preventive Dentistry	5	1	3
	PED557	Pediatric Dentistry	5	1	3
	ORT566	Orthodontics	6	1	4
	OMD563	Oral Medicine	6	1	4
	RSP529	Research project	2	1	0
	Total			53	

8. Expected Learning Outcomes of The Program

Knowledge

1. **Understanding Basic Medical Sciences:** Mastering sciences such as anatomy, physiology, microbiology, pharmacology, oral histology, general histology and understanding their relationship to oral health
2. **Diagnosis and Treatment of Oral Diseases:** Gaining extensive knowledge of oral and dental diseases and applying them in the diagnosis and management of clinical cases and understanding preventive roles of oral and dental diseases to protect oral health.
3. **Modern Technology in Dentistry:** Familiarity with advanced techniques such as lasers and digital imaging and how to integrate them into clinical practice.
4. **Principles of Scientific Research:** Understanding the foundations of scientific research and designing studies to collect and analyze data

Skills

- 1- **Practical and Clinical Skills:** Mastering the performance of various oral and dental treatments such as fillings, surgical practices, and others within the specialty.
- 2- **Critical Thinking and Problem Solving:** Analyzing clinical data and using critical thinking to diagnose complex cases. In addition developing communication skills with patients and coworkers to reach the definitive diagnosis and treatment planning.
- 3- **Time and Resource Management:** Learn how to manage time and resources to ensure the provision of high-quality care.
- 4- **Using modern technology:** Acquiring skills in using advanced devices to support diagnosis and treatment.
- 5- **Research and academic skills:** develop abilities to do literature search and design research projects. Ability to critically appraise recent evidence-based papers.

Values

1. **Professional ethics:** Commitment to the principles of medical ethics and respect for patients' rights.
2. **Social and professional responsibility:** Enhancing the role of the dentist in improving public health and participating in awareness campaigns.
3. **Lifelong learning:** Commitment to continuous education and following up on new research to ensure keeping pace with scientific progress.
4. **Professionalism and integrity:** Working professionally and honestly and adhering to quality standards with continuously striving to improve the quality of health care provided by using best practices.

9. Teaching And Learning Strategies

1. The method of giving lectures by explaining and clarifying and using PowerPoint.
2. Clinical training and chairside teaching.
3. Hands-on practice in preclinical laboratories.

4. Group discussion, problem-based learning and case-based learning
5. Community-based learning by providing visits to schools and institutes out of the University campus to encourage students to communicate with diverse population, particularly in preventive and community dentistry.
6. Encouraging students to use the library as one of the learning methods.
7. The method of self-learning by supporting the learner's environment.
8. Encouraging students to use the Internet as a means of supporting learning.
9. Using the principle of discussion and dialogue to increase students' comprehension.
10. Applying education through the practical part of the course.

10. Evaluation Methods

1. Written exams: Daily, semester, semi-annual and final theoretical tests.
2. Assignments and reports: evaluate students' ability for academic writing, literature search and critical appraisal of scientific research.
3. Clinical and Practical tests: evaluate students clinical work under supervision, case presentation and linking medical and dental history to the dental and oral examination to reach to a list of differential diagnosis.
4. Scientific discussion during the theoretical lesson and during the practical part of the course
5. Clinical and laboratory practical requirements. Using slide identification exams and laboratory procedures under supervision.
6. Viva voce (oral examination for final year research project

11- Faculty

No.	Name	General Specialization	Subspecialty	
1	Prof. Dr. Haitham Younis Mohammed	Dentistry	Operative dentistry	Staff
2	Prof. Dr. Intesar Jasim Mohammed	Dentistry	Oral Histology and Biology	Staff
3	Prof. Dr. Ali Ghanim Abdullah	Dentistry	Anatomy & histology	Staff
4	Prof. Dr. Sheelan Akbar Anwar	Microbiology	Parasitology	Staff
5	Prof. Dr. Hadeel Mizher Younis	Microbiology	Medical microbiology	Staff
6	Prof. Dr. Eentedhar Rafat	Chemistry	Biochemistry	Staff
7	Prof. Dr. Mahdi Salh Hamad Hassan	Chemistry	Biochemistry	Staff

8	Prof. Dr. Huda Abbas Abdullah	Dentistry	Aesthetic and restorative	Staff
9	Prof. Muthenna Sh. Rajab	Dentistry	Laser application in dentistry/conservative dentistry	Staff
10	Assis. Prof. Dr. Ban Ismael Sedeeq	Dentistry	Anatomy and histology	Staff
11	Assist. Prof. Dr. Mohammed Rhael Ali	Dentistry	Maxillofacial surgery	Staff
12	Ass. Prof. Dr. Chateen Izaddin Ali Pambuk	Microbiology	Medical Microbiology and Immunology	Staff
13	Assist. Prof. Dr. Salim Jasim Khalaf	veterinary medicine and surgery	Clinical biochemistry	Staff
14	Assist. Prof. Dr. Takea shaker Ahmed	Biology	Physiology	Staff
15	Assist. Prof. Dr. Yasir Khalaf Mohammad	Physics	Radiotin physics in medicine	Staff
16	Assist. Prof. Dr. Shaimaa Essa Ahmed	Chemistry Science	Ph D in Biochemistry	Staff
17	Assist Prof. Dr. Mahmood Nawfal Mustafa	Biology	Histology and Embryology	Staff
18	Assist prof. Dr. Shaymaa Abdalkader Mahdi	Biology	General Histology	Staff
19	Ass. Prof. Dr. Waseem Ali Hasan	Bachelor in Vet. Medicine and Surgery	Medical Pharmacology	Staff
20	Ass. Prof. Muhammed Ibrahem Hazeem	Dentistry	Periodontics	Staff
21	Assist Prof. Jamal Khidher Mahmood	Dentistry	Orthodontic dentistry	Staff
22	Assesst. Prof. Sulafa Khair al-Deen Banoosh	Dentistry	Oral physiology	Staff
23	Assist. Prof. Azhar Ammash Hussein	Dentistry	Preventive dentistry	Staff
24	Assist. Prop. Maha Essam Abdulazeez	Dentistry	Orthodontis	Staff
25	Assisst. Prof. Omar Basheer Taha	Dentistry	Oral and Maxillofacial Radiology	Staff
26	Assist. Prof. Anas Qaftan Hamdi	Dentistry	M.Sc. Orthodontics	Staff
27	Assist. Prof. Muna Ahmed Abdullah	BIOLOGY Sciences	Molecular Biology with Biotechnology	Staff
28	Assist. Prof. Sinai Najy Muhsin	Microbiology	Parasitology	Staff
29	Assist. Prof. Nagham Hasan Ali Ahmed	Biology	Physiology	Staff

30	Lec. Dr. Hadeel Mohammed Abbood	Dentistry	Periodontics	Staff
31	Lec. Dr. Aziz Ghanim Aziz	Dentistry	Prosthodontics	Staff
32	Lec. Dr. Wijdan Thamer Shatub	Biology	Microbiology	Staff
33	Lec. Dr. Ahmed Khalf Al- juburi	Dentistry	Operative dentistry	Staff
34	Lec. Dr. Safwan A. Sulaiman	Dentistry	Prosthodontics	Staff
35	Lec. Dr. Tamara Afif Anai	Computer science	Artificial Intelligence	Staff
36	Lec. Dr. Raghad Tahseen Thanoon	Biology	Physiology	Staff
37	Lec. Dr. Mohamad Hassn Khadir Mudaris	Fundamentals of religion	Beliefs	Staff
38	Lec. Dr. Siraj Awad Abdullah Matar	Administration and economics	Production and operations management	Staff
39	Lec. Reem Ahmed Shihab Shaker	Dentistry	Prosthodontics	Staff
40	Lec. Aseel Taha Khaudhair	Dentistry	Pediatric dentist	Staff
41	Lec. Noor Sabah Ithayyim	Dentistry	Periodontics	Staff
42	Lec. Suha Aswad Dahash	Dentistry	Periodontics	Staff
43	Lec. Saif Saad Kamil	Dentistry	Operative dentistry	Staff
44	Lec. Hind Thyab Hamid	Dentistry	Preventive dentistry	Staff
45	Lec. Fatma Mustafa Mohammad	Biology	Immunophysiology	Staff
46	Lec. Montaser Hassan Mohamed	Business administration	Organizational behavior	Staff
47	Lec. Ghadeer Hatem Mohammed Ali	Pharmacy	Oral and dental medications	Staff
48	Lec. Luma Nasrat Arab	Dentistry	Prosthodontics	Staff
49	Assist. lec. Areej Salim Dawood	Dentistry	Oral histology	Staff
50	Assist. Lec. Sohaib Qais Alwan	Dentistry	Preventive Dentistry	Staff
51	Assist. Lec. Fatima Ghazi Aswad	Dentistry	Oral and maxillofacial pathology	Staff
52	Assist. lec. Saber mizher mohammed	Dentistry	Oral surgery	Staff
53	Assist. Lec. Ahmed AbdulKareem Mahmood	Dentistry	Oral and maxillofacial surgery	Staff
54	Assist. Lec. Nusaiba Mustafa Muhammed	Dentistry	Prosthodontics	Staff
55	Assist. Lec. Ali Saad Ahmed	Dentistry	Prosthodontics	Staff

56	Assist. Lec. Alalaa Jamal Mawlood	Dentistry	Operative dentistry	Staff
57	Assist. Lec. Rusal Saad Ahmed	Dentistry	Pediatric dentistry	Staff
58	Assist. Lec. Ahmed Amer Ibrahim	Dentistry	Oral and maxillofacial surgery and implantology	Staff
59	Ass. Lec. Halla Thamer Zidane Al-Amin	Dentist	Orthodontist	Staff
60	Assis. Lec. Noor Ghazi Saab	Dentistry	General Anatomy and histology	Staff
61	Assist. Lec. Mohammed Ayad Taha	Dentistry	Operative and Esthetic Dentistry.	Staff
62	Assist. Lec. Farah Mohammed Najeeb	Dentistry	Pharmacology	Staff
63	Ass. Lec Heba Hani Raheem	Computer science	Computer science	Staff
64	Ass. Lec. Muthana Khudair Arhaim Ibrahim	Administration and Economics	Human Resources Management Business	Staff
65	Assist. Lec. Shms Aldeen Saad Mohsen	Computer science	Computer science	Staff
66	Ass. Lec. Mohammed Issa Hamid Saleh	Arabic Language Literature	Abbasid Literature	Staff
67	Ass. Lec. Noor Aldeen Shams Abdul	Media	Radio and Television	Staff
68	Assist. Lec. Yousif Faris Attia	Business Administration	Strategic management	Staff
69	Assist. Lec. Reem Awad Shaban	English language	Method of English language	Staff
70	Assist. Lec. Tariq Khalistan abed	General Veterinary Surgery	General pathology	Staff
71	Assist. Lec. Thamer Mahmood Mohammed	Laser and Optoelectronic Engineering	Laser Engineering	Staff
72	Assist. Lec. Sura Mustafa Qasim	Microbiology	Master microbiology immunity	Staff
73	Ass. Lec. Ranen ibraheem abdullah Mohammed	Biology Sciences	Mycology Scientific	Staff
74	Assist. Lec. Rusul Jassim Mohammed	English Language	Methodology	Staff
75	Assist. Lec. Shatha Nasih Tawfeeq	Biology	Zoology	Staff
76	Asis. Lec. Riyam Ameen Salih	Biology	Histology	Staff
77	Assist. Lec. Yasser Ahmed Khalaf	Political science	Political organization	Staff

78	Assist. Lec. Ossama Muhammed Abd	Management and Economics	business management	Staff
79	Assist. Lec. Asmaa Nouri Hameed	Administration and economics	Economic Sciences	Staff
80	Assist. Lec. Alyaa Ali Hameed	Electrical Engineering	Communication	Staff
81	Assist. Prof. Zaid Ali Ahmed	Management and Economics	Economics	Staff
82	Assist. Lec. Raghda Awad Shaban	Computer Science	Artificial Intelligence	Staff
83	Ass. Lec. Adnan Qahtan Shakur Majeed	Methods of Teaching	Islamic Education Curricula and Teaching Methods	Staff
84	Assist. Lec. Ibrahim Khader Hamoud	Arabic language	Andalusian literature	Staff
85	Assist. Lec. Omar Badr Abed	MEDIA	Radio and television	Staff
86	Assist. Lec. Marwah Malik Khalaf	Biology	Microbiology	Staff
87	Assist. Lec. Klara Majeed Shukur	Veterinary Medicine and Surgery	Microbiology	Staff
88	Assist. Lec. Manal Mohammed Alwan Al-Bardi	Biological	physiology	Staff
89	Assist. Lec. Abdulazeez Mohammed Hussein Ahmed	Veterinary Medicine and Surgery	Veterinary medical medicines	Staff

Professional Development

Orienting New Faculty Members

In the College of Dentistry, new faculty members are oriented by introducing them to the college's policies, curricula, and teaching techniques, in addition to providing continuous support to ensure their integration with the academic team and develop their educational capabilities. The orientation aims to enable them to provide high-quality education and guide students effectively.

Professional development for faculty members

The professional development of faculty members in the College of Dentistry focuses on enhancing their teaching and research skills through workshops, specialized courses inside and outside Iraq, and continuous training on the latest medical technologies and practices. This development aims to improve the quality of education and raise the level of health care provided.

12. Admission Criteria

A. Central admission according to the regulations of the Ministry of Higher Education and

Scientific Research for the year of admission

B. The applicant must have a preparatory certificate in its scientific branch

13. The most important sources of information about the program

1. The website of the college and university
2. The prescribed textbooks and the electronic library.
3. The college guide

14. Program development plan

1. Updating the lecture content by deleting and adding no more than 22% with new information and developing the lecture content.
2. Using modern teaching methods according to the nature of the course.

Program Skills Chart**Required Learning outcomes of the program**

Values	Skills							Knowledge				Essential or Optional or optional?	Course name	Course code	Year/Level Year/Level	
	C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
					✓	✓	✓	✓	✓	✓	✓	✓	essential	General Anatomy	HAN141	The first
					✓	✓	✓	✓	✓	✓	✓	✓	essential	Dental Anatomy	DAN162	
													essential	Biology	BIO163	
													essential	Medical Chemistry	MCH164	
													essential	Computer Science	COP125	
													essential	Medical Physics	MPH166	
													essential	Human Rights	HRT127	
													essential	Medical Terminology	MDT128	

C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	General	GAN241	
Program Skills Chart														
Required learning outcomes of the program	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	essential
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Dental materials
														DEM243
														GHS264
														General Histology
														BCH265
														Second Biochemistry
														OHE266
														Oral Histology & Embryology
														GPH267
														General Physiology
														COP228
														Computer Science

Program Skills Chart		Required learning outcomes of the program										Values		Skills		Knowledge		Essential or		Course name		Course code		Year/Level	
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1	Essential or optional?	Op Course De name	Preclinical Surgery Prosthodontics	POD342 Course code	General	GPT361	Preclinical Op Course De name	POD342 Course code	Preclinical Op Course De name	POD342 Course code	Year/Level			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	PreClinical Surgery Prosthodontics	OSR461	Fourth	✓	✓	✓	✓	✓	✓	Fourth			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Microbiology	MCB364	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Community Dentistry	CMD345	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Oral Surgery	OSR346	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Dental Radiology	DRD347	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Pharmacology	PHC368	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Prosthodontics	PRO349	Third	✓	✓	✓	✓	✓	✓	Third			
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Dental Ethics	DNE3210	Third	✓	✓	✓	✓	✓	✓	Third			

Program Skills Chart										Required learning outcomes of the program									
Periodontics										General									
General					General					General					General				
C4	C3	C2	C1	Skills	B4	B3	B2	B1	Knowledge	A4	A3	A2	A1	Essential or optional?	Course name	Course code	Year/Level		
✓	✓	✓	✓	✓	✓	✓	✓	✓	essential	✓	✓	✓	✓	essential	Oral Surgery	ORSS581	Fifth		
✓	✓	✓	✓	✓	✓	✓	✓	✓	essential	✓	✓	✓	✓	essential	Oral Radiology	PER552			
✓	✓	✓	✓	✓	✓	✓	✓	✓	essential	✓	✓	✓	✓	essential	Conservative Dentistry	CND488			
✓	✓	✓	✓	✓	✓	✓	✓	✓	essential	✓	✓	✓	✓	essential	Pediatric Dentistry	PED449			

Course Description Form

1. Course Name:	General anatomy
2. Course Code:	GAN141
3. Semester / Year:	2024-2025 1 st stage / annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Theory\only Attendance Practical\ only Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)	30 theoretical + 60 practical
7. Course administrator's name (mention all, if more than one name)	Name: Assis. Prof. Ban Ismael Sedeeq and Lec. Noor Ghazi Saab Email: banasnan@tu.edu.iq noor.gsaab@tu.edu.iq
9. Course Objective	Course Objectives Scientific preparation of the student with concern with human anatomy, including terminology, muscles, joint, skin, thoracic cavity and its contents, abdominal cavity and especially bone of the skull
Teaching and Learning Strategies	
Lectures Structured theoretical lectures that provide students with essential anatomical knowledge ,terms , and General anatomical knowledge, especially related to the head and neck region relevant to dentistry	
Problem-solving Approach • Lectures and discussions that inspire students to analyze, interpret, and solve anatomical and clinical problems	
Student Follow-up • Monitoring how students think, express their ideas, and respond to questions to enhance their learning skills	
Laboratory Sessions • Practical laboratory experiments that allow students to identify anatomical structures using models, specimens, and visual materials	
Self-Education • Encouraging students to use textbooks, atlases, and online resources to reinforce and	

		expand their understanding independently			
10. Course Structure					
Week	Hours Theory	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Understand the concepts, basics and application	Introduction to Human Anatomy Descriptive Anatomic Terms	Presentation method with illustration and explanation on power point Video [you tube], interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
2	1	Understand the concepts, basics and application	Basic Structures: Skin, Fasciae, Muscle, Joints, Ligament, Bursae	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion	Short quizzes , Quarterly written examination, Half year final exam
3	2	Understand the concepts, basics and application	Basic Structures: Bone, Cartilage, Blood Vessels, Lymphatic System	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion	Short quizzes , Quarterly written examination, Half year final exam
4	1	Understand the concepts, basics and application	Basic Structures: Nervous System, Mucous Membranes, Serous Membranes	Presentation method with illustration and explanation on power point Video [you tube], interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
5	2	Understand the concepts, basics and application	Skeletal system of the body: Skull :Cranial Bones	Presentation method with illustration and explanation on	Short quizzes , Quarterly written examination,

				power point Video [you tube] interactive class discussion	Half year final exam
6	2	Understand the concepts, basics and application	Skeletal system of the body: Skull : Facial Bones	Presentation method with illustration and explanation on power point Video [you tube interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
7	2	Understand the concepts, basics and application	External Views of the Skull	interactive class discussion , illustration and explanation on power point	Short quizzes , Quarterly written examination, Half year final exam
8	2	Understand the concepts, basics and application	<ul style="list-style-type: none"> • The Cranial Cavity • Major Foramina and Fissures locations and structures pass through • Neonatal Skull 	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion	Short quizzes , Quarterly written examination, Half year final exam
			Monthly exam		Monthly exam
9	2	Understand the concepts, basics and application	<input type="checkbox"/> Skeleton of the Orbital Region, Openings into the Orbital Cavity <input type="checkbox"/> Skeleton of the External Nose, nasal cavity, Paranasal Sinuses <input type="checkbox"/> Auditory ossicles <input type="checkbox"/> Hyoid bone	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
10	2	Understand the concepts, basics and application	The Vertebral Column	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion	Short quizzes , Quarterly written examination, Half year final exam

11	2	Understand the concepts, basics and application	<input type="checkbox"/> Structure of the Thoracic Wall <input type="checkbox"/> Joints of the Chest Wall <input type="checkbox"/> Suprapleural Membrane <input type="checkbox"/> Diaphragm <input type="checkbox"/> Surface Anatomy	Presentation method with illustration and explanation on power point, interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
12	2	Understand the concepts, basics and application	Thoracic cavity: Mediastinum, Pleurae, Trachea, Bronchi, Lungs	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
13	3	Understand the concepts, basics and application	Pericardium, Heart, Large arteries, veins and nerves of Thorax	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
14	2	Understand the concepts, basics and application	<input type="checkbox"/> Bones of the Shoulder (Pectoral girdle) girdles <input type="checkbox"/> Bones of the Upper extremities	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam
15	2	Understand the concepts, basics and application	<input type="checkbox"/> Bones of the Pelvic girdle <input type="checkbox"/> Bones of the Lower extremities	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion ,	Short quizzes , Quarterly written examination, Half year final exam

16	2	Understand the concepts, basics and application	Abdominal cavity and organs	Presentation method with illustration and explanation on power point Video [you tube] interactive class discussion	Short quizzes , Quarterly written examination, Half year final exam
10. Course Structur e: Laborat ory sessions			Final exam		
Week	Hours	ILOs	Title of the sessions	Teaching Method	Assessmen t Method
1	2h	Understand the concepts, basics and application	Introduction to anatomy	Laboratory sessions on models and Video [you tube]	Practical exam
2	2h	Understand the concepts, basics and application	Basic structures part 1 (Skin, Fasciae, Muscle, Joints, Ligament, Bursae)	Laboratory sessions on models and Video [you tube]	Practical exam
3	2h	Understand the concepts, basics and application	Basic structures part 2 (bone, Cartilage, Blood Vessels, Lymphatic System) and classification of human skeleton	Laboratory sessions on models and Video [you tube]	Practical exam
4	2h	Understand the concepts, basics and application	Basic structures part 3 (Nervous System, Mucous Membranes, Serous Membranes)	Laboratory sessions on models and Video [you tube]	Practical exam
5	2h	Understand the concepts, basics and application	Frontal Bone, Parietal bones	Laboratory sessions on models and	Practical exam

				Video [you tube]	
6	2h	Understand the concepts, basics and application	Occipital bone	Laboratory sessions on models and Video [you tube]	Practical exam
7	2h	Understand the concepts, basics and application	Temporal bones	Laboratory sessions on models and Video [you tube]	Practical exam
8	2h	Understand the concepts, basics and application	Sphenoid bone	Laboratory sessions on models and Video [you tube]	Practical exam
9	2h	Understand the concepts, basics and application	Ethmoid bone	Laboratory sessions on models and Video [you tube]	Practical exam
10	2h	Understand the concepts, basics and application	Zygomatic bones, Maxillae	Laboratory sessions on models and Video [you tube]	Practical exam
11	2h	Understand the concepts, basics and application	Nasal bones, Lacrimal bones, Vomer, Palatine bones, Inferior conchae	Laboratory sessions on models and Video [you tube]	Practical exam
12	2h	Understand the concepts, basics and application	Mandible	Laboratory sessions on models and Video [you tube]	Practical exam
13	2h	Understand the concepts, basics and application	External Views of the Skull	Laboratory sessions on models and Video [you tube]	Practical exam
14	2h	Understand the concepts, basics and application	Cranial cavity	Laboratory sessions on models and Video [you tube]	Practical exam

15	2h	Understand the concepts, basics and application	Major Foramina and Fissures locations and structures pass through the skull	Laboratory sessions on models and Video [you tube]	Practical exam
16	2h	Understand the concepts, basics and application	Orbit	Laboratory sessions on models and Video [you tube]	Practical exam
17	2h	Understand the concepts, basics and application	nasal cavity	Laboratory sessions on models and Video [you tube]	Practical exam
18	2h	Understand the concepts, basics and application	Auditory ossicles , Hyoid bone	Laboratory sessions on models and Video [you tube]	Practical exam
19	2h	Understand the concepts, basics and application	General Characteristics of a Vertebra	Laboratory sessions on models and Video [you tube]	Practical exam
20	2h	Understand the concepts, basics and application	Vertebral column	Laboratory sessions on models and Video [you tube]	Practical exam
21	2h	Understand the concepts, basics and application	Structure of the Thoracic cage (Sternum ,Ribs, Costal Cartilages)	Laboratory sessions on models and Video [you tube]	Practical exam
22	2h	Understand the concepts, basics and application	Thoracic cavity (Mediastinum, Pleurae, Trachea, Bronchi)	Laboratory sessions on models and Video [you tube]	Practical exam
23	2h	Understand the concepts, basics and application	Lung	Laboratory sessions on models and Video [you tube]	Practical exam
24	2h	Understand the concepts, basics and application	Anatomy of heart	Laboratory sessions on models and Video [you tube]	Practical exam

				tube]	
25	2h	Understand the concepts, basics and application	Major arteries, veins and nerves of thorax	Laboratory sessions on models and Video [you tube]	Practical exam
26	2h	Understand the concepts, basics and application	Bones of the Shoulder (Pectoral girdle) girdles	Laboratory sessions on models and Video [you tube]	Practical exam
27	2h	Understand the concepts, basics and application	Bones of the Upper extremities	Laboratory sessions on models and Video [you tube]	Practical exam
28	2h	Understand the concepts, basics and application	Bones of the Pelvic girdle	Laboratory sessions on models and Video [you tube]	Practical exam
29	2h	Understand the concepts, basics and application	Bones of the Lower extremities	Laboratory sessions on models and Video [you tube]	Practical exam
30	2h	Understand the concepts, basics and application	Abdominal cavity and organs	Laboratory sessions on models and Video [you tube]	Practical exam
	60 h				

11. Course Evaluation			
Theoretical tests –			
12. Learning and Teaching Resources			
Required textbooks (curricular books if any)			
Main references (sources)	Last anatomy , Grants atlas		
Recommended books and references (scientific journals, reports...)	Netters .Atlas of Anatomy		
Electronic References, Websites			

Course Description Form

1- Course Name:
Dental anatomy
2- Course Code:
DAN162
3. Semester / Year: year 2024-2025
1 st stage / annual
4. Description Preparation Date
15/9/2024
5. Available Attendance Forms:
Theory / presence
Practical/ presence
6. Number of Credit Hours (Total) / Number of Units (Total)
60 hours of theory+ 60 h practical
7. Course administrator's name (mention all, if more than one name)
Name: Lec. Noor Ghazi Saab & Assis.Lec. Hadeer Ahmed
Email: noor.gsaab@tu.edu.iq
8. Course Objectives

Course Objectives	Giving students an combined practical program by training them to carve blocks from soap and carve teeth on wax and soap molds
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9. Teaching and Learning Strategies

Strategy	<p>Theoretical aspect :</p> <ol style="list-style-type: none"> 1. The lecture is produced through power point, with a clear handwriting, prove design and illustrations 2. Introduce students to the anatomical model of teeth <p>The practical side : Training students on the process of carving teeth. This is done by carving the teeth on soap and wax</p>
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10. Course Structure: Theory + Practical

Week	Hours Theory	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 hour	Understanding the concept and basic and app	Introduction	Elocution with drawing and Power Point	Daily exam and oral questions .., semester, mid-year and final exams
2	2 hour	Understanding the concept and basic and app	Introduction	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
3	2 hour	Understanding the concept and basic and app	Tooth Numbering System	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
4	2hour	Understanding the concept and basic and app	Tooth Numbering System	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
5	2hour	Understanding the concept and basic and app	Anatomical Landmarks	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
6	2 hour	Understanding the	Anatomical Landmarks	Elocution with drawing and	Daily exam and oral questions,

		concept and basic and app		Power Point	semester, mid-year and final exams
7	2 hour	Understanding the concept and basic and app	Permanent Maxillary Central incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
8	2 hour	Understanding the concept and basic and app	Permanent Maxillary Central incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
9	2 hour	Understanding the concept and basic and app	Permanent Maxillary Lateral incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
10	2 hour	Understanding the concept and basic and app	Permanent Maxillary Lateral incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
11	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
12	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
13	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
14	2 hour	Understanding the concept and basic and app	Permanent Canines	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
15	2 hour	Understanding the concept and basic and app	Permanent Canines	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams

16	2 hour	Understanding the concept and basic and app	Permanent Maxillary Premolars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
17	2hour	Understanding the concept and basic and app	Permanent Maxillary Premolars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
18	2hour	Understanding the concept and basic and app	Permanent Mandibular first premolars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
19	2 hour	Understanding the concept and basic and app	Permanent Mandibular first premolars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
20	2 hour	Understanding the concept and basic and app	Permanent Mandibular Second premolars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
21	2 hour	Understanding the concept and basic and app	Permanent Maxillary First Molar	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
22	2 hour	Understanding the concept and basic and app	Permanent Maxillary second and third Molars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
23	2 hour	Understanding the concept and basic and app	Permanent Mandibular first Molar	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
24	2hour	Understanding the concept and basic and app	Permanent Mandibular Second and Third Molars	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
25	2 hour	Understand	Tooth Development	Elocution with	Daily exam and

		ding the concept and basic and app		drawing and Power Point	oral questions, semester, mid-year and final exams
26	2hour	Understan ding the concept and basic and app	Tooth Development	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
27	2 hour	Understan ding the concept and basic and app	Pulp cavity	Elocution with drawing and Power Point	Daily exam and oral questions, semester, mid-year and final exams
28	2 hour	Understan ding the concept and basic and app	Pulp cavity	Elocution with drawing and Power Point	Daily exam and oral questions, mid-year and final exams
29	2 hour	Understan ding the concept and basic and app	Occlusion and physiologic form of teeth and periodontium	Elocution with drawing and Power Point	Daily exam and oral questions,
30	2 hour	Understan ding the concept and basic and app	Occlusion and physiologic form of teeth and periodontium	Elocution with drawing and Power Point	Daily exam and oral questions
	60 hour Theory				

10. Course Structure: Laboratory sessions

Week	Hours	ILOs	Title of the sessions	Teaching Method	Assessment Method
1	2h	Understand the concepts, basics and application	Introduction to Dental Anatomy & Carving Instruments	Presentation method with illustration and explanation on	Practical exam, oral semester, mid-year and final exams

				modules Video [you tube]	
2	2h	Understand the concepts, basics and application	Numbering systems.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam oral semester, mid-year and final exams,
3	2h	Understand the concepts, basics and application	Practical demonstration of Carving a Cube (1cm*1cm*1cm)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
4	2h	Understand the concepts, basics and application	-Carving of a cube:	Presentation method with illustration and explanation on power point Video [you tube]	Practical exam, oral semester, mid-year and final exams
5	2h	Understand the concepts, basics and application	Description &Carving of the Labial Aspect of P. Max. Right Central Incisor.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
6	2h	Understand the concepts, basics and application	Description &Carving of the Mesial aspect of P. Max. Right Central Incisor.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
7	2h	Understand the concepts, basics and application	Description ,Carving & Finishing of the Incisal Aspect of Permanent Max. Right Central Incisor.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
8	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Max. Right Central Incisor	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
9	2h	Understand the concepts, basics and	Practical Exam. Of Carving of P. Max.	Presentation method with illustration and	Practical exam, oral semester, mid-year and final exams

		application	Right Central Incisor	explanation on modules Video [you tube]	
10	2h	Understand the concepts, basics and application	Description &Carving of the Labial & Mesial Aspects of P. Max. Right Canine.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
11	2h	Understand the concepts, basics and application	Description ,Carving & Finishing of the Incisal Aspect of P Max. Right Canine.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
12	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Max. Right Canine.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
13	2h	Understand the concepts, basics and application	Practical Exam. of Carving of P. Max. Right Canine.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
14	2h	Understand the concepts, basics and application	Mid Year Practical Examination of Tooth Carving.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
15	2h	Understand the concepts, basics and application	Description &Carving of the Buccal & Mesial Aspects of P.Max. Right 1 st Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
16	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P.Max. Right 1 st Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
17	2h	Understand the concepts, basics and	Practical Training of Carving of P. Max. Right 1 st Premola	Presentation method with illustration and	Practical exam, oral semester, mid-year and final exams

		application		explanation on modules Video [you tube]	
18	2h	Understand the concepts, basics and application	Practical Exam. Of Carving of P. Max. Right 1 st Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
19	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P.Mand. Right 1 st Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
20	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P.Mand. Right 1 st Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
21	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Mand. Right 1 st Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
22	2h	Understand the concepts, basics and application	Practical Exam. Of Carving of P. Mand. Right 1 st Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
23	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P. Max. Right 1 st Molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
24	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P. Max. Right 1 st Molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
25	2h	Understand the concepts, basics and	Practical Training of Carving of P. Max. Right 1 st molar.	Presentation method with illustration and	Practical exam oral semester, mid-year and final exams

		application		explanation on modules Video [you tube]	
26	2h	Understand the concepts, basics and application	Practical Exam. of Carving of P. Max. Right 1 st molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
27	2h	Understand the concepts, basics and application	Description &Carving of the Buccal & Mesial Aspects of P. Mand. Right 1 st Molar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
28	2h	Understand the concepts, basics and application	Description ,Carving & Finishing of the Occlusal aspect of P.Mand 1 st Molar/Practical Training of Carving p.Mand 1 st molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
29	2h	Understand the concepts, basics and application	Practical Examination of Carving of P. Mand Right 1 st molar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam, oral semester, mid-year and final exams
30	2h	Understand the concepts, basics and application		Presentation method with illustration and explanation on modules Video [you tube]	Practical exam oral semester, mid-year and final exams,
	60 h				

11. Course Evaluation						
Theoretical tests – Practical tests- Reports and studies						
12. Learning and Teaching Resources						
Required textbooks (curricular books, if any)	Woelfels dental anatomy its relevance dentistry 7 th ed					
Main references (sources)						
Recommended books and references (scientific journals, reports...)						
Electronic References, Websites						
Anatomy, physiology and occlusion...	2	1.TOOTHT FORM				

Course Description Form

Course Name:
1. Biology
2. Course Code:
BIO163
3. Semester / Year:
1 st stage / annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms:
Lectures & labs
6. Number of Credit Hours (Total) / Number of Units (Total)
60hrs. Theoretical + 60hrs. practical= 120/ 6 units
7. Course administrator's name (mention all, if more than one name)
Name: Sheelan Akbar , Sina Naje Mahsen, Muna Ahmed Abdulla, Sura Mustafa Kasim, Ranen Ibrahem Abdulla
8. Course Objectives
Course Objectives
By the end of this course, students will be able to:
1-Understand the fundamental concepts of medical and oral biology.
2-Describe the structure and distinguishing characteristics of eukaryotic and prokaryotic cells.
3-Identify and explain common general diseases and oral diseases.

2-Collaborative Learning

- Encouraging teamwork through group assignments, case studies, and problem-solving tasks.
- E-Learning and Digital Tools.
- Utilizing platforms such as Google Classroom for sharing materials, conducting quizzes, and supporting blended or remote learning.

3-Student-Centered Learning.

- Promoting critical thinking and independent learning through guided inquiry and reflective activities.

4-Continuous Feedback.

- Offering regular feedback to help students track their progress and improve their performance.

1.

11. Course Structure/ Theoretical lectures

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	2	Recognize the fundamental principles of medical and oral biology and explain their relevance to oral health.	Introduction to medical biology and oral biology	Giving lectures And explanation using the computer	Evaluation methods

4-Analyze the role of bacteria in the development and progression of oral diseases.
5-Explain the principles of genetics and its contribution to oral disease susceptibility and development
6-Demonstrate foundational knowledge in Parasitology, including major organism types and their relevance to human health.

9-Course Evaluation

Student performance in this course will be assessed through a combination of:

1-Written examinations to evaluate understanding of theoretical concepts.
2-Quizzes and assignments to reinforce key ideas and ensure continuous learning.
3-Practical or laboratory assessments, where applicable, to measure hands-on and analytical skills
4-Class participation and engagement, reflecting the student's involvement in discussions and learning activities.

9. Teaching and Learning Strategies

10-Teaching and Learning Strategies

To support student learning and ensure the achievement of course objectives, the following strategies will be employed:

1-Interactive Lectures

- **Facilitating engagement through discussions, visual presentations, and real-life examples.**
- **Small-Group Practical Sessions.**
- **Providing hands-on activities and demonstrations to reinforce theoretical concepts and develop practical skills.**

2	2	Distinguish between prokaryotic and eukaryotic cells based on their structure and biological functions.	Prokaryotes and Eukaryotes	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
3	2	Describe the components of the immune system and explain their roles in protecting the oral cavity.	General and oral immunity	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
4	2	Identify major oral bacteria and explain how they contribute to the development of oral diseases.	Bacteria and oral disease	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
5	2	Explain basic genetic concepts and discuss how genetic factors influence susceptibility to oral diseases.	Genetics and its role in oral diseases	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
6	2	Describe the structure and function of simple epithelial tissue, with emphasis on its presence in the tongue.	Simple epithelial tissue(tongue)	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
			FIRST SEMESTER EXAM		Short exams, semester

					exams, mid-year exams, and final exams
7	2	Explain the characteristics and protective functions of stratified epithelial tissue in the oral cavity.	Stratified epithelial tissue	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
8	2	Identify types of glandular epithelial tissue and describe their secretory roles in oral health	Glandular epithelial tissue	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
9	2	Describe the structure and functions of general connective tissue and its significance in oral structures	General connective tissue	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
10	2	Explain the organization and function of muscular tissue and its importance in oral movement and mastication	Muscular tissue	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams

11	2	Recognize the structure and role of nerve tissue and explain its function in oral sensation and reflexes.	Nerve tissue	Giving lectures	Short exams, semester exams, mid-year exams, and final exams

MID- YEAR EXAM					
12	2	Describe the structural organization of cells within the oral mucous membrane and their functional significance	Cell structure(oral mucus membrane)	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
13	2	Explain the composition and function of the plasma membrane in regulating cellular activities.	Plasma membrane structure	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
14	2	Demonstrate understanding of transport mechanisms across the cell membrane, including diffusion, osmosis, and active transport.	Passage of materials across cell membrane	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams

		significance of <i>Toxoplasma gondii</i> .		computer	exams
27	2	Identify the characteristics of nematode parasites and explain the pathology of <i>Ascaris lumbricoides</i> .	Nemathelminthes, <i>Ascaris lumbricoides</i> ,	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
28	2	Identify the characteristics of nematode parasites and explain the pathology of <i>Ascaris lumbricoides</i> .	<i>Ancylostoma duodenale</i> , <i>Entrobius vermicularis</i>	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
29	2	Distinguish between hookworm and pinworm infections and describe their health impacts.	Platyhelminthes, <i>fasciola hepatica</i>	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
30	2	Explain the morphology, life cycle, and disease manifestations caused by <i>Schistosoma</i> species.	<i>Schistosoma</i> spp.	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
		Final examination			

Course Structure/ Practical lectures

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	2	Demonstrate safe laboratory practices and identify common laboratory hazards.	Laboratory safety	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams

2	2	Identify the parts of the microscope and correctly operate it for microscopic examination.	Parts of microscope	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
3	2	Differentiate between major cell types based on microscopic features.	Types of cells	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
4	2	Recognize simple epithelial tissues under the microscope and describe their structural characteristics.	Simple epithelial tissue	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
5	2	Identify stratified epithelial tissues and explain their functional adaptations..	Stratified epithelial tissue	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
6	2	Understand the basics and applications of glandular epithelial tissue.	Glandular epithelial tissue	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
FIRST SEMESTER EXAM					
7	2	Describe the histological features of serous, mucous, and mixed glands; recognize loose connective tissue.	Seros mucous, sero- cell glands; Proper connective tissue, loose	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams

8	2	Distinguish dense connective tissue types and explain their physiological roles.	Proper connective tissue dense	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
9	2	Identify specialized connective tissues and classify their cellular components	Special connective tissue, type of cells	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
10	2	Characterize hyaline, elastic, and fibrocartilage based on structure and function (hyaline, elastic, fibrocartilage).	Cartilage, Hyaline, Elastic, Fibro	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
MID- YEAR EXAM					
11	2	Compare compact and spongy bone structures and describe their functions	Compact and spongy bone	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams

12	2	Identify human and frog blood components and describe their roles.	Human Blood, W.B.C , R.B.C and frog blood	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
13	2	Recognize skeletal, cardiac, and smooth muscle tissues and describe their distinguishing features.	Muscular tissue: Skeletal, cardiac and smooth muscles	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
14	2	Describe neuron structure and explain its key functions.	Nerve cell	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
15	2	Outline the organization of the central and peripheral nervous systems.	Central and peripheral nerve system	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
16	2	Identify spinal cord structures and meninges and describe their functions.	Spinal cord and meninges	Giving lectures and practical application in the laboratory	Short exams, semester exams, mid-year exams, and final exams
SECOND SEMESTER EXAM					
17	2	Identify <i>Entamoeba histolytica</i> and <i>E. coli</i> and describe their diagnostic features.	<i>Entamoeba histolytica</i> , <i>Entamoeba coli</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
18	2	Recognize <i>Giardia lamblia</i> and <i>Trichomonas vaginalis</i> and describe their	<i>Giardia lamblia</i> , <i>Trichomonas vaginalis</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams

15	2	Outline the stages of the cell cycle and describe their relevance to tissue growth and maintenance.	Cell cycle	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
16	2	Compare and contrast mitosis and meiosis and explain their roles in cell division and reproduction.	Mitosis and Meiosis	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
		SECOND SEMESTER EXAM			Short exams, semester exams, mid-year exams, and final exams
17	2	Analyze cell cycle regulation and identify factors that influence normal and abnormal cell division.	Cell cycle (Advanced Concepts)	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
18	2	Explain the structure and function of DNA and RNA and describe their roles in genetic information flow.	Nucleic acids, DNA and RNA	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
19	2	Identify major groups of parasites and explain their general characteristics.	Introduction to parasitology	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
20	2	Describe different parasite types and explain the nature	Types of parasites and host	Giving lectures And explanation using the	Short exams, semester exams, mid-year exams, and final

		of parasite-host interactions.		computer	exams
21	2	Identify major protozoa affecting humans and explain their significance in general and oral infections	General and oral protozoa	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
22	2	Differentiate between pathogenic and non-pathogenic human amoebas and describe their clinical importance.	Human amoebas, <i>E. histolytica</i> , <i>E.coli</i> , <i>E.gingivalis</i>	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
23	2	Describe the characteristics of major flagellates and explain the diseases they cause in humans	Flagellates, <i>Giardia lamblia</i> , <i>Trichomonas tenax</i> , <i>T.hominas</i> , <i>T.vaginalis</i>	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
24	2	Explain the life cycle of <i>Leishmania</i> species and distinguish between cutaneous and visceral leishmaniasis.	<i>Leishmania</i> , cutaneous and vesical	Giving lectures And explanation using the computer	Short exams, semester exams, mid-year exams, and final exams
25	2	Describe the life cycle of <i>Plasmodium</i> species and explain their role in causing malaria	Sporozoa, <i>Plasmodium</i> spp.	Giving lectures And explanation using the computer	Daily exam.

26	2	Explain the transmission, life cycle, and clinical	<i>Toxoplasma gondii</i> &	Giving lectures And explanation using the	Short exams, semester exams, mid-year exams, and final

		morphology.			
19	2	Describe the characteristics and clinical relevance of <i>Trichomonas tenax</i> .	Trichomonan tenax	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
20	2	Identify <i>Leishmania tropica</i> , <i>Leishmania donovani</i> and understand their life cycles.	<i>Leishmania tropica</i> , <i>Leishmania donovani</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
21	2	Examine the morphology and significance of <i>Trypanosoma gambiense</i> .	Trypanosomes	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
22	2	Understand the life cycle and features of <i>Plasmodium vivax</i> and <i>Toxoplasma gondii</i> .	<i>Plasmodium vivax</i> and <i>Toxoplasma gondii</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
23	2	Identify <i>Balantidium coli</i> and recognize distinguishing characteristics.	<i>Balantidium coli</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
24	2	Describe the morphology and transmission of <i>Echinococcus granulosus</i> , <i>Taenia saginata</i> , and <i>Taenia solium</i>	<i>Echinococcus granulosus</i> , <i>Taenia saginata</i> <i>Taenia solium</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams

25	2	Identify <i>Ancylostoma duodenale</i> and <i>Enterobius vermicularis</i> and describe their life cycles.t	<i>Ancylostoma duodenale</i> , <i>Enterobius vermicularis</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
26	2	Explain the structure and life cycle of <i>Fasciola hepatica</i> .t	<i>Fasciola hepatica</i>	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
27	2	Describe the skeletal system of the frog and its main components.	Endoskeleton of frog.	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
28	2	Conduct laboratory analysis of water samples and interpret findings	Experiment...examine samples of water	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
29	2	Perform water sample examination (1 hr) and determine blood groups (1 hr).	Experiment...examine samples of water (one hour), Experiment ...Blood groups(one hour)	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams
30	2	Conduct blood group testing and analyze results accurately.	Experiment ...Blood groups	Giving lectures and practical application in the laboratory	Short exams, write reports,semester exams, mid-year exams, and final exams

Final Examination				

12-Course Evaluation				
course Evaluation				
<p>Student performance in this course will be assessed through a combination of continuous evaluation, practical assessments, and formal examinations. The evaluation components are designed to measure theoretical understanding, practical skills, and overall mastery of the course outcomes.</p>				
<p>1. Daily Assessments</p> <ul style="list-style-type: none"> ● Short quizzes or oral questions conducted during laboratory sessions. ● Designed to evaluate students' preparedness, understanding of weekly topics, and practical skill development. <p>●</p>				
<p>2. Practical Laboratory Performance – 20%</p> <ul style="list-style-type: none"> ● Assessment of students' ability to perform laboratory procedures safely and accurately. ● Includes sample preparation, microscopic examination, identification of structures/organisms, and proper laboratory behavior. 				
<p>3. First Semester Exam – 10%</p> <ul style="list-style-type: none"> ● A written and/or practical exam covering all topics taught in Weeks 1–6. ● Evaluates foundational knowledge of histology and basic laboratory skills. 				
<p>4. Mid-Year Exam – 10%</p> <ul style="list-style-type: none"> ● Covers material from Weeks 7–10. ● May include microscopy identification, diagrams, and short-answer questions. 				
<p>5. Second Semester Exam – 10%</p> <ul style="list-style-type: none"> ● An assessment of content from Weeks 11–16. ● Focuses on tissues, nervous system structures, and blood components. 				
<p>6. Practical Identification Exam</p>				

- Students identify tissues, cells, and parasites under the microscope or through prepared slides/images.
- Measures diagnostic and observational skills.

7. Final Examination – 20%

- A comprehensive exam covering all course units (histology + parasitology).
- May include multiple-choice questions, short answers, labeling, and practical identification.

13-References

Required textbooks (curricular books, if any)	1-Essential Pathology for Dental Students 2- Pathology Practical Book for Dental Students 5th Edition
Main references (sources)	Robbins Basic Pathology
Recommended books and references (scientific journals, reports...)	General Histology & Cell Biology Ross, M.H., & Pawlina, W. <i>Histology: A Text and Atlas.</i> Lippincott Williams & Wilkins, latest edition. — Clear explanations with atlas images useful for identifying tissues.
Electronic References, Websites	

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1	understand the basic concepts	Word Analysis & Combining Forms, Suffixes, and Prefixes	give lectures with explanation and clarification	Daily exam
2	1	understand the basic concepts	In Person: Living With Type 1 Diabetes &	give lectures with explanation and clarification	Daily exam
3	1	understand the basic concepts	Pronunciation of Terms & Practical Applications	give lectures with explanation and clarification	Daily exam
4	1	understand the basic concepts	Picture Show & Review	give lectures with explanation and clarification	Daily exam
5	1	understand the basic concepts	Terminology CheckUp & Introduction to Body Systems	give lectures with explanation and clarification	Daily exam

Course Description Form

1. Course Name:

Medical Terminology

2. Course Code:

MDT128

3. Semester / Year:

1st / annual

4. Description Preparation Date:

15/9/2024

5. Available Attendance Forms:

Weekly

6. Number of Credit Hours (Total) / Number of Units (Total)

60 h – 2 units

7. Course administrator's name (mention all, if more than one name)

Asst. Lec. Reem Awad Shaban - Reem.a.shaban23@tu.edu.iq

Asst. Lec. Abdulazeez Mohammed Hussein

abdulazeezmohammed@tu.edu.iq

8. Course Objectives

Course Objectives

- Develop familiarity with medical terminology and its structure.
- Understand and apply terms related to body systems, diagnostic tools, and medical procedures.
- Interpret and use abbreviations, eponyms, and homonyms in medical contexts.

9. Teaching and Learning Strategies

Strategy

- Method of giving lectures, explanation and clarification.
- Discussion and participation in the lecture to test thinking skills

6	I	understand the basic concepts	Body Cavities & Divisions of the Back	give lectures with explanation and clarification	Daily exam
7	I	understand the basic concepts	Planes of the Body & Terminology	give lectures with explanation and clarification	Daily exam
8	I	understand the basic concepts	In Person: CT and MRI & Exercises and Answers	give lectures with explanation and clarification	Daily exam
9	I	understand the basic concepts	Pronunciation of terms and practical applications	give lectures with explanation and clarification	Daily exam
10	I	understand the basic concepts	Picture Show & Review	give lectures with explanation and clarification	Daily exam
11	I	understand the basic concepts	Combining FnN Suffixes, and Terminology	give lectures with explanation and clarification	Daily exam
12	I	understand the basic concepts	In Person: Gallbladder Stones & Exercises and Answers	give lectures with explanation and clarification	Daily exam

13	1	understand the basic concepts	Pronunciation of Terms and practical application	give lectures with explanation and clarification	Daily exam
14	1	understand the basic concepts	Picmre Show & Review	give lectures with explanation and clarification	Daily exam
15	1	understand the basic concepts	Additional Topic (e.g., Uedical Ethics, Legal Issues)	give lectures with explanation and clarification	Daily exam

Second Course

1	3	understand the basic concepts	Word Analysis & Combining Forms, Suffixes, and Prefixes	give lectures with explanation and clarification	Daily exam
2	3	understand the basic concepts	In Person: Living With Type 1 Diabetes &	give lectures with explanation and clarification	Daily exam
14	5	understand the basic concepts	Picmre Show & Review	give lectures with explanation and clarification	Daily exam

15	5	understand the basic concepts	Additional Topic (e.g., Uedical Ethics, Legal Issues)	give lectures with explanation and clarification	Daily exam
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11. Course Evaluation

Theoretical tests

Daily exams

Written and surprise exams. Brainstorming and oral questions. An interactive dialogue seminar among students

12. Learning and Teaching Resources

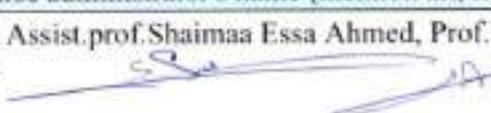
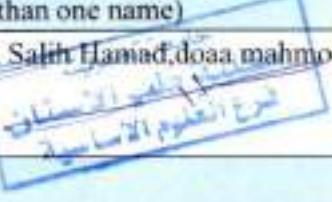
1- Required textbooks (curricular books, if any)

Connolly, D. (2019). Medical terminology. Quickly build your medical vocabulary. Effective techniques for pronouncing, understanding, & memorizing medical terms (Easy to follow on the go guide). [Self-published]. ar s : c iic dmc)

- Gylys, B. A., & MastlirS, J. U. (2014). Medical terminology simplified. A programmed learning approach by body JyrJex (5th ed.). F. A. Davis Company.
- GraCe, S. (2023). Medical terminology made easy. The easy-to-follow guide to mastering terminology for nursing and healthcare professionals.
- Nath, J. L., & Lindsley, K. P. (2019). A short course in medical terminology (4th ed.). Wolters Kluwer Health. I s cc oc 70
- Stanfield, P., Hui, Y. H., & CrOSs, N. (2015). Essential medical terminology (4th ed.). Jones & Barlett Learning

2	4	Understanding the concepts, basics and application	Radioactivity-II: radiation dose, and medical application of isotopes.	Lecture and explanation ppt presentation	Daily exam and oral questions
3	4	Understanding the concepts, basics and application	Acid-base: pH scale, measuring pH, and molarity.	Lecture and explanation ppt presentation	Daily exam and oral questions
4	4	Understanding the concepts, basics and application	Arrhenius acid-base, Bronsted acid-base, ionization constant of acid and base.	Lecture and explanation ppt presentation	Daily exam and oral questions
5	4	Understanding the concepts, basics and application	Buffer solution, Acid-base balance in the blood	Lecture and explanation ppt presentation	Daily exam and oral questions
6	4	Understanding the concepts, basics and application	Types of solutions Solubility (effect of temperature and pressure on solubility)	Lecture and explanation ppt presentation	Daily exam and oral questions
7	4	Understanding the concepts, basics and application	Chelation and possible application in Medicine	Lecture and explanation ppt presentation	Daily exam and oral questions

Course Description Form

1. Course Name:	Medical Chemistry				
2. Course Code:	MCH164				
3. Semester / Year:	1 st stage / annual				
4. Description Preparation Date:	15/9/2024				
5. Available Attendance Forms:	<p style="text-align: center;">Student attendance is present and essential, not distance learning</p>				
6. Number of Credit Hours (Total) / Number of Units (Total)	120 Hours / 6 Units				
7. Course administrator's name (mention all, if more than one name)	<p>Name: Assist.prof.Shaimaa Essa Ahmed, Prof.Mahdi Salih Hamad,doaa mahmood abdulah</p> <p>Email: </p> <p style="text-align: right;"></p>				
8. Course Objectives					
Course Evaluation					
Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	4	Understanding theof radiation, isotopes, half-life, and nuclear concepts, basics andreaction, application	Radioactivity-I: types	Lecture and explanation ppt presentation	Daily exam and oral questions

144	Understanding the concepts, basics and application	Alcohol-I: naming, classifying, and physical properties.	Lecture and explanation ppt presentation	Daily exam and oral questions
154	Understanding the oxidation of alcohol, oxidation of alcohol in living systems. concepts, basics and application	Alcohol-II: preparation, oxidation of alcohol in living systems.	Lecture and explanation ppt presentation	Daily exam and oral questions
Half year holiday				
164	Understanding the concepts, basics and application	Carboxylic acids: naming, physical properties, acidity, and preparation.	Lecture and explanation ppt presentation	Daily exam and oral questions
174	Understanding the preparation, and reactions concepts, basics and application	Esters: naming, preparation, and reactions	Lecture and explanation ppt presentation	Daily exam and oral questions
184	Understanding the concepts, basics and application	Amino Acids and Proteins-I: Classification of amino acids Based on side chain character, Isoelectric point, and optical activity.	Lecture and explanation ppt presentation	Daily exam and oral questions
194	Understanding the concepts, basics and application	Amino Acids and Proteins-II: Alanine titration curve transamination reaction, and Peptide bond formation.	Lecture and explanation ppt presentation	Daily exam and oral questions

84	Understanding the concepts, basics and application	Salts and salt preparations	Lecture and explanation ppt presentation	Daily exam and oral questions
94	Understanding the concepts, basics and application	Pollutants	Lecture and explanation ppt presentation	Daily exam and oral questions
104	Understanding the concepts, basics and application	Suspension, Colloids, and colloidal dispersion	Lecture and explanation ppt presentation	Daily exam and oral questions
114	Understanding the concepts, basics and application	Expression of concentration (molar expression and calculation, (V/V%), (W/V%), (W/W%), examples)	Lecture and explanation ppt presentation	Daily exam and oral questions
124	Understanding the concepts, basics and application	Geometrical and optical isomers.	Lecture and explanation ppt presentation	Daily exam and oral questions
134	Understanding the concepts, basics and application	Amines: classification, substituted ammonium ion, preparing amines in living systems.	Lecture and explanation ppt presentation	Daily exam and oral questions

204	Understanding the concepts, basics and application	Amino Acids and Proteins-III: primary, secondary, tertiary, and quaternary structure of proteins, classification of proteins.	Lecture and explanation ppt presentation	Daily exam and oral questions
214	Understanding the concepts, basics and application	Enzyme-I: Naming, Classification of enzymes, Coenzymes, cofactor and Isoenzymes,	Lecture and explanation ppt presentation	Daily exam and oral questions
224	Understanding the concepts, basics and application	Enzyme-II: Koshland's induced fit theory, Fischer's template theory.	Lecture and explanation ppt presentation	Daily exam and oral questions
234	Understanding the concepts, basics and application	Enzyme-III: Michaelis-Menten theory, Factors influencing enzyme activity.	Lecture and explanation ppt presentation	Daily exam and oral questions
244	Understanding the concepts, basics and application	Nucleic acids & Nucleotides: nucleotides, nitrogen bases, DNA structure (the Watson-Crick model of DNA), Ribonucleic acid (RNA)	Lecture and explanation ppt presentation	Daily exam and oral questions
254	Understanding the concepts, basics and application	Carbohydrate-I: classification, functions, three-dimensional structure of monosaccharide, Cyclic structure of monosaccharide.	Lecture and explanation ppt presentation	Daily exam and oral questions

264	Understanding the concepts, basics and application	Carbohydrate II: Disaccharide, and disaccharide formation, polysaccharide.	Lecture and explanation ppt presentation	Daily exam and oral questions
274	Understanding the muco-polysaccharides, carbohydrate, and oral concepts, basics and health. application	Carbohydrate III: Mucopolysaccharides, carbohydrate, and oral health.	Lecture and explanation ppt presentation	Daily exam and oral questions
284	Understanding the concepts, basics and application	Lipids-I: Classification of lipids, functions, Classification of fatty acids, Saturated and unsaturated fatty acids. Hydrogenation and saponification reaction of lipids.	Lecture and explanation ppt presentation	Daily exam and oral questions
294	Understanding the concepts, basics and application	Lipids-II: Neutral fats and triacylglycerol, and cholesterol.	Lecture and explanation ppt presentation	Daily exam and oral questions
304	Understanding the concepts, basics and application	Lipids -III: Phospholipids, Prostaglandins, lipoproteins	Lecture and explanation ppt presentation	Daily exam and oral questions

Course Description Form

1. Course Title:	Medical Physics
2. Course Code:	PHX166
3. Semester/Year:	1 st stage / annual
4. Date of preparation of this description:	15/9/2024
5. Available Attendance Formats:	Weekly
6. Number of study hours (total) / Number of units (total):	112 hours (56 theoretical and 56 practical)
7. Number of study hours (total) / Number of units (total):	112 hours (56 theoretical and 56 practical)
8-Name of the course administrator (if more than one name is mentioned, Lect. Dr. Thamer Mahmood Mohammed (Theoretical). 2-Asst. Prof. Dr. Yaser Khalaf Mohamed (Practical) 3- Eng. Alia Ali Hamid (Practical)	
9-Course Objectives:	The medical physics of dentistry encompasses a set of principles and techniques that are essential for effective dental practice. This field integrates the physical properties of biological tissues and synthetic materials, which are essential for diagnosis and treatment. The following sections outline the main aspects of medical physics in dentistry. Courses are designed to match the needs of dental professionals, with an emphasis on independent study and hands-on work in laboratories to enhance understanding. Advanced diagnostic tools such as cone beam computed tomography (CBCT), molecular spectroscopy, and magnetic resonance (MRI) are central to modern dentistry and oral diagnostic tools and techniques, based on an understanding of the physical principles for the accurate diagnosis of oral conditions and diseases
10-Learning Outcomes:	Learning outcomes for students in Dental Medical Physics include an understanding of basic physical principles and their applications in dentistry such as X-rays, ultrasound, hemodynamics, biomechanics of bite, and the design of prosthetic devices such as bridges and crowns. It also includes an understanding of transmembrane transport phenomena and applications of heat and radiation in diagnosis and treatment. Practical Applications Understanding the Basic Principles: Students must understand the principles of atomic and nuclear physics and radioactivity. Handling Radiology: They must be able to understand and apply the principles of X-rays and their medical applications in dentistry. Ultrasound: Understand the principles of sound and ultrasound and their applications in the diagnosis and treatment of oral and dental problems. Blood dynamics: The study of blood dynamics and how it affects oral health. Mechanics of bite: Understanding the forces involved in biting, chewing, and erosion of teeth, which is fundamental in the design of prosthetic devices. Biocompatibility: Understand the principles of biocompatibility in materials used in prosthetic devices such as bridges and crowns. Transmembrane phenomena: The study of transmembrane transport phenomena in the human body and their impact on oral health.

Heat: Understanding the applications of heat in oral and dental medical treatments. Radiation: Understanding and applying the concepts of radiation and radioactivity in diagnosis and treatment. Electrochemistry: Understanding and applying electric current concepts in dentistry.

11. Teaching and Learning Strategies Educational outcomes in dental medical physics greatly enhance the quality of health care. Effective education equips future health professionals with essential skills, particularly in the application of the principles of medical physics, which are essential for safe and effective patient care. This combination of education and practice promotes better patient outcomes and satisfaction. The role of medical education Medical education is central to shaping the quality of health care, emphasizing the need for comprehensive training in both medical physics and dentistry Programs should integrate quality assurance measures to ensure graduates are well prepared for clinical Understanding medical physics is key to the safe operation of medical equipment, directly impacting patient safety and effectiveness in treatment Training in medical physics enhances the ability of healthcare professionals to use technology effectively, which is becoming even more important in modern healthcare environments Measuring Quality in Dentistry Applying quality measurement processes in dental education can improve clinical practices and better prepare graduates to meet real-world challenges Conversely, some argue that incorporating medical physics into dental education may not be uniformly beneficial, as the specific needs of dental practice can vary widely, leading to an excessive focus on physics at the expense of other essential skills.

12-Course Structure (Theoretical Part) The course structure for the theoretical part of the Medical Physics of Dentistry is designed to provide dental students with a comprehensive understanding of the principles and processes of physics relevant to their field. This program is usually integrated into the first year of dental education and aims to provide students with the theoretical knowledge and practical skills needed for the practice of modern dentistry. The curriculum was developed in collaboration with dental professionals to ensure its relevance and applicability in clinical settings. The program focuses on independent learning and the application of physics in dental scenarios, which is crucial for mastering contemporary dental techniques and methods. Theoretical Content Basic Physics: Core topics in physics are tailored to dental applications, with a focus on the physical properties and phenomena encountered by dentistry. Biophysics and Biomechanics: There is a fusion of biomechanics and biophysics, which are fundamental to understanding the functional dynamics of dental and maxillofacial systems. This includes the study of mechanical laws and their application in the diagnosis and treatment of dental conditions.

Radiology and Radiology: The curriculum covers core topics in dental radiography and radiation, including the production and interaction of X-rays, radiation protection, and interpretation of radiographic images. This is critical for diagnostic and therapeutic procedures in dentistry. Educational approach Interdisciplinary Learning: Combines elements of physics, anatomy, and physiology to provide a comprehensive understanding of dental science. Hands-on: Students engage in laboratory work and hands-on exercises to apply theoretical knowledge in real-world dental scenarios, enhancing their problem-solving skills. Although the curriculum is holistic, there is a constant need to adapt and update the curriculum to integrate emerging technologies and methodologies into the practice of dentistry. This includes incorporating advanced imaging techniques and ensuring that students are fully aware of the latest advances in dental physics

evaluation method	Learning method	Units\ or subject name	Required learning outcomes	hours	week
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Terminology	Understand concepts, fundamentals, and applications	2 Hours	1
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Terminology	Understand concepts, fundamentals, and applications	2 Hours	2
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Force on & in body	Understand concepts, fundamentals, and applications	2 Hours	3
Oral Discussions & Assessments, Practical Assignments,	Blended learning (in class and online), lectures and drawings	Force on & in body	Understand concepts, fundamentals, and applications	2 Hours	4

Assignment Resolution, Exams, Written Assessments & Research Reports	via PowerPoint and PDF. Use Smart Display				
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of the skeleton	Understand concepts, fundamentals, and applications	2 Hours	5
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of the skeleton	Understand concepts, fundamentals, and applications	2 Hours	6
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Heat and cold in medicine	Understand concepts, fundamentals, and applications	2 Hours	7
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Heat and cold in medicine	Understand concepts, fundamentals, and applications	2 Hours	8

Exams, Written Assessments & Research Reports	Smart Display				
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Energy, work and power of the body	Understand concepts, fundamentals, and applications	2 Hours	9
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Energy, work and power of the body	Understand concepts, fundamentals, and applications	2 Hours	10
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Pressure	Understand concepts, fundamentals, and applications	2 Hours	11
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Pressure	Understand concepts, fundamentals, and applications	2 Hours	12

Research Reports					
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Electricity within the body	Understand concepts, fundamentals, and applications	2 Hours	13
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Electricity within the body	Understand concepts, fundamentals, and applications	2 Hours	14
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Sound in medicine	Understand concepts, fundamentals, and applications	2 Hours	15
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Sound in medicine	Understand concepts, fundamentals, and applications	2 Hours	16

Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Laser in medicine	Understand concepts, fundamentals, and applications	2 Hours	21
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Laser in medicine	Understand concepts, fundamentals, and applications	2 Hours	22
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of eye and vision	Understand concepts, fundamentals, and applications	2 Hours	23
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of eye and vision	Understand concepts, fundamentals, and applications	2 Hours	24
Oral Discussions &	Blended learning (in	Physics of diagnostic X-	Understand concepts,	2 Hours	25

Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	ray	fundamentals, and applications		
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of diagnostic X-ray	Understand concepts, fundamentals, and applications	2 Hours	26
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of nuclear medicine	Understand concepts, fundamentals, and applications	2 Hours	27
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of nuclear medicine	Understand concepts, fundamentals, and applications	2 Hours	28
Oral Discussions & Assessments, Practical	Blended learning (in class and online), lectures	Physics of radiation therapy	Understand concepts, fundamentals, and applications	2 Hours	29

Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	and drawings via PowerPoint and PDF. Use Smart Display				
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Physics of radiation therapy	Understand concepts, fundamentals, and applications	2 Hours	30
Final exam practical part					
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Guidelines of Medical Physics Lab and Rules must be obeyed by the students	Understand concepts, fundamentals, and applications	4 hours	1
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Graphing Techniques	Understand concepts, fundamentals, and applications	4 hours	2

Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Ohm's law	Understand concepts, fundamentals, and applications	4 hours	3
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Ohm's law	Understand concepts, fundamentals, and applications	4 hours	4
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Semiconductors (junction diode)	Understand concepts, fundamentals, and applications	4 hours	5
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Semiconductors (junction diode)	Understand concepts, fundamentals, and applications	4 hours	6
Oral Discussions & Assessments, Practical	Blended learning (in class and online),	Cathode Ray Oscilloscope	Understand concepts, fundamentals, and applications	4 hours	7

Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	lectures and drawings via PowerPoint and PDF. Use Smart Display		applications		
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Cathode Ray Oscilloscope	Understand concepts, fundamentals, and applications	4 hours	8
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	The focal length of convex lens	Understand concepts, fundamentals, and applications	4 hours	9
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	The focal length of convex lens	Understand concepts, fundamentals, and applications	4 hours	10
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution,	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Hook's law	Understand concepts, fundamentals, and applications	4 hours	11

Reports					
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Laser applications	Understand concepts, fundamentals, and applications	4 hours	16
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Laser applications	Understand concepts, fundamentals, and applications	4 hours	17
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Boyle's law	Understand concepts, fundamentals, and applications	4 hours	18
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Boyle's law	Understand concepts, fundamentals, and applications	4 hours	19
Oral	Blended	Inverse Square	Understand	4 hours	20

Exams, Written Assessments & Research Reports	and PDF. Use Smart Display				
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Hook's law	Understand concepts, fundamentals, and applications	4 hours	12
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Focal length of concave mirror	Understand concepts, fundamentals, and applications	4 hours	13
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Focal length of concave mirror	Understand concepts, fundamentals, and applications	4 hours	14
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	General review and 1st course exam		4 hours	15

Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	law	concepts, fundamentals, and applications		
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Inverse Square law	Understand concepts, fundamentals, and applications	4 hours	21
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Viscosity of a liquid	Understand concepts, fundamentals, and applications	4 hours	22
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Viscosity of a liquid	Understand concepts, fundamentals, and applications	4 hours	23
Oral Discussions & Assessments, Practical	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Velocity of the sound	Understand concepts, fundamentals, and	4 hours	24

Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	lectures and drawings via PowerPoint and PDF. Use Smart Display		applications		
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Velocity of the sound	Understand concepts, fundamentals, and applications	4 hours	25
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	The focal length of a converging lens	Understand concepts, fundamentals, and applications	4 hours	26
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	The focal length of a converging lens	Understand concepts, fundamentals, and applications	4 hours	27
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution,	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Simple Pendulum	Understand concepts, fundamentals, and applications	4 hours	28

Exams, Written Assessments & Research Reports	and PDF. Use Smart Display				
Oral Discussions & Assessments, Practical Assignments, Assignment Resolution, Exams, Written Assessments & Research Reports	Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display	Simple Pendulum	Understand concepts, fundamentals, and applications	4 hours	29
		General review and 2nd course exam			30
Total					60

12. Course Evaluation (Grade Distribution Mechanism)Blended learning (in class and online), lectures and drawings via PowerPoint and PDF. Use Smart Display

The final grade is calculated from 100 grades according to the tasks assigned to the student such as daily, monthly, semi-annual and final exams, including oral and written, in addition to practical requirements and seminars as follows:

First Semester (Practical + Theoretical) 12.5%

Half Year 15%

Second Semester (Practical + Theoretical) 12.5%

40% Annual Endeavor (includes first, second semester grades, half year)

20% Practical Final Exam

40% Written Final Exam

13. Learning and Teaching Resources

Required Textbooks (Methodology, if any)	1-Medical Physics by John R.Cameron & James G.Skofronick(1978)
Main References (Sources)	1-Medical Physics by John R.Cameron & James G.Skofronick (1978)
Recommended books and references (scientific journals, reports...)	Google scholer, research gates 1- 2- Faculty of Dentistry Electronic Library 3.3. Electronic Scientific Books
Electronic References, Websites	

14. Course Evaluation (Grade Distribution Mechanism)

Course Description Form

1. Course Name:

Human Rights

2. Course Code:

HRT127

3. Semester / Year:

1st stage / annual

4. Description Preparation Date:

15/9/2024

5. Available Attendance Forms:

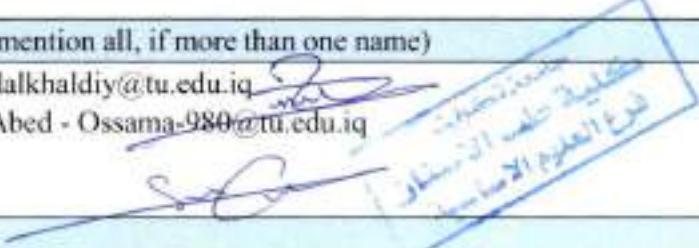
In-person – Theory only

6. Number of Credit Hours (Total) / Number of Units (Total)

30 hours – 1 credit unit

7. Course administrator's name (mention all, if more than one name)

Asst. Lec. Zaid Ali Ahmed - zeidalkhaldiya@tu.edu.iq 

Asst. Lec. Ossama Muhammed Abed - Ossama-980@tu.edu.iq 

8. Course Objectives

Introduce students to the fundamental principles and historical development of human rights.

- Enhance understanding of the relationship between human rights, healthcare systems, and professional ethics.
- Enable students to analyze rights-related situations in patient care, such as privacy and informed consent.
- Develop ethical reasoning and professional responsibility aligned with human dignity, justice, and equality.
- Promote awareness of human rights issues affecting vulnerable groups within healthcare environments.

9. Teaching and Learning Strategies

- Interactive lectures supported by visual presentations.
- Classroom discussions based on real case studies.
- Problem-solving exercises related to human-rights issues in healthcare.
- Group discussions to strengthen critical thinking.
- Directed readings and reflective written activities.

Course Evaluation

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	1	Introduction: The Meaning of Human Rights – Chapter One: The History of Human Rights	An introduction to the concept of human rights and their basic nature	Theoretical	General questions and discussions
2	1	The History of Human Rights in Iraqi, Roman, Greek, Persian, and Egyptian Civilizations	General Introduction to the Historical Development of Human Rights	Theoretical	General questions and discussions
3	1	Human Rights in the Divine Religions: Judaism, Christianity, and Islam	Introduction to the Study of the Early Roots of Human Rights in Ancient Civilizations	Theoretical	General questions and discussions
4	1	History of Human Rights in the Middle Ages: Feudalism, the Church, and the Monarchy (King)	The concept of the trigonometric system it is legal nature its pillars	Theoretical	General questions and discussions
5	1	Human Rights in the Legislation of Rights Revolutions in the West and East	Parliamentary presidential and parliamentary system	Theoretical	General questions and discussions
6	1	Human Rights: Definition and Clarification	Voters and the organization of the election process	Theoretical	General questions and discussions
7	1	Exam	Exam	Theoretical	General questions and discussions
8	1	Forms of Human Rights	Introduction to Present the Basic Classifications of Human Rights	Theoretical	General questions and discussions
9	1	Civil and Political Rights	Introduction to Explain the Basic Concepts of Civil and Political Rights	Theoretical	General questions and discussions
10	1	Economic, Social, and Cultural Rights	Introduction to Present Rights Related to Economic, Social, and Cultural Fields	Theoretical	General questions and discussions

11	I	Human Rights in the Universal Declaration of 1948	Introduction to Read and Analyze the Key Points in the Universal Declaration of Human Rights	Theoretical	General questions and discussions
12	I	Non-Governmental Organizations and Human Rights	Introduction to Explore the Role of Non-Governmental Organizations in Promoting and Protecting Human Rights	Theoretical	General questions and discussions
13	I	Human Rights in the Iraqi Constitution of 2005	Introduction to Review the Constitutional Guarantees of Human Rights in the Iraqi Constitution	Theoretical	General questions and discussions
14	I	Guarantees for Respecting and Protecting Human Rights	Introduction to Study the Legal and Institutional Means to Protect Rights and Ensure Their Respect	Theoretical	General questions and discussions
15	I	Exam	Exam	Theoretical	General questions and discussions
16	I	Guarantees of Human Rights in Constitutional Oversight	Introduction to Clarify the Role of the Constitutional Court in Protecting Fundamental Rights	Theoretical	General questions and discussions
17	I	The Origin and Development of Children's Rights Rules	Introduction to Study the History and Development of Legislations Related to Children's Rights	Theoretical	General questions and discussions
18	I	The Concept of Democracy (Its Development – Definition – Dimensions)	Introduction to Explain the Development of the Concept of Democracy and Its Multiple Dimensions	Theoretical	General questions and discussions
19	I	Forms of Democracy: Direct, Semi-Direct, Representative Democracy	Introduction to Present the Basic Types of Practicing Democratic Power	Theoretical	General questions and discussions
20	I	Representative Democracy	Introduction to Explore the Concept of Democracy Based on Electing Representatives of the	Theoretical	General questions and discussions

		People			
21	1	Parliament	Introduction to Study the Role, Formation, and Competencies of the Elected Legislative Institution	Theoretical	General questions and discussions
22	1	Mechanism of the Representative (Parliamentary) System	Introduction to Explain How the Parliamentary System Works and the Ways of Representing the People in Parliament	Theoretical	General questions and discussions
23	1	Electoral Commission	Introduction to Understand the Formation of the Electoral Body and the Conditions for Participating in Elections	Theoretical	General questions and discussions
24	1	Organizing the Election Process	Introduction to Study the Legal and Administrative Procedures for Organizing Elections	Theoretical	General questions and discussions
25	1	Electoral Systems	Introduction to Present the Different Electoral Systems and the Mechanisms of Seat Distribution	Theoretical	General questions and discussions
26	1	Revision	Introduction for a Conclusion or General Review of Human Rights Topics	Theoretical	General questions and discussions

11. Course Evaluation

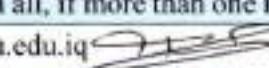
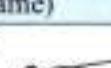
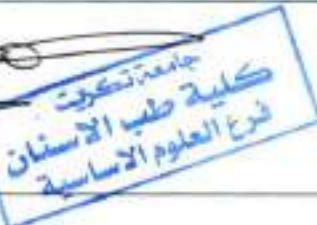
- 1 – Classroom participation and discussions.
- 2 – Weekly assignments and activities.
- 3 – Short quizzes to assess understanding.
- 4 – Midterm examination.
- 5 – Final theoretical examination

12. Learning and Teaching Resources

• Required Textbook: Human Rights and Democracy – Selected Readings.	Human rights and democracy
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<ul style="list-style-type: none"> Main References: Dr. Zuhair Riyad; United Nations – Human Rights Handbook. Electronic Sources: Reputable human-rights websites such as UN.org. 	
2- Main references (sources)	Dr Zuhair Riyad
3- Recommended books and references (scientific journals, reports...).	
4- Electronic references, Internet sites...	It is recommended to visit websites related to human rights

Course Description Form

1. Course Name:	Computer
2. Course Code:	COP125
3. Semester / Year:	1 st Stage / annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	The weekly
6. Number of Credit Hours (Total) / Number of Units (Total)	90 h / 2 units
7. Course administrator's name (mention all, if more than one name)	<p>Lec. Dr. Tamara A. Anai- <u>tamsamka@tu.edu.iq</u> </p> <p>Asst. Lec. Shms Aldeen Saad Mohsen- <u>shms.aldeen@tu.edu.iq</u> </p> <p>Asst. Lec. Heba Hani Raheem - <u>Heba.h.raheem22m@st.tu.edu.iq</u> </p> <p>Asst. Lec. Raghda Awad Shaban - <u>raghda.a.shaban@tu.edu.iq</u> </p> <p></p>

8. Course Objectives

- Enable students to understand fundamental computer science concepts.
- Explain the interdisciplinary relationship between computing, dentistry, and everyday life.
- Provide cognitive analysis of the importance and positive impact of computer science.
- Show the practical value of computer literacy in academic and professional applications.
- Develop hands-on skills in using the Windows environment and keyboard operations.
- Recognize and differentiate between main network types and their real-world use.
- Apply basic skills in using computer peripherals and input devices.

9. Teaching and Learning Strategies

1. Deliver interactive lectures using explanation, clarification, and guided discussion.
2. Integrate real-life computing examples through live demonstrations and digital scenarios.
3. Promote the practical application of computer science concepts in a positive and ethical manner.
4. Utilize student-centered seminars to enhance computer literacy and hands-on practice.
5. Organize educational visits to the university computing or IT center to observe real-world workflows and technological advancements.

10. Course Structure

Course Structure // Theory					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction In Computer: Concepts of HW and SW with their components; Concept of computing, data and information;	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

2	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction In Computer: applications of information electronics and communication technology (IECT); connecting input/output devices and peripherals to CPU	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
3	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: Computer portions, Hardware parts	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
4	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: I/O units, Memory Types, Basic CPU Components	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
5	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: Computer Ports, Personal Computer	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
6	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: Computer portions, Personal Computer (Features and Types)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
7	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Operating System and Graphical user Interface GUI: operating System; Basics of common OS; The user interface	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
8	1	To interpret	Operating System and	Lectures + live	Daily exam - and

		fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Graphical user Interface GUI: using Mouse Techniques; use of Common Icons, Status bar	computer demonstrations + guided practice	computer application
9	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: I/O units, Memory Types, computer Basic CPU Components	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
10	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: Computer Ports, Personal Computer	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
11	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Components: Computer portions, Personal Computer (Features and Types)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
12	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Operating System and Graphical user Interface GUI: operating System; Basics of common OS; The user interface	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
13	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Word Processing: formatting of text; table handling; spell check	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
14	1	To interpret fundamental	Word Processing: language setting and	Lectures + live computer	Daily exam - and computer application

		computer science concepts and apply them in practical and interdisciplinary applications.	thesaurus; printing of word document.	demonstrations + guided practice.	
15	1		Exam		
16	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Spread Sheet: Basics of Spreadsheet.	Lectures + live computer demonstrations + guided practice	Daily exam - and computer application
17	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Spread Sheet: Manipulation of cells; formulas and functions.	Lectures + live computer demonstrations + guided practice	Daily exam - and computer application
18	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Spread Sheet: editing of spread sheet	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
19	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Spread Sheet: printing of Spread Sheet.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
20	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Presentation Software: preparation and presentation of slides.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
21	1	To interpret fundamental	Presentation Software: slide show	Lectures + live computer	Daily exam - and computer application

		computer science concepts and apply them in practical and interdisciplinary applications.		demonstrations + guided practice.	
22	5	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Presentation Software: taking printouts of presentation/handouts.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
23	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Presentation Software: preparation and presentation of slides.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
24	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to Internet and web Browsers: Computer networks basics; LAN, WAN; concept of internet and its applications.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
25	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to Internet and web Browsers: Connecting to internet; World Wide Web; Browsing SW, search engines; understanding URL; Domain name; IP address.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
26	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Communication and Emails: Basics of electronic mail; getting an email account; sending and receiving emails.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
27	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Communication and Emails: Accessing sent emails; using emails;	Lectures + live computer demonstrations	Daily exam - and computer application

		concepts and apply them in practical and interdisciplinary applications.	document collaboration.	+ guided practice.	
28	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: identifying and solving common hardware and software problems that computer users encounter.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
29	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Basic Troubleshooting techniques and tools for diagnosing and resolving issues.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
30	1		Exam		
Total	30				

Course Structure / Lab. Experiment					
Week	Hours Laboratory: 2h/wk	ILOs	Unit/Module or Topic Title <i>Practical</i>	Teaching Method	Assessment Method
1	2	Understand the concepts, basics, and application	Introduction In Computer: Concepts of HW and SW with their components; Concept of computing, data and information;	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
2	2	Understand the concepts, basics, and application	Introduction In Computer: applications of information electronics and communication technology (IECT); connecting input/output devices and peripherals to CPU	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
3	2	Understand the concepts, basics, and application	Computer Components: Computer portions, Hardware parts	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
4	2	Understand the concepts, basics, and application	Computer Components: I/O units, Memory Types, Basic CPU Components	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
5	2	Understand the concepts, basics, and application	Computer Components: Computer Ports, Personal Computer	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
6	2	Understand the concepts, basics, and application	Computer Components: Computer portions, Personal Computer (Features and Types)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
7	2	Understand the concepts, basics, and application	Operating System and Graphical user Interface GUI: operating System; Basics of common OS; The user interface	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

8	2	Understand the concepts, basics, and application	Operating System and Graphical user Interface GUI: using Mouse Techniques; use of Common Icons, Status bar	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
9	2	Understand the concepts, basics, and application	Computer Components: I/O units, Memory Types, Basic CPU Components	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
10	2	Understand the concepts, basics, and application	Computer Components: Computer Ports, Personal Computer	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
11	2	Understand the concepts, basics, and application	Computer Components: Computer portions, Personal Computer (Features and Types)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
12	2	Understand the concepts, basics, and application	Operating System and Graphical user Interface GUI: operating System; Basics of common OS; The user interface	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
13	2	Understand the concepts, basics, and application	Word Processing: formatting of text; table handling; spell check	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
14	2	Understand the concepts, basics, and application	Word Processing: language setting and thesaurus; printing of word document.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
15	2		Exam		
16	4	Understand the concepts, basics, and application	Spread Sheet: Basics of Spreadsheet.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
17	2	Understand the concepts, basics, and application	Spread Sheet: Manipulation of cells; formulas and functions.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

18	2	Understand the concepts, basics, and application	Spread Sheet: editing of spread sheet	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
19	2	Understand the concepts, basics, and application	Spread Sheet: printing of Spread Sheet.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
20	2	Understand the concepts, basics, and application	Presentation Software: preparation and presentation of slides.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
21	2	Understand the concepts, basics, and application	Presentation Software: slide show	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
22	2	Understand the concepts, basics, and application	Presentation Software: taking printouts of presentation/handouts.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
23	2	Understand the concepts, basics, and application	Presentation Software: preparation and presentation of slides.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
24	2	Understand the concepts, basics, and application	Introduction to Internet and web Browsers: Connecting to internet; World Wide Web; Browsing SW, search engines; understanding URL; Domain name; IP address.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
25	2	Understand the concepts, basics, and application	Communication and Emails: Basics of electronic mail; getting an email account; sending and receiving emails.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
26	2	Understand the concepts, basics, and application	Communication and Emails: Accessing sent emails; using emails; document collaboration.	Lectures + live computer demonstrations + guided	Daily exam - and computer application

		application		practice.	
27	2	Understand the concepts, basics, and application	Computer Troubleshooting: identifying and solving common hardware and software problems that computer users encounter.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
28	2	Understand the concepts, basics, and application	Computer Troubleshooting: Basic computer Troubleshooting techniques and tools for diagnosing and resolving practice, issues.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
29	2		Exam		
Total	60				

11. Course Evaluation

Theoretical tests

Practical tests

Reports, studies, and practical application

Daily exams

12. Learning and Teaching Resources

5- Required textbooks (curricular books, if any)

Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020)
 Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020).
 Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).
 الخضر على الخضر بحثو "اساليات الحاسوب" 2016
 الدكتور عادل عبد النور و "مدخل الى عالم الذكاء الاصطناعي" 2005
 اساليات الحاسوب وتطبيقاته المكتبة

6- Main references (sources)

Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020)
 Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020).
 Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).
 Computer application in management (Dr. P. S. Aithal)
 Computer basics and office applications
 Part one and part two
 Authors

	<p>المؤلفين</p> <p>ا.م.د. زياد محمد عبود ا.د. غسان حميد عبد المجيد ا.م.د. امير حسين مراد م.بلال كمال</p>
7- Recommended books and references (scientific journals, reports...).	<p>الحضر على الخضر بحثو "اساسيات الحاسوب" 2016</p> <p>الدكتور عادل عبد النور و "مدخل الى عالم الذكاء الاصطناعي" 2005</p> <p>اساسيات الحاسوب وتطبيقاته المكتبة</p> <p>Computer Literacy BASICS: A Comprehensive Guide to IC3 by Connie Morrison and Dolores Wells (2012)</p> <p>My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1,2012)</p> <p>اساسيات الحاسوب وتطبيقاته المكتبة.الجزء الاول والثاني (ا.م.د. زياد محمد عبود وآخرون)(2014)</p> <p>4- Different internet Reference</p>
8- Electronic references, Internet sites...	<p>My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1,2012)</p> <p>Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020)</p> <p>Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020).</p> <p>Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).</p>

Course Description Form

1. Course Name:	Human Anatomy
2. Course Code:	GAN241
3. Semester / Year:	2 nd stage /annual
4. Description Preparation Date:	15\9\2024
5. Available Attendance Forms: Theory / presence	Practical/ presence

6. Number of Credit Hours (Total) / Number of Units (Total)

30 hours of theory + 60 h practical

7. Course administrator's name (mention all, if more than one name)

Name: Assis. Ali Ghanim Abdullah

Assis. Prof. Ban Ismael Sedeeq

Lec. Noor Ghazi Saab

Assis. Lec. Hedeer Ahmed

8. Course Objectives**Course Objectives**

1. To equip the student with a basic understanding of the fundamental concepts of anatomy.
2. To understand the basic biological structures such as the cranial nerves, eyes, nose, mouth, pharynx, and major glands.
3. To grasp the complex neural pathways that control the movement of the facial muscles, tongue, and swallowing. Knowledge of the major blood vessels responsible for supplying the head and neck, and understanding their relationship to injuries and bleeding.
5. Recognition of the anatomical layers and deep spaces that help explain the spread of infections and delicate surgical procedures.
6. Recognition of the clinical signs associated with conditions such as facial paralysis, trigeminal neuralgia, and others.
7. Building a strong foundation for surgery in the fields of dentistry and head and neck surgery.
8. Preventing surgical complications through understanding the intricate relationships between nerves, blood vessels, and muscles.

9. Teaching and Learning Strategies**Strategy**

The method of giving lectures, explanation and clarification, Graphics, Power point, Video lectures
 Online Live Meetings
 1. Giving lectures
 2. Graphics
 3. Power point
 4. Video lectures
 5. Films and lectures on YouTubE

10. Course Structure: Title of the lectures

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Scalp • Layers of the scalp • Muscles of the scalp • Sensory Nerve Supply of the Scalp • Arterial Supply of the Scalp • Venous Drainage of the Scalp • Lymph Drainage of the Scalp • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
2	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	The orbital region • Eyelids • Movements of the Eyelids • Lacrimal Apparatus • Openings into the Orbital Cavity • Nerves of the Orbit • Blood and Lymph Vessels of the Orbit • Structure of the Eye • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
3	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	The Nasal region • 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	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion

4	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Mandibular nerve • Introduction • Branches of the Mandibular Nerve • Otic Ganglion • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
5	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Face • Skin of the Face • Muscles of the Face (Muscles of Facial Expression) • Sensory Nerves of the Face • Arterial Supply of the Face • venous drainage of the Face • venous drainage of the Face • Lymphatic drainage of the face • Facial nerve	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
6	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Oral cavity The Lips The oral Cavity vestibule and Proper Sensory innervation of the Mouth Hard Palate power point & Soft palate Muscles of the Soft Palate Palatoglossal Arch & Palatopharyngeal Arch	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
7	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Tongue • Muscles of the Tongue • Movements of the Tongue		Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
8	1	The ability to master anatomical terminology	Temporal region • The temporal fossa anatomy • The	Presentation method with illustration and explanation on	Exams and Quizzes: Multiple choice, short answer, oral exams.

		and understand how to apply anatomical knowledge in diagnostic evaluation.	infratemporal fossa • Communications • Muscles of mastication	power point Video [you tube]	Written Work: Reports Presentations: Poster presentations Participation and Discussion
9	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Parotid gland • Parotid Region (Boundaries) • Parotid Gland • Parotid Duct • Innervation of Parotid Gland and Related Structures • Arterial Supply • Venous Drainage • Lymph Drainage • The Buccal Pad of Fat • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
10	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	The Pterygopalatine fossa • Boundaries, Communications and openings • Maxillary nerve • Branches from the pterygopalatine ganglion • THE PTERYGOPALATINE GANGLION • THE VEINS OF THE PTERYGOPALATINE FOSSA	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
11	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Temporomandibular joint • Introduction • The Articular Disk • Retrodiscal Tissue • Capsule • Synovial Membrane • Ligaments • Nerve Supply • Vascular Supply • Movements • Important Relations of the Temporomandibular Joint • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
12	2	The ability to master anatomical terminology	The neck • Overview • Skin of the Neck • Fasciae of the Neck •	Presentation method with illustration and explanation on	Exams and Quizzes: Multiple choice, short answer, oral exams.

		and understand how to apply anatomical knowledge in diagnostic evaluation.	Superficial Cervical Fascia • Deep Cervical Fascia • Cervical Ligaments • Muscles of the Neck • Cervical Plexus • Bones of Neck • Blood Supply • Key Neck Muscles	power point Video [you tube]	Written Work: Reports Presentations: Poster presentations Participation and Discussion
13	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Triangles of the neck • ANTERIOR TRIANGLE • SUBMENTAL TRIANGLE • SUBMANDIBULAR TRIANGLE • CAROTID TRIANGLE • MUSCULAR TRIANGLE • Posterior Triangle • Thyroid Gland • blood supply & venous drainage • nerve supply	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
14	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Submandibular region MUSCLES OF THE SUBMANDIBULAR REGION The submandibular gland Sublingual Gland	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
15	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Root of the neck • Muscles of the Root of the Neck • The Thoracic Duct • Main Nerves of the Neck • Cervical Plexus & Brachial Plexus • Lymph Drainage of the Head and Neck • Veins of the Head and Neck	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion

16	2	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Arteries of the neck • Common Carotid Artery • Carotid Sinus • Carotid Body • External Carotid Artery • Internal Carotid Artery • Subclavian Arteries (3 parts) • Circle of Willis	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
17	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Brain • 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	Presentation method with illustration and explanation on power point	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
18	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Cranial nerves • Introduction • Functional Components • Summary of cranial nerves	Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
19	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Pharynx • Muscles of the Pharynx • Pharynx divisions • Palatine Tonsils • Waldeyer's Ring of Lymphoid Tissue	Presentation method with illustration and explanation on power point	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion

20	1	The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.	Larynx • 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	Presentation method with illustration and explanation on power point Video [you tube]	Exams and Quizzes: Multiple choice, short answer, oral exams. Written Work: Reports Presentations: Poster presentations Participation and Discussion
	30		Y		

10. Course Structure: Laboratory sessions

Week	Hours	ILOs	Title of the sessions	Teaching Method	Assessment Method
1	2h	Understand the concepts, basics and application	Anatomy of scalp	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
2	2h	Understand the concepts, basics and application	Anatomy of face part 1	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
3	2h	Understand the concepts, basics and application	Anatomy of face part 2	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
4	2h	Understand the concepts, basics and application	Anatomy of parotid region	Presentation method with illustration and explanation on power point Video [you tube]	Practical exam
5	2h	Understand the concepts, basics and application	Temporal, infratemporal fossa	Presentation method with illustration and explanation on modules	Practical exam

				Video [you tube]	
6	2h	Understand the concepts, basics and application	muscles of mastication	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
7	2h	Understand the concepts, basics and application	Mandibular nerve	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
8	2h	Understand the concepts, basics and application	Maxillary artery	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
9	2h	Understand the concepts, basics and application	Pterygopalatine fossa	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
10	2h	Understand the concepts, basics and application	Maxillary nerve	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
11	2h	Understand the concepts, basics and application	Nasal cavity and paranasal sinuses	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
12	2h	Understand the concepts, basics and application	Tempromandibular joint (TMJ)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
13	2h	Understand the concepts, basics and application	Orbital region and Muscles of the eye	Presentation method with illustration and explanation on	Practical exam

				modules Video [you tube]	
14	2h	Understand the concepts, basics and application	Ophthalmic nerve, artery and vein	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
15	2h	Understand the concepts, basics and application	anatomy of eyeball	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
16	2h	Understand the concepts, basics and application	Anatomy of mouth(The Lips ,oral Cavity,Tongue)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
17	2h	Understand the concepts, basics and application	The Palate	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
18	2h	Understand the concepts, basics and application	Superficial anatomy of neck	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
19	2h	Understand the concepts, basics and application	Triangles of neck	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
20	2h	Understand the concepts, basics and application	Arteries of head and neck (internal carotid artery)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam

21	2h	Understand the concepts, basics and application	External carotid artery	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
22	2h	Understand the concepts, basics and application	Subclavian artery	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
23	2h	Understand the concepts, basics and application	Veins of the Head and Neck (internal jugular vein, subclavian vein, and venous sinuses)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
24	2h	Understand the concepts, basics and application	Anatomy of brain	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
25	2h	Understand the concepts, basics and application	Submandibular region	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
26	2h	Understand the concepts, basics and application	Anatomy of pharynx	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
27	2h	Understand the concepts, basics and application	Lymph drainage of head and neck	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
28	2h	Understand the concepts, basics and application	Anatomy of larynx	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam

29	2h	Understand the concepts, basics and application	Root of neck	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
30	2h	Understand the concepts, basics and application	Cranial nerves	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
	60 h				

11. Learning and Teaching Resources

1. Books Required reading:	Snell RS. Clinicaba by Regions. 9th edition. . Philadelphia, PA: Lippincott Williams & Wilkins. 2012
2. Main references (sources)	last anatomy Grants Atlas
A- Recommended books and references (scientific journals, reports...).	Netter atlas of anatomy Clinical anatomy Snell

B-Electronic references, Internet sites...	
12. The development of the curriculum plan Holding meetings with the rest of the dental colleges and choosing a unified curriculum that serves the dental student	

The ability to master anatomical terminology and understand how to apply anatomical knowledge in diagnostic evaluation.

Course Description Form
Prosthodontics

1. Course Name:	Prosthodontics
2. Course Code:	PRO262
3. Semester / Year:	2 nd stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (lecture+ lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	96hr / 6 units
7. Course administrator's name (mention all, if more than one name)	Reem Ahmed Email: reemshihab@tu.edu.iq
8. Course Objectives	<p>1- Defining and understanding some important terms in the Prosthodontics 2- Practical application of practical laboratory steps for manufacturing complete dentures Graduating doctors who are fully familiar with all the materials used to make the complete Dentures</p>
9. Teaching and Learning Strategies	

1- Giving the lecture (explanation and clarification)	
2- Using modern educational methods	
Urging the student to use the library as one of the learning methods	

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1 st	1hr.theoretical 2hr. practical	Understand the course structure, define key terminology, and explain the objectives of complete denture prosthodontics.	Course description, Introduction, definitions &objectives	Lecture	Questions and discussion
2 nd	1hr.theoretical 2hr. practical	Identify major maxillary anatomical landmarks and describe their clinical significance in denture fabrication.	Maxillary landmarks	Lecture	Questions and discussion
3 rd	1hr.theoretical 2hr. practical	Identify major mandibular anatomical landmarks and explain their role in denture stability and support.	Mandibular landmarks	Lecture	Questions and discussion
4 th	1hr.theoretical 2hr. practical	Differentiate tray types, select suitable impression trays, and perform primary impressions.	Impression trays, stock tray& primary impression	Lecture	Questions and discussion
5 th	1hr.theoretical 2hr. practical	Construct study casts, fabricate special trays, and perform accurate final impressions.	Study cast, S.T.& final impression	Lecture	Questions and discussion
6 th	1hr.theoretical 2hr. practical	Fabricate stable base plates and form bite rims used for maxillomandibular records.	Base plate& bite rim	Lecture	Questions and discussion
7 th	1hr.theoretical 2hr. practical	Record vertical dimension and orientation jaw relations accurately.	Jaw relations, Orientation &Vertical	Lecture	Questions and discussion
8	1hr.theoretical 2hr. practical	Record centric relation and other horizontal jaw	Horizontal Jaw relations	Lecture	Questions and discussion

		positions.			
9	1hr.theoretical 2hr. practical	Explain TMJ anatomy, movements, and their relevance to denture function.	TMJ and mandibular movement	Lecture	Questions and discussion
10	1hr.theoretical 2hr. practical	Distinguish types of articulators, understand face-bow use, and prepare for mounting casts.	Articulators& face-bow	Lecture	Questions and discussion
11	1hr.theoretical 2hr. practical	Mount maxillary and mandibular casts using appropriate records.	Mounting	Lecture	Questions and discussion
12	1hr.theoretical 2hr. practical	Select appropriate denture teeth based on esthetic, functional, and anatomical factors.	selection of teeth	Lecture	Questions and discussion
13	1hr.theoretical 2hr. practical	Arrange anterior teeth following esthetic and phonetic guidelines.	Setting of anterior teeth	Lecture	Questions and discussion
14	1hr.theoretical 2hr. practical	Arrange posterior teeth in balanced occlusion patterns.	Setting of posterior teeth	Lecture	Questions and discussion
15	1hr.theoretical 2hr. practical	Perform anatomical waxing and contouring for trial dentures.	Waxing and carving	Lecture	Questions and discussion
	1hr.theoretical 2hr. practical	—	1st term exam	Lecture	
16	1hr.theoretical 2hr. practical	Demonstrate proper flasking procedures for denture processing.	Flasking	Lecture	Questions and discussion
17	1hr.theoretical 2hr. practical	Perform wax elimination and processing techniques safely and effectively.	Wax illumination& processing	Lecture	Questions and discussion
18	1hr.theoretical 2hr. practical	Describe types, properties, and uses	Denture base materials	Lecture	Questions and discussion

		of denture base materials.			
19	1hr.theoretical 2hr. practical	Deflask dentures, remove imperfections, and perform finishing procedures.	Deflasking& finishing	Lecture	Questions and discussion
20	1hr.theoretical 2hr. practical	Perform selective grinding to correct occlusal discrepancies.	Selective grinding	Lecture	Questions and discussion
21	1hr.theoretical 2hr. practical	Identify common denture problems and apply corrective measures.	Trouble shooting	Lecture	Questions and discussion
22	1hr.theoretical 2hr. practical	Understand repair techniques and perform basic denture repairs.	Denture repair	Lecture	Questions and discussion
23	1hr.theoretical 2hr. practical	Review and integrate all course concepts in preparation for final assessment.	Revision	Lecture	Questions and discussion
24			2nd trimester exam		

1-Boucher's Prosthodontic treatment for edentulous patient, ninth edition.
2-Zarb Bolender ,Prosthodontic Treatment for edentulous patients, twelfth edition

Journals in dentistry concerned in complete denture subjects

Google & you tube for complete denture subjects

Course Description Form

1. Course Name:	Dental Material
2. Course Code:	DEM243
3. Semester / Year:	2 nd stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (lecture + lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	96hr / 4 units
7. Course administrator's name (mention all, if more than one name)	Muthenna Shabaan Email: muthenna@tu.edu.iq
8. Course Objectives	<ol style="list-style-type: none"> 1. Understand the composition, properties, and uses of major dental materials. 2. Explain how materials behave in the oral environment (physical, chemical, mechanical, and biological properties). 3. Identify the indications, advantages, and limitations of commonly used restorative and prosthetic materials. 4. Demonstrate correct manipulation and handling of dental materials in preclinical and laboratory settings. 5. Follow proper safety, infection control, and disposal procedures when working with dental materials. 6. Apply appropriate criteria to select suitable materials for different clinical situations. 7. Develop professional attitudes toward the ethical and safe use of dental materials in patient care.
9. Teaching and Learning Strategies	<ol style="list-style-type: none"> 1. Lectures & Interactive Discussion :Students engage with core concepts through instructor-led explanation, questions, and class interaction. 2. Demonstrations :Instructor demonstrates material manipulation, laboratory procedures, and equipment use 3. Hands-on Laboratory Practice : Students gain practical skills through supervised manipulation of dental materials and use of lab tools 4. Visual & Multimedia Resources <ul style="list-style-type: none"> – Use of diagrams, videos, animations, and digital simulations to support understanding.
Formative Assessments: Quizzes, practice tasks.	

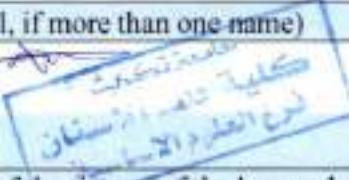
10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Establishing a foundational understanding of the classification, properties, and biological interactions of materials used to restore and maintain oral health.	Introduction and physical properties of dental material	Lecture / lab	theory exam/ Practical evaluation
2	1	Applying knowledge of strength, stiffness, hardness, and durability to select and use dental materials that withstand oral forces without fracture or excessive wear.	Mechanical properties	Lecture / lab	theory exam/ Practical evaluation
3	1	Understanding the chemical composition, setting reaction, manipulation variables, and clinical applications of dental gypsum products to produce accurate models and casts.	Gypsum materials	Lecture / lab	theory exam/ Practical evaluation
4	1		Gypsum materials	Lecture / lab	theory exam/ Practical evaluation
5	1	Mastering the selection, proper manipulation, and handling of various elastic and inelastic impression materials to accurately reproduce oral structures for diagnostic and restorative procedures.	Impression materials	Lecture / lab	theory exam/ Practical evaluation
6	1		Impression materials	Lecture / lab	theory exam/ Practical evaluation
7	1		Impression materials	Lecture / lab	theory exam/ Practical evaluation
8	1		Impression materials	Lecture / lab	theory exam/ Practical evaluation
9	1		Impression materials	Lecture / lab	theory exam/ Practical evaluation
10	1	Understanding the	Waxes	Lecture / lab	theory exam/

		composition, thermal properties, manipulation techniques, and diverse clinical and laboratory applications of dental waxes to ensure precision in prosthetic procedures.			Practical evaluation
11	1		Waxes	Lecture / lab	theory exam/ Practical evaluation
12	1	Understanding the polymerization process, structure-property relationships, clinical applications, and handling requirements of synthetic and natural polymers used in dentistry.	Polymers	Lecture / lab	theory exam/ Practical evaluation
13	1		Polymers	Lecture / lab	theory exam/ Practical evaluation
14	1	Understanding the composition, setting expansion control, proper manipulation, and application of dental investment materials to accurately cast metal alloys for prostheses.	Investment materials	Lecture / lab	theory exam/ Practical evaluation
15	1	Understanding the composition, setting reactions, physical properties, and specific clinical uses of various dental cements for luting, lining, and restorative applications.	Cement materials	Lecture / lab	theory exam/ Practical evaluation
16	1	Understanding the properties, proper placement, and removal of temporary restorative materials necessary to protect prepared teeth and maintain function until definitive treatment.	Temporary filling	Lecture / lab	theory exam/ Practical evaluation
17	1	Understanding the metallurgical principles, classification, properties, corrosion behavior, and casting techniques of dental metal alloys to select and fabricate functional and biocompatible restorations.	Metal and metal alloy	Lecture / lab	theory exam/ Practical evaluation

18	1		Metal and metal alloy	Lecture / lab	theory exam/ Practical evaluation
19	1		Metal and metal alloy	Lecture / lab	theory exam/ Practical evaluation
20	1		Metal and metal alloy	Lecture / lab	theory exam/ Practical evaluation
21	1	Understanding the composition, mechanical properties, handling techniques, and clinical performance of direct and indirect restorative materials to effectively repair and restore tooth structure.	Filling materials	Lecture / lab	theory exam/ Practical evaluation
22	1		Filling materials	Lecture / lab	theory exam/ Practical evaluation
23	1		Filling materials	Lecture / lab	theory exam/ Practical evaluation
24	1		Filling materials	Lecture / lab	theory exam/ Practical evaluation
25	1	Understanding the composition, mechanism of action, and proper clinical application of materials like pit and fissure sealants and fluorides to prevent dental caries and erosion.	Preventive materials	Lecture / lab	theory exam/ Practical evaluation
26	1	Understanding the ideal properties, composition, manipulation, and clinical techniques for using core and sealer materials to achieve a durable, hermetic, and biocompatible seal of the root canal system.	Root canal filling materials (obturating materials)	Lecture / lab	theory exam/ Practical evaluation
27	1	Understanding the principles and proper technique of using abrasive instruments and materials to achieve smooth, esthetic, and plaque-resistant surfaces on dental restorations.	Finishing and polishing material	Lecture / lab	theory exam/ Practical evaluation
28	1	Understanding the indications, material types, manipulation, and clinical	Relining material	Lecture / lab	theory exam/ Practical evaluation

Course Description Form

1. Course Name:	General Histology				
2. Course Code:	GHS264				
3. Semester / Year:	2 nd stage / Annual				
4. Description Preparation Date:	15/9/2024				
5. Available Attendance Forms:	Lectures & labs				
6. Number of Credit Hours (Total) / Number of Units (Total)	120 hours / 6 units				
7. Course administrator's name (mention all, if more than one name)	Name: MaHMod Nawfal Mustafa  Email:mahmood_nafal@tu.edu.iq				
8. Course Objectives	<p>1- Giving the student a general perception of the tissues of the human body and their locations within this body. 2- The student's knowledge of the types of tissues in the human body and the function of each of them. 3- Introducing the student to the relationship between his study of this course and his studies of oral and dental medicine. 4- Teaching the student how to diagnose each of the different types of body tissues.</p>				
9. Teaching and learning strategy	<p>1. Weekly Lectures: Fundamental histology concepts are presented through weekly lectures that incorporate interactive teaching aids and practical examples to stimulate student understanding and engagement.</p> <p>2. Electronic Presentations in the Form of Slides: These presentations are used to visually and smoothly explain fundamental histological concepts, facilitating student comprehension of the material.</p> <p>3. Discussion Sessions: Group discussion sessions are organized to explore course topics and encourage student interaction, the exchange of opinions and ideas, and connections to more specialized courses.</p> <p>4. Histological Slides and Laboratory Experiments: This process allows students to review various tissue slides under light microscopes, conduct simple experiments, and familiarize themselves with the tools and techniques used in histology.</p> <p>5. Online Lectures: Online lectures are conducted periodically to ensure students remain engaged with the course material, especially during unexpected disruptions to the regular schedule.</p>				
10. Course structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2 hrs	To familiarize the student with histology in general	Cell and basic tissues	Lecture	Questions and discussion
2	2 hrs	The student learns about the epithelial tissue and how to distinguish	Epithelial Tissue	Lecture	Questions and discussion

		between its types and the function of each type			
3	2 hrs	The student learns about the connective tissues and how to distinguish between their types and the function of each type	Connective Tissue	Lecture	Questions and discussion
4-5	4 hrs	The student learns about the organs and tissues of the respiratory system	Respiratory system	Lecture	Questions and discussion
6-7	4 hrs	The student learns about the organs and tissues of the urinary system	Urinary system	Lecture	Questions and discussion
8		First	Semester exams	Lecture	
9-10	4-hrs	The student learns about the organs and tissues of the integumentary system	integumentary system	Lecture	Questions and discussion
11-13	6 hrs.	Students learn about the organs and tissues of the digestive system	Digestive System	Lecture	Questions and discussion
14-15	4 hrs	The student learns about the organs and tissues of the lymphoid system	lymphoid system	Lecture	Questions and discussion
		Mid-year	Exam	Lecture	
16-17	4 hrs.	The student learns about the organs and tissues of the circulatory system	Cardiovascular system	Lecture	Questions and discussion
18-19	4 hrs	The student learns about the organs and tissues of the	Heompoiesis	Lecture	Questions and discussion

		bone marrow and hemopoietic tissues			
20-21	4 hrs	The student learns about the organs and tissues of the male reproductive system	Male reproductive system	Lecture	Questions and discussion
22-23	4 hrs.	The student learns about the organs and tissues of the female reproductive system	female reproductive system	Lecture	Questions and discussion
24		Second	Semester exams	Lecture	
25-26	4 hrs.	The student learns about the organs and tissues of the endocrine system	Endocrine	Lecture	Questions and discussion
27-28	4 hrs.	The student learns about the nervous system and its tissues	Nervous system	Lecture	Questions and discussion
29-30	4 hrs.	The student learns about the special sense organs	The special sense organs: Eye and ear	Lecture	Questions and discussion

Course Description Form

1. Course Name:
General Physiology
2. Course Code:
GPH267
3. Semester / Year:
2 nd stage \annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms: Attendance (Theoretical+ labs)

		procedures for using reline and rebase materials to functionally and accurately adapt dentures to underlying tissues							
29	1	Understanding the biocompatibility, mechanical requirements, surface treatments, and osseointegration mechanisms of materials used for dental implants and associated prosthetics.	Implant materials	Lecture / lab	theory exam/ Practical evaluation				
30	1	Understanding the properties, fabrication techniques, and clinical application of specialized, biocompatible, and esthetic materials used to create intraoral and extraoral prostheses for patients with head and neck defects.	Maxillofacial materials	Lecture / lab	theory exam/ Practical evaluation				
11. Infrastructure									
1. Books Required reading:		Phillips dental materials							
2. Main references (sources)		Restorative dental material Dental material their selection and use							
12. The development of the curriculum plan									
Periodic review of latest developments in dental materials and their inclusion in the plan									

participation check	seminar	Edema	Edema (Types of Edema, Causes of edema, Measurement of body fluid volume, Dehydration, Types of dehydration, Classification, Causes, Signs and Symptoms of Dehydrations)	2	3
Quiz	lecture	Homeostasis and Transport across cell membrane	Homeostasis and Transport across cell membrane (Diffusion (passive), Carrier-mediated transport (passive or active), (Vesicular transport	2	4
Group activity	Group Discussion	ORAL CAVITY and Salivary Glands	ORAL CAVITY and Salivary Glands (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	2	5
Quiz	A Theoretical lesson using PowerPoint	Salivary functions and Regulation of Salivary Secretion	Salivary functions and Regulation of Salivary Secretion (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	2	6

Quiz	lecture	BLOOD	BLOOD (Composition of blood , Hematocrit, Plasma , Functions of blood), Red blood cells (Genesis of R.B.C, polycythemia, Anemia, Destruction of R.B.C.s)	2	7
Quiz	Active learning	White Blood Cells	White Blood Cells (Types of W.B.C. , Genesis of the leukocytes, Life span of the W.B.C, Phagocytosis, Inflammation, Leukemia's, Leukopenia	2	8
Quiz	lecture	Hemoglobin	Hemoglobin (Formation of Hemoglobin , Iron Metabolism , Hb Compounds , Destruction of Hb , The common causes of jaundice)	2	9
Quiz	lecture	Blood groups	Blood groups (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	2	10
Quiz	seminar	Hemostasis and blood coagulation	Hemostasis and blood coagulation 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 (2	11
Quiz	Group	Cardiovascular	Cardiovascular system:	2	12

6. Number of Credit Hours (Total) / Number of Units (Total): 60 theoretical hours and 60 practical hours
7. Course administrator's name (mention all, if more than one name) Asst. Prof. Dr. Takea shaker Ahmed, Asst. Prof. Dr. Raghad Tahseen Thanoon ;lecturer Shatha Nasih Taufeeq

8. Course Objectives

Course Objectives	Introduction to the physiology and students learn how it performs functions for different body parts.
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9. Teaching and Learning Strategies

Strategy	1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension.
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10. Academic Course structure

Assessment Method	Teaching Method	Academic Course name	Theoretical content	Hours	Week
Quiz	lecture	Introduction	(Function organization of the human body, Cell physiology, Cell membrane , Cell components , Cell Junction)	2	1
classroom Question	lecture using PowerPoint	Body fluid, Edema	Body fluid (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	2	2

	Discussion	system	Blood vessels 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 (
Quiz	lecture	Cardiovascular system:	Cardiovascular system: Blood pressure 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	2	13
Quiz	Visual Aids	Cardiovascular system:	Cardiovascular system: Blood pressure 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	2	14
Quiz	lecture	Respiratory system	Respiratory system (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)	2	15
Quiz		Respiratory system	Respiratory system: Lung volumes and capacities (Compliance, Variation in Compliance, The resistance and the work of	2	16

			breathing, Dead space, Lung volume and Lung capacity, Ventilation, Respiratory Protective Reflexes , Pulmonary function tests, Regulation of Respiration, The relationship between oral health and respiratory (disease)		
		2	Half-year Break		
Quiz	lecture	SPECIAL SENSATION:	SPECIAL SENSATION: 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)	2	17
Quiz	lecture	Temperature of the Body	Temperature of the Body (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)	2	18
Quiz	lecture	Urinary system	Urinary system (Parts of Renal system, The Kidney, Functions of kidneys, Components of kidney, Parenchyma of	2	19

			kidney, Nephron and Juxtaglomerular Apparatus, Renal corpuscle, Structure of renal corpuscle, Tubular portion of nephron, Collecting duct)		
Quiz	lecture	Urinary system	Urinary system: 20 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	2	20
	lecture	Endocrine System	Endocrine System (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	2	21
Quiz	lecture	Endocrine System	Major Endocrine Glands Oral manifestations of) endocrine dysfunction, Control Systems Involving Hypothalamus and Pituitary glands, The pituitary gland, Thyroid gland, Pancreas gland, (Adrenal glands	2	22
Quiz	lecture	Digestive system	Digestive system (The Functions of the digestive, Structural layers of digestive, Stomach, Secretions of the Stomach Regulation of Stomach	2	23

			Secretion , Mixing of Stomach Contents, Stomach Emptying		
Quiz	lecture	Digestive system	Digestive system (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, Movment in the Large Digestion, Intestine Absorption, and (Transport	2	24
Quiz	lecture	Muscular system	Muscular system: Muscle structure Types, Structure,) Microscopic Structure, Muscle Physiology, Properties, Contraction and contractile elements, Tone, Electrical and Molecular Changes during (Muscular Contraction	2	25
Quiz	lecture	Muscular system	Muscular system: Tone , contraction Molecular Changes) During Muscular Contraction, Neuromuscular Junction-Neuromuscular Transmission and Blockers, Nutrition and Metabolism (Energy (Requirements)	2	26
Quiz	lecture	Nervous System	Nervous System: Nerve impulse, synapses Nervous System) Division, Cranial nerves , Neuron and Neuroglia, Receptors, Nerve impulse, Synapse and (Neurotransmitters	2	27

Quiz	lecture	Nervous System	Nervous System Reflex Activity,) Somatosensory System and Somatomotor System, (Physiology of Pain	2	28
Quiz	lecture	Reproductive system	Reproductive system: Aging & reproductive system (Male Reproductive System Female Reproductive System, Meiosis, Aging and Reproductive system	2	29
Quiz	lecture	Aviation and Deep physiology	Aviation and Deep physiology (Body Response in high altitudes, physiological Changes in the Sea deep) Nutrition and metabolism (daily energy requirement, obesity and fitness)	2	30
Total				2	60

Practical part:

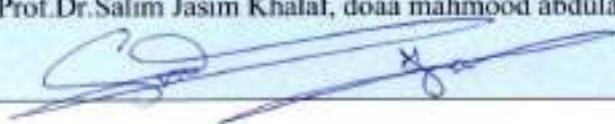
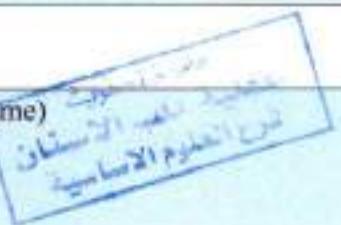
No	Title	Hours
1	Microscope	2
2	Collection of Blood Samples	2
3	Blood Smears	2
4	Functions of Saliva & Taste Sensation	2
5	Stimulation and collection of salivary secretion	2
6	Separation of blood samples	2
7	Differential WBCs	2
8	Total Count of WBCs	2
9	Total Count of RBCs	2
10	Blood groups	2
11	Estimation of Hemoglobin	2
12	Bleeding and clotting time	2
13	Self-Monitoring of blood glucose test	2
14	Measurement of blood pressure & pulse rate	2
15	Effect of exercise on blood pressure and respiratory rate	2
16	Mid Exam	2
17	Physiology of vision test	2
18	Physiology of hearing test	2
19	Physiology of Smell sensation	2
20	Measurement of body temperature	2
21	Thyroid function (Body mass index)	2

22	Thyroid function (Body mass index)	2
23	Resuscitation & Artificial respiration	2
24	Resuscitation & Artificial respiration	2
25	Physiology of Skeletal muscles	2
26	Physiology of Skeletal muscles	2
27	Physiology of Skeletal muscles	2
28	Examination of reflexes (Motor Function)	2
29	Seminars and examinations	2
30	Seminars and examinations	2

11. Infrastructure	
1. Books Required reading:	Medical physiology 4 th edition Guyton & Hall Essential of Physiology for dental students K.Sembuling & Prema Sembuiman
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course Description Form

1. Course Name:	Biochemistry
2. Course Code:	BCH265
3. Semester / Year:	2 nd stage \annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms: Student attendance is 100% for all academic year	
6. Number of Credit Hours (Total) / Number of Units (Total):	60 theoretical hours and 60 practical hours
7. Course administrator's name (mention all, if more than one name)	Assist. Prof.Dr.Salim Jasim Khalaf, doaa mahmood abdulah

8. Course Objectives	
Course Objectives	<input type="checkbox"/> Introduction to the Biochemistry and students learn the biochemistry of the body. <input type="checkbox"/> <input type="checkbox"/>
9. Teaching and Learning Strategies	

10. Academic Course structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Specific, measurable and observable statements	Enzymes: Definition, Terminology and Classification	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
2	2	Specific, measurable and observable statements	Mechanism of enzyme action	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
3	2	Specific, measurable and observable statements	Clinical significance of enzyme assays	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
4	2	Specific, measurable and observable statements	Vitamins, definition, classification	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
5	2	Specific, measurable and observable statements	Digestion & absorption of carbohydrate, lipids and protein	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams

6	2	Specific, measurable and observable statements	Chemistry of carbohydrates	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
7	2	Specific, measurable and observable statements	Metabolism of carbohydrates: part1	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
8	2	Specific, measurable and observable statements	Metabolism of carbohydrates: part2	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
9	2	Specific, measurable and observable statements	Carbohydrate metabolism regulation	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
10	2	Specific, measurable and observable statements	Lipid: definition, classification	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
11	2	Specific, measurable and observable statements	Metabolism of lipid: oxidation of fatty acids	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
12	2	Specific, measurable and observable statements	Biosynthesis of fatty acids	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
13	2	Specific, measurable and observable statements	Integration of metabolism of carbohydrates, lipids, and proteins	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams

14	2	Specific, measurable and observable statements	Chemistry of proteins and amino acids	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
15	2	Specific, measurable and observable statements	Metabolism of proteins and amino acids	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
16	2	Specific, measurable and observable statements	Metabolism of proteins and amino acid regulation	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
17	2	Specific, measurable and observable statements	Metabolism of proteins and amino acid inherited disorder	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams

18		Exam			
19	2	Specific, measurable and observable statements	Hormone definition, classification	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
20	2	Specific, measurable and observable statements	Hormone disorder	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
21	2	Specific, measurable and observable statements	Metabolism of Purines and pyrimidines	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
22	2	Specific, measurable and observable statements	Metabolism of Purines and pyrimidines disorder	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams

23	2	Specific, measurable and observable statements	Nucleic Acids Definition and Protein synthesis	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
24	2	Specific, measurable and observable statements	Acid-base balance	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
25		Specific, measurable and observable statements	Trace elements disorder	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
26	2	Specific, measurable and observable statements	Salivary secretion (saliva), Pancreatic juice	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
27	2	Specific, measurable and observable statements	electrolytes	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
28	2	Specific, measurable and observable statements	Liver Function Test	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
29	2	Specific, measurable and observable statements	Kidney Function Test	PDF lecture, video and power point lecture with explain on meeting, use you tube	Questions and discussion and work quarterly and surprise exams
30		Exam			

Practical Subjects

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Specific, measurable and observable statements	Lab safety	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
2	2	Specific, measurable and observable statements	Sample collection-1	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

3	2	Specific, measurable and observable statements	Sample collection-2	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
4	2	Specific, measurable and observable statements	Spectrophotometer	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
5	2	Specific, measurable and observable statements	Standard curve	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
6	2	Specific, measurable and observable statements	Blood glucose+HbA1	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
7	2	Specific, measurable and observable statements	Lipid in blood (cholesterol & lipoprotein)	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

8	2	Specific, measurable and observable statements	Triglyceride	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
9	2	Specific, measurable and observable statements	Total Protein	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
10	2	Specific, measurable and observable statements	Albumin+Globulin	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
11	2	Specific, measurable and observable statements	Troponin	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
12	2	Specific, measurable and observable statements	Kidney function Test (urea)	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

13	2	Specific, measurable and observable statements	Serum creatinine & creatinine clearness	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
14	2	Specific, measurable and observable statements	Uric acid	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
15	2	Specific, measurable and observable statements	Liver function test (Bilirubin)	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
16	2	Specific, measurable and observable statements	Alkaline	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
17	2	Specific, measurable and observable statements	Transaminases (ALT&AST)	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

18	2	Specific, measurable and observable statements	Amylase in serum + saliva	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
19	2	Specific, measurable and observable statements	creatine phosphokinase	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
20	2	Specific, measurable and observable statements	lactate Dehydrogenase	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
21	2	Specific, measurable and observable statements	serum calcium	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
22	2	Specific, measurable and observable statements	serum phosphorus	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

23	2	Specific, measurable and observable statements	serum Na	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
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24	2	Specific, measurable and observable statements	serum K	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
25	2	Specific, measurable and observable statements	serum Iron	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
26	2	Specific, measurable and observable statements	Vitamin D	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
27	2	Specific, measurable and observable statements	Vitamin C	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

28	2	Specific, measurable and observable statements	Acid phosphatase.	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
29	2	Specific, measurable and observable statements	General Urine Analysis-1	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.
30	2	Specific, measurable and observable statements	General Urine Analysis-2	Theoretical lecture with explanation videos.	Made practical experiments on samples with recording reports on methods.

11. Infrastructure	
1. Books Required reading:	1. Harper's Illustrated Biochemistry 2. Lippincott Illustrated Biochemistry 3. McKay book 4. Different internet References
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	
12. The development of the curriculum plan	
Training courses and seminars	

Course Description Form

1. Course Name:	Computer
2. Course Code:	COP228
3. Semester / Year:	2 nd stage \annual
4. Description Preparation Date:	2024/9/15
5. Available Attendance Forms:	The weekly
6. Number of Credit Hours (Total) / Number of Units (Total)	30 h + 60 h (90h)- 2units
7. Course administrator's name (mention all, if more than one name)	Lec. Dr. Tamara A. Anai- tamsamka@tu.edu.iq Asst. Lec. Shms Aldeen Saad Mohsen- shms.aldeen@tu.edu.iq Asst. Lec. Heba Hani Raheem - Heba.h.rahim@tu.edu.iq Asst. Lec. Raghda Awad Shaban - raghda.a.shaban@tu.edu.iq
8. Course Objectives	<ul style="list-style-type: none">1. Provide students with cognitive skills on the fundamental concepts of computer science.2. Introduce the importance of computer science and its positive role in daily life.3. Develop essential computer literacy, including email communication and network awareness.4. Build practical skills in operating computers using the Windows environment and keyboard input.5. Explain basic computer architecture, components, and commonly used applications.6. Conduct applied learning on core terminology and computer system parts.7. Highlight the relationship between computer science and dentistry, emphasizing interdisciplinary benefits.8. Introduce modern AI-powered technologies and digital transformation basics.9. Explore AI-related electronic and banking services and their practical implications.10. Recognize network types and internet-connectivity devices used in real-world scenarios.11. Identify common OS and network operational errors and effective troubleshooting methods.

9. Teaching and Learning Strategies

1. Develop familiarity with computers, their components, and essential internet programs.
2. Learn how to effectively work with various software applications.
3. Apply digital tools and platforms in e-learning environments.
4. Use programs and systems to support e-learning and virtual education.
5. Understand the importance of computer science and its positive impact on our lives through cognitive analysis.
6. Recognize the practical significance of computer knowledge and digital skills.
7. Build hands-on skills in operating Windows and using keyboard input.
8. Keep pace with technological advancements, including artificial intelligence and its real-world applications, as well as internet and network fundamentals.

10. Course Structure

Course Structure // Theory

Week	Hours	ILOs	Unit/Module or Topic/Teaching Title/Method	Assessment Method
1	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live What is a :Networking computer network? Types of demonstrations networks. Basic + guided network components, practice.	Daily exam - and computer application
2	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live Basic :Networking computer network components, demonstrations (cont.) + guided practice.	Daily exam - and computer application
3	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live :Networking computer Understanding demonstrations network threats. + guided Network practice. Troubleshooting (cont.)	Daily exam - and computer application
4	1	To interpret fundamental computer science concepts and apply them in practical	Security and Lectures + live :Networking computer Introduction network, demonstrations Common network + guided	Daily exam - and computer application

		and interdisciplinary applications.	issues. Network Tools practice of Troubleshooting (cont.)		
5	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Networking computer Tools for diagnosing and resolving issues. + guided Diagnosing network performance problem. (cont.)	Lectures + live demonstrations + guided practice.	Daily exam - and computer application Daily exam - and computer application
6	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	E-Commerce: Concepts of Electronic banking services include online banking: ATM and debit card services, Phone banking, SMS banking, electronic alert, Mobile banking.	Lectures + live demonstrations + guided practice.	Daily exam - and computer application
7	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	E-Commerce: Phone banking, SMS banking, electronic alert, Mobile banking. (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
8	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: identifying and solving common hardware and software problems that computer users encounter.	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
9	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Basic Troubleshooting techniques and tools for diagnosing and resolving issues. (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
10	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Troubleshooting operating system issues t. identifying and resolving. Dealing with slow computer performance. (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

11	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer lectures + live Troubleshooting: computer Virus and malware demonstrations removal techniques, + guided Updating drivers and practice, software (cont.)	Daily exam - and computer application
12	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to AI: definition of AI, History of AI, AI Techniques and Approaches,	Lectures + live computer demonstrations + guided practice.
13	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to AI: Characters of AI, Benefits of AI, Challenges and Ethical Considerations. (cont.)	Lectures + live computer demonstrations + guided practice.
14	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to AI: Challenges and limitations of AI. Role of data in AI system (cont.)	Lectures + live computer demonstrations + guided practice.
15	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Introduction to AI: AI tools and frameworks (cont.)	Lectures + live computer demonstrations + guided practice.
16	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Role of AI in Modern Smartphones: AI-Driven Mobile Technologies. Virtual Assistants (Siri, Google Assistant, Alexa)	Lectures + live computer demonstrations + guided practice.
17	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Role of AI in Modern Smartphones: computer Adaptive learning, Rel- Time Translation - guided services (cont.)	Lectures + live computer demonstrations + guided practice.
18	1	To interpret fundamental computer science concepts and apply them in practical	The Role of AI in Modern Smartphones: computer The future of AI in smartphone (cont.)	Lectures + live computer demonstrations + guided practice.

		and interdisciplinary applications.	technologies challenges implementing AI mobile devices. (cont.)	practice.	
19	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: Overview of AI Applications in various industries. Education and Healthcare	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
20	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: computer Transportation and Advertising (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
21	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Lectures + live Tools of AI: computer Finance, Robotics and Automations (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
22	5	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI:computer Al marketing Targeting techniques + guided and personalization (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
23	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI:computer AI in image and video analysis, smart cities (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
24	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI:computer Future trend in AI applications and tools (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
25	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	AI and Society: Introduction to AI and Its societal impact, the role of AI in enhancing public safety	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
26	1	To interpret fundamental computer	AI and Society: Cultural perspectives	Lectures + live computer	Daily exam - and computer

		science concepts and apply them in practical and interdisciplinary applications.	on AI adoption, AI anddemonstrations governance: policy + guided implicationspractice. (cont.)	application
27	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Ethical Challenges in AI: Introduction to ethics in AI, Transparency and explainability of AI system, privacy concerns in AI data usage.	Lectures + live computer demonstrations + guided practice. Daily exam - and computer application
28	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Ethical Challenges in lectures + live AI: computer The ethicaldemonstrations implications of+ guided Autonomous systems,practice. ethics in AI-driven marketing (cont.)	Daily exam - and computer application
29	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Ethical Challenges in Lectures + live AI: computer Ethical considerationsdemonstrations in education, Human+ guided rights and Alpractice. implementations (cont.)	Daily exam - and computer application
30	1	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Future of AI: Future trends in AI, recent research and emerging technologies	Lectures + live computer demonstrations + guided practice. Daily exam - and computer application
Total	30			

Course Structure // practical

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live :Networking computer network? Types of networks. Basic guided practice. network components.		Daily exam - and computer application
2	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live Basic :Networking computer network components. demonstrations + (cont.) guided practice.		Daily exam - and computer application
3	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live :Networking computer Understanding demonstrations + network threats. guided practice. Network Troubleshooting. (cont.)		Daily exam - and computer application
4	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live :Networking computer Introduction network. demonstrations + Common network guided practice. issues. Network Tools of Troubleshooting. (cont.)		Daily exam - and computer application
5	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Security and Lectures + live :Networking computer Tools for diagnosing demonstrations + and resolving issues. guided practice. Diagnosing network performance problem. (cont.)		Daily exam - and computer application Daily exam - and computer application
6	4	To interpret fundamental computer science concepts and apply them in	Computer Troubleshooting: identifying and solving common hardware and software problems that	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

		practical and interdisciplinary applications.	computer users encounter.		
7	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Basic computer Troubleshooting techniques and tools for diagnosing and resolving issues. (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
8	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Troubleshooting operating system issues t. identifying and resolving. Dealing with slow computer performance. (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
9	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Computer Troubleshooting: Virus and malware removal techniques. Updating drivers and software (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
10	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Role of AI in Modern Smartphones: AI-Driven Mobile Technologies. 11 Virtual Assistants (Siri, Google Assistant, Alexa)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
11	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Role of AI in Modern Smartphones: computer Adaptive learning. Rel- Time Translation services (cont.)	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
12	2	To interpret fundamental computer science concepts and apply them in practical and	The Role of AI in Modern Smartphones: computer The future of AI in smartphone technologies challenges	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application

		interdisciplinary applications.	implementing AI mobile devices. (cont.)		
13	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: Overview of AI computer Applications in various industries, Education and Healthcare	Lectures + live demonstrations + guided practice.	Daily exam - and computer application
14	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: computer Transportation and Advertising (cont.)	Lectures + live demonstrations + guided practice.	Daily exam - and computer application
15	4	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: computer Finance, Robotics and Automations (cont.)	Lectures + live demonstrations + guided practice.	Daily exam - and computer application
16	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: computer AI marketing Targeting techniques (cont.)	Lectures + live demonstrations + guided practice, and personalization.	Daily exam - and computer application
17	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	Applications and Tools of AI: computer AI in image and video analysis, smart cities (cont.)	Lectures + live demonstrations + guided practice.	Daily exam - and computer application
18	2	To interpret fundamental computer science concepts and apply them in practical and	Applications and Tools of AI: computer Future trend in AI (cont.)	Lectures + live demonstrations + applications and tools guided practice.	Daily exam - and computer application

		interdisciplinary applications.			
19	2	To interpret fundamental computer science concepts and apply them in practical and interdisciplinary applications.	The Future of AI: Future trends in AI, recent research and emerging technologies	Lectures + live computer demonstrations + guided practice.	Daily exam - and computer application
Total 60					

9. Course Evaluation

Theoretical tests Practical tests Reports, studies, and practical application Daily exams	
12. Learning and Teaching Resources	
10- Required textbooks (curricular books, if any)	Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020). Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024). الخضر على الخضر بحثو "اساليت الحاسوب" 2016 الدكتور عادل عبد النور و "مدخل الى عالم الذكاء الاصطناعي" 2005 اساليت الحاسوب وتطبيقاته المكتبة
11- Main references (sources)	Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020) Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020). Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024). Computer application in management (Dr. P. S. Aithal) Computer basics and office applications Part one and part two Authors المولفين ١. م. د. زياد محمد عبود ٢. د. غسان حميد عبدالمجيد ٣. م. د. امير حسين مراد ٤. م. د. م. بلال كمال الخضر على الخضر بحثو "اساليت الحاسوب" 2016 الدكتور عادل عبد النور و "مدخل الى عالم الذكاء الاصطناعي" 2005 اساليت الحاسوب وتطبيقاته المكتبة
12- Recommended books and references (scientific journals, reports...).	7- الخضر على الخضر بحثو "اساليت الحاسوب" 2016 8- الدكتور عادل عبد النور و "مدخل الى عالم الذكاء الاصطناعي" 2005 اساليت الحاسوب وتطبيقاته المكتبة Computer Literacy BASICS: A Comprehensive Guide to IC3 by Connie Morrison and Dolores Wells

	<p style="text-align: right;">(2012)</p> <p>My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1,2012)</p> <p>3-اساسيات الحاسوب وتطبيقاته المكتبة-الجزء الاول والثاني (أ.م.د. زياد محمد عبود وآخرون) (2014)</p> <p>4- Different internet Reference</p>
13- Electronic references, Internet sites...	<p>My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1,2012)</p> <p>Graham Brown, David Watson, "Cambridge IGCSE Information and Communication Technology", 3rd Edition (2020)</p> <p>Alan Evans, Kendall Martin, Mary Anne Poatsy, "Technology in Action Complete", 16th Edition (2020).</p> <p>Ahmed Banafa, "Introduction to Artificial Intelligence (AI)", 1st Edition (2024).</p>

Course Description Form
Oral Histology and Embryology

1. Course Name:	Oral Histology& Embryology
2. Course Code:	OHE266
3. Semester / Year:	2 nd stage \annual
4. Description Preparation Date:	25\9\2025
5. Available Attendance Forms:	Attendance (Theoretical+ labs)
6. Number of Credit Hours (Total) / Number of Units (Total)	120 hours (60 hours Theoretical +60hours lab)/6
7. Course administrator's name (mention all, if more than one name)	<p>1. Name: Prof. Dr. Intesar Jasim Mohammed Email: dr.intesarjm@tu.edu.iq</p> <p>2. Name: Lec. Areej Salim Dawood Email: Areej-salim@tu.edu.iq</p> 

8. Course Objectives

1. Provide the skill of perceiving the steps of preparing the tissue slides that is being examined under a light microscope.
2. The ability to distinguish the tissues that make up the teeth on the one hand, and the tissues of the mouth and jawbones on the other.
3. Distinguishing the different dyes used in preparing the slides for the tissue to be examined.
4. The possibility of determining the types of tissue sections.

9. Teaching and Learning Strategies

Strategy	1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension. 6- Applying education through the practical part of the course.
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10. Course Structure

Theoretical part

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical hours	Understand ovulation, fertilization and implantation processes	Embryogenesis: first week of development	Lecture	Quiz Practical exam and seminar
2	2 theoretical hours	Understand the Bilaminar germ layer formation	2nd week, Bilaminar germ layer	Lecture	Sem. Exam. Quiz Practical exam
3	2 theoretical hours	Understand the gastrulation and neurulation processes	3rd week trilaminar germ layer	Lecture	Quiz Practical exam Sem. Exam.
4	2 theoretical hours	Understand pharyngeal arch, pouch & cleft formation	Development of head and neck(pharyngeal arch, pouch & cleft	Lecture	Sem. Exam. Quiz Practical exam
5	2 theoretical hours	Understand the developments of nose, cheek, lip and mandible	Development of face and anomalies	Lecture	Quiz Practical exam Sem. Exam.
6	2 theoretical hours	Understand development of the tongue	Development of tongue and anomalies	Lecture	Quiz Sem. Exam. Practical exam

7	2 theoretical hours	Understand the development of the hard and soft palate	Development of palate and anomalies	Lecture	Sem. Exam. Quiz Practical exam
8	2 theoretical hours	Understand the steps of slide preparation	Slide preparation	Lecture	Quiz Sem. Exam. Preparation of new slides
9	2 theoretical hours	Understand stages of tooth development	Tooth development and developmental disturbances of teeth	Lecture	Quiz Posters Seminar Sem. Exam.
10	2 theoretical hours	Understand the basic structure of dentin and its formation process	Dentinogenesis and dentin structure	Lecture	Seminar Sem. Exam.
11	2 theoretical hours	Understand the basic structure of enamel and its formation process	Amelogenesis, Enamel structures	Lecture	Practical exam Quiz Seminar
12	2 theoretical hours	Understand defects of enamel and dentin formation	Clinical consideration for dentin and enamel	Lecture	Practical exam Seminar
13	2 theoretical hours	Understand content and development of the pulp	Dental Pulp	Lecture	Seminar Practical exam
14	2 theoretical hours	Understand the basic structure of cementum and its formation process	Cementum and clinical consideration	Lecture	Practical exam Seminar Quiz
15	2 theoretical hours	Understand the basic structure of root and its formation process	Root formation & Cementogenesis	Lecture	Practical exam Seminar Quiz
			Mid- Year Exam		
16	2 theoretical hours	Understand the structure and formation of the PDL	Periodontal ligaments	Lecture	Quiz Practical sem exam exam
17	2 theoretical hours	Understand the fibers of PDL and their functions	Principles fiber of PDL and gingival fibers	Lecture	Quiz Practical exam sem exam

18	2 theoretical hours	Understand the basic structure of bone and its parts	Alveolar bone	Lecture	sem exam Practical exam Quiz
19	2 theoretical hours	Understand the basic structure of bone and its formation process	Bone formation and resorption	Lecture	sem exam Quiz Practical exam
20	2 theoretical hours	Understand the types of proteins involved in bone formation	Proteins involve in mineralization of bone and dentin	Lecture	Quiz sem exam Practical exam
21	2 theoretical hours	Understand the types of oral mucosa and their structure	Oral mucosa and their types	Lecture	Practical exam Quiz sem exam
22	2 theoretical hours	Understand the types of oral mucosa and their structure	Gingiva and dentogingival junction	Lecture	Practical exam Sem. Exam.
23	2 theoretical hours	Understand the eruption process in steps	Eruption of teeth	Lecture	Quiz Practical exam seminar
24	2 theoretical hours	Understand the shedding process in steps	Shedding of teeth	Lecture	Practical exam Quiz Seminar
25	2 theoretical hours	Understand the salivary glands structure	Salivary gland	Lecture	Quiz Seminar
26	2 theoretical hours	Understand saliva parts and protein content	Salivary proteins	Lecture	Practical exam Quiz Seminar
27	2 theoretical hours	Understand structure of TMJ and function of each part	TMJ	Lecture	Quiz Seminar
28	2 theoretical hours	Understand structure of maxillary sinus and its function	Maxillary sinus	Lecture	Practical exam Quiz Seminar
29	2 theoretical	Understand structure of maxillary sinus and	Maxillary sinus	Lecture	Quiz Practical exam

	hours	its function			Seminar
30	2 theoretical hours	Understand the changes of soft and hard tissues of oral cavity with age	Age changes of soft and hard tissues	Lecture	Quiz seminar Practical exam
Total	60 hours		Final Exam.		

week	Title	Methods	Hours
1	First week of development ovulation and implantation	data show	2
2	Second week of development: bilaminar germ layer	data show	2
3	3rd week trilaminar germ layer: gastrulation and neurulation	Video presentation	2
4	Development of head and neck(pharyngeal arch, pouch & cleft)	data show	2
5	Development of face and anomalies	data show	2
6	Development of tongue and anomalies	data show	2
7	Development of palate and anomalies	data show	2
8	Slide preparation	data show	2
9	Tooth development	data show	2
10	Dentinogenesis and dentin structure	data show	2
11	amelogenesis and enamel structure	data show	2
12	Clinical consideration for dentin and enamel	data show	2
13	Dental Pulp	data show	2
14	Cementum	data show	2
15	Root formation & cementogenesis	data show	2
16	PDL	data show	2
17	PDL fiber & gingival fiber	data show	2
18	Alveolar bone	data show	2
19	Bone formation and resorption	data show	2
20	mineralization of bone and dentin	data show	2
21	Oral mucosa	data show	2
22	Gingiva and dentogingival junction	data show	2
23	Eruption of teeth	data show	2
24	Shedding of teeth	data show	2
25	Salivary gland	data show	2
26	Salivary proteins	data show	2
27	TMJ	data show	2
28	Maxillary sinus	data show	2
29	Histochemistry	data show	2

30	Changes in dental hard & soft tissue	data show	2
Total		data show	60

11. Infrastructure

1. Books Required reading:	1. ORBAN'S Oral Histology and Embryology.G.S. Kumar: 14th edition; C.V. Mosby Company; 2015, Elsevier. 2. Langman's Medical Embryology. 12th Edition.
2. Main references (sources)	1. Ten Cate's Oral Histology; Antonio Nanci;7th edition; C.V. Mosby; 2013. 2. Essentials of Oral Histology and Embryology; James K. Avery, Pauline F. Steele; Mosby Year Book; 2000. 3. Oral Anatomy Histology and Embryology; Berkovitz B.K.B., Holland G.R., Moxham B.J.; 5th edition; Mosby; 2018.

A- Recommended books and references (scientific journals, reports...).	1- Journals of Oral Biology
B-Electronic references, Internet sites...	

Practical part:

Title	Hours
History taking	4
Clinical examination and diagnosis:	4
Basic surgical instruments	4
Basic surgical instruments	4
Dental forceps I	4
Dental forceps II	4
I Dental elevators	4
Dental elevators II	4
Tooth development	4
Local anesthetics (instruments & materials)	4
Maxillary injection techniques	4
Mandibular injection techniques	4
Maxillary teeth extraction	4
Mandibular teeth extraction	4
Basic life support and CPR:	4
	60 hours

11. Infrastructure

1. Books Required reading:	1- Local anesthesia in dentistry. Geoffrey L. Howe, Fluor H. Whitehead.
2. Main references (sources)	2- General anaesthesia and sedation in dentistry C. M. Hill, P. J. Morris. 3- Extraction of teeth..G.L. Howe 4- Minor oral surgery..G.R. Seward. 5-A Concise Textbook of oral& maxilla-facial surgery.

	SumitSanghai.
A- Recommended books and references (scientific journals, reports...).	1- Journals of Oral surgery
B-Electronic references, Internet sites...	

Course Description Form

1. Course Name:	General pathology
2. Course Code:	GPT361
3. Semester / Year:	3 rd stage \annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Student attendance is 100% for all academic year
6. Number of Credit Hours (Total) / Number of Units (Total)	60 theoretical hours and 60 practical hours/ 6 units
7. Course administrator's name (mention all, if more than one name)	<p>Tariq khalil abed <i>tariq.kabd@tu.edu.iq</i></p> <p>Abdulazeez mohammed <i>abdulazeezmohammed@tu.edu.iq</i></p> 
8. Course Objectives	<p>Course Objectives</p> <ul style="list-style-type: none"> <input type="checkbox"/> Introduction to diseases and deformities that affect the cell and other organs <input type="checkbox"/> Helping students differentiate between diseases <input type="checkbox"/> The scientific preparation of the student with

	regard to human pathology
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9. Teaching and Learning Strategies

Strategy	<p>A.1 - teaching students the pathology of body parts</p> <p>A.2 - Study of diseases affecting different organs of the body A.3-</p> <p>B. Programme Skill Objectives</p> <p>B. 1—Student knowledge of body part pathology & functions</p> <p>B.2-</p> <p>B. - Skills objectives for course B 1 - The student's knowledge of diseases and the comparison between them that affect the cell 3- Daily tests with multiple-choice questions for academic subjects. Quarterly exams, semi-annual and final exams</p> <p>Establishing grades for the internal duties assigned to them.</p> <p>For practical and theoretical exams</p> <p>D - General and transferable skills (other skills related to employability and personal development)</p> <p>D-1 Teaching the student the method of dialogue and discussion.</p> <p>-2 D</p> <p>-3 D</p>
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Course Evaluation

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Clinical pathology Molecular pathology Cell damage reversible cell injury	Introduction	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
2	4	Irreversible cell injury Deposits and pigmentation External and internal pigmentation	Cell injury	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F

3	4	Acute inflammation Chronic pathology Chemical mediators	Inflammation	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
4	4	Healing of skin wound Healing of bone	Healing and repair	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
5	4	Thromboembolic Disease, and Shock	Hemodynamic Disorders	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
6	4	Genetic	Genetic Disorders	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
7	4	Hypersensitivity Autoimmune diseases Transplantation	Diseases of the Immune System	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
8	6	Benign and malignant tumors molecular basis of tumors	Neoplasia	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
9	2	Bacterial and viral infection	Infections	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F

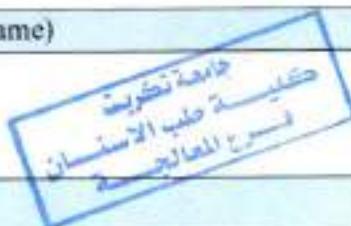
10	2	Environmental and Nutritional Diseases	Environmental and Nutritional Diseases	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
11	2	Blood Vessels	Blood Vessels	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
12	2	The Heart	The Heart	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
13	2	Red Blood Cell and Bleeding Disorders	Red Blood Cell and Bleeding Disorders	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
14	2	Diseases of White Blood Cells	Diseases of White Blood Cells	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
15	6	Diseases of G.I.T	Diseases of G.I.T	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
16	2	Diseases of liver	Diseases of liver, pancreas and gall bladder	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F

17		pancreas and gall bladder	pancreas and gall bladder	A Theoretical lesson using PowerPoint	Short ,quarterly half-year and final exams MCQ, T & F
18	2	Diseases of respiratory system	Diseases of respiratory system	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
19	2	Bone diseases	Bone diseases	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
20	2	Kidney	Kidney	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
20	2	Urinary system	Urinary system	A Theoretical lesson using PowerPoint	Short ,quarterly, half-year and final exams MCQ, T & F
60					Total

No	Laboratory sessions	Hours
1	Introduction to general pathology and biopsy	2
2	Power points slides	2
3	Power points and histopathological slides demonstrating fatty changes in liver and cloudy swelling in kidney The gross appearance of reversible cell injury	2
4	Power points and histopathological slides of coagulative necrosis in heart muscles and caseous necrosis in lung With explanation of gross appearance	2
5	Power points and histopathological slides of anthracosis of lung and hemosiderosis in liver With explanation of gross appearance	2
6	Power points and histopathological slides of amyloidosis in kidney, H & E and congo-red stain With explanation of gross appearance & E. and congo-red stain	2
7	Power points and histopathological slides of acute appendicitis (appendix).acute osteomyelitis and lobar pneumonia (lung.)	2
8	Power points and histopathological slides of chronic cholecystitis in gall bladder and With explanation of gross appearance osteomyelitis in bone	2
9	Power points and histopathological slides of keloid in skin and granulation tissue	2
10	Power points and histopathological slides of TB in lung and actinomycosis With explanation of gross appearance	2

11	Power points and histopathological slides of Sarcoidosis With explanation of gross appearance	2
12	Power points slides of CVC in lung and liver With explanation of gross appearance	2
13	Power points slides of blood vessels thrombosis	2
14	Power points and histopathological slides of lipoma, S.C. papilloma of skin With explanation of gross appearance	2
15	Power points and histopathological slides of osteoma of the bone	2
16	Power points and histopathological slides of S.C. carcinoma and adeno carcinoma of the colon With explanation of gross appearance	2
17	Power points and histopathological slides of thyrotoxicosis of thyroid and hashimoto's thyroiditis in thyroid With explanation of gross appearance	2
18	Data show slides	2
19	Data show slides	2

Course Description Form

1. Course Name:	Preclinical Operative Dentistry
2. Course Code:	POD342
3. Semester / Year:	3 rd stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical+ labs)
6. Number of Credit Hours (Total) / Number of Units (Total)	90 hours (30 hours Theoretical +60hours lab)/4units
7. Course administrator's name (mention all, if more than one name)	1. Name: assest. Prof. sulafa khair al-deen 2. name: assest. Lec. Al-ala jamal   
8. Course Objectives	

15. Course Evaluation	
<p>The final grade is calculated out of 100. The grades are distributed according to the tasks assigned to the student, including daily, monthly, mid-year and final exams, including oral and written exams, in addition to practical requirements and seminars, as follows: -</p> <p>15% half year</p> <p>25% annual effort (includes first and second semester grades)</p> <p>25% final practical exam</p> <p>35% final written exam</p>	
16. Learning and teaching resources	
1Robbins basic pathology. Kumar, Abbas and Aster. 10th edition. 2018, Elsevier.	Required textbooks (methodology if any)
	Main References (Sources)
Electronic references, Internet sites...	The faculty website

- Identify different tools and instruments used for diagnosis and treatment in operative dentistry.
- Providing skills of tooth preparation procedures starting from simple to complex cases.
- Learning and practicing the handling procedure of different restorative materials.
- Practicing and exercising restorative techniques and procedures.

9. Teaching and Learning Strategies

- 1- Lectures with explanation and clarification using Power Point.
- 2- Urging students to use the library as one of the learning methods.
- 3- The method of self-learning by supporting the learner's environment.
- 4- Urging students to use the Internet as a supportive means of learning.
- 5- Using the principle of discussion and dialogue to increase students' comprehension.
- 6- Applying education through the practical part of the course.

Unit or subject

Theoretical part

Week	Hours	Required Learning Outcomes	Learning name	Learning method	Evaluation method
1	2 theoretical hours	Define scope and purpose	Definition of operative dentistry	Lecture	Quiz
2	2 theoretical hours	Define scope and purpose	Definition of operative dentistry	Lecture	Quiz
3	2 theoretical hours	Describe instrument mechanics/design.	Instruments and general instrumentation of cavity preparation	Lecture	Quiz
4	2 theoretical hours		Instruments and general instrumentation of cavity preparation	Lecture	Quiz
5	2 theoretical hours	Describe instrument mechanics/design.	Sterilization of operative instruments	Lecture	Quiz
6	2 theoretical hours		Sterilization of operative instruments	Lecture	Quiz
7	2 theoretical hours	List sterilization methods and steps.	Amalgam cavity preparations for class I	Lecture	Quiz

8	2 theoretical hours	List sterilization methods and steps.	Amalgam cavity preparations for class I	Lecture	Quiz
9	2 theoretical hours	Follow preparation sequence and ideal outline form of cl1.	Amalgam cavity preparations for class II	Lecture	Quiz
10	2 theoretical hours	Follow preparation sequence and ideal outline form for cl1.	Amalgam cavity preparations for class II	Lecture	Quiz
11	2 theoretical hours	Follow preparation sequence and ideal outline form for cl2.	Amalgam cavity preparations for class II (MOD)	Lecture	Quiz
12	2 theoretical hours	Follow preparation sequence and ideal outline form for cl2.	Amalgam cavity preparations for class II (MOD)	Lecture	1 st Sem.Exam.
13	2 theoretical hours	Follow preparation sequence and ideal outline form for cl2 MOD.	Amalgam cavity preparations for class III and class V	Lecture	Quiz
14	2 theoretical hours	Follow preparation sequence and ideal outline form for cl2 MOD.	Amalgam cavity preparations for class III and class V	Lecture	Quiz
15	2 theoretical hours	Follow preparation sequence and ideal outline form for cl3,5.	Cavity liners and cement bases (part 1)	Lecture	Quiz
16	2 theoretical hours	Follow preparation sequence and ideal outline form for cl3,5.	Cavity liners and cement bases (part 2)	Lecture	Quiz
17	2 theoretical hours	Define materials functions, properties, handling, and placement procedures.	Cavity liners and cement bases (part 2)	Lecture	Quiz
18	2 theoretical hours		Dental amalgam alloys (material)	Lecture	Quiz
19	2 theoretical	Define materials functions, properties,	Dental amalgam alloys	Lecture	Quiz

	hours	handling, and placement procedures.	(material)		
20	2 theoretical hours		Complex amalgam restoration	Lecture	Quiz
21	2 theoretical hours	Define materials functions, properties, handling, and placement procedures.	Complex amalgam restoration	Lecture	Quiz
22	2 theoretical hours		Failures in amalgam restorations	Lecture	2 nd Sem. Exam.
23	2 theoretical hours	Define amalgam composition, properties, and classification.	Failures in amalgam restorations	Lecture	Quiz
24	2 theoretical hours		Tooth colored restorations (composite)	Lecture	Quiz
25	2 theoretical hours	Define amalgam composition, properties, and classification.	Tooth colored restorations (composite)	Lecture	Quiz
26	2 theoretical hours		Cavity preparation for anterior restorations	Lecture	Quiz
27	2 theoretical hours	Define procedures and techniques.	Cavity preparation for anterior restorations	Lecture	Quiz
28	2 theoretical hours		Resin material	Lecture	Quiz
29	2 theoretical hours	Define procedures and techniques.	Resin material	Lecture	Quiz

Laboratory sessions

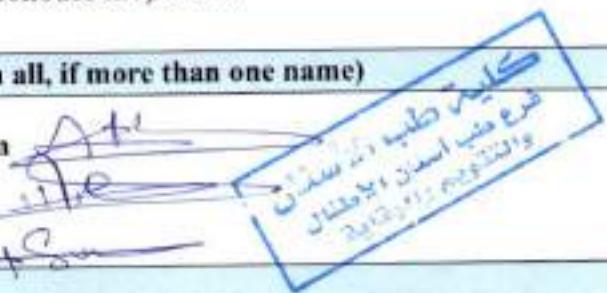
Lab number	Study unit title Preclinical Operative Dentistry	No. of hours
1	Introduction to operative dentistry, and to work in phantom lab. Demonstration about the rotary instrument, and how to cut geometrical cavities (circle, triangle, square, rectangle, and dove-tail), and leave students to work under supervision	2
2	Demonstration of how to use phantom head, working positions for both student and phantom head, also demonstration cavity preparation on buccal pit of lower 1st molar and palatal pit of upper lateral incisor	2
3	Demonstration of principles of amalgam cavity preparation for CL I on the occlusal surface of lower 2nd premolar on the board then do demonstration of cutting on the phantom head. Quiz about the principles of CL I amalgam cavity preparation	2
4	Demonstration amalgam CL I cavity for lower 1st premolar and Leave students to work under supervision	2
5	Demonstration amalgam CL I cavity for upper 1st molar (two separated cavities) on the phantom head and teaching the students how to work indirectly by using mirror. Leave students to work under supervision.	2
6	Demonstration amalgam cavity for the palatal extension in upper 1st molar (continue with last lab in distal occlusal cavity), and Demonstration on the hand instrument groups, and teach students to differentiate between them	2
7	Practical assessment for the students in amalgam CL I cavity on lower 1st molar Oral quiz on the hand instrument and their groups	2
8	Demonstration amalgam CL II MO cavity for lower 1st premolar	2
9	Demonstration amalgam CL II MO cavity for upper 1st molar	2
10	Practical assessment for the students in amalgam CL II MO cavity on lower 1st molar Quiz in amalgam CL II cavity lectures	2
11	Demonstration amalgam CL II MOD cavity for lower 1st molar	2
12	Demonstration amalgam CL II MOD cavity for upper 2nd molar	2
13	Practical assessment for the students in cavity preparation of amalgam CL II MOD cavity on lower 2nd molar	2
14	Demonstration amalgam CL V cavity for lower 2nd premolar, upper 1st molar and upper 2nd premolar	2
15	Demonstration amalgam CL III cavity in distal side of upper canine	2
16	Demonstration of the liner and base placement, their indication, advantage, and uses	2
17	Supervised students in mixing and placing zinc phosphate cement in CL II DO cavity of lower 2nd premolar	2
18	Supervised students in mixing and placing zinc phosphate cement in CL II MO cavity of upper 1st molar and CL II MOD cavity of lower 2nd molar	2
19	Practical assessment for the students in zinc phosphate mixing and placement in CL II MOD cavity on lower 1st molar	2
20	Amalgam filling of CL I cavity of lower 1st premolar	2
21	Amalgam filling of CL II cavity of lower 2nd premolar	2

22	Amalgam filling of CL II cavity of upper 1st molar	2
23	Amalgam filling of CL II MOD cavity of upper 2nd molar	2
24	Practical assessment on Amalgam filling of CL II MOD cavity of lower 1st molar	2
25	Amalgam filling of CL V cavities of upper 1st molar and lower 2nd premolar	2
26	Preparation of CL III composite cavity on upper central incisor with (composite filling placement (light cure	2
27	Preparation of CL III composite cavity on upper lateral incisor with composite filling placement (light cure	2
28	Preparation of CL V composite cavity on upper central incisor with (composite filling placement (light cure	2
29	Final practical assessment	2
30	Finishing and evaluation of the practical work	2
TOTAL		60

11. Infrastructure

1. Books Required reading:	Art and science of operative dentistry Text book of endodontic.
2. Main references (sources)	As above
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	Scopus

Course Description Form
Community

1. Course Name:	community
2. Course Code:	CMD345
3. Semester / Year:	3 rd stage / Annual
4. Description Preparation Date:	15\9\2025
5. Available Attendance Forms:	Attendance (Theoretical+ labs)
6. Number of Credit Hours (Total) / Number of Units (Total)	90 hours (30 hours Theoretical +60hours lab)/4units
7. Course administrator's name (mention all, if more than one name)	1. assist. Prof. Azhar Amash Hussien 2. lecturer Hind Thyab Hamid 3. assist. Lec. Sohaib Quis Alwan 
8. Course Objectives	1- Providing the student with a knowledge skill about the basic concepts of community dentistry in general 2- It is concerned with introducing the student to dealing with the individual within the family, with knowledge of preventive methods and the ability to diagnose and treat. 3- Providing the student with information about achieving the connection with the patient within the family in terms of physical, social and psychological aspects. 4- Informing the student of the necessity of coordinating with specialists in other disciplines to serve his patients and the individuals he cares for. 5- The student's knowledge of health problems in the community and the ability to set priorities. 6- Informing the student about the importance of community medicine for his future profession as a dentist
9- Teaching and Learning Strategy	1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students'

comprehension.

6- Applying education through the practical part of the course.

10- Course structure :

Week	Hours	outcomes	Unit/Module or Topic Title	Teaching method	Assessment Method
1	1 hour	Define role of dental public health	Introduction to dental public health	Lecture	theory exam
2	1 hour	Study distribution of dental caries	Introduction to dental public health	Lecture	theory exam
3	1 hour	Study distribution of dental caries	Epidemiology of dental caries	Lecture	theory exam
4	1 hour	Assess prevalence of periodontal disease	Epidemiology of periodontal disease	Lecture	theory exam
5	1 hour	Evaluate prevalence of malocclusion	Epidemiology of malocclusion	Lecture	theory exam
6	1 hour	Determine oral cancer distribution in population	Epidemiology of oral cancer	Lecture	theory exam
7	1 hour	Conduct oral-disease surveys in population	Dental epidemiology and survey procedures	Lecture	theory exam
8	1 hour	Conduct oral-disease surveys in population	Dental epidemiology and survey procedures	Lecture	theory exam
9	1 hour	Introduce fundamental epidemiologic principles	Basic epidemiology	Lecture	theory exam
10	1 hour	Introduce fundamental epidemiologic principles	Basic epidemiology	Lecture	theory exam
11	1 hour	Apply statistical	Biostatistics	Lecture	theory exam

		methods to biological data			
12	1 hour	Design and perform epidemiologic research	Epidemiological study	Lecture	theory exam
13	1 hour	Prevent occlusal caries via sealants	Pit and fissure sealants	Lecture	theory exam
14	1 hour	Promote oral health awareness to community	Dental health education	Lecture	theory exam
15	1 hour		semester exam	Lecture	theory exam
16	1 hour		Mid exam	Lecture	theory exam
17	1 hour	Define roles of auxiliary dental staff	Dental auxiliary personnel	Lecture	theory exam
18	1 hour	Define roles of auxiliary dental staff	Dental auxiliary personnel	Lecture	theory exam
19	1 hour	Study deciduous-teeth anatomy and features	Primary teeth (deciduous teeth)	Lecture	theory exam
20	1 hour	Provide oral care for children's primary teeth	Primary teeth care	Lecture	theory exam
21	1 hour	Understand ethical principles in dental practice	Ethics in dentistry	Lecture	theory exam
22	1 hour	Plan workforce needs for public dental health	Planning for manpower requirements in dental public health	Lecture	theory exam
23	1 hour	Plan workforce needs for public dental health	Planning for manpower requirements in dental public health	Lecture	theory exam
24	1 hour	Estimate community dental treatment needs	Dental treatment needs, demands and utilization	Lecture	theory exam

25	1 hour	identify occupational risks in dental profession	Occupational hazards in dentistry	Lecture	theory exam
26	1 hour	Develop community-based oral health programs	Dental public health programs	Lecture	theory exam
27	1 hour	Develop community-based oral health programs	Dental public health programs	Lecture	theory exam
28	1 hour	Organize patient positioning and exam procedure	Patient seating and examination in dental clinic	Lecture	theory exam
29	1 hour	Apply forensic-dental + ethical principles	Forensic dentistry and professional ethics	Lecture	theory exam
30	1 hour	Prevent infection in dental clinical settings	Infection control	Lecture	theory exam
			semester exam		
			Final exam		

Laboratory sessions

Lab number	Study unit title	Hours
1	Community dentistry	2
2	Patient's setting & examination	2
3	Clinical examination	2
4	Basic tooth numbering	2

5	examination Clinical	2
6	Indices	2
7	Dental caries	2
8	Theories of caries formation	2
9	Dental caries indices	2
10	Clinical examination	2
11	Clinical examination	2
12	Deciduous teeth	2
13	Clinical examination	2
14	Clinical examination	2
15	Prevention of dental caries / part 1	2
16	Prevention of dental caries / part 2	2
17	Fluoride	2

11. Infrastructure	
1. Books Required reading:	Text book of public health dentistry .
2. Main references (sources)	Text book of clinical dentistry
A- Recommended books and references (scientific journals, reports...).	Scientific Electronic References, Websites

B-Electronic references, Internet sites...

**Course Description Form
Dental Radiology**

1. Course Name:

Dental Radiology

2. Course Code:

DRD347

3. Semester / Year:

3rd stage \annual

4. Description Preparation Date:

15/9/2024

5. Available Attendance Forms:

Attendance (Theoretical + lab)

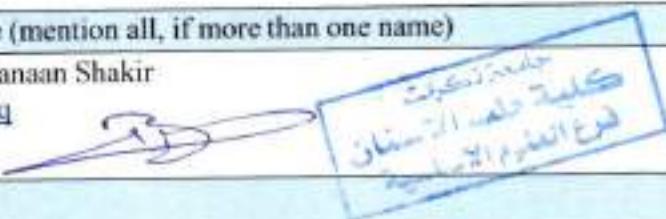
6. Number of Credit Hours (Total) / Number of Units (Total)

90 h (30 Theoretical+ 60 lab)/ 4

7. Course administrator's name (mention all, if more than one name)

Name: assist. lec. Dr. Bushra Kanaan Shakir

Email: bushrakanaan@tu.edu.iq



8. Course Objectives

- 1-Building a research educational base capable of keeping pace with and absorbing the continuous and continuous development in radiology and its various applications.
- 2- Graduating distinguished generations capable of absorbing advanced modern technology through academic standards and local and international benchmarks.
- 3- Continuous development and updating of educational and research programs and keeping pace with the needs of society.
- 4- Commitment to academic work ethics.

9. Teaching and Learning Strategies

Strategy	<ul style="list-style-type: none">1- Lectures with explanation and clarification using Power Point.2- Urging students to use the library as one of the learning methods.3- The method of self-learning by supporting the learner's environment.4- Urging students to use the Internet as a supportive means of learning.5- Using the principle of discussion and dialogue to increase students' comprehension.
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	7- Applying education through the practical part of the course.
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Unit or subject					
Week	Hours	Required Learning Outcomes	Learning name	Learning method	Evaluation method
1	1 theoretical hours	<ul style="list-style-type: none"> -Define radiation and explain its basic physical concepts. -Differentiate between ionizing and non-ionizing radiation and understand their characteristics. -Describe the nature of radiation, including electromagnetic and particulate radiation. 	Physics of radiation(introduction and definitions of nature of radiation, type of radiation)	Lecture	Quiz
2	1 theoretical hours	<ul style="list-style-type: none"> -Describe the basic composition of matter (atoms, ions, electrons, energy levels) and its relevance to radiation physics. -Explain the principles of X-ray production inside the X-ray tube 	Production of radiation(x-ray machine, interaction of x-ray with matter)	Lecture	Quiz
3	1 theoretical hours	<ul style="list-style-type: none"> -Identify the different types of dental X-ray films (intraoral: periapical, bitewing, occlusal; extraoral: panoramic, cephalometric). -Describe the structure and components of X-ray films (film base, emulsion, protective layer). 	Film imaging (types of x-ray films, processing cycle, dark room, intensifying screen)	Lecture	Quiz
4	1 theoretical hours	-identify the main factors that control the X-ray beam, including kVp, mA, exposure	Factors controlling x-ray beam , dosimetry and invers square law	Lecture	Quiz

		<p>time, filtration, collimation, and source-to-object distance.</p> <p>Define radiation - dosimetry and understand basic dose terminology (exposure, absorbed dose, equivalent dose, effective dose).</p>			
5	1 theoretical hours	<ul style="list-style-type: none"> -Define projection geometry and its role in dental radiography. -Identify the principles that influence sharpness, magnification, distortion, and overall image quality. -Describe the main types of image characteristics (density, contrast, resolution). 	Projection geometry (sharpness, distortion, image characteristic and artifacts)	Lecture	Quiz
6	1 theoretical hours	<ul style="list-style-type: none"> -define biological effects of ionizing radiation and understand how radiation interacts with biological tissues. -Differentiate between direct and indirect radiation effects on cells and DNA. 	Biological effects of radiatin (direct & indirect effects, deterministic and stochastic effect	Lecture	Quiz
7	1 theoretical hours	<ul style="list-style-type: none"> -Identify the main sources of radiation exposure in dental radiology (natural, artificial, patient-derived scatter). -Describe the internationally recommended dose limits for patients. 	Safety and Protection (source of exposure , dose limits , exposure and risk and reducing dental exposure)	Lecture	Quiz

		operators, and the general public.			
8	1 theoretical hours	<ul style="list-style-type: none"> -Describe the theoretical principles, indications, and limitations of periapical, bitewing, and occlusal radiographs. -Understand the anatomical structures visualized in each intraoral projection 	Intraoral projection (periapical, bitewing, and occlusal radiography)	Lecture	1 st sem. Exam
9	1 theoretical hours	<ul style="list-style-type: none"> -Describe the basic principles and components of digital radiographic systems in dentistry. -Identify the strengths and advantages of digital radiography, including reduced radiation dose, image enhancement, and faster workflow. 	Digital radiography (strength , limitations , comparing with conventional radiography and indications)	Lecture	Quiz
10	1 theoretical hours	<ul style="list-style-type: none"> -Explain the basic principles of patient management in dental radiology, including communication, positioning, and safety. -Describe the challenges and considerations in managing pediatric patients during radiographic procedures. 	Patient's management(mangement of pt,child, contrast media & localization technique)	Lecture	Quiz
11	1 theoretical hours	<ul style="list-style-type: none"> -Define cephalometric radiography and explain its purpose in dentistry and orthodontics. -Describe the principles of 	Cephalometric imaging (technique, indications, evaluation of the image)	Lecture	Quiz

		cephalometric imaging, including patient positioning, head orientation, and anatomical landmarks.			
12	1 theoretical hours	<ul style="list-style-type: none"> -Explain the principles of panoramic radiography, including image formation, focal trough concept, and tomographic movement. -Describe the components of the panoramic machine and their functions. 	Panoramic radiography (principals, technique positin and interpretation)	Lecture	Quiz
13	1 theoretical hours	<ul style="list-style-type: none"> -Define craniofacial imaging and explain its role in diagnosing and managing maxillofacial and craniofacial conditions. -Explain the principles of each imaging modality and how each image is formed. 	Craniofacial imaging (types , indication and interpretation)	Lecture	Quiz
14	1 theoretical hours	<ul style="list-style-type: none"> -what the teaching and learning outcome of this - Explain the strengths of CBCT, including 3D visualization, reduced radiation compared to CT, and high spatial resolution. 	CBCT (principles, components, strength and limitations).	Lecture	Quiz
15	1 theoretical hours	<ul style="list-style-type: none"> - Explain the clinical applications of CBCT in the maxillofacial region - identify anatomical structures visible on CBCT, such as maxilla, mandible, sinus cavities, neurovascular canals, 	CBCT (clinical applications in maxillofacial region, anatomy and interpretations).	Lecture	Quiz

		and TMJ components			
			Mid Term Exam	Lecture	
16	1 theoretical hours	<ul style="list-style-type: none"> -Identify normal radiographic anatomy of individual teeth (crowns, roots, pulp chambers, canals). -Recognize supporting dentoalveolar structures, including alveolar bone, periodontal ligament space, lamina dura, and alveolar crest. 	Radiographic anatomy part 1 (teeth, supporting dentoalv. structures, maxilla and mid facial bones)	Lecture	Quiz
17	1 theoretical hours	<ul style="list-style-type: none"> -Identify normal radiographic anatomy of the mandible, including the body, ramus, angle, condyle, and coronoid process. -Describe the temporomandibular joint (TMJ) anatomy and its radiographic appearance 	Radiographic anatomy part 2(mandible, Tmj, base of skull, air way, restorative materials)	Lecture	Quiz
18	1 theoretical hours	<ul style="list-style-type: none"> -Explain the principles of CT, MRI, and Ultrasound imaging. -Describe the components and functioning of each imaging modality. -Identify the indications and contraindications for CT, MRI, and Ultrasound in dental and maxillofacial practice. 	Advanced imaging modalities(CT, MRI & Ultrasound)	Lecture	Quiz

19	1 theoretical hours	<ul style="list-style-type: none"> - Describe the various radiographic modalities used in implantology - Explain the principles, strengths, and limitations of each modality in implant planning. - Identify indications for radiographic assessment in implant dentistry 	Radiography & Implantology(modalities, indications)	Lecture	Quiz
20	1 theoretical hours	<ul style="list-style-type: none"> - Describe standard infection control principles applicable to dental radiography clinics. - Identify potential sources of infection in the radiography environment (equipment, surfaces, patients, staff). 	Infection control(infection control in radiography clinic, protection of pt., protection of workers)	Lecture	Quiz
21	1 theoretical hours	<ul style="list-style-type: none"> - Describe principles and rationale for prescribing radiologic examinations in dentistry. - Understand current guidelines for ordering dental and maxillofacial imaging. - Identify indications and contraindications for different imaging modalities (intraoral, panoramic, CBCT, CT, MRI). 	Prescribing diagnostic imaging(radiologic examination and guidelines for ordering imaging)	Lecture	Quiz
22	1 theoretical hours	<ul style="list-style-type: none"> - Describe radiographic appearances of dental caries at different stages (incipient, moderate, advanced). - Identify radiographic 	Radiographical interpretations of common diseases(interpretation of dental caries, and periodontal disease)	Lecture	Quiz

		features of periodontal diseases, including alveolar bone loss, periodontal pockets, and changes in supporting structures.			
23	1 theoretical hours	<ul style="list-style-type: none"> -describe the classification of jaw cysts into odontogenic and non-odontogenic types. -Understand the etiology and pathogenesis of common jaw cysts (e.g., radicular cyst, dentigerous cyst, keratocyst, nasopalatine duct cyst). -Identify typical clinical and radiographic features of each cyst type. 	Cysts of the jaw(odontogenic and non odontogenic cysts)	Lecture	2 nd Sem. Exam
24	1 theoretical hours	<ul style="list-style-type: none"> -Describe dental anomalies including developmental (e.g., hypodontia, hyperdontia, enamel hypoplasia, dentin dysplasia) and acquired anomalies (e.g., trauma, fluorosis, attrition). -Understand the etiology and pathogenesis of common dental anomalies. 	Dental anomalies(acquired and developmental)	Lecture	Quiz
25	1 theoretical hours	<ul style="list-style-type: none"> -Describe the etiology, pathogenesis, and classification of common inflammatory conditions of the jaws. -Recognize clinical 	Inflammatory conditions of the jaws(periapical inf disease, osteomyelitis, pericoronitis)	Lecture	Quiz

		<p>features of periapical inflammatory disease, osteomyelitis, and pericoronitis.</p> <p>-Understand the radiographic appearances of these conditions, including bone changes, radiolucencies, and periosteal reactions.</p>			
26	1 theoretical hours	<p>-Describe the types of dental and dentoalveolar trauma, including enamel fractures, crown-root fractures, luxation injuries, avulsions, and alveolar bone fractures.</p> <p>-Understand the etiology, pathogenesis, and classification of dental and maxillofacial trauma.</p> <p>-Recognize clinical signs and radiographic features of traumatic injuries.</p>	Trauma(dento alveolar trauma , dental fractures and bone fracture)	Lecture	Quiz
27	1 theoretical hours	<p>-Describe the anatomy and functional components of the temporomandibular joint (TMJ), including the articular disc, condyle, fossa, ligaments, and muscles of mastication.</p> <p>-Understand common TMJ disorders, including internal derangements, arthritis, trauma-related changes, and developmental abnormalities.</p>	TMJ abnormalities(anatomy of TMJ, application)	Lecture	Quiz

28	1 theoretical hours	<ul style="list-style-type: none"> -Describe the anatomy and physiology of major and minor salivary glands. -Understand common salivary gland diseases, including sialadenitis, sialolithiasis, cysts, and neoplasms. -Recognize the indications and limitations of different imaging modalities (ultrasound, sialography, CT, MRI, CBCT) in salivary gland evaluation. 	Salivary gland disease (imaging modalities, interpretation)	Lecture	Quiz
29	1 theoretical hours	<ul style="list-style-type: none"> -describe the anatomy and development of the lip and palate. -Understand the etiology and classification of craniofacial anomalies, particularly cleft lip and palate (unilateral, bilateral, complete, incomplete). 	Craniofacial anomalies (Cleft lip and palate)	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical hours	<ul style="list-style-type: none"> -Describe the basic principles of CT imaging and its components. Understand the clinical indications for CT in dentistry, including evaluation of jaw lesions, complex anatomy, trauma, and implant planning. -Recognize the strengths of CT, such as high-resolution cross-sectional 	Computed tomography(indications, strength, limitations)	Deliver the lecture with explanation & clarification using power point	Quiz

		imaging and 3D visualization.			
Total	30		Final Exam		

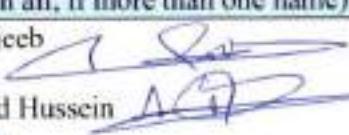
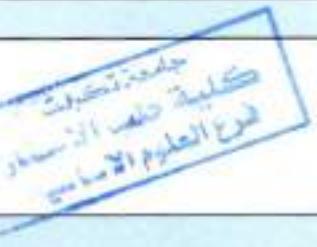
Practical part:

week	Practical Session: Title of the project	Hours
1	Fundamentals of radiology: component of x-ray machine and production of X-ray	2
2	X-ray film (types and indication)	
3	Intraoral techniques (periapical, bite-wing and occlusal films)	2
4	Ideal radiograph.	2
5	Land marks (maxilla, mandible)	2
6	Dental panoramic radiography (indication and anatomy)	2
7	CBCT (indication and anatomy)	2
8	Cephalometric (indication and anatomy)	2
9	Common disease (caries, PDL)	2
10	Cyst (odontogenic and Cyst (odontogenic and nonodontogenic	2
11	Clinic work.	2
12	Clinic work.	2
13	Clinic work.	2
14	Clinic work.	2
15	Mid-year exam.	2
16	Clinic work.	2
17	Clinic work.	2
18	Clinic work.	2
19	Clinic work.	2

20	Clinic work.	2
21	Clinic work.	2
22	Clinic work.	2
23	Clinic work.	2
24	Clinic work.	2
25	Clinic work.	2
26	Clinic work.	2
27	Clinic work.	2
28	Clinic work.	2
29	Clinic work.	2
30	Clinic work.	2
Total		60

11. Infrastructure	
1. Books Required reading:	White and Pharoah's Oral radiology principles and interpretation. Sanjay Mallya and Ernest Lam. 8th edition. 2019, Elsevier.
2. Main references (sources)	1- Essentials of Dental Radiography and Radiology; 3 rd edition, Eric Whites 2- Dental Radiography Principles and Techniques; 4 th edition, Joen M. Lannucci/Laura Jansen Howerton
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course description form

1. Course Name:	Pharmacology
2. Course Code:	PHC368
3. Semester / Year:	3 rd stage \annual
4. Description Preparation Date:	15-9-2024
5. Available Attendance Forms:	Annual
6. Number of Credit Hours (Total)	120 Hours
7. Course administrator's name (mention all, if more than one name)	Name: Ass. Lec. Farah Mohammed Najeeb Email: farahalzobaie@tu.edu Name: Ass. Lec Abdulazeez Mohammed Hussein Email: abdulazeezmohammed@tu.edu.iq
Course objectives:	  

- Understand basic principles of pharmacokinetics (absorption, distribution, metabolism, excretion) and pharmacodynamics (mechanism of action, dose-response relationships).
- Describe how drugs interact with physiological systems relevant to dental practice.
- Explain factors affecting drug action in special populations (children, elderly, pregnant patients, patients with systemic illnesses).
- Understand the pharmacology of drugs commonly used in dentistry, including Local anesthetics Analgesics (NSAIDs, opioids) Antibiotics and antimicrobial agents Sedative and anxiolytic medications Emergency drugs used in dental clinics
- Explain indications, contraindications, and side effects of drugs used in dental procedures.

Teaching and Learning Strategies for a Pharmacology Course:

- Interactive Lectures
- Case-Based Learning
- Problem-Based Learning
- Simulation-Based Teaching
- Laboratory Demonstrations / Practical Sessions
- Flipped Classroom Approach
- Small-Group Tutorials

10- Course structure (theoretical)

Weeks	Hours	Required learning outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Develop a comprehensive understanding of foundational concepts and their practical applications.	Pharmacology: General concepts	deliver explanatory lectures	Multiple Choice Questions (MCQs) Objective testing of broad content knowledge.
2	2	Understand the concepts, basics and application	Pharmacokinetics and pharmacodynamics	give lectures with explanation and clarification	Short Answer Questions (SAQs) Assess understanding and ability to explain concepts concisely.
3	2	Understand the underlying concepts, foundational principles, and	Autonomic nervous system from a pharmacological perspective (including	give lectures with explanation and clarification	Long Essay Questions Evaluate depth of knowledge and critical thinking.

		their practical applications.	cholinergic agonist and antagonist)		
4	2	Understand the concepts, basics and application of adrenergic antagonists, ensuring that you are able to distinguish their mechanisms of action and recognize their clinical uses in various medical scenarios. Building on previous knowledge of adrenergic agonists, focus on how antagonists provide therapeutic benefits by inhibiting the adrenergic response, and examine relevant examples to reinforce comprehension and highlight practical implications.	Adrenergic agonists	deliver explanatory lectures	Objective Structured Clinical Examination (OSCE) Assesses clinical application, e.g., prescribing, emergency drugs.
5	1	Understand the concepts, basics and application	Adrenergic antagonists	give lectures with explanation and clarification	Oral Exam. Tests conceptual clarity and communication skills
6	2	Acquire a thorough understanding of the fundamental concepts, principles, and their practical applications.	Antihypertensive drugs	give lectures with explanation and clarification	Case-Based Assessment Students analyze a clinical scenario and justify drug choices.

7	2	Understand the concepts, basics and application	Management of angina and heart failure	give lectures with explanation and clarification	Problem-Solving Exercises Evaluate analytical thinking and pharmacological reasoning.
8	2	Understand the concepts, basics and application	Management of arrhythmia	give lectures with explanation and clarification	Practical/ Laboratory Exam Tests understanding of experiments (real or virtual pharmacology labs).
9	2	Understand the concepts, basics and application	Anticoagulants, antiplatelet and anti-hyperlipidemic drugs	give lectures with explanation and clarification	Research Project Evaluation Students conduct small research reviews or mini-projects.
10	2	Master core concepts and their uses.	Local Hemostatic Agents in Dentistry	give lectures with explanation and clarification	Mini-CEX (Clinical Evaluation Exercise) Short observational assessment of clinical decision-making.
11	2	Understand the concepts, basics and application	Introduction the pharmacology of CNS drugs, sedative, hypnotics and	give lectures with explanation and clarification	Structured Essays Graded based on a rubric to check logical pharmacological reasoning.
12	2	Understand the concepts, basics and application	Antipsychotic and antidepressant drugs	give lectures with explanation and clarification	Collection of reflections, assignments, and learning evidence.
13	2	Understand the concepts, basics and application	Local and general anesthetics	give lectures with explanation and clarification	Tests ability to organize and connect drug concepts.
14	2	Understand the concepts, basics and application	Drug of abuse and opioid analgesics	give lectures with explanation and clarification	Research Project Evaluation Students conduct small research reviews or mini projects
15	2	Understand the concepts, basics and application	Managements of diabetes mellitus	deliver explanatory lectures	Literature Review Assignment Analyzes evidence-based pharmacology topics.
16	2	Understand the concepts, basics and application	Drugs affecting GIT	give lectures with explanation and clarification	Peer Assessment Students evaluate each other's work or presentations.
17	3	Understand the concepts, basics and application	(Drugs acting on respiratory system (antihistamines and corticosteroids	give lectures with explanation and clarification	Self-Assessment Checklists Encourages self-reflection and identifies learning gaps.

18	2	Understand the concepts, basics and application	Non-steroidal anti-inflammatory drugs (NSAIDs) part 1	give lectures with explanation and clarification	Online Quizzes Frequent low-stakes assessments to reinforce learning.
19	2	Understand the concepts, basics and application	Non-steroidal anti-inflammatory drugs (NSAIDs) part 2 and Steroids in Dentistry	give lectures with explanation and clarification	Take-Home Assignments Assess higher-order thinking and application of evidence.
20	2	Understand the concepts, basics and application	(Chemotherapeutic drugs (Principles of antimicrobial therapy	give lectures with explanation and clarification	Flipped Classroom Activity Assessment Pre-class work graded (videos, quizzes, summaries).
21	2	Understand the concepts, basics and application	(Cell wall inhibitors (part 1	give lectures with explanation and clarification	Students prepare detailed formation on a drug
22	2	Understand the concepts, basics and application	(Cell wall inhibitors (part 2	give lectures with explanation and clarification	Drug Interaction Analysis
23	2	Understand the concepts, basics and application	Protein synthesis inhibitors	give lectures with explanation and clarification	Simulation-Based Assessment
24	3	Understand the concepts, basics and application	Quinolones, Folic acid antagonists and antimycobacterial	give lectures with explanation and clarification	Team-Based Learning (TBL) Assessment
25	2	Understand the concepts, basics and application	Antifungal, antiviral and antiprotozoal drugs	give lectures with explanation and clarification	Attendance & Participation Marks
26	2	Understand the concepts, basics and application	Sex hormone and contraceptive	give lectures with explanation and clarification	Stations include writing prescriptions, identifying errors, selecting correct drugs.
27	2	Understand the concepts, basics and application	Thyroid hormones and anti-thyroid drugs	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
28	1	Understand the concepts, basics and application	Anticancer drugs	give lectures with explanation and clarification	Evaluate capability to identify and explain drug interactions.
29	1	Understand the concepts, basics and application	Dental Pharmacology: drugs and chemicals used in dental clinic	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams

30	2	Understand the concepts, basics and application	Anticaries and drugs used in prevention of dental plaque	give lectures with explanation and clarification	Online Quizzes Frequent low-stakes assessments to reinforce learning.
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10- Course structure (Practical)

Hour	Week	Required learning outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Understand the concepts, basics and application	Introduction and animal (e.g. rabbits) handling	Laboratory Experiments (Real or Virtual) Hands-on experiments showing drug effects, dose-response curves, etc.	Practical/ Laboratory Exam
2	2	Understand the concepts, basics and application	Routes of drug administration (Part 1)	Demonstration-Based Practical Sessions	quizzes
3	2	Understand the concepts, basics and application	Routes of drug administration (Part 2)	Case-Based Practical Sessions	Simulation-Based Assessment
4	2	Understand the concepts, basics and application	Clinical parameters in drug pharmacokinetics (Part 1)	Students work through real-life drug-related scenarios.	Drug Monograph Assignment
5	2	Understand the concepts, basics and application	Clinical parameters in drug pharmacokinetics (Part 2)	Problem-Based Learning (PBL)	Daily quiz
6	2	Understand the concepts, basics and application	Demonstration of common dosage forms used in clinical practice (Part 1)	Drug Dose Calculation Drills	Short Answer Questions (SAQs)
7	2	Understand the concepts, basics and application	Demonstration of common dosage forms used in dentistry (Part 2)	Prescription Writing Practice	Exam
8	2	Understand the concepts, basics and application	Cholinergic agonists and antagonists (Physostigmine Vs Curare)	Demonstration of Drug Administration Techniques	Make short video competition

				IV, IM, SC routes (observed, simulated, or virtual)	
9	2	Understand the concepts, basics and application	Effects of Drugs on Human Blood Pressure (Part 1-B-Blockers)	Drug Chart Review Exercises Students assess real or sample drug charts for errors and interactions.	Take-Home Assignments
10	2	Understand the concepts, basics and application	Effects of Drugs on Human Blood Pressure (Part 2) (Nitrates Effect on Human volunteers)	Hands-on experiments showing drug effects, dose-response curves, etc.	Students prepare detailed information on a drug.
11	2	Understand the concepts, basics and application	Effects of Drugs on The Arterial Blood Pressure Of Human (Part-3)	Use manikins or virtual patients to practice emergency drug administration.	quiz
12	2	Understand the concepts, basics and application	The effects of drugs and light on human eyes	Pharmacovigilance Reporting Exercises	Evaluate depth of knowledge and critical thinking.
13	2	Understand the concepts, basics and application	The effects of drugs and light on human eyes	Drug Identification Sessions	4. Objective Structured Clinical Examination (OSCE)
14	2	Understand the concepts, basics and application	Effects of parasympathomimetic drugs on glandular secretions	Recognizing common medications, forms for glandular disease.	Students analyze a clinical scenario and justify drug choices.
15	2	Understand the concepts, basics and application	The response of human skin to histamine and adrenaline	Clinical Skill Workshops	Problem-Solving Exercises
16	2	Understand the concepts, basics and application	The response of human skin to histamine and adrenaline	Interactive Group Discussions	Tests understanding of experiments (real or virtual pharmacology labs).
17	2	Understand the concepts, basics and application	Evaluation of Analgesics	Applied discussions on drug	Daily, Quarterly, Half-Year

				mechanisms, safety, and clinical cases.	and Final Exams
18	2	Understand the concepts, basics and application	Evaluation of analgesics (Opioids)	Practice communicating drug instructions to patients.	Assesses dose calculation and safety skills.
19	2	Understand the concepts, basics and application	Evaluation of Anti-inflammatory Drugs	Team-Based Learning (TBL) Collaborative learning with readiness tests and group problem solving.	Structured Essays
20	2	Understand the concepts, basics and application	Evaluation of Anti-inflammatory Drugs	Prelearning videos → hands-on activities in class.	Short observational assessment of clinical decision-making.
21	2	Understand the concepts, basics and application	Local Anaesthesia	E-learning Modules for Practical Skills	Evaluates reflective thinking and integration of theory with practice.
22	2	Understand the concepts, basics and application	General Anaesthesia	Chart-Based Interpretation Exercises	Quizzes
23	2	Understand the concepts, basics and application	General Anaesthesia	Medication Error Analysis	Assess understanding and ability to explain concepts concisely.
24	2	Understand the concepts, basics and application	Prescription writing	Research Mini-Projects	Assesses understanding, communication, and teamwork.
25	2	Understand the concepts, basics and application	Prescription writing	Prescription writing during lab for several cases	Daily, Quarterly, Half-Year and Final Exams
26	2	Understand the concepts, basics and application	Prescription writing	Prescription writing during lab for several cases	Short Answer Questions
27	2	Understand the concepts, basics and application	Oral conditions and their treatment	Students identify and manage simulated	Multiple Choice Questions (MCQs)

				ADRs or allergic reactions.	
28	2	Understand the concepts, basics and application	Oro dental preparation (part 1)	Use of Virtual Pharmacology Labs	Quiz
29	2	Understand the concepts, basics and application	Oro dental preparation (Part 2)	Use of Virtual Pharmacology Labs	Daily Assessments
30	2	Understand the concepts, basics and application	Dental health and endocarditis prevention	Drug Preparation	Quiz

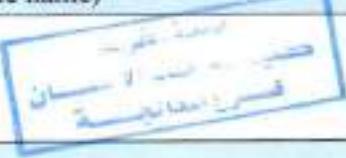
11- Course evaluation:

- Theoretical exam
- Daily quiz
- Seminar and group discussion
- Practical reports and symposium

12- Learning and teaching evaluation

- Required textbooks (curricular books, if any)
- **Lippincott's Illustrated Reviews Pharmacology**
- **Pharmacology 7th Edition**
- **Basic and Clinical Pharmacology 12th Edition**
- Main references (sources)
- **Pharmacology at a glance Michael J. Neal**
- Recommended books and references
- **Basic and clinical pharmacology 15 edition**
- (Scientific journals, reports.)
- **Google scholar, PubMed**
- **Tikrit journal of Dentistry**

Course Description Form

1. Course Name:	preclinical fixed prosthodontics						
2. Course Code:	PFD343						
3. Semester / Year:	3 rd stage \annual						
4. Description Preparation Date:	15/9/2024						
5. Available Attendance Forms:	Attendance (Theoretical + lab)						
6. Number of Credit Hours (Total) / Number of Units (Total)	90 h (30 Theoretical+ 60 lab)/ 4						
7. Course administrator's name (mention all, if more than one name)	Name: lec. Saif Saad  						
8. Course Objectives	<ol style="list-style-type: none"> 1. Understand the principles of fixed partial denture (FPD) design and biomechanics. 2. Identify and classify different types of crown and bridge retainers, pontics, and connectors. 3. Explain the step-by-step procedures for full- and partial-coverage crown preparation. 4. Perform basic simulated reduction and finish line placement on a typodont. 5. Describe the materials and techniques used for accurate gingival retraction and impression making. 6. Recognize the criteria for selecting and evaluating materials used for provisional and definitive restorations. 						
9. Teaching and Learning Strategies	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Strategy</td> <td style="width: 85%;"> <ol style="list-style-type: none"> 1. Lecture method by explanation and clarification and using PowerPoint. 2. Encouraging students to use the library as one of the learning methods. 3. Self-learning method by supporting the learner's environment. 4. Encouraging students to use the Internet as a means of supporting learning. 5. Using the principle of discussion and dialogue to increase students' comprehension. 6. Applying education through the practical part of the course. </td> </tr> </table>					Strategy	<ol style="list-style-type: none"> 1. Lecture method by explanation and clarification and using PowerPoint. 2. Encouraging students to use the library as one of the learning methods. 3. Self-learning method by supporting the learner's environment. 4. Encouraging students to use the Internet as a means of supporting learning. 5. Using the principle of discussion and dialogue to increase students' comprehension. 6. Applying education through the practical part of the course.
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Unit or subject							
Week	Hours	Learning	Unit or subject	Learning	Evaluation		

		Outcomes			
				method	
1	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Lecture	Quiz
2	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Lecture	Quiz
3	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Lecture	Quiz
4	1 theoretical hours	Achieve retention and resistance and structural durability.	Biomechanical principles of tooth preparation	Lecture	Quiz
5	1 theoretical hours	Achieve retention and resistance and structural durability.	Biomechanical principles of tooth preparation	Lecture	Quiz
6	1 theoretical hours	Achieve retention and resistance and structural durability.	Biomechanical principles of tooth preparation	Lecture	Quiz
7	1 theoretical hours	List indications and benefits and design.	Full metal crown	Lecture	Quiz
8	1 theoretical hours	List indications and benefits and design.	Full metal crown	Lecture	1 st sem. Exam
9	1 theoretical hours	List indications and benefits and design.	Porcelain fused to metal crown	Lecture	Quiz
10	1 theoretical hours	List indications and benefits and design.	Porcelain fused to metal crown	Lecture	Quiz
11	1 theoretical hours	List indications and benefits and design.	Complete ceramic crown (Porcelain Jacket Crown)	Lecture	Quiz

12	1 theoretical hours	List indications and benefits and design.	Complete ceramic crown (Porcelain Jacket Crown)	Lecture	Quiz
13	1 theoretical hours	List indications and benefits and design.	Partial veneer crown (three-quarter crown)	Lecture	Quiz
14	1 theoretical hours	List indications and benefits and design.	Partial veneer crown (three-quarter crown)	Lecture	Quiz
15	1 theoretical hours	List indications and benefits and design.	Post crown	Lecture	Quiz
16	1 theoretical hours	Differentiate impression materials/trays.	Impression for crown and bridge work	Lecture	Quiz
17	1 theoretical hours	Differentiate impression materials/trays.	Impression for crown and bridge work	Lecture	Quiz
18	1 theoretical hours	State provisional restoration functions.	Provisional restoration	Lecture	Quiz
19	1 theoretical hours	State provisional restoration functions.	Provisional restoration	Lecture	Quiz
20	1 theoretical hours	Master die pouring technique.	Working cast and dies	Lecture	Quiz
21	1 theoretical hours	Master die pouring technique.	Working cast and dies	Lecture	Quiz
22	1 theoretical hours	Master waxing technique principles.	Waxing, investing, casting	Lecture	Quiz
23	1 theoretical hours	Master waxing technique principles.	Waxing, investing, casting	Lecture	2 nd Sem. Exam

24	1 theoretical hours	Describe finishing and polishing steps.	Finishing of the casting and clinical try-in	Lecture	Quiz
25	1 theoretical hours	Describe finishing and polishing steps.	Finishing of the casting and clinical try-in	Lecture	Quiz
26	1 theoretical hours	Classify luting agents (cements).	Cementation	Lecture	Quiz
27	1 theoretical hours	Classify luting agents (cements).	Cementation	Lecture	Quiz
28	1 theoretical hours	Explain digital crown workflow.	CAD /CAM Technology for crown construction	Lecture	Quiz
29	1 theoretical hours	Explain digital crown workflow.	CAD /CAM Technology for crown construction	Lecture	Quiz
30	1 theoretical hours	Explain digital crown workflow.	CAD /CAM Technology for crown construction	Lecture	Quiz

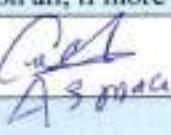
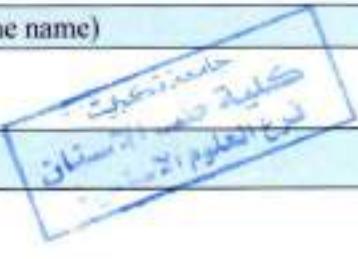
Laboratory session

Lab number	Study unit title Preclinical Operative Dentistry	
1	Introduction on the lab work, phantom heads and teeth manikins.	2
2	Demonstration about the rotary instrument and how to cut geometrical (cavities (Part 1	2
3	Demonstration about the rotary instrument and how to cut geometrical (cavities (Part 2	2
4	Demonstration on full metal crown preparation on lower 1st molar	2
5	Demonstration on full metal crown preparation on lower 2nd molar	2
6	Practicing lab under supervision	2
7	Practicing lab under supervision	2
8	Practical assessment of full metal crown preparation on lower 1st molar	2
9	Demonstration on porcelain fused to metal crown preparation on upper central incisor	2
10	Demonstration on porcelain fused to metal crown preparation on upper	2
11	Practicing lab under supervision	2

11. Infrastructure

1. Books Required reading:	Art and science of operative dentistry Text book of endodontic.
2. Main references (sources)	As above
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	Scopus

Course Description Form

1. Course Name:	Dental Ethics
2. Course Code:	DNE3210
3. Semester / Year:	3 rd stage / Annual
4. Description Preparation Date:	2024/9/15
5. Available Attendance Forms:	Face to face Lectures in classroom
6. Number of Credit Hours (Total) / Number of Units (Total)	30h theoretical / 2 credit units
7. Course administrator's name (mention all, if more than one name)	Ass. Lec. Osama Mohammed Abdel Ass. Lec. Asmaa Nouri Hamid
8. Course Objectives	 

1. To enhance students' understanding of the fundamental ethical principles and values in health professions.
2. To familiarize students with the laws and regulations governing professional conduct within healthcare institutions.
3. To reinforce the principle of confidentiality and the protection of patient privacy.
4. To equip students with the ability to handle ethical dilemmas and make sound professional decisions.
5. To develop a sense of professional responsibility and promote respect for patients and colleagues.

9. Teaching and Learning Strategies:

1. Delivering lectures using explanation and clarification supported by PowerPoint presentations to introduce ethical and professional concepts related to dental practice.
2. Encouraging students to use the library and consult approved ethical and legal references to strengthen their self-directed learning.
3. Developing self-learning skills by assigning students to review professional laws and regulations and analyze real ethical cases.
4. Encouraging students to use the Internet as a supporting information source to stay updated on contemporary ethical issues in dentistry at both the local and global levels.
5. Applying the principle of constructive discussion and dialogue to enable students to analyze professional situations and adopt sound ethical decisions.
6. Implementing learning through the practical component of the course by discussing ethical scenarios, conducting role-play activities, and analyzing case studies relevant to challenges faced by dentists in clinical practice

10. Course Structure:

Lec. Number		Title	Hours	Credits
Lec. 1	Professional Ethics Review	What is meant by "ethics"? Why are ethics important? Evolution and philosophy of ethics The terms moral and ethical, obligation and principle	1	1
Lec. 2	Professional Ethics Review	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	1	1
Lec. 3	Professional Ethics Review	What is meant by the "best interests" of our patients? What is "paternalism"? Is good risk management good ethics? What about compromising quality?	1	1
Lec. 4	Professional Ethics Review	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?	1	1
Lec. 5	Principal Features of Dental Ethics	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?	1	1
Lec6	Principal Features of Dental Ethics	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?	1	1

Lec. 7&8	Ethical Law and ethical Theories	History and basic ethical theory History of medical ethics Hammurabi's code of law Hippocratic oath Basic grounding of Ethics Humanities (universal standards) Religious& nonreligious: Political& dogmatic strategies of the state Other groundings of Ethics (theories of ethics): 1- Action theory: 2- Consequentiality theory: 3- Value theory (why theory): Ethics and the law Sources of Ethical Views and Convictions	2	2
Lec. 9&10	Fundamental Principles of dental ethics	1- Patient autonomy 2- Non-maleficence 3- Beneficence 4- Justice 5- Veracity	2	2
Lec. 11&12	Duties and obligation of dentists	Duties and obligation of dentists In general	2	2
Lec. 13&14	Duties and obligation of dentists	The Ideal Relationship between Dentist and Patient Duties and obligation of dentists Toward their patients THE DENTIST-PATIENT RELATIONSHIP FOUR MODELS OF THE DENTIST-PATIENT RELATIONSHIP The Guild Model The Agent Model The Commercial Model The Interactive Model	2	2
Lec. 15	Duties and obligation of dentists	Duties and obligation of dentists Toward the public and the paramedical profession The Relationship between Dentistry and the Larger Community	1	1
Lec. 16	Duties and obligation of dentists	Duties of dental surgeons and specialists in consultations	1	1
Lec. 17	Duties and obligation of dentists	Responsibilities of dental surgeons to one another Ideal Relationships between Co-professionals	1	1

Lec. 18&19	Ethical issues and challenges in dental practice	Ethical Issues in Dental Practice Ethical Questions and Legal Questions Choosing to Re Ethical Published Codes of Conduct and Ethics Committees Examples of ethical issues and Challenges 1- Access to dental care 2- Abuse of prescriptions by patients 3- Advertising 4- Emergency care 5- Financial arrangements 6- Disclosure and misrepresentation 7- Child abuse	2	2
Lec. 20	Ethical issues and challenges in dental practice	8- Competence and judgment 9- Confidentiality 10- Dating patients 11- Delegation of duties 12- Digital communication and social media 13- Harassment 14- Consent	1	1
Lec.21	Ethical issues and challenges in dental practice	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	1	1

		Compromised Capacity		
Lec. 22	The impact of business on dentistry	<ul style="list-style-type: none"> - Conflict of interest - Personal interest versus patient interest - Public versus patient interest - Third-party interests - Professional versus business ethics 	1	1
Lec. 23,24	Ethics and dental research	<ul style="list-style-type: none"> - Importance of Dental Research - Research in Dental Practice - Ethical Requirements - Ethics Review Committee Approval 	2	2
Lec. 25,26	Ethics and dental research	<ul style="list-style-type: none"> - Scientific Merit - Social Value - Risks and Benefits - Informed Consent - Confidentiality - Conflict of Roles - Honest Reporting of Results 	2	2
Lec. 27	The standard of care	<ul style="list-style-type: none"> - 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 decision-making - Individualization and the standard of care based on a long-term goal for dental treatment 	1	1
Lec. 28	Ethical Decision Making and Conflicting Obligations	<ul style="list-style-type: none"> - 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 	1	1
Lec. 29	Studying a Profession's Central Values	<ul style="list-style-type: none"> - The Central Values of Dental Practice - The Patient's Life and General Health - The Patient's Oral Health - The Patient's Autonomy 	1	1

		<p>The Dentist's Preferred Patterns of Practice Aesthetic Values Efficiency in the Use of Resources Ranking Dentistry's Central Values Thinking about the Case</p>		
Lec. 30	The duty to treat	<ul style="list-style-type: none"> -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 	1	1
Total			30	30

Course Description Form

1.	Course Name: Microbiology	
2.	Course Code: MCB 364	
3.	Semester / Year: 3 rd stage \annual	
4.	Description Preparation Date: 15/9/2024	
5.	Available Attendance Forms: Theoretical and Laboratories	
6.	Number of Credit Hours (Total) / Number of Units (Total) 60 Hours theoretical / 60 hours practical	
7.	Course administrator's name (mention all, if more than one name) Name: Asst. Prof. Dr. Chateen Izaddin A. Pambuk Prof. Dr. Hadeel Mizher Yunis, Asst. Lec. Sura Mustafa Qasim Asst. Lec. Ranen Ibraheem Abdullah Lecturer : Fatma Mustafa Muhammed Email:dr.chateen@tu.edu.iq	
8.	Course Objectives	
Course Objectives	
1-. Establish a solid foundation in medical microbiology, including bacteriology, virology, mycology, parasitology, and immunology, with emphasis on mechanisms of pathogenesis, characteristics of pathogenic microorganisms, laboratory diagnostic techniques, modes of disease transmission, and methods for prevention and control of common national and international infectious diseases.		
2. Provide graduates with strong epidemiological knowledge that enables them to explain how infectious agents spread, the factors influencing their transmission, and the appropriate measures required to prevent and control infectious diseases.		
3. Prepare graduates for leadership roles in the field of medical microbiology at both basic and advanced levels by strengthening their scientific understanding, laboratory competence, and decision-making skills.		
4. Train competent researchers across all areas of medical microbiology, with a focus on advancing antimicrobial agents, enhancing diagnostic tools, and contributing to vaccine development to improve public health and serve society.		
9-. Teaching and Learning Strategies:		
I-Delivering theoretical lectures through PowerPoint presentations using a data show		

- 2-Providing educational videos
- 3-Guiding students to explore selected scientific websites
- 4-Conducting experiments in the microbiology laboratory

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Practical	Teaching Method	Assessment Method
1	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Morphology , Ultra structures, physiology and metabolism of microorganisms:- -Eukaryotic & Prokaryotic cells -Cell structure of prokaryotes -Comparison between G+ve & G-ve cell wall	laboratory	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Microbial growth, growth curve -Metabolism of microorganisms Molecular biology & bacterial genetics	The microscope	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Disinfection	disinfection	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	-Mode of action of antibiotic -Anti-microbial sensitivity tests	Bacterial growth	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	- - Introduction to general immunology and oral immunology - Non-specific and	media	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz

			<p>specific immunity</p> <ul style="list-style-type: none"> - Antigen - Immunoglobulin - Humeral and Cellular Immunity 		
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<ul style="list-style-type: none"> - Cells and organs of the immune system - Complement system - Human leukocyte antigen - Role of complement and HLA in oral disease 	material	<p>The method of giving lectures, explanation and clarification, and sometimes the method of discussion</p>
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<ul style="list-style-type: none"> - Oral and mucosal immunity - Autoimmunity and immune tolerance 	microorganisms	<p>The method of giving lectures, explanation and clarification, and sometimes the method of discussion</p>
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<ul style="list-style-type: none"> - Hypersensitivity reactions - Antimicrobial and immunological defenses of saliva and 	<p><i>Bacterial identification: 1- Macroscopical characteristics (colonial morphology and cultural characteristics).</i></p>	<p>The method of giving lectures, explanation and clarification, and sometimes the method of discussion</p>
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application		bacterial cells).	<p>The method of giving lectures, explanation and clarification, and sometimes the method of discussion</p>

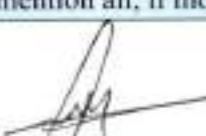
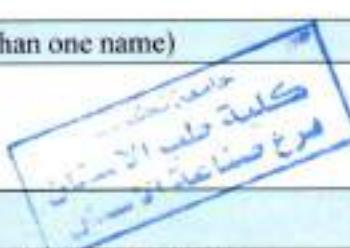
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application		Staining	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application		(part 1).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	G negative diplococci, <i>Vellionella</i> and <i>Moraxella</i> <i>Neisseria gonorrhoea</i> , <i>N. meningitidis</i>	part2).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<i>Lactobacilli</i> , <i>Actinomyces</i> and <i>Corynebacterium diphtheriae</i> & <i>Diphtheroids</i>	part3).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<i>B. cereus</i>	test(part 1).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<i>Clostridium</i> : <i>C. perfringens</i> , <i>C. tetani</i> , <i>C. botulinum</i> , <i>C. difficile</i>	test(part 2).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
		Mid Term Exam			
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<i>Shigella</i> ,	tests) (part 1).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	<i>Yersinia</i>	tests) (part 2).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz

	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Leprae	pathogenicity test	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application		Staphylococci		
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Bacteroids	Streptococci	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Leptotrichia	Corynebacterium	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
			Treponema	bacilli: <u>Bacillus</u> spp.	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Rickettsiae	Clostridium spp.	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	-Supplemental flora -Transient flora	Mycobacterium spp.	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	- plaque homeostasis -cariogenic microorganisms	(part1)	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz

				(part2)	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Microbiology of periodontal disease and Endodontics -Subgingival microbial complex -specific, non-specific and Ecological plaque hypothesis - Porphyromonas, prevotella, Aggregatibacter virulencefactors of periodontal pathogens endodontic microbiota and Routes of root canal infection -ecology of endodontic microbiology	part3)		The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	-classification	<i>Neisseria</i> spp.	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz	
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	-Oral virology	Virology	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz	
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	- <i>E.histolotica</i> , <i>E.gingivalis</i> , <i>T.tenax</i> -Fungal cells	Mycology	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz	

11. Infrastructure	
1. Books Required reading:	1- Essential microbiology for dentistry FOURTH EDITION Lakshman Samaranayake
2. Main references (sources)	1- Essential microbiology for dentistry FOURTH EDITION Lakshman Samaranayake
Z	
B-Electronic references, Internet sites...	2- Different internet References
12. The development of the curriculum plan	<p>The development of the curriculum plan made by :</p> <p>Asst. Prof. Dr. Chateen Izaddin A. Pambuk Prof. Dr. Hadeel Mizher Younis, Asst. Prof. Dr. Zainab Suliman Lecturer : Fatma Mustafa Muhammed Raneen Ibrahim Sura Mustafa</p>

Course Description Form

1. Course Name:	Prosthodontics
2. Course Code:	PRO349
3. Semester / Year:	3 rd stage \annual
4. Description Preparation Date:	2024/9/15
5. Available Attendance Forms:	Attendance (lecture+ lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	96hr/ 4 units
7. Course administrator's name (mention all, if more than one name)	Lecturer Luma Nasrat
 	
8. Course Objectives	1- Defining and understanding some important terms in the Prosthodontics 2- Practical application of practical laboratory steps for manufacturing complete dentures Graduating doctors who are fully familiar with all the materials used to make the complete Dentures
9. Teaching and Learning Strategies	1- Giving the lecture (explanation and clarification) 2- Using modern educational methods Urging the student to use the library as one of the learning methods

22	2	Setting of teeth in abnormal Jaw relations	Evaluate CD try-in; accurately mark and shape posterior palatal seal.	Lecture	short exam ,semester ,mid and final exam
23	2	Try-in and Post-dam	Insert CD; correct occlusal discrepancies and pressure points.	Lecture	short exam ,semester ,mid and final exam
24	2	Insertion of CD	Identify CD complications; perform targeted adjustments.	Lecture	short exam ,semester ,mid and final exam
25	2	Post insertion problems for CD		Lecture	short exam ,semester ,mid and final exam

11. Infrastructure

1. Books Required reading:

1. Removable Partial Prosthodontics, *McGivney & Castleberry; 13th Edition (or latest)*
2. Stewart's Clinical Removable Partial Prosthodontics, *Naylor, Phoenix, & Cagna*
3. Dental Laboratory Procedures: Removable Partial Dentures, *Rudd, Morrow & Strunk*
4. Zarb's Prosthodontic Treatment for Edentulous Patients (Partially Edentulous sections), *Zarb, Hobkirk, Eckert, Jacob*
5. Fundamentals of Removable Partial Dentures, *Krol, Jacobson & Finzen*

10. Course Structure

Week	Hours	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Introduction to Removable Partial Dentures	Theoretical lecture using power point	short exam ,semester ,mid and final exam
2	2	Classification of Partially Edentulous Arches	Theoretical lecture using power point	short exam ,semester ,mid and final exam
3	2	Surveying	Theoretical lecture using power point	short exam ,semester ,mid and final exam
4	2	Surveying (continue)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
5	2	Component Parts of a Removable Partial Denture	Theoretical lecture using power point	short exam ,semester ,mid and final exam
6	2	Maxillary Major Connectors	Theoretical lecture using power point	short exam ,semester ,mid and final exam
7	2	Mandibular Major Connectors	Theoretical lecture using power point	short exam ,semester ,mid and final exam
8	2	Minor Connectors	Theoretical lecture using power point	short exam ,semester ,mid and final exam
9	2	Rests and Rest Seats	Theoretical lecture using power point	short exam ,semester ,mid and final exam
10	2	Retention and Removable Partial Denture Retainers	Theoretical lecture using power point	short exam ,semester ,mid and final exam
11	2	Extra Coronal Direct Retainers(Types of clasp assemblies)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
12	2	Intracoronal Direct Retainers (Internal Attachments, Precision Attachments)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
13	2	Stress-Breakers (Stress Equalizers)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
14	2	Indirect Retainers	Theoretical lecture using power point	short exam ,semester ,mid and final exam
15	2	Indirect Retainers	Theoretical	short exam ,semester ,mid and final exam

		(continue)	lecture using power point	
16	2	Laboratory procedures in RPD construction: Blockout and Relief	Theoretical lecture using power point	short exam ,semester ,mid and final exam
17	2	Laboratory procedures in RPD construction: Duplication and Refractory Cast Construction	Theoretical lecture using power point	short exam ,semester ,mid and final exam
18	2	Laboratory procedures in RPD construction: Wax Pattern	Theoretical lecture using power point	short exam ,semester ,mid and final exam
19	2	Laboratory procedures in RPD construction: Casting and Finishing	Theoretical lecture using power point	short exam ,semester ,mid and final exam
20	2	Denture Base in RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
21	2	Record Bases, Occlusion Rims, Mounting and Arrangement of Teeth	Theoretical lecture using power point	short exam ,semester ,mid and final exam
22	2	Biomechanics of Removable Partial Dentures	Theoretical lecture using power point	short exam ,semester ,mid and final exam
23	2	Biomechanics of Removable Partial Dentures (continue)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
24	2	Principles of Removable Partial Denture Design	Theoretical lecture using power point	short exam ,semester ,mid and final exam
25	2	Principles of Removable Partial Denture Design (continue)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
26	2	Clinical Phases of Removable Partial Denture Construction	Theoretical lecture using power point	short exam ,semester ,mid and final exam
27	2	Acrylic Removable Partial Dentures	Theoretical lecture using power point	short exam ,semester ,mid and final exam
28	2	Flexible Removable Partial Dentures	Theoretical lecture using power point	short exam ,semester ,mid and final exam
29	2	Repairs and Additions to Removable	Theoretical lecture using power point	short exam ,semester ,mid and final exam

30	2	Digitally Designed & Fabrication Process of RPD Framework Using CAD/CAM System	Theoretical lecture using power point	short exam ,semester ,mid and final exam
		Practical Lab		
1	2	Introduction to Removable Partial Dentures		
2	2	Kennedy Classification		
3	2	Cast Trimming		
4	2	Surveying		
5	2	Surveying		
6	2	Wire Bending		
7	2	Wire Bending		
8	2	Acrylic Removable Partial Denture Design		
9	2	Acrylic Removable Partial Denture Laboratory Procedures		
10	2	Acrylic Removable Partial Denture Laboratory Procedures		
11	2	Flexible Partial Denture Design		
12	2	Flexible Partial Denture Laboratory Procedures		
13	2	Flexible Partial Denture Laboratory Procedures		
14	2	Flexible Partial Denture Laboratory Procedure		
15	2	Principles of 2D Design for the Removable Partial Denture		
16	2	Principles of 2D Design for the Removable Partial Denture		
17	2	Principles of Drawing 2D Design for the Removable Partial Dentures		
18	2	Principles of 2D Design for the Removable Partial Denture		
19	2	2D Design for Mandibular & Maxillary Arches		
20	2	2D Design for Mandibular & Maxillary Arches		
21	2	2D Design for Mandibular & Maxillary Arches		
22	2	Drawing Removable Partial Denture 3D Design & CAD/CAM		
23	2	Drawing Removable Partial Denture 3D Design & CAD/CAM		
24	2	Types of Rests		
25	2	Rests Seat Preparation		

**Course Description Form
(Oral surgery)**

1. Course Name:	Oral surgery
2. Course Code:	OSR346
3. Semester / Year:	3rd stage / annual
4. Description Preparation Date:	2024-2025
5. Available Attendance Forms:	Lectures & Lab
6. Number of Credit Hours (Total) / Number of Units (Total)	120 hours (30 hours Theoretical +60hours lab)/ 4
7. Course administrator's name (mention all, if more than one name)	Asst. Lec. Ahmed Abdulkarim Asst. Lec. Saber Mezher Asst. Lec. Ahmed Amer 
8. Course Objectives	<p>5. It is concerned with introducing the student to the basic components of local anesthesia, its components, and its mechanism of action. Introducing the student to the methods of using local anesthesia in dentistry.</p> <p>6. Informing the student of the complications that may result from the use of local anesthesia and how to avoid and deal with them.</p> <p>7. Informing the student of the surgical tools used in dentistry.</p> <p>8. Providing the student with information about general anesthesia, its administration and its complications.</p> <p>9. Understand advanced principles of surgical anatomy</p>
9. Teaching and Learning Strategies	<p>Strategy</p> <p>1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension.</p>

	6- Applying education through the practical part of the course.
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10. Course Structure

Theoretical part

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Explain the principles of diagnosis specific to oral surgery	Diagnosis in oral surgery	Lecture	Quiz
2	1 theoretical hours	Understand the concepts & basics of diagnosis	Diagnosis in oral surgery	Lecture	Quiz
3	1 theoretical hours	Understand the principles of infection control in surgical practice	Infection Control in Surgical Practice	Lecture	Quiz
4	1 theoretical hours	Understand sterilization, disinfection, and antisepsis methods	Infection Control in Surgical Practice	Lecture	Quiz
5	1 theoretical hours	Explain the indications and contraindications for teeth extraction	Extraction of teeth and Contra indications of extraction	Lecture	Quiz
6	1 theoretical hours	Understand the different types of extraction	Extraction of teeth and Contra indications of extraction	Lecture	Quiz
7	1 theoretical hours	Understand the arrangement needed for extraction	General arrangement for extraction and Dental forceps	Lecture	Quiz
8	1 theoretical hours	Explain the required position for dentist, assistant and patient during extraction	General arrangement for extraction and Dental forceps	Lecture	Quiz
9	1 theoretical hours	Understand the instruments needed for extraction	General arrangement for extraction and Dental forceps	Lecture	Quiz
10	1 theoretical hours	Describe the design of forceps and post-surgical instructions	Techniques of forceps extraction and post-operative instructions	Lecture	Quiz

11	1 theoretical hours	Define elevators and their roles in extraction	Elevators	Lecture	Quiz
12	1 theoretical hours	Understand indications and contraindications of elevators	Elevators	Lecture	1 st Sem.Exam.
13	1 theoretical hours	Understand immediate and late extraction complications	Complications of dental extraction	Lecture	Quiz
14	1 theoretical hours	Understand the roles to avoid and manage complications	Complications of dental extraction	Lecture	Quiz
15	1 theoretical hours	Understand the instruments needed for surgical extraction and operation	Basic surgical instruments	Lecture	Quiz
	1 theoretical hours		Mid- Year Exam		
16	1 theoretical hours	Understand the dental anesthesia types	Introduction to local anesthesia	Lecture	Quiz
17	1 theoretical hours	Explain mechanism of action and structure of local anesthesia	Pharmacology of local anesthesia	Lecture	Quiz
18	1 theoretical hours	Understand the pharmacokinetics of local anesthesia	Pharmacology of local anesthesia	Lecture	Quiz
19	1 theoretical hours	Understand surgical anatomy	Surgical anatomy in local anesthesia	Lecture	Quiz
20	1 theoretical hours	Identify anatomical landmarks related to anesthetic technique	Surgical anatomy in local anesthesia	Lecture	Quiz
21	1 theoretical hours	Understand the concepts of instruments needed for dental local anesthesia	Instruments of local anesthesia	Lecture	Quiz
22	1 theoretical hours	Understand the various techniques of local anesthesia	Techniques of local anesthesia	Lecture	2 nd Sem. Exam.
23	1 theoretical hours	Understand the maxillary anesthesia	Techniques of local anesthesia	Lecture	Quiz

24	1 theoretical hours	Understand the mandibular anesthesia	Techniques of local anesthesia	Lecture	Quiz
25	1 theoretical hours	Understand the dental anesthesia complications	Complications of local anesthesia	Lecture	Quiz
26	1 theoretical hours	Understand the methods to avoid complications	Complications of local anesthesia	Lecture	Quiz
27	1 theoretical hours	Understand the management of anesthesia complications	Complications of local anesthesia	Lecture	Quiz
28	1 theoretical hours	Understand the technical advances in local anesthesia	Advances in local anesthesia	Lecture	Quiz
29	1 theoretical hours	Understand the concepts of general anesthesia	Fundamentals of general anesthesia	Lecture	Quiz
30	1 theoretical hours	Understand and manage emergencies in dental practice	Medical emergencies during dental treatment	Lecture	Quiz
Total	60 hours		Final Exam.		

Practical part:

Title	Hours
History taking	4
Clinical examination and diagnosis:	4
Basic surgical instruments	4
Basic surgical instruments	4
Dental forceps I	4
Dental forceps II	4
I Dental elevators	4
Dental elevators II	4
Tooth development	4
Local anesthetics (instruments & materials)	4
Maxillary injection techniques	4
Mandibular injection techniques	4
Maxillary teeth extraction	4
Mandibular teeth extraction	4
Basic life support and CPR:	4

		60 hours
II. Infrastructure		
1. Books Required reading:		1- Local anaesthesia in dentistry. Geoffrey L. Howe, Fluor H. Whitehead.
2. Main references (sources)		2- General anaesthesia and sedation in dentistry C. M. Hill, P. J. Morris. 3- Extraction of teeth..G.L.Howe 4- Minor oral surgery..G.R. Seward. 5-A Concise Textbook of oral& maxilla-facial surgery. SumitSanghai.
A- Recommended books and references (scientific journals, reports...).		1- Journals of Oral surgery
B-Electronic references, Internet sites...		

Course Description Form

1. Course name
periodontology
2. Course code
PER452
3. semester/ year
4 th stage/ Annual
4. Date of preparation of this description
2024/9/15
5. Available of attendance forms
Lectures and clinics
6. Total number hours/ Number of credits
120hr. (30 theoretical and 90 clinical) / 5 units
7. Name of lecturers
Lect. Noor Sabah irhayyim 
Lect. Suha Aswad Dahash 


8. Aims of the Course

1-To provide students with a solid foundation in the anatomy, physiology, and pathology of the periodontium.

2-To develop clinical skills for diagnosing periodontal diseases through examination and diagnostic tests.

3-To introduce students to preventive and basic therapeutic strategies for managing periodontal health.

4-To enhance understanding of the relationship between periodontal diseases and systemic health.

5-To encourage professional behavior, ethical practice, and effective patient communication.

Teaching and Learning outcome

1-Cognitive Outcomes

- Comprehend the anatomy and functional roles of healthy and diseased periodontal structures.
- Describe the underlying mechanisms and contributing factors of periodontal diseases.
- Employ clinical signs and radiographic findings for accurate diagnosis of periodontal and peri-implant conditions.

2-Skills Outcomes

- Conduct thorough clinical assessments of the periodontium and surrounding supporting tissues.
- Perform basic periodontal procedures, including non-surgical and simple surgical interventions, under expert supervision.
- Assess the effectiveness of treatments and plan appropriate follow-up care.

3-Behavioral and Professional Outcomes

- Follow professional conduct, maintain safety, and adhere to infection control guidelines.
- Effectively communicate with patients regarding diagnoses, treatment plans, and oral health advice.
- Collaborate efficiently within a multidisciplinary team, applying evidence-based approaches in clinical practice.

Teaching and Learning Methods

1. Lectures using power point presentation: To cover the scientific foundations of periodontal diseases, diagnosis, and treatment.
2. Clinical Sessions: Application of clinical examinations and basic non-surgical and surgical procedures under supervision.
3. Presentations and Discussions: To develop communication skills and the ability to present treatment plans.

11- Assessment methods

1. Written Exams: Daily, midterm, and final assessments, including multiple-choice questions (MCQs), short and long essay questions, matching, and true/false questions.
2. Practical and Clinical Assessment: Evaluation of students' performance during clinical examinations and procedures.
3. Assignments and Scientific Reports: Preparation of reports and practical assignments to reinforce learning.
- 4-Participation in Discussions and Case Studies: Engaging in discussions and analyzing cases to develop critical thinking skills.

12- Course Structure: Theoretical part

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
11	theoretical hour	<ul style="list-style-type: none"> -Recognize and define key terms and concepts commonly used in periodontology. -Understand the scientific meaning of periodontal terminology in both clinical and research contexts. 	Terms & definitions frequently used in periodontology	Lecture	Quiz
21	theoretical hour	<ul style="list-style-type: none"> -Describe the structure and components of the periodontium, including the oral mucosa and gingiva. -Explain the functional roles of the gingiva and oral mucosa in maintaining periodontal health. 	Anatomy of the periodontium Oral mucosa -Gingiva	Lecture	Quiz
31	theoretical hour	<ul style="list-style-type: none"> -Describe the structure, composition, and organization of the periodontal ligament. -Explain the functional roles of the PDL in tooth support, proprioception, and response to 	Anatomy of the periodontium Periodontal ligaments (PDL)	Lecture	Quiz

		mechanical forces.			
41	theoretical hour	<ul style="list-style-type: none"> -Describe the structure, composition, and types of cementum. -Explain the functional role of cementum in tooth support and attachment of periodontal fibers 	Anatomy of the periodontium Cementum	Lecture	Quiz
51	theoretical hour	<ul style="list-style-type: none"> -Describe the structure, components, and types of alveolar bone supporting the teeth. -Explain the functional role of the alveolar process in tooth support and periodontal health 	Anatomy of the periodontium -Alveolar process	Lecture	Quiz
61	theoretical hour	<ul style="list-style-type: none"> - Understand the rationale behind the classification of periodontal diseases and conditions. -Describe the objectives and benefits of using a standardized classification system. 	Classification of periodontal diseases and conditions (2017) Reasons for classification	Lecture	Quiz
71	theoretical hour	-Understand the definition, stages, and	Classification of periodontal diseases and	Lecture	1 st .Sem. Exam.

		<p>grades of periodontitis according to the 2017 classification.</p> <p>-Describe the pathophysiology, risk factors, and progression of periodontitis.</p>	<p>conditions (2017)</p> <p>-Periodontitis</p>		
81	theoretical hour	<p>Identify and understand various systemic and local conditions that can affect the periodontium (e.g., systemic diseases, medications, developmental or acquired deformities).</p>	<p>Classification of periodontal diseases and conditions (2017)</p> <p>Other conditions affecting the periodontium</p>	Lecture	Quiz
91	theoretical hour	<p>-Understand the multifactorial etiology of periodontal diseases, including microbial, host, and environmental factors.</p> <p>-Describe the pathogenesis of periodontal diseases at the cellular, tissue, and molecular levels.</p>	<p>Etiology of periodontal disease</p> <p>-Periodontal disease pathogenesis</p>	Lecture	Quiz
101	theoretical hour	<p>-Describe the formation, composition, and characteristics of dental plaque biofilm.</p>	<p>Etiology of periodontal disease and risk factors</p> <p>Dental plaque biofilm and periodontal microbiology</p>	Lecture	Quiz

		<ul style="list-style-type: none"> -Understand the role of specific periodontal pathogens in the initiation and progression of periodontal diseases. 		
111	theoretical hour	<ul style="list-style-type: none"> -Identify the specific microorganisms associated with different types of periodontal diseases. -Understand the pathogenic mechanisms by which these microorganisms contribute to periodontal tissue destruction. 	Microbiologic specificity of periodontal diseases	Lecture Quiz
121	theoretical hour	<ul style="list-style-type: none"> -Define dental calculus and understand its composition and formation process. -Explain the role of calculus in the initiation and progression of periodontal diseases 	Dental calculus	Lecture Quiz
131	theoretical hour	<ul style="list-style-type: none"> -Identify different types of dental stains (extrinsic and intrinsic) and their causes. -Understand the relationship between dental stains, plaque 	Dental stain	Lecture Quiz

		accumulation, and periodontal health.			
141	theoretical hour	<ul style="list-style-type: none"> -Identify systemic, environmental, and behavioral risk factors that contribute to periodontal disease. -Explain how these risk factors influence the onset, progression, and severity of periodontal conditions. 	<p>Etiology of periodontal disease</p> <ul style="list-style-type: none"> - Risk factors for periodontal diseases 	Lecture	Quiz
151	theoretical hour	<ul style="list-style-type: none"> -Understand the molecular and cellular mechanisms of host–microbe interactions in periodontal disease. -Describe how bacterial virulence factors trigger host immune and inflammatory responses. 	<p>Etiology of periodontal disease</p> <ul style="list-style-type: none"> - Molecular biology of host–microbe interactions 	Lecture	Quiz
Mid- Year Exam					
161	theoretical hour	<ul style="list-style-type: none"> -understand the impact of smoking on periodontal health and disease progression. -Describe the mechanisms by which tobacco 	<p>Etiology of periodontal disease and risk factors</p> <ul style="list-style-type: none"> - Smoking and Periodontal Disease 	Lecture	Quiz

		use affects the periodontium, including immune response and tissue healing.			
171	theoretical hour	Understand the relationship between periodontal infections and systemic health conditions, such as cardiovascular disease, diabetes, and adverse pregnancy outcomes.	Impact of periodontal infection on systemic health	Lecture	Quiz
181	theoretical hour	explain the link between periodontal infections and systemic conditions such as cardiovascular disease, diabetes, and adverse pregnancy outcomes.	Impact of periodontal infection on systemic health	Lecture	Quiz
191	theoretical hour	<p>-Understand the Periodontal indices purpose and types of periodontal indices used to assess periodontal health and disease.</p> <p>-Recognize the criteria and scoring systems for common indices (e.g., Plaque Index, Gingival Index.</p>	Periodontal indices	Lecture	Quiz

		Periodontal Pocket Depth).			
201	theoretical hour	<ul style="list-style-type: none"> -Understand what a periodontal pocket is and its clinical significance. -Learn the different classifications of periodontal pockets based on depth, morphology, and etiology 	<ul style="list-style-type: none"> The periodontal pocket Classification - Clinical features - Pathogenesis - Histopathology 	Lecture	Quiz
211	theoretical hour	<ul style="list-style-type: none"> -Understand the concept of periodontal disease activity and its clinical significance. -Identify the factors that influence disease progression in periodontal pockets. 	<ul style="list-style-type: none"> The periodontal pocket - Periodontal disease activity 	Lecture	Quiz
221	theoretical hour	<ul style="list-style-type: none"> -Understand the objectives and rationale of Phase I periodontal therapy. -Identify the importance of patient behavior modification, plaque control, and management of risk factors in periodontal health. 	<ul style="list-style-type: none"> Treatment plan guidelines - Phase 1 (behavior change, removal of supragingival dental biofilm and risk factor control): 	Lecture	2 nd Sem. Exam.

231	theoretical hour	<ul style="list-style-type: none"> -Understand the objectives and rationale of Phase 2 periodontal therapy. -Identify the specific etiologic factors targeted during cause-related therapy, including subgingival plaque, calculus, and other local factors. 	Treatment plan guidelines <ul style="list-style-type: none"> - Phase 2 (cause-related therapy) 	Lecture	Quiz
241	theoretical hour	<ul style="list-style-type: none"> -Understand the objectives and indications of the corrective or surgical phase of periodontal therapy. -Recognize the different surgical procedures used to correct periodontal defects (e.g., flap surgery, bone grafts, regenerative procedures). 	Treatment plan guidelines <ul style="list-style-type: none"> - Phase 3 (corrective/surgical phase) 	Lecture	Quiz
251	theoretical hour	<ul style="list-style-type: none"> Understand the importance and objectives of periodontal maintenance therapy. Recognize the role of regular recall visits, plaque control, and monitoring 	Treatment plan guidelines <ul style="list-style-type: none"> - Phase 4 (maintenance therapy) 	Lecture	Quiz

		in preventing disease recurrence.			
261	theoretical hour	<ul style="list-style-type: none"> -Understand the composition, formation, and role of dental plaque biofilm in the development and progression of periodontal disease. -Recognize the impact of biofilm control on preventing disease progression and maintaining periodontal health. 	<ul style="list-style-type: none"> Plaque biofilm control for the periodontal patient 	Lecture	Quiz
271	theoretical hour	<ul style="list-style-type: none"> -Understand the role of chemical agents in controlling dental plaque biofilm. -Identify different types of oral rinses (antimicrobial, antiseptic, fluoride-based) and their mechanisms of action. 	<ul style="list-style-type: none"> Plaque biofilm control for the periodontal patient - Chemical plaque biofilm control with oral rinses 	Lecture	Quiz
281	theoretical hour	<ul style="list-style-type: none"> -Identify and describe the various types of periodontal instruments (e.g., scalers, curettes, explorers). -Understand the specific uses 	<ul style="list-style-type: none"> Periodontal instruments and sharpening - Types of periodontal instruments 	Lecture	Quiz

		and indications of each instrument in periodontal diagnosis and therapy.			
291	theoretical hour	Identify the contributions of periodontal disease, tongue coating, and oral biofilm to the development and persistence of bad breath.	Breath Malodor (Halitosis)	Lecture	Quiz
301	theoretical hour	<p>-Understand the indications and rationale for systemic anti-infective therapy in periodontal disease.</p> <p>-Identify the commonly used antibiotics and antimicrobial agents, including their mechanisms of action, spectrum, and dosage considerations.</p>	Systemic anti-infective therapy for periodontal diseases	Lecture	Quiz
Total	30 hours		Final Exam.		

Course Structure (Clinical requirement)

Credit hours required	Details
3 h/week (90 h/year)	<p>Preclinical:</p> <ul style="list-style-type: none"> - Training on ergonomic aspects of grasping and use of the instruments and their maintenance i.e. resharpening <p>Clinical:</p> <ul style="list-style-type: none"> - Recording medical and dental history - Patient's education and motivation - Oral hygiene instructions (OHI) - Recording periodontal indices - Diagnosis according to classification of periodontal disease and conditions (2017) - Non-surgical periodontal therapy (manual scaling + polishing)

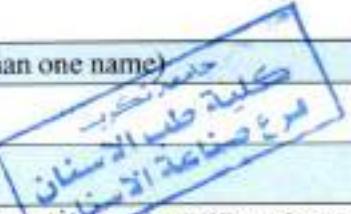
11. Infrastructure

1. Books Required reading:	Newman and Carranza's Clinical periodontology thirteenth edition
2. Main references (sources)	-
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

12. The development of the curriculum plan

- 1- Updating the content of the lectures by deleting and adding no more than 20% with up-to-date information and developing the content of the lecture.
- 2- Using modern teaching methods according to the nature of the course.

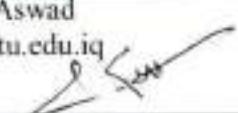
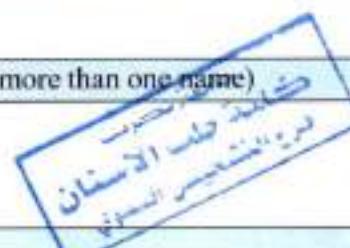
Course Description Form

1. Course Name:	Prosthodontics	
2. Course Code:	PRO359	
3. Semester / Year:	4 th stage/ Annual	
4. Description Preparation Date:	15\9\2024	
5. Available Attendance Forms:	Attendance (lecture+ lab)	
6. Number of Credit Hours (Total) / Number of Units (Total)	96hr.	
7. Course administrator's name (mention all, if more than one name)	Ass. Lec. Ali Saad Ahmed  	
8. Course Objectives	<ul style="list-style-type: none"> • Perform diagnosis, treatment planning, and case selection for RPD patients. • Carry out all essential clinical procedures for RPD construction—from impressions to insertion and adjustments. • Apply RPD design principles clinically and communicate design needs to the laboratory. • Manage common clinical problems related to RPD function, comfort, and esthetics. • Provide ethical, safe, and patient-centered care throughout the clinical process. 	
9. Teaching and Learning Strategies	<ol style="list-style-type: none"> 1. Guided Clinical Practice: Students perform procedures under close supervision with step-by-step feedback 2. Case-Based Learning: Analyze real patient cases to practice diagnosis, RPD design, and treatment planning. 3. Skill Checklists and Structured Steps: Use clear checklists for surveying, design, impressions, framework try-in, and delivery. 4. Immediate, Constructive Feedback: Provide timely chairside feedback to reinforce correct techniques and correct mistakes. 	

		10. Course Structure			
Week	Hours	Unit/Module or Topic Title	ILOs	Teaching Method	Assessment Method
1	2	Course description, & infection control in prosthodontics	Understand course goals; apply infection control protocols in prosthodontics.	Lecture	short exam ,semester ,mid and final exam
2	2	Anatomy & physiology	Identify anatomical landmarks; relate anatomy to denture support and stability.	Lecture	short exam ,semester ,mid and final exam
3	2	Myology	Describe muscles affecting denture borders; apply myology in impression techniques.	Lecture	short exam ,semester ,mid and final exam
4	2	Diagnosis & treatment plan for RPD	Perform examination; develop appropriate RPD treatment plans.	Lecture	short exam ,semester ,mid and final exam
5	2	Mouth preparations	Identify and perform essential tooth and mouth preparations for RPD.	Lecture	short exam ,semester ,mid and final exam
6	2	Impression materials and techniques	Select materials; perform accurate primary and final impressions.	Lecture	short exam ,semester ,mid and final exam
7	2	Support and impression procedure	Explain support concepts; perform support-enhancing impression techniques.	Lecture	short exam ,semester ,mid and final exam
8	2	Framework try-in	Evaluate fit and stability of RPD framework; identify corrections.	Lecture	short exam ,semester ,mid and final exam
9	2	Jaw relations and record base for RPD	Construct record bases; record accurate jaw relations.	Lecture	short exam ,semester ,mid and final exam
10	2	Selection of teeth & setting in RPD	Select artificial teeth; perform basic tooth arrangement	Lecture	short exam ,semester ,mid and final exam

			for RPD.		
11	2	Try-in for RPD	Evaluate esthetics, phonetics, and occlusion; identify needed adjustments.	Lecture	short exam ,semester ,mid and final exam
12	2	Partial Denture Design	Apply advanced design principles; complete accurate RPD design prescriptions.	Lecture	short exam ,semester ,mid and final exam
13	2	Insertion of RPD	Deliver RPD; identify and correct pressure spots and occlusal issues.	Lecture	short exam ,semester ,mid and final exam
14	2	Post insertion problems for RPD	Recognize common problems; perform necessary adjustments.	Lecture	short exam ,semester ,mid and final exam
15	2		Integrate RPD procedures; troubleshoot complex cases.	Lecture	short exam ,semester ,mid and final exam
16	2		Examine edentulous patients; determine factors affecting CD prognosis.	Lecture	short exam ,semester ,mid and final exam
17	2	Patient examination	Identify conditions for CD requiring surgery; understand implications for CD.	Lecture	short exam ,semester ,mid and final exam
18	2	Pre prosthetic Surgery	Perform border molding and final CD impressions accurately.	Lecture	short exam ,semester ,mid and final exam
19	2	Impressions for CD	Record vertical materials and dimension; orient record blocks correctly.	Lecture	short exam ,semester ,mid and final exam
20	2	Jaw relations, Orientation& Vertical relation II	Record centric relation using proper techniques.	Lecture	short exam ,semester ,mid and final exam
21	2	Horizontal Jaw Relations II	Modify tooth setting for Class II, III, and other discrepancies.	Lecture	short exam ,semester ,mid and final exam

Course Description Form**Oral Pathology**

1. Course Name:	Oral Pathology				
2. Course Code:	OPT467				
3. Semester / Year:	4 th stage/ Annual				
4. Description Preparation Date:	15/9/2024				
5. Available Attendance Forms:	Attendance (Theoretical + lab)				
6. Number of Credit Hours (Total) / Number of Units (Total)	120 h(60 Theoretical+60 lab)				
7. Course administrator's name (mention all, if more than one name)	Name: Lec. Fatima Gazi Aswad Email: FatimaGAswad@tu.edu.iq  				
8. Course Objectives	<ol style="list-style-type: none"> To give students enough information and knowledge about cell and tissue and any changes might happen. To explain diagnostic tool including x ray and histopathological pictures. Teaching any related signs that give a diagnosis to systemic disease. Expert any abnormalities about oral cavity tissues. Forensic dentistry information to be delivered Knowing the importance of oral pathology science in the future 				
9. Teaching and Learning Strategies	<ol style="list-style-type: none"> The method of giving lectures with explanation and clarification using PowerPoint. Urging students to use the library as one of the learning methods. The method of self-learning by supporting the learner's environment. Urging students to use the Internet as a supportive tool for learning. Using the principle of discussion and dialogue to increase students' comprehension. The application of education through the practical part. 				
Unit or subject					
Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation method

1	2 theoretical Hours	Understanding the basics of biopsy taking and importance of them in oral pathology	Biopsy in oral pathology	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
2	2 theoretical Hours	Understanding the wound healing process after biopsy	Healing in oral pathology	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
3	2 theoretical Hours	Understanding the basics of dental caries and their histopathological picture	Dental caries	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
4	2 theoretical Hours	Understanding the important disease that involve the pulpal tissue	Pulpitis	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
5	2 theoretical Hours	Understanding the important disease that involve the periapical tissue	Periapical lesions	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
6	2 theoretical Hours	Understanding the infectious and inflammatory disease of the bone	Osteomyelitis	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
7	2 theoretical Hours	Understanding the size ,shape and structural defect of teeth with their causes and effect	Developmental disorder of teeth	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
8	2 theoretical Hours	Understanding the defect of soft tissue and bone with their causes and effect	Developmental disorder of soft and hard tissue	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
9	2 theoretical Hours	Understanding the basics and applying them	Non odontogenic cysts	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
10	2 theoretical Hours	Understanding the jaw cyst that have an odontogenic origin	Odontogenic cysts	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam

11	2 theoretical Hours	Understanding the basics of odontogenic tumor of jaw	Odontogenic tumors 1	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
12	2 theoretical Hours	Understanding the basics of odontogenic tumor of jaw	Odontogenic tumors 2	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
13	2 theoretical Hours	Understanding the nature and diagnosis of Benign epithelial lesions and leukoplakia	Benign epithelial lesions, leukoplakia	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
14	2 theoretical Hours	Understanding the nature ,structural change of tissue in Epithelial Hyperplasia, atrophy and dysplasia	Epithelial Hyperplasia, atrophy and dysplasia	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
15	2 theoretical Hours	Understanding the nature ,structural change of tissue and diagnosis of Squamous cell carcinoma and other malignant epithelial neoplasms	Squamous cell carcinoma and other malignant epithelial neoplasms	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
			Mid-year Exam.		
16	2 theoretical Hours	Understanding the nature and differential diagnosis between all condition	Fibro osseous lesions, metabolic and genetic conditions	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
17	2 theoretical Hours	Understanding the nature ,behaviors and differential diagnosis between all Giant cell lesions	Giant cell lesions	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
18	2 theoretical Hours	Understanding the basics of Benign tumor of the bone with all their feature and effect	Benign tumor of the bone	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam

19	2 theoretical Hours	Understanding the basics of malignant tumor of the bone with all their feature and effect	Malignant tumor of the bone	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
20	2 theoretical Hours	Understanding all oral and maxilla facial lesion that caused by Viral, bacterial and fungal infection	Viral, bacterial and fungal infection	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
21	2 theoretical Hours	Understanding the nature ,behaviors ,dignosis and differential diagnosis of all salivary glands disorder	Diseases of salivary glands	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
22	2 theoretical Hours	Understanding the oral finding and effect of Immune mediated disease	Immune mediated disorder 1	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
23	2 theoretical Hours	Understanding the oral finding and effect of Immune mediated disease	Immune mediated disorder 2	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
24	2 theoretical Hours	Understanding the lesion of connective tissue origin in oral and maxillofacial region	Connective tissue lesions	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
25	2 theoretical Hours	Understanding the lesion of connective tissue origin in oral and maxillofacial region	Connective tissue lesions	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
26	2 theoretical Hours	Understanding the basics of Salivary gland disorders with all feature , causes and effect	Salivary gland disorders	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
27	2 theoretical Hours	Understanding the basics of Salivary gland tumor (benign and malignant) with all feature , causes and effect	Salivary gland neoplasms	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam

Practical part:

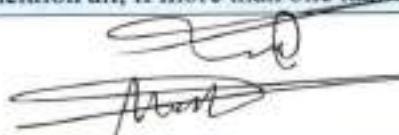
28	2 theoretical Hours	Understanding the basics of all oral and maxillofacial lesion that caused by Physical and chemical injuries	Physical and chemical injuries	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
29	2 theoretical Hours	Understanding the basics of Hematopoietic tumors in oral and maxillofacial region	Hematopoietic tumors	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
30	2 theoretical Hours	Understanding the fundamentals and concept of Forensic odontology	Forensic odontology	Lecture	Short exam, seminar ,case presentation ,semester, mid and final exam
Total	60		Final Exam.		

Lab. No.	Practical Subject Title	Hours
1	Data show and demonstration of biopsy processing	3
2	Data show about Healing in oral pathology	3
3	Acute and chronic dental caries	3
4	Acute pulpitis, chronic pulpitis and pulp polyp	
5	Periapical granuloma, cyst and abscess	3
6	Acute and chronic osteomyelitis and sequestrum	3
7	Data show about developmental disorder of teeth	3
8	Data show about developmental disorder of soft tissue	3
9	Data show about non odontogenic cysts	3
10	Dentigerous cyst, keratocyst, calcifying odontogenic cyst and eruption cyst	3
11	Ameloblastoma, adenomatoid odontogenic tumor and odontoma	3
12	Ameloblastic fibroma odontoma	3
13	Leukoplakia, squamous cell papilloma	3
14	Epithelial dysplasia	3
15	Squamous cell carcinoma	3
16	Fibro dysplasia, ossifying fibroma	3
17	Giant cell lesions, central and peripheral giant cell granuloma	3
18	Osteoma	3
19	Osteosarcoma	3
20	Data show about viral infection	3
21	Data show about bacterial and fungal infection	3
22	Lichen planus	3
23	Pemphigus vulgaris	3
24	Fibroma, and pyogenic granuloma	3
25	Hemangioma, and lymphangioma	3
26	Mucocele and data show	3
27	Pleomorphic adenoma and mucoepidermoid carcinoma	3
28	Data show physical and chemical injuries	3
29	Hematological neoplasms	3
30	Data show about forensic dentistry	3
Total		90

1. Infrastructure	
1. Books Required reading:	- Oral and maxillofacial pathology. Brad Neville, Douglas Damm Carl Allen and Jerry Bouquot. 4th edition. 2016, Elsevier.
2. Main references (sources)	1- Oral pathology: clinical-pathological correlations. Regezi JA, Sciubba JJ, Jordan RCK. 5 th edi. 2009.

A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course Description Form
Operative and Endodontics

1. Course Name: operative and endodontic
2. Course Code: CND488
3. Semester / Year: 4th stage/ Annual
4. Description Preparation Date: 15/9/2025
5. Available Attendance Forms: Attendance (Theoretical + lab)
6. Number of Credit Hours (Total) / Number of Units (Total) 210 h(60 Theoretical+180 clin)/ 8
7. Course administrator's name (mention all, if more than one name) Name: prof. Dr Haithem younis Name: Lec. Mohammed iyaad
 <div style="border: 1px solid blue; padding: 5px; display: inline-block;"> جامعة تحرير كلية طب الاسنان فرع المعاونية </div>
8. Course Objectives
<ol style="list-style-type: none"> 7. 1. The student should be familiar with the materials and tools used in it. 8. 2. The student should be able to perform root canal fillings and dental fillings 9. 3. The ability to be familiar with the theoretical aspects of tooth preparation. 10. 4. The ability to apply this theoretical knowledge and translate it into practical treatment. 11. 5. The ability to perform root canal fillings and dental fillings on patients in the teaching clinic and after graduation. 12. 6. The ability to perform fixed dental prostheses on patients in the teaching clinic and after graduation and adhere to academic work ethics
9. Teaching and Learning Strategies

1. The method of giving lectures with explanation and clarification using PowerPoint.
2. Urging students to use the library as one of the learning methods.
3. The method of self-learning by supporting the learner's environment.
4. Urging students to use the Internet as a supportive tool for learning.
5. Using the principle of discussion and dialogue to increase students' comprehension.
6. The application of education through the practical part.

Unit or subject

Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical Hours	Apply enamel structural knowledge clinically	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Lecture	Quiz
2	2 theoretical Hours	Apply enamel structural knowledge clinically	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Lecture	Quiz
3	2 theoretical Hours	Apply enamel structural knowledge clinically	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Lecture	Quiz
4	2 theoretical Hours	Apply enamel structural knowledge clinically	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	Lecture	Quiz
5	2 theoretical Hours	Integrate patient needs and risks.	Patient Evaluation , Diagnosis & Treatment Planning	Lecture	Quiz
6	2 theoretical Hours	Apply Caries Risk Assessment.	Caries Management (Diagnosis & treatment strategies)	Lecture	Quiz

7	2 theoretical Hours	Define types and treatment approaches	Cervical Lesions(carious and non carious lesions)	Lecture	First semester exam
8	2 theoretical Hours	Relate cavity preparation to pulp status and techniques for protection.	Restorative Dentistry and Pulpal Health	Lecture	Quiz
9	2 theoretical Hours	Differentiate vital pulp therapy and capping techniques.	Management of Deep Seated Caries	Lecture	Quiz
10	2 theoretical Hours	Classify pulpal diagnosis (e.g., reversible, irreversible).	Inflammatory Conditions of the Pulp	Lecture	Quiz
11	2 theoretical Hours	Detail selective caries removal and perform anatomical composite modeling.	Treatment of Deep Seated Caries Simplified anatomical modeling.	Lecture	Quiz
12	2 theoretical Hours	Identify materials, releasing mechanism, and applications.	Fluoride – Releasing Materials	Lecture	Quiz
13	2 theoretical Hours	Differentiate inlay/onlay indications and procedures.	Indirect aesthetic adhesive restorations Inlays and Onlays (materials ,techniques) CAD/CAM Technology.	Lecture	Quiz
14	2 theoretical Hours	Describe proper bonding protocol.	Direct tooth-colored restorations(Composite)	Lecture	Quiz
15	2 theoretical Hours	Explain laser physics and function.	Dental Laser	Lecture	Quiz
16	2 theoretical Hours	Identify operative dentistry applications.	Application of Laser in Conservative Dentistry.	Lecture	Quiz

17	2 theoretical Hours	Identify operative dentistry applications.	Application of Laser in Conservative Dentistry	Lecture	Quiz
18	2 theoretical Hours	Select materials for indirects and describe proper preparation design.	Indirect tooth-colored restorations	Lecture	Quiz
19	2 theoretical Hours	Describe laboratory processing steps.	Techniques of posterior composite Inlay/Onlay restoration system Laboratory-processed composite inlays and onlays	Lecture	Quiz
20	2 theoretical Hours	Precise veneer tooth preparation and Detail impression and temporization.	Ceramic veneers, inlays and onlays, clinical procedures.	Lecture	Quiz
21	2 theoretical Hours	Precise veneer tooth preparation and Detail impression and temporization.	Ceramic veneers, inlays and onlays, clinical procedures.	Lecture	Quiz
22	2 theoretical Hours	Explain digital dentistry workflow.	CAD/CAM techniques	Lecture	Quiz

Lab. No.	Practical Subject Title	Hours
1	<p>The students are required to complete the following restorations -in clinics</p> <p>a. Amalgam Restorations Class I, Class II</p> <p>b. Composite (tooth colored) Restorations Class I, Class II, Class III, Class IV, and Class V</p>	3
2	Clinic work.	3
3	Clinic work.	3
4	Clinic work.	3
5	Clinic work .	3
6	Clinic work.	3
7	Clinic work.	3
8	Clinic work.	3
9	Clinic work.	3
10	Clinic work.	3
11	Clinic work.	3
12	Clinic work.	3
13	Clinic work.	3
14	Clinic work.	3
15	Clinic work.	3
16	Clinic work.	3
17	Clinic work.	3
18	Clinic	3

	work.	
19	Clinic work.	3
20	Clinic work.	3
21	Clinic work.	3
22	Clinic work.	3
23	Clinic work.	3
24	Clinic work.	3
25	Clinic work .	3
26	Clinic work.	3
27	Clinic work.	3
28	Clinic work.	3
29	Clinic work.	3
30	Clinic work.	3
Total		90

Practical part:

1. Infrastructure	
1. Books Required reading:	Art and science of operative dentistry Text book of endodontic.
2. Main references (sources)	As above
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	scopus

Course Description Form
Oral Surgery

1. Course Name:	Oral surgery
2. Course Code:	ORS461
3. Semester / Year:	4 th stage/ Annual
4. Description Preparation Date:	15/9/2025
5. Available Attendance Forms:	Attendance (Theoretical + clinic)
6. Number of Credit Hours (Total) / Number of Units (Total)	150 h (30 Theoretical+ 120 clinic)/ 6
7. Course administrator's name (mention all, if more than one name)	Asst lec. Ahmed abdulalkarim Asst lec Saber mezher
8. Course Objectives	<p>1- Preparing the student at a high level of science regarding the principles of oral and maxillofacial surgery, especially the methods of treatment of patients with systemic diseases, impacted teeth and endodontic surgery.</p> <p>2- Graduating distinguished generations capable of absorbing advanced modern technology through academic standards and local and international benchmarks.</p>

3. Continuous development and updating of educational and research programs and keeping pace with the needs of society.

4. Commitment to academic work ethics.

9. Teaching and Learning Strategies

Strategy	1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension. 5- Applying education through the practical part of the course.
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Unit or subject

Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation
					methods
1	1 theoretical hours	Understand the heart disease	Cardiovascular diseases	Lecture	Quiz
2	1 theoretical hours	Understand the hemorrhage and hemostasis	Bleeding disorder	Lecture	Quiz
3	1 theoretical hours	Understand the diabetes mellitus, thyroid and adrenal gland disorders	Endocrinology	Lecture	Quiz
4	1 theoretical hours	Understand the lung disease and disorders	Pulmonary diseases	Lecture	Quiz
5	1 theoretical hours	Understand hepatitis and alcoholic liver disease	Liver Diseases	Lecture	Quiz
6	1 theoretical hours	Explaining various renal disease	Chronic kidney disease and dialysis	Lecture	Quiz

7	1 theoretical hours	Understand the stroke and epilepsy	Neurologic disorders	Lecture	Quiz
8	1 theoretical hours	Understand the concepts of pregnancy and safe dental treatment	Pregnancy	Lecture	1 st sem. Exam
9	1 theoretical hours	Understanding HIV, transmission and prevention of infection	AIDS and HIV infection	Lecture	Quiz
10	1 theoretical hours	Understand the concepts of rheumatology	Rheumatologic and connective tissue disorders	Lecture	Quiz
11	1 theoretical hours	Explaining allergy types and emergencies	Allergy	Lecture	Quiz
12	1 theoretical hours	Understand the effect of radiotherapy and chemotherapy	Patients on radiotherapy and chemotherapy	Lecture	Quiz
13	1 theoretical hours	Understand the types of odontogenic infection	Odontogenic infections and fascial space infections	Lecture	Quiz
14	1 theoretical hours	Understand types of fascial space infection	Fascial space infections	Lecture	Quiz
15	1 theoretical hours	Understand the management of odontogenic infection	Principles of treatment of odontogenic infections	Lecture	Quiz
			Mid Term Exam		
16	1 theoretical hours	Understand the flap design and suturing techniques	Principles of Flaps, suturing and management of difficult extraction	Lecture	Quiz

17	1 theoretical hours	Understand the management of difficult extraction	Management of difficult extraction	Lecture	Quiz
18	1 theoretical hours	Understand the concepts of impacted teeth	Principles of management of impacted teeth	Lecture	Quiz
19	1 theoretical hours	Understand the management of impacted upper 3 rd molar	Impacted upper third molars	Lecture	Quiz
20	1 theoretical hours	Understand the management of impacted mandibular canines	Impacted mandibular canines	Lecture	Quiz
21	1 theoretical hours	Understand the concepts and techniques of surgical orthodontics	Surgical aids to orthodontics	Lecture	Quiz
22	1 theoretical hours	Understand the concepts and techniques of surgical endodontics	Principles of endodontic surgery	Lecture	Quiz
23	1 theoretical hours	Understand the various types of surgical procedure	Surgical procedure	Lecture	2 nd Sem. Exam
24	1 theoretical hours	Understand the concepts of bone disease and management	Osteomyelitis and osteonecrosis of the jaw	Lecture	Quiz
25	1 theoretical hours	Understand the effect of radiation on jaw bones	Radiation induced osteomyelitis and osteoradiation necrosis	Lecture	Quiz
26	1 theoretical hours	Understand the concepts of dental implant treatment	Dental Implants: Basic Concepts and Techniques	Lecture	Quiz
27	1 theoretical hours	Understand the surgical dental implant treatment plan	Surgical Treatment Planning Considerations	Lecture	Quiz

28	1 theoretical hours	Understand the concepts and techniques of biopsy	Biopsy in oral and maxillofacial surgery	Lecture	Quiz
29	1 theoretical hours	Understand the imaging technique in surgery	Diagnostic imaging in oral and maxillofacial surgery	Lecture	Quiz
30	1 theoretical hours	Understand the concepts of management of odontogenic infection	Principles of treatment of odontogenic infections	Lecture	Quiz
Total	30		Final Exam		

11. Infrastructure

1. Books Required reading:	I-Little and Falaces Dental management of the medically compromised patient 9th Edition, 2018.
2. Main references (sources)	2-Contemporary oral and maxillofacial surgery 7th edition 2019 (Elsevier)
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	<p>https://dental.washington.edu/oral-pathology/case-of-the-month/</p> <p>https://www.elsevier.com/open-access/open-access-journals</p>

Practical Part:

Clinical requirement	
Extraction of teeth (simple extraction)	4 hours/ week 120 hours/ year

Course Description Form

General Surgery

1. Course Name:	General Surgery
2. Course Code:	GSR423
3. Semester / Year:	4 th stage/ Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical)
6. Number of Credit Hours (Total) / Number of Units (Total)	30 hour theory/ 2
7. Course administrator's name (mention all, if more than one name)	جامعة تكريت كلية طب الاسنان قسم جراحة الفم والوجه والابطاء
Prof.Dr. Ali Ghanim	
8. Course Objectives	<p>13. To prepare students for having a high level of scientific knowledge of general surgery and on general surgical conditions and methods of diagnosis, treatment and its relationship to their specialty as a dentist..</p> <p>14. Teaching any related signs that give a diagnosis to systemic disease.</p>
9. Teaching and Learning Strategies	<p>1. The method of giving lectures with explanation and clarification using PowerPoint.</p> <p>2. Urging students to use the library as one of the learning methods.</p> <p>3. The method of self-learning by supporting the learner's environment.</p> <p>4. Urging students to use the Internet as a supportive tool for learning.</p>

5. Using the principle of discussion and dialogue to increase students' comprehension.

Unit or subject

Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation Unit or subject
1	1 theoretical Hours	Understanding the basics of case history	Case history	Lecture	Quiz
2	1 theoretical Hours	Understanding the techniques of clinical examination	Clinical examination	Lecture	Quiz
3	2 theoretical Hours	Understanding the management of wound and infections	Surgical wound and infections	Lecture	Quiz
4	2 theoretical Hours	Understanding the basics healing	Wound healing	Lecture	Quiz
5	2 theoretical Hours	Understanding the hemorrhage types and methods of transfusion	Hemorrhage and blood transfusion	Lecture	Quiz
6	2 theoretical Hours	Understanding the basics of bone fracture	Fracture and dislocation of bones	Lecture	Quiz
7	1 theoretical Hours	Understanding the head region injuries	Head injuries	Lecture	First semester exam

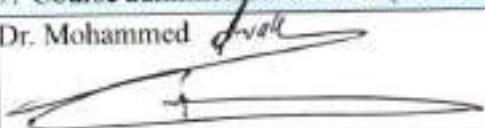
8	2 theoretical Hours	Understanding the techniques of feeding parenterally	Parenteral feeding	Lecture	Quiz
9	2 theoretical Hours	Understanding the basics of fluid needs and types	Fluid and electrolytes balance	Lecture	Quiz
10	2 theoretical Hours	Explaining medical resuscitation and emergencies	Surgical resuscitation and medical emergencies	Lecture	Quiz
11	2 theoretical Hours	Understanding the neck swelling	Differential diagnosis of swelling in the neck	Lecture	Quiz
			Mid-year Exam.		
12	2 theoretical Hours	Understanding the basics of nose disease and sinuses	Diseases of the nose and Para nasal sinuses	Lecture	Quiz
13	2 theoretical Hours	Understanding and management the disease of pharynx, larynx and esophagus	Diseases of pharynx and larynx and esophagus	Lecture	Quiz
14	2 theoretical Hours	Understanding the techniques of general anesthesia and pain management	General anesthesia, pain management and postoperative care	Lecture	Quiz
15	2 theoretical Hours	Understanding the diseases of chest and management	Chest trauma and diseases	Lecture	Quiz
16	2 theoretical Hours	Understanding the thyroid disease	Thyroid gland and goiter	Lecture	Quiz

17	2 theoretical Hours	Understanding the basics of tumor, cyst, ulcer and fistula	Tumors, Cyst, Ulcer & fistula	Lecture	Quiz
18	2 theoretical Hours	Understanding the nasal and sinus disease	Diseases of the nose and Para nasal sinuses	Lecture	Second semester exam
19	2 theoretical Hours	Understanding the disease of pharynx and larynx	Diseases of pharynx and larynx and esophagus	Lecture	Quiz
20	2 theoretical Hours	Understanding the techniques of general anesthesia and pain management	General anesthesia, pain management and postoperative care	Lecture	Quiz
21	1 theoretical Hours	Explaining chest trauma and disease	Chest trauma and diseases	Lecture	Quiz
Total	30		Final Exam.		

11. Infrastructure

1. Books Required reading:	Baily and Love's short practice of surgery 27th edition 2018.
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course Description Form
General Medicine

1. Course Name:	General Medicine
2. Course Code:	GMD424
3. Semester / Year:	4 th stage/ Annual
4. Description Preparation Date:	15\9\2024
5. Available Attendance Forms:	Attendance (Theoretical)
6. Number of Credit Hours (Total) / Number of Units (Total)	30 h(Theoretical) /6
7. Course administrator's name (mention all, if more than one name)	Dr. Mohammed 
	<div style="border: 2px solid blue; padding: 5px; display: inline-block;"> جامعة تكريت كلية طب الاسنان كلية طب الفم والوجه والذكرين </div>
8. Course Objectives	<p>1. Gaining knowledge of human diseases</p> <p>.....</p> <p>15. Ways to diagnosing diseases and treating them</p> <p>16. The relationship of diseases to their competence as a dentist.</p> <p>17. Follow the correct scientific guidance to determine the possibilities to reach the correct diagnosis.</p>
9. Teaching and Learning Strategies	<p>2- Urging students to use the library as one of the learning methods.</p> <p>3- The method of self-learning by supporting the learner's environment.</p> <p>4- Urging students to use the Internet as a supportive means of learning.</p> <p>5- Using the principle of discussion and dialogue to increase students' comprehension.</p>

Unit or subject					
Week	Hours	Learning	Unit or subject name	Learning method	Evaluation
		Outcomes			
1	1 theoretic al hours weekly	Understand the hypertension	Systemic hypertension	Lecture	Quiz
2	1 theoretic al hours weekly	Understand the types of ischemic heart disease	Ischemic heart disease	Lecture	Quiz
3	1 theoretic al hours weekly	Understand the hematemesis and management	Hematemesis	Lecture	Quiz
4	1 theoretic al hours weekly	Understand the rheumatic fever effect and treatment	Rheumatic fever	Lecture	1 st Sem. Exam.
5	1 theoretic al hours weekly	Understand the concepts of infective endocarditis and management	Infective endocarditis	Lecture	Quiz
6	1 theoretic al hours weekly	Understand the valvular heart disease	Diseases of the heart valves	Lecture	Quiz
7	1 theoretic al hours weekly	Understanding and management of hemorrhage	Hemorrhagic diseases	Lecture	Quiz
8	1 theoretic al hours weekly	Understand the concepts of anemia and treatment	Anemias	Lecture	Quiz

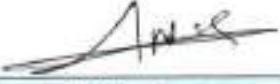
9	1 theoretic al hours weekly	Understand the concepts of hemolytic anemia	Hemolytic anemia	Lecture	Quiz
10	1 theoretic al hours weekly	Understand the concepts of polycythemia	Erythrocytosis and polycythemia	Lecture	Quiz
11	1 theoretic al hours weekly	Understand the disease of leukemia	Leukemia	Lecture	Quiz
12	1 theoretic al hours weekly	Explaining the disease of esophagitis	Esophagitis	Lecture	Quiz
			Mid- Year Exam.		
13	1 theoretic al hours weekly	Understand the concepts of acute abdomen and management	Acute abdomen	Lecture	Quiz
14	1 theoretic al hours weekly	Understand the diabetes mellitus, types and treatment	Diabetes mellitus	Lecture	Quiz
15	1 theoretic al hours weekly	Understand the concepts of tuberculosis and treatment	Tuberculosis	Lecture	Quiz
16	1 theoretic al hours weekly	Understanding and management the symptoms of elementary tract disease	Symptoms of elementary tract disease	Lecture	Quiz

17	1 theoretic al hours weekly	Understand the asthma ,complications and management	Branchial asthma	Lecture	Quiz
18	1 theoretic al hours weekly	Understand the peptic ulcer and methods of treatment	Peptic ulcer	Lecture	2 nd Sem. Exam
19	1 theoretic al hours weekly	Understand the concepts jaundice and managemnt	Jaundice	Lecture	Quiz
20	1 theoretic al hours weekly	Understand the concepts of diarrhea and constipation and management	Diarrhea and constipation	Lecture	Quiz
21	1 theoretic al hours weekly	Understanding heart failure, complications and treatment	Congestive heart failure	Lecture	Quiz
Total	30		Final Exam.		

11. Infrastructure

1. Books Required reading:	Dental Management of the Medically Compromised Patient, Ninth Edition, 2018
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course Description Form
Orthodontics

1. Course Name:	Orthodontic
2. Course Code:	ORT466
3. Semester / Year:	4 th stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical + lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	90 h (30 Theoretical+ 60 lab)/ 4
7. Course administrator's name (mention all, if more than one name)	
Name: Assist. Prof Anas Qahtan	
 	
8. Course Objectives	
Preparing the student at a high level of science regarding the principles of Orthodontics, especially the methods of treatment of patients with malocclusion	
9. Teaching and Learning Strategies	
Strategy	<ol style="list-style-type: none"> 1. Lecture method by explanation and clarification and using PowerPoint. 2. Encouraging students to use the library as one of the learning methods. 3. Self-learning method by supporting the learner's environment. 4. Encouraging students to use the Internet as a means of supporting learning. 5. Using the principle of discussion and dialogue to increase students' comprehension. 6. Applying education through the practical part of the course.

10. Course Structure					
Week	Hours	Outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Define orthodontics and normal vs maloelusion	Introduction Definition of orthodontics Definition of occlusion, normal occlusion, ideal occlusion and maloelusion Six keys of normal occlusion	lectures	Short exams
2	1	Understand goals of orthodontic intervention	Aims of orthodontic treatment 2 Orthodontic definitions (overjet, overbite, crossbite, spacing, crowding, midline deviation, rotation, displacement, proclination, retroclination, protrusion, retrusion, imbrication, overlap, impaction) – including types	lectures	Short exams
3	1	Classify maloelusion by type and dentition stage	Classification of maloelusion a. Angle's classification including division and subdivisions	lectures	Short exams
4	1	Classify maloelusion by type and dentition stage	b. molar, canine, incisor classifications c. classification of deciduous and mixed dentitions	lectures	Short exams
5	1	Explain facial and jaw growth stages	Growth and development Definitions of growth, development and maturity Stages of development (ovum till birth) Theories of bone growth (cartilaginous, sutural,	lectures	Short exams
6	1	Explain facial and jaw growth stages	Definitions of growth site, growth center, displacement, and drift Growth curve and maximum growth spurt	lectures	Short exams
7	1	Describe crano-facial skeletal development timeline	Growth and development of hard tissues (cranial base, cranial vault, 8nasomaxillary complex, 9mandible) including p10renatal and postnatal Growth and development of soft tissues (lip, nose, cheek and tongue)	lectures	Short exams

			including prenatal and postnatal		
8	1	Identify common dentofacial anomalies and adaptations	Developmental anomalies Jaw rotation and adaptation	lectures	Short exams
9	1	Outline tooth development stages and dentition types	Deciduous and permanent dentition Stages of tooth development: Formation, calcification and root completion	lectures	Short exams
10	1	Explain eruption sequence and timing of teeth	Tooth eruption (stages and theories) Sequences and timing of eruption	lectures	Short exams
11	1	Understand occlusion development from birth to adulthood	Development of occlusion a. new born oral cavity (relationship of gum pads, neonatal jaw relationships, natal and neonatal teeth) b. Deciduous dentition stage - Dental changes till 6 years of Orthodontic (jaw relationship, attrition, primary spaces)	lectures	Short exams
12	1	Understand occlusion development from birth to adulthood	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)	lectures	Short exams
13	1	Identify causes and risk factors of malocclusion	Etiology of malocclusion: 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) .	lectures	Short exams
14	1	Identify causes and risk factors of	ii. Soft tissue (muscles of face and mastication,	lectures	Short exams

		malocclusion	muscles of lip and tongue, relation to skeletal factors, abnormalities of orofacial musculature, interference with soft tissue function) iii. Tooth size and arch length relationship (Crowding and spacing) including types		
15	2	Identify causes and risk factors of malocclusion	b. Local factors: 2 i. Extra-teeth (supernumerary) and missing teeth (hypodontia) ii. Anomalies of tooth size and shape	lectures	Short exams
16				lectures	Short exams
17	1	Identify causes and risk factors of malocclusion	iii. Early loss of deciduous teeth iv. Retained deciduous teeth, delayed eruption of permanent teeth, impacted teeth, ankylosis	lectures	Short exams
18	1	Identify causes and risk factors of malocclusion	v. Abnormal eruptive behavior (displacement, transposition) vi. Large frenum (labial and lingual), periodontal diseases	lectures	Short exams
19	1	Identify causes and risk factors of malocclusion	vii. Oral habits viii. Dental caries, improper dental restoration	lectures	Short exams
20	1	histology, biomechanics, force systems, centers of resistance/rotation : Understand biological basis and biomechanics of tooth movement	Tooth movement a. Tissue changes associated with tooth movement: i. Histology of periodontium ii. Theories of tooth movement (pressure tension theory, blood flow theory, and piezoelectric theory)	lectures	Short exams
21	1	histology, biomechanics, force systems, centers of resistance/rotation : Understand biological basis and biomechanics of tooth movement	b. Biomechanics i. Force (application, type, magnitude, duration and direction) ii. Center of resistance and rotation, moment of force and moment of couple.	lectures	Short exams
22	1	histology, biomechanics, force systems,	iii. Types of tooth movement iv. Rate of tooth movement and factors affecting it	lectures	Short exams

		centers of resistance/rotation : Understand biological basis and biomechanics of tooth movement			
23	1	Differentiate types and functions of orthodontic appliances	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)	lectures	Short exams
24	1	Describe design and use of removable orthodontic appliances	b. Removable Orthodontic Appliance: i. Properties of various components (SS wire, acrylic) ii. Components: 1) active components (springs, screws and elastics)	lectures	Short exams
25	1	Describe design and use of removable orthodontic appliance	2) retentive components (clasps) 3) acrylic base plate and bite planes 4) anchorage	lectures	Short exams
26	1	Describe design and use of removable orthodontic appliance	iii. Design of a removable orthodontic appliance iv. Construction of a removable orthodontic appliance	lectures	Short exams
27	1		v. Soldering and welding vi. Post-insertion instructions and guidelines	lectures	Short exams
28	1	Describe fixed appliance systems and biomechanics	c. Fixed orthodontic appliance: Types, components, advantages, limitation, biomechanics, banding vs. bonding	lectures	Short exams
29	1	Recognize advanced anchorage and modern appliance options	Use of extra-oral anchorage, temporary anchorage devices (TADs), and lingual fixed appliance	lectures	Short exams
30	1	Recognize advanced anchorage and modern appliance options	d. Orthopedic and Myofunctional appliance: Types, components, advantages, limitation, mode of action	lectures	Short exams

			e. Other active appliances; combination appliances, Invisalign		
	2	Understand retention principles and retainer type	f. Retention and retainers 2 Retention (definition, reason, time) Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)	lectures	Short exams

Clinical requirements

Lab number	Study unit title	Hours
1	Seminar 1 (Introduction to orthodontics)	4
2	Seminar 2 (Types of orthodontic appliances) (Introduction to removable appliance)	4
3	Seminar 3 (Orthodontic Pliers)	4
4	Seminar 4 (Stainless steel alloy properties)	4
5	Seminar 5 (Principles of wire bending)	4
6	Wire bending training	4
7	Z-Spring	4
8	Recurved Z-Spring	4
9	Review	4
10	Simple Finger Spring	4
11	Modified Finger Spring	4
12	Review	4
13	Buccal Canine Retractor	4
14	Modified Buccal Canine Retractor	4
15	Review	4
16	Quarterly Exam	4
17	Adams' Clasps on Upper Right 1 st Molar	4
18	Adams' Clasps on Upper Left 1 st Molar	4
19	Adams' Clasps on Upper Right 1 st Premolar	4
20	Double Adams' Clasps on Upper Right 2 nd premolar & 1 st molar	4
21	Review	4
22	Fitted Labial Arch	4
23	Hawley Arch	4
24	Review	4

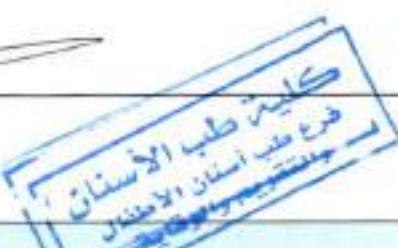
25	Robert's Retractor	4
26	Acrylic baseplate	4
27	Soldering and Welding	4
28	Review	4
29	Quarterly Exam	4
30	Final Exam	4
Total		120

11. Infrastructure	
1. Books Required reading:	1. Contemporay orthodontics 2. Textbook of orthodontics 3. Orthodontics; current principles and technique 4. Introduction to orthodontic
2. Main references (sources)	Text book of clinical dentistry
A- Recommended books and references (scientific journals, reports...).	Scientific Journals
B-Electronic references, Internet sites...	Website

Course Description Form

1. Course Name:	Pediatric Dentistry
2. Course Code:	PED449
3. Semester / Year:	4 th stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical)
6. Number of Credit Hours (Total) / Number of Units (Total)	30 hours / one hour per week
7. Course administrator's name (mention all, if more than one name)	

Name: lec. Aseel taha
Name: assist. Lec. Hella thamer



8. Course Objectives

1. give Information to students in a manner enabling understanding and increased knowledge regarding the diagnosis and treatment of various diseases, mouth and teeth of children
- 2 - giving instructions on how to deal with children of different behavior
3. Emphasize the importance of spreading awareness among parents about of terms dental health deciduous and permanent both

9. Teaching and Learning Strategies

1. The method of giving lectures with explanation and clarification using PowerPoint.
2. Urging students to use the library as one of the learning methods.
3. The method of self-learning by supporting the learner's environment.
4. Urging students to use the Internet as a supportive tool for learning.
5. Using the principle of discussion and dialogue to increase students' comprehension.
6. The application of education through the practical part.

10. Course Structure					
Week	Hours	Unit/Module or Topic Title	outcomes	Teaching Method	Assessment Method
1	1	Eruption of teeth , normal eruption process	<p>Define tooth eruption and describe its stages.</p> <p>Explain the chronological sequence of eruption for primary and permanent teeth.</p> <p>Describe the physiological changes occurring during normal eruption.</p> <p>Identify factors that regulate eruption (genetic, local, systemic).</p> <p>Recognize normal eruption variations that do not require treatment.</p>	Lecture	Quizzes, quarterly, mid-year and final exams
2	1	Teething and difficult eruption	<p>Describe signs and symptoms of teething in infants.</p> <p>Distinguish normal teething symptoms from pathological conditions.</p> <p>Explain management strategies for teething discomfort.</p> <p>Recognize causes of difficult eruption and when referral is required.</p>	Lecture	Quizzes, quarterly, mid-year and final exams
3	1	Eruption haematoma , sequestrum ,ectopic eruption	<p>Identify an eruption hematoma clinically and explain its etiology.</p> <p>Describe the formation of sequestrum associated with erupting molars.</p> <p>Define ectopic eruption and list the teeth most commonly affected.</p> <p>Explain the consequences of</p>	Lecture	Quizzes, quarterly, mid-year and final exams

			ectopic eruption and outline appropriate management.		
4	I	Epstein pearls, Bohn nodules, Dental lamina cysts, Shedding of the primary teeth, Mechanism of resorption and shedding, Factors causes differences in time of eruption	<p>Differentiate between Epstein pearls, Bohn nodules, and dental lamina cysts.</p> <p>Describe their embryologic origin and clinical appearance.</p> <p>Explain why these conditions require no treatment.</p> <p>Counsel parents effectively about normal newborn oral findings</p>	Lecture	Quizzes, quarterly, mid-year and final exams
5	I	Systemic (disease) Factors which cause late eruption Deciduous Dentition Period, Ugly Duckling Stage	<p>Identify systemic diseases that lead to delayed tooth eruption.</p> <p>Explain how each disease affects eruption timing.</p> <p>Differentiate between physiological and pathological delayed eruption.</p> <p>Correlate clinical findings with the child's medical history to determine the cause.</p> <p>Develop an appropriate treatment or referral plan based on the systemic condition.</p> <p>Recognize warning signs that require medical evaluation</p>	Lecture	Quizzes, quarterly, mid-year and final exams
6	I	Morphology of the primary teeth	<p>Describe the external and internal morphology of all primary teeth.</p> <p>Compare primary vs. permanent teeth in terms of:</p>	Lecture	Quizzes, quarterly, mid-year and final exams

			<p>Size</p> <p>Enamel and dentin thickness</p> <p>Crown shape</p> <p>Root form</p> <p>Pulp chamber size</p> <p>Understand why the large pulp chambers of primary teeth influence treatment planning.</p> <p>Apply morphological knowledge to restorative and preventive dental procedures.</p>		
7	1	<p>Normal morphology of all primary teeth and their clinical consideration</p>	<p>Identify the normal anatomical features of all primary incisors, canines, and molars.</p> <p>Recognize distinctive features, such as:</p> <p>Bulbous crowns</p> <p>Prominent cervical ridge</p> <p>Narrow occlusal table</p> <p>Thin enamel and dentin</p> <p>Divergent and slender roots</p> <p>Understand the special morphology of primary molars (e.g., MB bulge, large pulp horns).</p>	Lecture	Quizzes, quarterly, mid-year and final exams
8	1	<p>Morphological differences between primary and permanent teeth</p>	<p>Compare both dentitions in terms of:</p> <p>Crown shape and size</p> <p>Enamel and dentin thickness</p> <p>Pulp chamber size and pulp horn height</p>	Lecture	Quizzes, quarterly, mid-year and final exams

		<p>Root shape, length, and divergence</p> <p>Color differences</p> <p>Occlusal surface anatomy</p> <p>Explain how these differences influence restorative dentistry, pulp therapy, and extraction techniques in children.</p> <p>Recognize the clinical significance of thinner enamel and larger pulps in primary teeth.</p> <p>Apply the morphological differences to diagnosis, treatment planning, and preventive strategies in pediatric dentistry.</p>		
9	1	<p>Functions of primary teeth</p> <p>List the main functions of primary teeth, including:</p> <p>Mastication (chewing)</p> <p>Aesthetics and facial profile support</p> <p>Speech development</p> <p>Guiding eruption of permanent teeth</p> <p>Maintaining arch length and space</p> <p>Explain how primary teeth contribute to normal jaw growth and oral function.</p> <p>Describe the consequences of premature loss of primary teeth, including:</p> <p>Space loss → crowding</p>	Lecture	Quizzes, quarterly, mid-year and final exams

			<p>Midline shift</p> <p>Eruption disturbances</p> <p>Impact on speech and nutrition</p> <p>Emphasize the importance of preserving primary teeth for proper oral development.</p> <p>Educate parents about the long-term significance of healthy primary teeth.</p>		
10	1	Dental caries; Definition and Classification	<p>Define dental caries as a:</p> <p>Bacterial-based</p> <p>Biofilm-mediated</p> <p>Diet-modulated</p> <p>Multifactorial disease that results in demineralization of dental tissues.</p> <p>Understand the roles of bacteria, fermentable carbohydrates, host factors, and time in caries development.</p> <p>Classification Outcomes</p> <p>The student will be able to classify dental caries based on:</p> <p>Location (pit & fissure, smooth surface, proximal, root caries).</p> <p>Extent (incipient, cavitated, advanced).</p> <p>WHO classification, Black's classification, or ICDAS (depending on the lecture).</p> <p>Rate of progression (acute,</p>	<p>Lecture</p> <p>Quizzes, quarterly, mid-year and final</p> <p>Exams</p>	

		chronic, arrested).		
		Etiological factors (nursing caries, early childhood caries, radiation caries).		

Clinical requirement (Seminars)

No	Title	hours
1	Hypodontia among children	2
2	Anodontia among children	2
3	Rampant caries among children	2
4	Staining among children	2
5	Types of Caries removal techniques	2
6	Restoration of primary and young permanent teeth with variety types of restorative materials	2
7	Rubber dam	2
8	Minor oral surgery	2
9	Thumb sucking habits	2
10	Pulp therapy for permanent dentition	2
11	Pulp therapy for primary dentition	2
12	Materials used for pulp therapy	2
13	Crowns in pediatric dentistry	2
14	Nail biting among children	2
15	Maintenance of pulp vitality by use of regenerative materials	2
16	Root canal treatment for anterior non vital teeth	2
17	Root canal treatment	2
18	Management of molar incisor hypomineralization MIH	2
19	Behavior management for young patients	2
20	Infection control re-assurance and guidance of students	2
21	Tooth colored restoration technique	2
22	Radiographic prescription and interpretation of results	2
23	Space maintainers	2
24	Fluoride application as a preventive measure	2
25	Cleft lip and palate	2
26	Supernumerary teeth and their impact on teeth eruption	2
27	Management of medically compromised children	2
28	Diagnosis and treatment plan	2
29	ART technique	2
30	Periodontal diseases in children	2
Total		60

11. Infrastructure	
1. Books Required reading:	Pediatric Dentistry Infancy through Adolescence/ 5th ed. / Paul S. Casamassimo et al./ Elsevier/ 2013
	Pediatric Restorative Dentistry/ Soraya Coelho Leal, Eliana Mitsue Takeshita/ Springer/ Springer International Publishing AG, part of Springer Nature 2019
	Pedodontics Practice and Management/ Badrinatheswar GV/ Jaypee Brothers Medical
	Text book of clinical dentistry
2. Main references (sources)	Scientific Journals
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	Website

Course Description Form

Oral and maxillofacial Surgery

1. Course Name:	Oral and maxillofacial surgery
2. Course Code:	ORS581
3. Semester / Year:	5 th stage\annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical + clinic)
6. Number of Credit Hours (Total) / Number of Units (Total)	210 h (30 Theoretical + 180 clinic)/8
7. Course administrator's name (mention all, if more than one name)	

8. Course Objectives

- 1- Preparing the student at a high level of science regarding the principles of oral and maxillofacial surgery, especially the methods of treatment of patients with systemic diseases, impacted teeth and endodontic surgery.
- 2- Graduating distinguished generations capable of absorbing advanced modern technology through academic standards and local and international benchmarks.
- 3- Continuous development and updating of educational and research programs and keeping pace with the needs of society.
- 4- Commitment to academic work ethics.

9. Teaching and Learning Strategies

Strategy	<ol style="list-style-type: none"> 1- Lectures with explanation and clarification using Power Point. 2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension. 5- Applying education through the practical part of the course.
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Unit or subject

Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation
					Unit or subject
1	1 theoretical hours	Understand the concepts of various facial pain	Orofacial pain	Lecture	Quiz
2	1 theoretical hours	Understand the primary management of facial fractures	Preliminary management of patients with facial fractures	Lecture	Quiz
3	1 theoretical hours	Understand the concepts of mandibular fractures	Fractures of the mandible	Lecture	Quiz
4	1 theoretical hours	Understand the management of mandibular fractures	Fractures of the mandible	Lecture	Quiz

5	1 theoretical hours	Understand the concepts of fractures of middle third of face	Fractures of the middle third of facial skeleton	Lecture	Quiz
6	1 theoretical hours	Understand the management of middle third facial fractures	Fractures of the middle third of facial skeleton	Lecture	Quiz
7	1 theoretical hours	Understanding and management of dento-alveolar and soft tissues injuries	Dento-alveolar and soft tissue injuries	Lecture	Quiz
8	1 theoretical hours	Explaining preprosthetic surgical procedures	Preprosthetic surgery	Lecture	1 st sem. Exam
9	1 theoretical hours	Understanding and management of potentially malignant oral mucosal disorders	Potentially malignant disorders of the oral mucosa	Lecture	Quiz
10	1 theoretical hours	Understanding and management the disease of maxillary sinus	Odontogenic diseases of the maxillary sinus	Lecture	Quiz
11	1 theoretical hours	Understand the concepts of cystic lesions of the jaw	Benign cystic lesions of the oral cavity	Lecture	Quiz
12	1 theoretical hours	Understanding and management of non-odontogenic tumors	Non-odontogenic tumors and fibro-osseous lesions	Lecture	Quiz
13	1 theoretical hours	Understand the oral cancer diagnosis and types	Oral cancer	Lecture	Quiz
14	1 theoretical hours	Understand the concepts of oral cancer treatment	Oral cancer	Lecture	Quiz
			Mid Term Exam		

16	1 theoretical hours	Understand the concepts of advanced implant treatment	Implant Treatment: Advanced Concepts	Lecture	Quiz
17	1 theoretical hours	Understand the concepts of technical advances in implant treatment	Implant Treatment: Advanced Concepts	Lecture	Quiz
18	1 theoretical hours	Understand the concepts of salivary gland diseases	Salivary gland diseases	Lecture	Quiz
19	1 theoretical hours	Understand the concepts of salivary gland diseases management	Salivary gland diseases	Lecture	Quiz
20	1 theoretical hours	Understand the types of TMJ disorders	Temporomandibular joint (TMJ) disorders	Lecture	Quiz
21	1 theoretical hours	Understand the management of TMJ disorders	Temporomandibular joint (TMJ) disorders	Lecture	Quiz
22	1 theoretical hours	Understand the concept of orthognathic surgical procedures part I	Orthognathic surgery	Lecture	Quiz
23	1 theoretical hours	Understand the concept of orthognathic surgical procedures part II	Orthognathic surgery	Lecture	2 nd Sem. Exam
24	1 theoretical hours	Understand the disorders of cleft lip and palate	Cleft lip and palate	Lecture	Quiz
25	1 theoretical hours	Understand the management of cleft lip and palate disorders	Cleft lip and palate	Lecture	Quiz
26	1 theoretical hours	Understand the techniques of laser and cryosurgery	Laser and Cryosurgery in oral and maxillofacial surgery	Lecture	Quiz

27	1 theoretical hours	Understand the vascular anomalies and management	Vascular anomalies	Lecture	Quiz
28	1 theoretical hours	Understand the concepts of reconstruction of jaw defects part I	Principles of reconstructive surgery of defects of the jaws	Lecture	Quiz
29	1 theoretical hours	Understand the concepts of reconstruction of jaw defects part II	Principles of reconstructive surgery of defects of the jaws	Lecture	Quiz
30	1 theoretical hours	Understand the types and management of vascular anomalies	Vascular anomalies	Lecture	Quiz
Total	30		Final Exam		

11. Infrastructure	
1. Books Required reading:	1.outline of oral surgery 2000 2.Fractures of the facial skeleton 2nd edition 2015 (wiley Blackwell) 3.maxillofacial surgery 3rd edition 2017(Elsevier) 4.Mischs contemporary implant dentistry 4th edition 2021 (Elsevier)
2. Main references (sources)	5-Contemporary oral and maxillofacial surgery 7th edition 2019 (Elsevier)
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	https://dental.washington.edu/oral-pathology/case-of-the-month/ https://www.elsevier.com/open-access/open-access-journals

Practical Part:

Extraction of teeth (simple extraction)	6 hours/ week 180 hours/ year
Surgical extraction of teeth Surgical assistant in minor oral surgery and dental implants	

Course Description Form
Periodontology

1. Course name
periodontology
2. Course code
PER552
3. semester/ year
5th stage / Annual
4. Date of preparation of this description
2024/9/15
5. Available of attendance forms
Lectures and clinics
6. Total number hours/ Number of credits
120hr. (30 theoretical and 90 clinical)/5 units
7. Name of lecturers
Assist prof. Muhammed Ibrahim Al Hazeem <i>[Signature]</i> Lect. Dr. Hadeel Mohammed Abbood <i>[Signature]</i>
8. Aims of the Course
1- Knowledge of the basics of diagnosing periodontal diseases. 2- Giving the student an idea of how to reach the correct diagnosis and how to develop an appropriate treatment plan 3- Enabling the student to use modern treatment methods that include non-surgical treatments. 4- Introduce the student to the methods of surgical treatment 5- Introducing the student to how to treat gum disease for people who suffer from chronic diseases, and the interactions of treatment with the health status of the patient

9. Learning Outcomes, Teaching ,Learning and Assessment Method

1-Cognitive Outcomes

- Identify healthy vs. diseased periodontal tissues.
- Explain mechanisms and contributing factors of periodontal diseases.

- Use clinical and radiographic evidence for accurate diagnosis.

2-Skills Outcomes

- Conduct comprehensive periodontal examinations.
- Apply non-surgical treatments and perform basic periodontal surgeries under supervision.
- Assess treatment outcomes and plan appropriate follow-up.

3-Behavioral and Professional Outcomes

- Maintain professional ethics and adhere to infection control protocols.
- Communicate effectively with patients.
- Collaborate within a multidisciplinary team using evidence-based practices.

Teaching and Learning Methods

1. Lectures using power point presentation: Present advanced scientific concepts of periodontal diseases, along with evidence-based diagnostic and treatment methods.
2. Clinical Sessions: Apply clinical examinations and perform non-surgical treatments and basic periodontal surgeries under direct academic supervision.
3. Presentations and Discussions: Develop communication skills and the ability to present treatment plans effectively.

Assessment methods

1. Written Exams: Include daily, midterm, and final assessments using multiple-choice questions (MCQs), short and long essay questions, matching, and true/false questions.
2. Practical and Clinical Assessment: Direct evaluation of students' performance during clinical examinations and treatment procedures.
3. Assignments and Tasks: Preparation of scientific reports and practical assignments to enhance applied learning.
4. Participation in Discussions and Case Studies: Assessment of critical thinking and the ability to analyze clinical cases.
5. Clinical Performance Log: Continuous monitoring of students' progress and assessment of their clinical skills.

10. Course Structure/ Theoretical part

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	-Understand the theoret importance of a	Periodontal examination and diagnosis	Lecture	Quiz

	ical hour	comprehensive patient appraisal in periodontal diagnosis. -Comprehend how systemic health, medications, and past dental treatments influence periodontal status	- Overall appraisal of the patient - Medical history - Dental history		
2	1 theoreti cal hour	-Understand the theoretic types and patterns of alveolar bone loss associated with periodontal disease (horizontal, vertical, localized, generalized). -Recognize the pathophysiology and mechanisms underlying bone destruction in periodontitis	Bone loss and patterns of bone destruction	Lecture	Quiz
3	1 theoreti cal hour	-Identify different radiographic techniques (e.g., periapical, bitewing, panoramic) and their indications. -Recognize radiographic features of bone loss, periodontal pockets, and other periodontal pathologies.-	Radiographic aids in the diagnosis of periodontal disease	Lecture	Quiz
4	1 theoreti cal hour	-Understand advanced diagnostic techniques used in periodontology, including microbiological	Advanced diagnosis	Lecture	Quiz

		testing, molecular biomarkers, and imaging modalities (e.g., CBCT).			
5	1 theoret ical hour	Understand how the periodontium responds to different types of external forces, including occlusal forces and trauma.	Periodontal response to external forces	Lecture	Quiz
6	1 theoret ical hour	<ul style="list-style-type: none"> -Understand the components and mechanisms of the innate immune system. -Recognize the role of innate immunity in the host defense against periodontal pathogens. 	Immunology Innate immunity	Lecture	Quiz
7	1 theoret ical hour	<ul style="list-style-type: none"> -Recognize the role of adaptive immune responses in controlling periodontal infections and contributing to tissue destruction. -Comprehend the interplay between innate and adaptive immunity in periodontal disease progression. 	Immunology - Adaptive immunity	Lecture	Quiz
8	1 theoret ical hour	-Understand the causes and classification of tooth mobility, including periodontal,	Tooth mobility	Lecture	1 st sem. Exam

		traumatic, and iatrogenic factors. Recognize the clinical significance of tooth mobility in periodontal diagnosis and prognosis.			
9	1 theoret ical hour	-Understand the prevalence, distribution, and determinants of periodontal diseases in different populations. -Recognize the influence of demographic, behavioral, and systemic factors on periodontal health.	Epidemiology of periodontal diseases	Lecture	Quiz
10	1 theoret ical hour	-Understand the concept and importance of prognosis in periodontal treatment planning. -Recognize the factors influencing prognosis, including patient-related, disease-related, and treatment-related variables.	Determination of prognosis	Lecture	Quiz
11	1 theoret ical hour	-understand how periodontal health and disease affect other dental disciplines, including prosthodontics,	Interrelationships of periodontal disease and therapy with other dental disciplines	Lecture	Quiz

		orthodontics, endodontics, and oral surgery.			
12	1 theoret ical hour	-Understand the fundamental principles of periodontal surgery, including indications, objectives, and treatment planning.	Periodontal surgery. General principles	Lecture	Quiz
13	1 theoret ical hour	Understand the principles, mechanisms, and indications of sonic and ultrasonic instruments in periodontal therapy.	Sonic and ultrasonic instrumentation and irrigation	Lecture	Quiz
14	1 theoret ical hour	Understand the indications, objectives, and biological principles of gingivectomy and local excision procedures.	Gingivectomy and local excision	Lecture	Quiz
15	1 theoret ical hour	-understand the indications, objectives, and biological principles of periodontal flap surgery. -Recognize the types of flap designs and their clinical applications.	Flap surgery	Lecture	Quiz
Mid Term Exam					
16	1 theoret ical hour	-Understand the objectives and indications of mucogingival and aesthetic periodontal surgery.	Mucogingival and aesthetic surgery	Lecture	Quiz

		-Recognize common procedures, including gingival grafts, root coverage techniques, and tissue augmentation			
17	1 theoret ical hour	-Understand the anatomy of furcation areas and the classification of furcation involvement. Recognize the clinical and radiographic signs of furcation defects.	Furcation: involvement and treatment	Lecture	Quiz
18	1 theoret ical hour	Understand the principles, mechanisms, and types of lasers used in periodontal therapy	Laser therapy	Lecture	Quiz
19	1 theoret ical hour	-Understand the rationale, mechanisms, and indications for locally delivered controlled-release antimicrobial therapy in periodontics.	Locally delivered, controlled-release antimicrobials	Lecture	Quiz
20	1 theoret ical hour	- Understand the common systemic conditions (e.g., diabetes, cardiovascular diseases, immunodeficien- cies) that influence periodontal health and treatment.	Management of medically compromised patients	Lecture	Quiz
21	1	-Understand how	Management of medically	Lecture	Quiz

		theoret ical hour	systemic diseases (e.g., diabetes, cardiovascular disorders, immunodeficiencies) affect periodontal health and treatment.	compromised patients		
22	I	theoret ical hour	<ul style="list-style-type: none"> -Understand the composition, origin, and physiological role of gingival crevicular fluid. -Recognize the relevance of GCF as a diagnostic marker for periodontal health and disease 	Gingival crevicular fluid (GCF)	Lecture	Quiz
23	I	theoret ical hour	<ul style="list-style-type: none"> -Understand the etiology, pathophysiology, and clinical presentation of dentin hypersensitivity. -Recognize the contributing factors, including gingival recession, enamel loss, and periodontal disease. 	Dentin hypersensitivity 605.e1	Lecture	2nd Sem. Exam
24	I	theoret ical hour	<ul style="list-style-type: none"> -understand the biological principles of periodontal wound healing and tissue regeneration. -Recognize the phases of wound healing: hemostasis, inflammation, 	Tissue regeneration. General principles Periodontal Wound Healing	Lecture	Quiz

		proliferation, and remodeling			
25	1 theoret ical hour	<ul style="list-style-type: none"> -Understand the principles and goals of regenerative periodontal therapy. -Recognize indications, contraindications, and types of regenerative procedures (e.g., guided tissue regeneration, bone grafts, growth factors) 	Regenerative periodontal therapy	Lecture	Quiz
26	1 theoret ical hour	<ul style="list-style-type: none"> -Understand the objectives, indications, and biological principles of reconstructive periodontal surgery. -Recognize the types of reconstructive procedures, including bone grafting, guided tissue regeneration, and soft tissue grafting. 	Reconstructive surgical techniques	Lecture	Quiz
27	1 theoret ical hour	Understand advanced concepts and techniques in periodontal regeneration, including biologics, growth factors, stem cells, and novel scaffolds.	Advanced regenerative approaches	Lecture	Quiz
28	1	-Understand the	Oral implantology	Lecture	Quiz

		theoret principles, ical indications, and contraindications of dental implants. -Recognize the biological basis of osseointegration and peri-implant tissue health			
29	1 theoret ical hour	comprehend the relationship between periodontal status and implant success. Learn the types of implants, surgical protocols, and prosthetic considerations	Oral implantology	Lecture	Quiz
30	1 theoret ical hour	-Understand the principles of supportive care for dental implants, including peri-implant tissue maintenance. -Recognize the risk factors for peri-implant diseases (mucositis and peri-implantitis).	Oral implantology Supportive implant treatment	Lecture	Quiz
Total	30		Final Exam		

Course Structure (Clinical requirement)

Credit hours required	Details

3 h/week (90 h/year)

Clinical

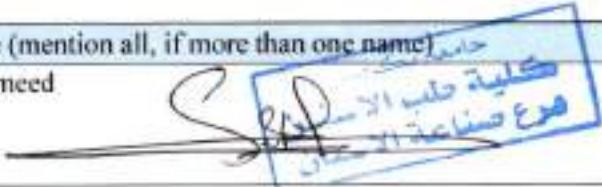
- Recording medical and dental history
- Patient's education and motivation
- Oral hygiene instructions (OHI)
- Recording periodontal indices
- Bleeding on probing (BOP)
- Plaque index (% of plaque)
- Probing pocket depth (PPD)
- Clinical attachment loss (CAL)
- For periodontitis cases, determination 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 planning (min= 3 teeth)
- Periodontal surgery assistant (one case optional)

11. Infrastructure	
1. Books Required reading:	Newman and Carranza's Clinical Periodontology thirteen edition
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	
12. The development of the curriculum plan	
1- Updating the content of the lectures by deleting and adding no more than 20% with up-to-date information and developing the content of the lecture.	
2- Using modern teaching methods according to the nature of the course.	

Course Description Form
Prosthodontics

1. Course Name:	Prosthodontics
2. Course Code:	PRO585
3. Semester / Year:	5th stage / Annual
4. Description Preparation Date:	15/ 9/ 2024
5. Available Attendance Forms:	Attendance (lecture+ lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	30 & 180hrs/ 8 Units
7. Course administrator's name (mention all, if more than one name)	Lecturer Dr. Safwan Abd-Alhameed  جامعة حلب جامعة حلب

8. Course Objectives

1- Defining and understanding some important terms in the Prosthodontics
 2- Practical application of practical laboratory steps for manufacturing complete dentures
 Graduating doctors who are fully familiar with all the materials used to make the complete Dentures

9. Teaching and Learning Strategies

1- Giving the lecture (explanation and clarification)
 2- Using modern educational methods
 1- Urging the student to use the library as one of the learning methods

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1hour theoretical 2hour practical	Explain occlusion principles; identify schemes; relate occlusion to denture function.	Occlusion in Complete Denture	Lecture	Questions and discussion
2	1hour theoretical 2hour practical	Evaluate occlusal discrepancies; adjust and refine occlusion.	Occlusion in Complete Denture (Continue)	Lecture	Questions and discussion
3	1hour theoretical 2hour practical	Define retention, stability, support; describe factors influencing each.	Retention, Stability and Support	Lecture	Questions and discussion
4	1hour theoretical	Apply methods	Retention, Stability and Support	Lecture	Questions and discussion

	2hour practical	to enhance retention/stability ; critique denture designs.	Support (Continue)		
5	1hour theoretical 2hour practical	Identify common problems ; differentiate patient vs prostheses causes; propose management.	Post Insertion Problems	Lecture	Questions and discussion
5	1hour theoretical 2hour practical	Troubles shoot and apply adjustments for sore spots, instability, speech issues.	Post Insertion Problems (Continue)	Lecture	Questions and discussion
7	1hour theoretical 2hour practical	List biological, mechanical, functional complications; understand risk factors.	Complications Of Complete Denture	Lecture	Questions and discussion
8	1hour theoretical 2hour practical	Develop management protocols ; counsel long term maintenance.	Complications Of Complete Denture (Continue)	Lecture	Questions and discussion

9	1hour theoretical 2hour practical	Define immediate dentures; explain indications, advantages, limitations.	Immediate Denture	Lecture	Questions and discussion
10	1hour theoretical 2hour practical	Plan treatment; manage postoperative changes; evaluate adaptation.	Immediate Denture (Continue)	Lecture	Questions and discussion
11	1hour theoretical 2hour practical	Understand classification systems; categorize patients.	Classification system for completely edentulous patients	Lecture	Questions and discussion
12	1hour theoretical 2hour practical	Apply classifications clinically; guide prognosis planning.	Classification system for completely edentulous patients (Continue)	Lecture	Questions and discussion
13	1hour theoretical 2hour practical	Identify PPS anatomy; explain functions; outline recording techniques.	Posterior palatal seal area	Lecture	Questions and discussion
14	1hour theoretical	Describe challenges	Single CD	Lecture	Questions and discussion

	2hour practical	es; analyze occlusal considerations.			
15	1hour theoretical 2hour practical	Modify treatment; manage occlusal complications.	Single CD (Continue)	Lecture	Questions and discussion
16		Understand aging changes; adapt treatment; address medical/psychological factors.	Geriatric dentistry	Lecture	
17		Define types; understand basic design principles.	Maxillofacial Prosthesis	Lecture	
18	1hour theoretical 2hour practical	Plan treatments; evaluate materials and retention	Maxillofacial Prosthesis (Continue)	Lecture	Questions and discussion
19	1hour theoretical 2hour practical	Explain mechanisms; identify clinical implications.	Residual Ridge resorption	Lecture	Questions and discussion
20	1hour theoretical 2hour practical	Assess severity; propose prevention.	Residual Ridge resorption (Continue)	Lecture	Questions and discussion

		modify denture design.			
21	1hour theoretical 2hour practical	Understand implant components, osseointegration, indications.	Dental implantology	Lecture	Questions and discussion
22	1hour theoretical 2hour practical	Plan implant-supported overdentures; evaluate considerations.	Dental implantology (Continue)	Lecture	Questions and discussion
23	1hour theoretical 2hour practical	Identify esthetic parameters; select and arrange teeth.	Esthetics in CD	Lecture	Questions and discussion
24	1hour theoretical 2hour practical	Describe ideal properties; compare materials; evaluate biocompatibility.	Characteristics Of Ideal Materials For Dental Implant	Lecture	Questions and discussion
25	1hour theoretical 2hour practical	Explain purpose, indications; outline clinical/lab steps.	Copy denture	Lecture	Questions and discussion
26	1hour theoretical 2hour practical	Define overdentures; describe advantages.	Over Denture	Lecture	Questions and discussion

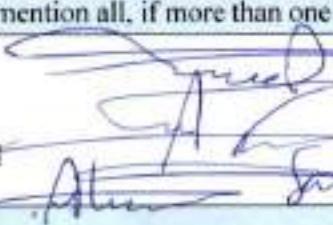
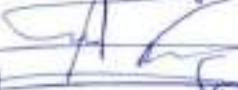
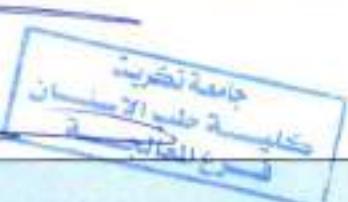
27	1hour theoretical 2hour practical	Evaluate attachment systems; plan maintenance.	Over Denture (Continue)	Lecture	Questions and discussion
28	1hour theoretical 2hour practical	Define neutral zone; record clinically; relate to function.	Neutral zone in CD	Lecture	Questions and discussion
29	1hour theoretical 2hour practical	Identify attachment types; understand biomechanical roles.	Attachments in over denture	Lecture	Questions and discussion
30	1hour theoretical 2hour practical	Choose attachments; explain maintenance and longevity.	Attachments in over denture (Continue)	Lecture	Questions and discussion

11. Infrastructure

1. Books Required reading:	<p>1. Zarb, Hobkirk, Eckert, Jacob et al. "Prosthodontic treatment for edentulous patients: Complete dentures and implant-supported prostheses" 13th edition 2013 by Mosby, Elsevier Inc.</p> <p>2. Golden and Driscoll. "Treating the complete denture patient" 1st edition 2020 John Wiley & Sons, Inc.</p> <p>3. Rahn, Ivanhoe and Plummer. "Textbook of complete dentures" 6th edition 2009 People's Medical Publishing House-USA.</p>
2. Main references (sources)	Articles

B-Electronic references, Internet sites...	Google schooler and you tube
12. The development of the curriculum plan	
It will be replaced, added and deleted to develop the academic scientific content	

Course Description Form
Conservative dentistry

1. Course Name:	Conservative dentistry
2. Course Code:	CND588
3. Semester / Year:	5 th stage/annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical+ lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	210 h(30 Theoretical + 120 clinic) /8
7. Course administrator's name (mention all, if more than one name)	<p>Name: Pro. Dr. huda abass</p>  <p>Lec. Ahmad Ibrahim</p> <p>Lec. Saif saad</p> <p>assist. Lec. Al-ala jammal</p>    
8. Course Objectives	<ol style="list-style-type: none"> 1. The student should be familiar with the materials and tools used in it. 2. The student should be able to perform root canal fillings and dental fillings 3. The ability to be familiar with the theoretical aspects of tooth preparation. 4. The ability to apply this theoretical knowledge and translate it into practical treatment. 5. The ability to perform root canal fillings and dental fillings on patients in the teaching clinic and after graduation. <p>1. The ability to perform fixed dental prostheses on patients in the teaching clinic and after graduation and adhere to academic work ethics</p>
9. Teaching and Learning Strategies	

2- Urging students to use the library as one of the learning methods.
 3- The method of self-learning by supporting the learner's environment.
 4- Urging students to use the Internet as a supportive means of learning.
 5- Using the principle of discussion and dialogue to increase students' comprehension.
 6- Applying education through the practical part of the course.

Unit or subject

Week	Hours	Learning Outcomes	Unit or subject name	Learning method	Evaluation Unit or subject
	2 theoretic al hours weekly				
1	2 theoretic al hours weekly	Explain effects of tooth loss and FPD terms.	Terminology, definition of fixed partial denture , Effect of Tooth Loss, Comparism with R.P.D	Lecture	Quiz
2	2 theoretic al hours weekly	Classify fixed partial denture types.	Types of Fixed Bridge including Basic Bridge Design	Lecture	Quiz
3	2 theoretic al hours weekly	Define retainer function/types.	Components of Fixed Bridge; • Retainers-----	Lecture	Quiz
4	2 theoretic al hours weekly	Classify types of pontics and describe connector design requirements.	Components of Fixed Bridge; • Pontics • Connectors-----	Lecture	1 st Sem. Exam.
5	2 theoretic al hours weekly	Evaluate abutment tooth selection.	• Clinical Consideration for Bridge Construction.- Abutment Tooth(evaluation and selection) _Crown/Root Ratio, Splinting of teeth, Patient Occlusal Status, General Factors	Lecture	Quiz
6	2 theoretic al hours weekly	Modify bridge design for complications.	• Clinical Situations affecting Bridge Design; • (Post. Tilted Abutments, Span Length, Pier Abut., Arch curvature	Lecture	Quiz

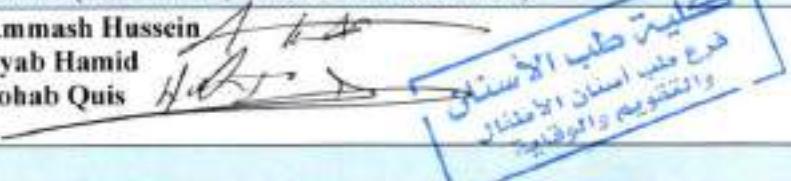
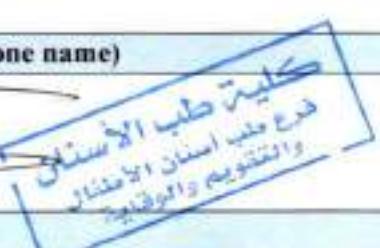
7	2 theoretic al hours weekly	Define resin bonded bridge (RBB) and List indications/contraindications.	Resin bonded bridge	Lecture	Quiz
8	2 theoretic al hours weekly	Evaluate patient data for FPD.	♦ Diagnosis And Treatment Plan. a. Intra-oral Examination. b. X-Rays Examination. c. Diagnostic Cast Examination	Lecture	Quiz
9	2 theoretic al hours weekly	Master gingival retraction techniques and select appropriate impression material.	♦ Gingival retraction and impression(techniques) and impression disinfection	Lecture	Quiz
10	2 theoretic al hours weekly	Design and fabricate provisional restorations and Master bite registration and articulation.	♦ provisional Restoration , Occlusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	Lecture	Quiz
11	2 theoretic al hours weekly	Design and fabricate provisional restorations and Master bite registration and articulation.	provisional Restoration , Occlusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	Lecture	Quiz
12	2 theoretic al hours weekly	Describe the try-in procedure and Perform accurate shade selection.	♦ Try-in and Shade Selection (Colour dimensions Hue,Chroma, and Value)	Lecture	Quiz
13	2 theoretic al hours weekly	Select appropriate luting agent and Follow cementation technique steps.	♦ Final Cementation of F.P.Ds.(Techniques)	Lecture	Quiz
14	2 theoretic al hours weekly	Identify common failures and Describe failure prevention strategies.	♦ Failure in Fixed Prosthodontics.	Lecture	Quiz

15	2 theoretic al hours weekly	Describe ceramic composition/properties	Porcelain in Fixed Prosthodontics (Current Ceramic).	Lecture	Quiz
16	2 theoretic al hours weekly	Classify pulpal and periapical status.	Endodontic diagnosis	Lecture	Quiz
17	2 theoretic al hours weekly	Achieve profound pulpal anesthesia.	Pain control in Endodontic	Lecture	Quiz
18	2 theoretic al hours weekly	Select proper radiographic technique and interpret periapical pathology changes.	Endodontic radiography	Lecture	Quiz
19	2 theoretic al hours weekly	Relate apical anatomy to measurement.	Working length determination	Lecture	Quiz
20	2 theoretic al hours weekly	Describe primary endodontic pathogens and Discuss sterilization/disinfectio n principles.	Microbiology	Lecture	Quiz
21	2 theoretic al hours weekly	Describe primary endodontic pathogens and Discuss sterilization/disinfectio n principles.	Microbiology	Lecture	Quiz
22	2 theoretic al hours weekly	Classify endodontic instruments design features.	Intracanal instruments	Lecture	Quiz
23	2 theoretic al hours weekly	Classify endodontic instruments design features.	Intracanal instruments	Lecture	Quiz
24	2 theoretic al hours weekly	Recognize ideal obturation criteria.	Obturation of the root canal system	Lecture	Quiz

25	2 theoretic al hours weekly	Recognize ideal obturation criteria.	Obturation of the root canal system	Lecture	Quiz
26	2 theoretic al hours weekly	Diagnose and management acute dental pain.	Endodontic Emergency Treatment	Lecture	Quiz
27	2 theoretic al hours weekly	Select final restorative technique and prevent crown fracture.	Restoration of Endodontically Treated Teeth	Lecture	Quiz
28	2 theoretic al hours weekly	Classify common endo-perio lesions and Sequence combined treatment plan.	Endodontic-Periodontal Relations	Lecture	Quiz
29	2 theoretic al hours weekly	Detail bleaching agent mechanisms.	Tooth discoloration and bleaching.	Lecture	Quiz

11. Infrastructure	
1. Books Required reading:	Art and science of operative dentistry Text book of endodontic.
2. Main references (sources)	As above
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	Scopus

Course Description Form
Preventive Dentistry

1. Course Name:	Preventive Dentistry
2. Course Code:	PVD554
3. Semester / Year:	5th stage / Annual
4. Description Preparation Date:	2025-2024
5. Available Attendance Forms:	Attendance (Theoretical + lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	120 hours / 5 units
7. Course administrator's name (mention all, if more than one name)	Name: Ass. Prof Azhar Ammash Hussein lecturer Hind Thyab Hamid Assist lecturer Sohab Quis  <div style="text-align: right; margin-top: 10px;">  <p>كلية طب الأسنان قسم طب أسنان الأطفال والتقويم والorthodontics</p> </div>
8. Course Objectives	<ol style="list-style-type: none"> 1. To provide students with fundamental knowledge of preventive dental procedures aimed at promoting oral health and preventing dental diseases. 2. To train students in the clinical application of preventive measures such as fluoride therapy, pit and fissure sealants, dietary counseling, and oral hygiene instructions. 3. To develop students' skills in identifying risk factors for oral diseases and creating individualized prevention plans for patients. 4. To enhance students' ability to educate and motivate patients toward maintaining long-term oral health through evidence-based preventive strategies.
9. Teaching and Learning Strategies	<ol style="list-style-type: none"> 1. The method of giving lectures with explanation and clarification using PowerPoint. 2. Urging students to use the library as one of the learning methods. 3. The method of self-learning by supporting the learner's environment. 4. Urging students to use the Internet as a supportive tool for learning. 5. Using the principle of discussion and dialogue to increase students' comprehension. 6. The application of education through the practical part.

10- Course structure					
Week	Hour	Theoretical contents	outcomes	Teaching method	Evaluation method
1	1	Prevention of oral diseases (introduction)	<ul style="list-style-type: none"> • What is preventive dentistry? • prevention is better than a cure • Is preventive dentistry still needed? • Levels of prevention <p>Caries prevention: how far it had come in one century!</p>	lecture	Quizzes
2	1	Dental caries development	<ul style="list-style-type: none"> • 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 <p>Clinical appearance of root caries</p>	lecture	Quizzes
3	1	Diagnosis of dental caries	<ul style="list-style-type: none"> • 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). 	lecture	Quizzes
4	1	Fluoride in Dentistry	<ul style="list-style-type: none"> • Introduction • Fluoride in Environment <p>Fluoride Metabolism (Absorption, Distribution and Excretion of Fluoride in the Body).</p>	lecture	Quizzes
5	1	Fluorides in prevention and controlling dental caries	<ul style="list-style-type: none"> • Mechanism of action • Fluoride's effect on tooth mineral • Fluoride effect on plaque and bacterial metabolism 	lecture	Quizzes
6	1	Topical fluoride therapy Professionally applied fluoride	<ul style="list-style-type: none"> • Introduction • Advantages and disadvantages of topical fluoride application • Fluoride Compounds <p>Classification of Professionally applied fluoride</p>	lecture	Quizzes

7	1	Topical fluoride therapy :Self-applied fluoride	<ul style="list-style-type: none"> • Requisites for self-applied fluoride agents • Fluoride dentifrices and Mechanism of Action <p>Fluoride mouth rinses, Indications and Recommendations</p>	lecture	Quizzes
8	1	Safety and toxicity of fluoride	<ul style="list-style-type: none"> • Fluoride Toxicity • Factors influencing acute toxicity • Management of acute toxicity • Recommendations for parents <p>Chronic Toxicity(Dental fluorosis and bone fluorosis)</p>	lecture	Quizzes
9	1	Dental sealants	<ul style="list-style-type: none"> • definition • History • indication and contraindication • sealant in adult • Ideal sealants materials • Requisites for Sealant Retention • Sealant Placement • Guidelines • Fluoride-Releasing Sealants • Glass ionomer sealants • Colored Versus Clear Sealants • Sealants for proximal enamel surfaces • Sealing over caries lesion 	lecture	Quizzes
10	1	New approach in restorative dentistry	<ul style="list-style-type: none"> • Minimally Invasive Treatment Technique • Minimally Invasive Cavity Preparation • Non-machinery Preparation • LASER • Chemo mechanical Caries Removal • Preventive Resin Restorations • Remineralization Treatment 	lecture	Quizzes
11	1	<p>Microbiology of dental caries</p> <ul style="list-style-type: none"> • Other caries-associated bacteria 		lecture	Quizzes
12	1	Saliva and host defense mechanism	<p>Microbial ecology in the oral cavity</p> <ul style="list-style-type: none"> • 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 	lecture	Quizzes

			Initial microbial colonization Microbial succession Microbial composition of the climax community (mature biofilm) Virulence of microorganisms Major dental caries-associated bacteria <ul style="list-style-type: none"> Function of saliva Composition of saliva Salivary flow rate Influence of saliva on dental caries 		
13	1	Caries risk assessment	<ul style="list-style-type: none"> Goals of Caries Risk Assessment Caries Disease Indicators Caries Risk Factors Caries Protective Factors Factors in Low, Moderate and High Caries Cario gram 	lecture	Quizzes
14	1	infection control	<ul style="list-style-type: none"> Transmission of infection Standard precautions Components of infection control Treatment room features Single use disposable instruments Biomedical waste management 	lecture	Quizzes
15	1	Oral hygiene measures (Mechanical)	<ul style="list-style-type: none"> 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 	lecture	Quizzes
16	1	Oral hygiene measures (Chemical)	<ul style="list-style-type: none"> 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 	lecture	Quizzes
17	1	Diet and	<ul style="list-style-type: none"> Role of carbohydrates in caries 	lecture	Quizzes

		dental caries	<ul style="list-style-type: none"> development Evidences Factors affecting food cariogenicity Physical form of food and clearance time Types of fermentable carbohydrate The basic Stephan curve <p>Frequency of intake sugar and dental caries</p>		
18	1	Non- sugar sweeteners	<ul style="list-style-type: none"> The sweetness of sugars Non- sugar sweeteners Bulk sweeteners Intense sweeteners Protective factors in food Fruit and dental caries Testing food cariogenicity 	lecture	Quizzes
19	1	<ul style="list-style-type: none"> Dietary counseling in dental practice Approach to counseling Motivation 	prevention	lecture	Quizzes
20	1	Nutrition and dental health	<ul style="list-style-type: none"> 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 potential Evaluation of nutritive value Dietary counseling 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 	lecture	Quizzes
21	1	Prevention of periodontal disease and oral cancer by nutrition	<ul style="list-style-type: none"> 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 	lecture	Quizzes
22	1	Probiotics and dental	<ul style="list-style-type: none"> Caries-related mechanisms of probiotic activity 	lecture	Quizzes

		health	<ul style="list-style-type: none"> • Probiotics and counts of <i>mutans streptococci</i> • Probiotics and caries occurrence • Probiotics and periodontal health 		
23	1	Diagnosis and prevention of dental erosion	<ul style="list-style-type: none"> • Prevalence • Early detection • Etiology • Protection against erosion • Prevention of erosion 	lecture	Quizzes
24	1	Prevention of malocclusion	<ul style="list-style-type: none"> • Normal development • Etiology of malocclusion • Interceptive measures • Tooth anomalies • Risk assessment 	lecture	Quizzes
25	1	preventive measure for population with developmental disabilities	<ul style="list-style-type: none"> • Disability definition • Classification of disabling conditions • The issues regarding the 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 	lecture	Quizzes
26	1	preventive treatment strategies for medically compromised populations	<ul style="list-style-type: none"> • 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 	lecture	Quizzes
27	1	Ozone in the prevention of dental diseases	<ul style="list-style-type: none"> • Definition and physical 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 	lecture	Quizzes

			caries <ul style="list-style-type: none"> • Ozone in the management of open caries with ozone • Treating root caries 		
28	1	Geriatric dentistry	<ul style="list-style-type: none"> • population characteristics • Physiologic Changes • Functional status • common oral manifestation • preventive measures • long term care 	lecture	Quizzes
29	1	Implant care	<ul style="list-style-type: none"> • Dental implant parts • Dental implant and biofilm • Implant Maintenance • Professional care in dental clinic • Home care 	lecture	Quizzes
30	1	Protection of the dentition	<ul style="list-style-type: none"> • Impact of dental trauma • Types of traumatic dental injuries to teeth • Sports dentistry • Protective mouth-guards • Evidence of effectiveness • mouth-guards and oral & systemic infection 	lecture	Quizzes

Clinical requirement :

No	Title	hours
1	Diagnosis and treatment planning	3
2	Diagnosis and treatment planning	3
3	Preliminary medical and dental history, Clinical examination , Radio graphic examination	3
4	Preliminary medical and dental history, Clinical examination , Radio graphic examination	3
5	Demonstration and use of Primary prevention program by removal of dental plaque and calculus and application of fluoride and fissure sealants	3
6	Demonstration and use of Primary prevention program by removal of dental plaque and calculus and application of fluoride and fissure sealants	3
7	Monitoring of developing dentition and recognition and prevention (through use of space maintainers) or interception of any occurrence of malocclusion	3
8	Monitoring of developing dentition and recognition and prevention (through use of space maintainers) or interception of any occurrence of malocclusion	3
9	Caries removal and restoration of primary and young developing permanent dentition with variety of restorative materials	3
10	Caries removal and restoration of primary and young developing permanent dentition with variety of restorative materials	3
11	Trauma management in anterior teeth	3
12	Trauma management in anterior teeth	3
13	Minimal intervention dentistry by removal of dental decay and choice of suitable restorative material	3
14	Minimal intervention dentistry by removal of dental decay and choice of suitable restorative material	3
15	Pulp therapy for primary dentition	3
16	Pulp therapy for primary dentition	3
17	Management of simple cases of dental anomalies and other developmental defects	3
18	Management of simple cases of dental anomalies and other developmental defects	3
19	Maintenance of pulp vitality by use of regenerative materials and Root canal treatment for anterior non vital teeth	3
20	Maintenance of pulp vitality by use of regenerative materials and	3

	Root canal treatment for anterior non vital teeth	
21	Extraction for non restorable primary and permanent teeth or over-retained primary dentition and permanent teeth for space creation for orthodontic treatment	2
22	Extraction for non restorable primary and permanent teeth or over-retained primary dentition and permanent teeth for space creation for orthodontic treatment	2
23	Management of molar incisor hypomineralization MIH	3
24	Behavior management for young patients	3
25	Behavior management for young patients	3
26	Infection control re-assurance and guidance of students	3
27	Infection control re-assurance and guidance of students	3
28	Tooth colored restoration technique	3
29	Tooth colored restoration technique	3
30	Radiographic prescription and interpretation of results	3
Total		90

11. Infrastructure

Learning and Teaching Resources	<ul style="list-style-type: none"> • The prevention of oral disease by Murry JJ NunnJH and Steele JG fourth edition, 2003 • Primary Preventive Dentistry by Harris NO Garcia-GodoyF-NatheCN 8th Ed. (20014) • Essential of dental caries the disease and its management by Kidd E third edition (2005) • Textbook of Cariology by Fejerskov and Thylstrup 1996 • Principles and practice of public health dentistry by Krishna M and DasarPL.2010 • Text book of preventive and social medicine. Gupta M. and Mahajan BK. 3rd edition, 2003 • Dentistry, dental practices and the community Striffler D, Young W., and Burt B., 5th edition 1999. • Text book Public health dentistry . CM Marya, JAYPEE. 2011. • Diagnosis and risk prediction of dental caries . per Axelsson , DDS, PHD, 2000 • Laser in Dentistry guide for clinical practice by Patricia M. Freitas and Alyne Simoes 2015 • Dental caries, the disease and clinical management Ole fejerskov and Edwina kidd., 2nd edition , black well, 2008. • Comprehensive
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preventive dentistry (2012) Edited by Hardy Limeback	Dental Caries
• Principles and Management 2016 by Zhou Xuedong Springer-Verlag Berlin Heidelberg	
• clinical dentistry 3 rd ed by Abrahame Nizel and Athenas S Papas 1989	Nutrition in
• nutrition by Helen A Guthrie and Mary Frances Picciano 1995	Human and
• immunology principal and practice by Eric Gershwin, Bruce German and Carl L Keen 2000	Nutrition and
• and oral health in Rugg - Gunn A.J. and Nunn J.H (1999):1 st edt Oxford University Press	Nutrition diet
•	<i>Journal:</i>
•	British Dental
Journal	
•	Australian
Dental Journal	
•	International
Dental Journal	
•	Journal of the
Canadian Dental Association	
•	International
Journal of Dental Hygiene	
•	Community
Dental Health	

Course Description Form
Pediatric Dentistry

1. Course Name:	Pediatric Dentistry
2. Course Code:	PED557
3. Semester / Year:	5th stage / Annual
4. Description Preparation Date:	15/9/2025
5. Available Attendance Forms:	Attendance (Theoretical + lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	

120 hours /5 units

7. Course administrator's name (mention all, if more than one name)

Name: Assist .prof Maha Issam Abdulazeez
Lecturer ,Aseel Taha

جامعة تكريت
كلية طب الاسنان
قسم اسنان اورام و جراحة ماحول الاسنان

8. Course Objectives

1. To develop students' knowledge and clinical skills in diagnosing and managing common dental conditions in pediatric patients.
2. To train students in behavior management techniques for effective communication and cooperation with children during dental treatment.
3. To enable students to perform basic pediatric dental procedures, including restorations, pulp therapy, and space maintenance.
4. To promote an understanding of preventive strategies tailored to children, including oral hygiene education, fluoride applications, and dietary counseling.

9. Teaching and Learning Strategies

1. The method of giving lectures with explanation and clarification using PowerPoint.
2. Urging students to use the library as one of the learning methods.
3. The method of self-learning by supporting the learner's environment.
4. Urging students to use the Internet as a supportive tool for learning.
5. Using the principle of discussion and dialogue to increase students' comprehension.
6. The application of education through the practical part.

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	<p>Understand the importance of structured treatment planning.</p> <p>Identify benefits such as improved prognosis, organization, and communication.</p> <p>Develop a step-by-step treatment plan for pediatric patients.</p> <p>List common diagnostic tools used in pediatric dentistry.</p> <p>Select appropriate diagnostic methods for different cases.</p> <p>Interpret diagnostic findings accurately.</p>	Advantage of treatment planning, diagnostic method,	Lecture	Quizzes
2	1	<p>Perform a complete extraoral and intraoral exam.</p> <p>Record findings systematically.</p> <p>Identify normal vs. abnormal conditions.</p> <p>Choose appropriate radiographs for children.</p> <p>Understand radiation safety and selection criteria.</p> <p>Interpret radiographs for diagnosis and treatment.</p>	Clinical examination and radiographic examination	Lecture	Quizzes
3	1	<p>Identify major areas of child development (physical, emotional, cognitive).</p> <p>Understand how development affects dental behavior.</p> <p>Recognize factors influencing</p>	Child development, major area of development variable influence dental behavior, classification of child behavior	Lecture	Quizzes

		<p>child cooperation.</p> <p>List commonly used behavior classifications (Wright, Frankl).</p> <p>Assess a child's behavior accurately.</p> <p>Use classification to guide behavior management.</p>			
4	I	<p>Describe basic communication techniques (Tell-Show-Do).</p> <p>Apply distraction, modeling, reinforcement.</p> <p>Choose the correct behavioral technique for each child.</p>	Non pharmacological management of patient behavior	Lecture	Quizzes
5	I	<p>Define minimal, moderate, deep sedation, and GA.</p> <p>Recognize indications for each level.</p> <p>Understand pre-operative assessment and documentation.</p>	Degree of sedation, indication, Pre treatment documentation and assessment	Lecture	Quizzes
6	I	<p>understand principles of conscious sedation.</p> <p>Compare drug administration routes (oral, rectal, IV, inhalation).</p> <p>Know commonly used sedative drugs.</p> <p>Differentiate sedation from general anesthesia.</p>	Conscious sedation, route of drug administration, enteral sedation, rectal route, IV route, inhalation, drug used, GA	Lecture	Quizzes
7	I	<p>identify emergency management steps for dental trauma.</p> <p>Stabilize injuries to teeth and supporting structures.</p> <p>Provide immediate temporary restorations.</p>	traumatic injuries management to teeth and supporting structure	Lecture	Quizzes
8	I	<p>classify injuries into enamel, dentin, pulp, and root categories.</p> <p>Recognize clinical appearance of each type.</p>	Classification to injuries of anterior teeth	Lecture	Quizzes

		Select appropriate treatment.			
9	1	<p>Recognize common trauma patterns in primary teeth.</p> <p>Predict possible effects on permanent successors.</p> <p>Choose safe management protocols.</p>	Traumatic injuries to primary teeth and its effect on permanent teeth	Lecture	Quizzes
10	1	<p>Provide appropriate emergency response for fractures and luxations.</p> <p>Perform splinting when needed.</p> <p>Plan temporary and definitive restorations.</p>	Treatment injury to permanent teeth, emergency, temporary restoration	Lecture	Quizzes
11	1	<p>Identify new diagnostic tools.</p> <p>Understand modern cavity preparation techniques.</p> <p>Apply recent innovations in clinical practice.</p>	Advanced in pediatric dentistry, diagnostic aid and cavity preparation	Lecture	Quizzes
12	1	<p>Recognize new materials and instruments.</p> <p>Describe improved techniques for pulp therapy.</p> <p>Understand benefits of advanced endodontic approaches.</p> <p>Learn new delivery systems (e.g., computer-controlled).</p> <p>Understand improved anesthetic agents.</p> <p>Reduce discomfort during injections.</p>	Advanced in endodontic Advanced in local anesthesia	Lecture	Quizzes
13	1	<p>List new restorative materials (bioactive, nano materials).</p> <p>Identify modern pediatric surgical procedures.</p>	Advanced in restorative material, surgical procedure, miscellaneous	Lecture	Quizzes

		Apply updates in clinical management.			
14	I	<p>Identify common acquired oral conditions.</p> <p>Recognize clinical features.</p> <p>Develop appropriate treatment plans.</p>	Acquired disturbance of oral structure	Lecture	Quizzes
15	I	<p>Understand developmental anomalies (shape, number, size).</p> <p>Diagnose them clinically and radiographically.</p> <p>Manage accordingly.</p>	Developmental disturbance of oral structure	Lecture	Quizzes
16	I	<p>Recognize signs of gingivitis in children.</p> <p>Identify early-onset periodontal disease.</p> <p>Plan preventive and therapeutic management.</p>	Gingivitis and periodontal disease in children	Lecture	Quizzes
17	I	<p>Identify genetic gingival lesions.</p> <p>Understand signs of scurvy-related gingival changes.</p> <p>Provide proper treatment and prevention.</p>	Gingival lesion of genetic origin, ascorbic acid deficiency	Lecture	Quizzes
18	I	<p>Recognize oral candidiasis and its types.</p> <p>Identify acute bacterial infections.</p> <p>Choose the correct antifungal or antibiotic therapy.</p>	Acute candidiasis (thrush) Acute bacterial infection	Lecture	Quizzes
19	I	<p>Distinguish between the various pediatric periodontal diseases.</p> <p>Identify risk factors and signs.</p> <p>Plan appropriate periodontal therapy.</p>	Periodontal disease in children .early onset .preputial .localized juvenile periostitis	Lecture	Quizzes

20	I	<p>Understand clinical features and complications.</p> <p>Recognize severe periodontal involvement.</p> <p>Provide supportive and preventive care. Identify causes of gingival recession in children.</p> <p>Distinguish types of extrinsic stains.</p> <p>Provide appropriate management.</p>	<p>Papillon lever syndrome, gingival recession, extrinsic stain and deposit</p>	Lecture	Quizzes
21	I	<p>Recognize common problems (loose bands, fractures).</p> <p>Provide appropriate repair or replacement.</p> <p>Ensure long-term function of the appliance.</p> <p>Assess space loss and future eruption.</p> <p>Choose correct appliance based on clinical need.</p> <p>Create long-term follow-up plans.</p>	<p>Management of space maintainer problems</p> <p>Planning for space maintenance</p>	Lecture	Quizzes
22	I	<p>Understand space maintenance for first/second molars and canine areas.</p> <p>Plan management of premature loss of primary teeth.</p> <p>Provide space guidance during mixed dentition.</p> <p>Type of space maintainer(indication and contraindication)</p>	<p>Space Maintenance for the First and Second Primary Molar and the Primary Canine Area, premature loss of second primary molar</p>	Lecture	Quizzes
23	I	<p>Understand consequences of early loss of the second primary molar.</p>	<p>Loss of the Second Primary Molar</p>	Lecture	Quizzes

		<p>Identify space loss problems and drifting of adjacent teeth.</p> <p>Recognize management options, including appropriate space maintainers.</p> <p>Plan treatment for cases with multiple primary molar loss.</p>	Before Eruption of the First Permanent Molar, Areas of Multiple Primary Molar Loss		
24	I	<p>Describe the stages of dental arch development.</p> <p>Identify occlusal characteristics in primary and mixed dentition.</p> <p>Recognize normal vs. abnormal occlusal relationships.</p> <p>Understand how growth affects occlusion.</p>	Development of dental arch and occlusion; deciduous phase, mixed dentition phase.	Lecture	Quizzes
25	I	<p>Understand the purpose of space analysis in mixed dentition.</p> <p>Perform different types of arch length/space analyses.</p> <p>Interpret analysis results to plan orthodontic or preventive treatment.</p> <p>Identify cases requiring space maintenance or interceptive orthodontics.</p>	Arch length analysis; Nance analysis, Moyers mixed dentition analysis, Tanaka and Johnston analysis, Bolton analysis	Lecture	Quizzes
26	I	<p>Recognize common oral problems in children with disabilities.</p> <p>Understand goals of the first dental visit for special-needs patients.</p> <p>Modify radiographic techniques based on the child's ability.</p> <p>Develop preventive strategies suited to different disabilities.</p> <p>Provide safe management during dental treatment.</p>	Dental problems of the disabled child first, dental visit, Radiographic examination, Preventive dentistry, Management of a child with special care needs during dental treatment	Lecture	Quizzes
27	I	Identify indications and types of	Treatment	Lecture	Quizzes

		<p>protective stabilization.</p> <p>Understand dental considerations in mentally disabled children.</p> <p>Recognize oral manifestations of Down syndrome.</p> <p>Modify dental treatment for children with intellectual or learning disabilities.</p>	immobilization, Mental disability, Down syndrome, Intellectual disability, Learning disability		
28	1	<p>recognize clinical features and dental concerns in Fragile X syndrome.</p> <p>Understand motor and coordination limitations in cerebral palsy.</p> <p>Identify behavioral characteristics of autism affecting dental care.</p> <p>Apply appropriate behavior and treatment modifications..</p>	Fragile X syndrome, cerebral palsy, autism	Lecture	Quizzes
29	1	<p>Identify dental risks and precautions in children with asthma or respiratory disorders.</p> <p>Modify communication methods for hearing-impaired and visually-impaired children.</p> <p>Recognize seizure triggers and manage dental care for epileptic patients.</p> <p>Ensure safe treatment planning for medically compromised children.</p>	Respiratory diseases, hearing loss, visual impairment, epilepsy	Lecture	Quizzes
30	1	<p>Understand medical risks in cardiac patients and the need for precautions.</p> <p>Recognize bleeding tendencies in hemophilia and management modifications.</p> <p>Identify oral signs and treatment considerations for sickle cell anemia.</p>	Heart disease, hemophilia, hemophilia ,sickle cell anemia, viral hepatitis, AIDS	Lecture	Quizzes

		Use universal precautions for hepatitis and AIDS patients. Safely plan and modify dental procedures for medically fragile children.			
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Clinical requirement

No	Title	hours
1	Diagnosis and treatment planning	3
2	Preliminary medical and dental history, Clinical examination , Radio graphic examination	3
3	Demonstration how to obtain a complete case sheet	3
4	Monitoring the developing dentition and recognition of any sign of malocclusion	3
5	Types of Caries removal techniques	3
6	Restoration of primary and young permanent teeth with variety types of restorative materials	3
7	Management of traumatic injuries of the anterior teeth	3
8	Minor oral surgery	3
9	Minimal intervention dentistry	3
10	Pulp therapy for permanent dentition	3
11	Pulp therapy for primary dentition	3
12	Materials used for pulp therapy	3
13	Chrome steel crowns	3
14	Management of simple cases of dental anomalies and other developmental defects	3
15	Maintenance of pulp vitality by use of regenerative materials	3
16	Root canal treatment for anterior non vital teeth	3
17	Extraction for non restorable primary and permanent teeth or over-retained primary dentition and permanent teeth for space creation for orthodontic treatment	3
18	Management of molar incisor hypomineralization MIH	3
19	Behavior management for young patients	3
20	Infection control re-assurance and guidance of students	3
21	Tooth colored restoration technique	3
22	Radiographic prescription and interpretation of results	3
23	Space maintainers	3
24	Fluoride application as a preventive measure	3

25	Amelogenesis imperfecta	3
26	Supernumerary teeth and their impact on teeth eruption	3
27	Management of medically compromised children	3
28	Peg teeth management	3
29	ART technique	3
30	Prostheses usage in pediatric dentistry	3

11. Infrastructure

1. Books Required reading:	<p>Text book of pediatric dentistry - Dentistry for child and Adolescent RALPHE-McDonald /2016/tenth edition -Hand book of pediatric dentistry (Cameron) mosby/third edition/2008McDONALD AND AVERY'S DENTISTRY for CHILD and ADOLESCENT 2016 by Elsevier</p> <p>Pediatric Dentistry Damile 3rd ed. 2006 Text book of pediatric dentistry Nikhil Marwa 2nd ed. 2009 New Delhi</p> <p>Hand book of pediatric dentistry (Cameron) mosby/third edition/2008 Paediatric Dentistry/ Richard Welbury/ Fourth edition Oxford University Press, 2012</p> <p>-Principles and practice of pedodontics /Arathi Rao Jaypee/second edition2008</p> <p>-Barnett ML: The rationale for the daily use of an antimicrobial mouthrinse, J Am Dent Assoc 137(7 Suppl):16S–21S, 2006 - Long N: Stress and economic hardship: the impact on children and parents, Pediatr Dent 36:109–114, 2014 -Sonis A, Ackerman M: E-space preservation: is there a relationship to mandibular second molar impaction? Angle Orthod 81(6):1045–1049, 2011..</p>
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

Course Description Form
Orthodontics

1. Course Name:	Orthodontics
2. Course Code:	ORT566
3. Semester / Year:	5th stage / Annual
4. Description Preparation Date:	15/9/2024
5. Available Attendance Forms:	Attendance (Theoretical + lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	120 hours / 6 units
7. Course administrator's name (mention all, if more than one name)	Name: Ass. Prof. Jamal khidher  <div style="border: 2px dashed blue; padding: 5px; display: inline-block;"> جامعة تكريت كلية طب الاسنان قرئ جواحة القم والوجه والفكين </div>
8. Course Objectives	<ol style="list-style-type: none"> To provide students with foundational knowledge of malocclusion types, their etiology, and principles of orthodontic diagnosis and treatment planning. To train students in clinical examination, cephalometric analysis, and the use of orthodontic diagnostic tools. To develop basic clinical skills in preventive and interceptive orthodontic procedures, including space maintainers and habit-breaking appliances. To enhance students' ability to identify cases requiring referral and understand the limitations and scope of general orthodontic practice.
9. Teaching and Learning Strategies	<ol style="list-style-type: none"> The method of giving lectures with explanation and clarification using PowerPoint. Urging students to use the library as one of the learning methods. The method of self-learning by supporting the learner's environment. Urging students to use the Internet as a supportive tool for learning. Using the principle of discussion and dialogue to increase students' comprehension. The application of education through the practical part.

10. Course Structure

Week	Hour	Outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Collect patient data and obtain informed consent	Orthodontic diagnosis and treatment planning: a- Personal data b- Consent form c- Clinical examination i. General body stature	Lecture	Quiz, semester, mid and final exams
2	1	Perform comprehensive clinical and occlusal examination	ii. Face examination in 3 dimensions iii. skeletal examination iv. Soft tissue examination	Lecture	Quiz, semester, mid and final exams
3	1	Perform comprehensive clinical and occlusal examination	v. Occlusion	Lecture	Quiz, semester, mid and final exams
4	1	perform comprehensive clinical and occlusal examination	vi. Dentition vii. Temporomandibular joint	Lecture	Quiz, semester, mid and final exams
5	1	Gather and analyze diagnostic records accurately	d- Diagnostic aids i. Cephalometrics	Lecture	Quiz, semester, mid and final exams
6	1	Gather and analyze diagnostic records accurate	ii. Orthopantomography iii. Other views	Lecture	Quiz, semester, mid and final exams
7	1	Gather and analyze diagnostic records accurate	iv. Study models	Lecture	Quiz, semester, mid and final exams
8	1	Gather and analyze diagnostic records accurate	v. Photography vi. 3D imaging	Lecture	Students participate lecture in explaining
9	1	Develop customized orthodontic treatment plan	e- Treatment planning	Lecture	Students participate lecture in explaining
10	1	Adapt orthodontic plan for medical conditions	f- Treatment of Medically compromised patients	Lecture	Questions & discussion
11	1	Assess malocclusion severity and tooth-size discrepancies	g- Orthodontic indices	Lecture	
12	1	Assess malocclusion severity and tooth-size discrepancies	Space analysis, Bolton's ratio	Lecture	Questions &
13	1	Decide extractions to optimize alignment and occlusion	Teeth extraction in orthodontics	Lecture	Questions & discussion

14	I	Decide extractions to optimize alignment and occlusion	Serial extraction	Lecture	Questions & discussion
15.	I	Identify and correct vertical/transverse malocclusion	Vertical and transverse problems: a. Deep bite	Lecture	Questions & discussion
16	I	Identify and correct vertical/transverse malocclusion	b. Open bite	Lecture	Questions & discussion
17	I	Identify and correct vertical/transverse malocclusion	c. Crossbite and scissors bite	Lecture	Questions & discussion
18	I	Manage local factors affecting occlusion and eruption	Treatment of common local factors: a. supernumerary and hypodontia b. Early loss of deciduous teeth c. Retained teeth, delayed eruption, impaction, ankylosis d. Abnormal eruptive behavior e. Large frenum	Lecture	Questions & discussion
19	I	Manage local factors affecting occlusion and eruption	f. Bad oral habits	Lecture	Questions & discussion
20	I	Correct ectopic canine position and alignment	Treatment of aberrant position of canines	Lecture	Questions & discussion
21	I	Treat different classes of skeletal/dental malocclusion	Treatment of general factors: a. Class I treatment (crowding, spacing, biprotrusion)	Lecture	Questions & discussion
22	I	Treat different classes of skeletal/dental malocclusion	Continue class I treatment (method of space creation)	Lecture	Questions & discussion
23	I	Treat different classes of skeletal/dental malocclusion	b. Class II div. 1 treatment	Lecture	Questions & discussion
24	I	Treat different classes of skeletal/dental malocclusion	c. Class II div. 2 treatment	Lecture	Questions & discussion
25	I	Treat different classes of skeletal/dental malocclusion	d. Class III treatment	Lecture	Questions & discussion
26	I	Provide adult-appropriate orthodontic/combined treatment solutions	Treatment of adults a- Periodontal problems	Lecture	Questions & discussion
27	I	Provide adult-	b- Orthognathic surgery	Lecture	Questions &

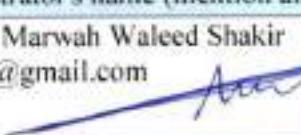
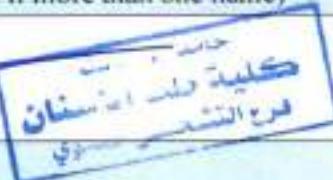
		appropriate orthodontic/combined treatment solutions			discussion
28	1	Provide adult-appropriate orthodontic/combined treatment solutions	Continue cleft lip and palate	Lecture	Questions & discussion
29	1	Provide adult-appropriate orthodontic/combined treatment solutions	Digital orthodontics	Lecture	Questions & discussion

Clinical requirement :

Item	Minimum Requirements	Hours
	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)	
Total	The student should receive at least one orthodontic case to enter the final exam	120

Course Description Form

Oral Medicine

<p>1. Course Name: Oral Medicine</p>					
<p>2. Course Code: OMD563</p>					
<p>3. Semester / Year: 5th stage\annual</p>					
<p>4. Description Preparation Date: 15/9/2025</p>					
<p>5. Available Attendance Forms: Attendance (Theoretical+ lab)</p>					
<p>6. Number of Credit Hours (Total) / Number of Units (Total) 150 h(30 Theoretical + 120 clinic) /6</p>					
<p>7. Course administrator's name (mention all, if more than one name) Name: assist. Lec. Marwah Waleed Shakir Email: marwah89@gmail.com</p>					
 					
<p>8. Course Objectives</p> <p style="margin-left: 40px;">1. Understand the different types of diseases that affect the mouth and teeth.</p> <p style="margin-left: 40px;">2. Follow the correct scientific guidance to determine the possibilities to reach the correct Diagnosis.</p> <p style="margin-left: 40px;">3. Knowing how to treat various diseases that affect the mouth and teeth.</p> <p style="text-align: center;">.....</p>					
<p>9. Teaching and Learning Strategies</p> <p>2- Urging students to use the library as one of the learning methods. 3- The method of self-learning by supporting the learner's environment. 4- Urging students to use the Internet as a supportive means of learning. 5- Using the principle of discussion and dialogue to increase students' comprehension. 6- Applying education through the practical part of the course.</p>					
<p>Unit or subject</p>					
Week	Hours	Learning Outcomes	Learning name	Learning method	Evaluation
2&1	1theoretical hours weekly	Understand the fundamental principles of oral diagnosis and the importance of systematic patient assessment.	The principles of oral diagnosis Clinical examinations	Lecture	Quiz

4&3	1 theoretic al hours weekly	Understand the role of laboratory investigations in supporting oral diagnosis and treatment planning.	Laboratory investigations in dentistry	Lecture	Quiz
6&5	1 theoretic al hours weekly	Understand common causes of orofacial pain, including dental, temporomandibular joint (TMJ), neuralgias, and systemic conditions.	orofacial pain	Lecture	Quiz
8&7	1 theoretic al hours weekly	Understand the classification and common types of TMJ disorders (myofascial pain, internal derangements, arthritis, trauma).	TMJ disorder	Lecture	1 st Sem. Exam.
&10&9 11	1 theoretic al hours weekly	Understand common causes and systemic associations (aphthous ulcers, traumatic ulcers, viral infections, autoimmune disorders such as pemphigus vulgaris, mucous membrane pemphigoid, erythema multiforme).	Oral ulceration and Vesiculo-bullous lesions	Lecture	Quiz
13&12	1 theoretic al hours weekly	Understand common causes and conditions such as leukoplakia, erythroplakia, lichen planus, candidiasis, traumatic keratosis, and premalignant/malignant lesions.	White & red lesions	Lecture	Quiz
15&14	1 theoretic al hours weekly	Understand the clinical features of early-stage oral cancer (persistent ulcers, leukoplakia, erythroplakia, induration).	Early detection of oral cancer	Lecture	Quiz

			Mid- Year Exam.		
17&16	1 theoretic al hours weekly	Understand common causes such as physiologic pigmentation, amalgam tattoo, melanotic macule, nevi, melanoma, Kaposi's sarcoma, and drug-induced pigmentation.	Pigmented oral lesions	Lecture	Quiz
19&18 & 21&20	1 theoretic al hours weekly	Understand common examples: <i>Benign</i> : fibroma, papilloma, hemangioma, lipoma. <i>Premalignant</i> : leukoplakia, erythroplakia, oral lichen planus, actinic cheilitis. <i>Malignant</i> : oral squamous cell carcinoma, verrucous carcinoma, salivary gland tumors, melanoma.	Benign, Premalignant and malignant lesions of the oral cavity	Lecture	Quiz
23&22	1 theoretic al hours weekly	Understand common conditions such as myasthenia gravis, muscular dystrophies, motor neuron disease, and neuropathies.	Neuromuscular disorder	Lecture	2 nd Sem. Exam
25&24	1 theoretic al hours weekly	Understand the classification of salivary gland diseases: developmental anomalies, inflammatory conditions, obstructive disorders, autoimmune diseases, and neoplasms.	Salivary gland diseases	Lecture	Quiz

&27&28 26	1 theoretic al hours weekly	<p>Understand common autoimmune conditions with oral manifestations such as:</p> <p><i>Systemic:</i> Sjögren's syndrome, systemic lupus erythematosus, rheumatoid arthritis.</p> <p><i>Oral mucosal:</i> pemphigus vulgaris, mucous membrane pemphigoid, lichen planus.</p>	Autoimmune diseases	Lecture	Quiz
29&30	1 theoretic al hours weekly	<p>Understand common oral manifestations of allergy such as:</p> <p>Angioedema (rapid swelling of lips, tongue, floor of mouth).</p> <p>Contact stomatitis (burning, erythema, ulceration from allergens like dental materials, food additives, toothpaste).</p> <p>Oral lichenoid reactions (from drugs or dental restorations).</p> <p>Geographic tongue and oral itching associated with food allergies.</p>	Oral manifestation of allergic reaction	Lecture	Quiz
Total	30		Final Exam.		

Clinical part:

Lab. number	Study unit title	hours
1	Laboratory investigations in dentistry, clinic	4
2	Viral infection, clinic	4
3	Bacterial infection, clinic	4
4	Fungal infection clinic	4

5	Diseases of Respiratory tract clinic	4
6	Diseases of cardiovascular system clinic	4
7	Diseases of gastrointestinal tract clinic	4
8	Renal diseases clinic	4
9	Anemia clinic	4
10	Leukemia clinic	4
11	Bleeding and clotting disorders clinic	4
12	Immunologic diseases clinic	4
13	Diseases of thyroid gland clinic	4
14	Diabetes mellitus clinic	4
15	Orofacial pain and common headache disorders clinic	4
16	Neuromuscular diseases clinic	4
17	Temporomandibular disorders clinic	4
18	Salivary gland disorders clinic	4
19	Drugs in dentistry clinic	4
20	Drugs induced oral lesions clinic	4
21	Panoramic image interpretation clinic	4
22	Allergy clinic	4
23	Ulcerative ,vesicular, and bullous lesions clinic	4
24	Red and white lesions of the oral mucosa clinic	4
25	Pigmented lesions of the oral mucosa clinic	4
26	Benign lesions of the oral cavity and the jaw clinic	4
27	Oral and oropharyngeal cancer clinic	4
28	LASER in oral medicine clinic	4
29	Geriatric oral medicine clinic	4
30	Pediatric oral medicine	4

	clinic	
Total		120

11. Infrastructure

1. Books Required reading:	Burket's oral medicine. Michael Glick, Martin Greenberg, Peter Lockhart and Stephen Challacombe. 13th edition.2021, Wiley Black well
2. Main references (sources)	1- BURKETS Oral Medicine, thirteen edition, 2015. 2- Cawsons essentials of oral pathology and oral medicine 2002.
A- Recommended books and references (scientific journals, reports...).	1- TEXTBOOK OF ORAL MEDICINE, 2nd edition, 2010. 2- Cawsons essentials of oral pathology and oral medicine 2002.
B-Electronic references, Internet sites...	

Course Description Form

Research Methods

1. Course Name:	Research Methods
2. Course Code:	RSP529
3. Semester / Year:	5 th stage\annual
4. Description Preparation Date:	15/9/2025
5. Available Attendance Forms:	Attendance (Theoretical+ lab)
6. Number of Credit Hours (Total) / Number of Units (Total)	15 hours
7. Course administrator's name (mention all, if more than one name)	Lecturer Dr Hadeel Mohammed Abbood Lecturer Muntasir Hassan Mohammed
8. Course Objectives	<p>Develop ability in formulating research questions and hypotheses.</p> <p>Gain skills in study design, data collection, and statistical analysis.</p> <p>Learn to critically evaluate dental literature and apply findings to clinical practice.</p> <p>Understand ethical principles and regulatory requirements in dental research.</p> <p>Enhance ability to academic writing and research writing</p>
9. Teaching and Learning Strategies	<ol style="list-style-type: none">1- Interactive lectures2- Journal clubs and group discussion3- Project-based learning: students are required to conduct research projects focusing on dental science.

Research Methods Fifth Year Program

Subject Title	Research methods	
Number of credits	Theory:2	
Number of contact hours	Theory:1h/wk.	
Subject time	Fifth year	

10. Course Structure(Theory)

Week	Hours	Topic Title	ILO	Teaching Method	Assessment Method
1	1	The Research Question	Understanding what is the research question		
2	1		Choosing the research question		
3	1	Study design	Types of study designs		
4	1		Choosing the suitable study design		
5	1	Medical statistics	Basic medical statistic		
6	1		t-test, ANOVA test and chi square test		
7	1		Choosing the correct statistical test		
8	1	Research Ethics	Understanding research ethics	Lecture	
9	1		Declaration of Helsinki		Quiz, semester, and midyear exams
10	1	Biosafety	Biosafety		
11	1	Citation and references	Citation and references		
12			Avoiding plagiarism		
13	1	Basics of academic writing	Basic of academic writing		
14	1		Writing the methods and results		
15	1		Writing the discussion and conclusion		

11. Infrastructure

1. Books Required reading:	1- An introduction to research methods for undergraduate health profession students 2- Oxford handbook of medical statistics
2. Main references (sources)	
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	Declaration of World medical association Helsinki: www.wma.net
12. The development of the curriculum plan	