



**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: 15/9/2024



Signature:

Scientific Associate Name:

lect. Lec. Dr. Ahmed Khalf Al-Juburi

Date: 18/9/2024

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

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

### **1. Program Vision**

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

### **2. Program Message**

The College of Dentistry at Tikrit University is committed to achieving excellence and leadership in dental education both locally and regionally. The college strives to prepare highly competent dentists by offering innovative educational programs that utilize the latest scientific and technological methods in teaching and training. Scientific research is a top priority for the college, encouraging faculty and students to innovate and contribute to the advancement of knowledge in the field of dentistry. Furthermore, the college places great importance on community service by providing specialized healthcare, contributing to health awareness, and fostering collaboration with various health institutions. The college endeavors to achieve these goals with the highest standards of quality and professionalism, aiming to become a leading center for medical education, scientific research, and community service.

### **3. Program Objectives**

**1. 1. Developing Education, Research, and Community Service in Dentistry:** The college strives to achieve comprehensive integration between academic education, scientific research, and community service by preparing graduates with the scientific competence and practical skills required for professional practice

**Providing Distinguished Educational Programs:** The college aims to design and deliver integrated educational programs that focus on applying the latest curricula and treatment techniques in dentistry and provide students with an innovative

learning experience, enabling them to practice the profession efficiently and professionally at the local, regional, and international levels

**Promoting Scientific Research and Innovation:** The college seeks to support and encourage scientific research by providing a stimulating research environment that allows faculty members and students to engage in advanced research projects. These projects encompass vital areas in dentistry with the aim of producing scientific research that leads to improved treatment practices and the development of modern medical technologies

**Developing Students' Practical and Clinical Skills:** The college aims to provide students with extensive practical training opportunities, combining clinical experiences in a realistic simulation environment with advanced treatment clinics. Emphasis is placed on developing the manual and scientific skills that enable students to effectively address healthcare challenges in the field of dentistry.

**Strengthening Community Engagement and Partnerships:** The college is committed to building strong bridges with the local community and health and professional institutions to provide specialized health services and raise awareness about the importance of prevention and healthcare in dentistry. This is achieved through community programs and educational activities that reach all segments of society

**Developing Human Capabilities and Resources:** The college aims to invest in developing the capabilities of its faculty and administrative staff by offering ongoing training programs designed to enhance their academic and administrative skills. The college also strives to create a work environment that supports creativity and innovation and provides the necessary resources to achieve this

**7. Enhancing Quality Standards and Academic Excellence:** The college seeks to achieve academic leadership by continuously improving its standards of education, research, and community service. It also aims to obtain international accreditation and recognition for its programs at the local, regional, and international levels by adopting the latest academic and research quality standards.

#### **4. Program Accreditation**

None

#### **5. Other External Influences**

- 1. Technological advancements in dentistry**
- 2 .Collaboration with international academic institutions**
- 3 .International conferences and workshops**
- 4 .Funding and scientific research**
- 5 .Engagement with the local community**
- 6 .Academic competition among colleges**
- 7 .Support for graduates**

#### **6. Program Structure**

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

## 7. Program Description

Year/ Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
<b>First</b>	<b>GAN141</b>	General Anatomy	<b>4</b>	<b>1</b>	<b>2</b>
	<b>DAN162</b>	Dental Anatomy	<b>6</b>	<b>2</b>	<b>2</b>
	<b>BIO163</b>	Biology	<b>6</b>	<b>2</b>	<b>2</b>
	<b>MCH164</b>	Medical Chemistry	<b>6</b>	<b>2</b>	<b>2</b>
	<b>COP125</b>	Computer Science	<b>2</b>	<b>1</b>	<b>0</b>
	<b>MPH166</b>	Medical Physics	<b>6</b>	<b>2</b>	<b>2</b>
	<b>HRT127</b>	Human Rights	<b>2</b>	<b>1</b>	<b>0</b>
	<b>MDT128</b>	Medical Terminology	<b>2</b>	<b>1</b>	<b>0</b>
<b>Total</b>			<b>34</b>		

Year/ Level	Course code	Course name	Units	Credit hours	
				Theoretical	Practical
<b>Second</b>	<b>GAN241</b>	General Anatomy	<b>4</b>	<b>1</b>	<b>2</b>
	<b>PRO262</b>	Prosthodontics	<b>6</b>	<b>1</b>	<b>4</b>
	<b>DEM243</b>	Dental materials	<b>4</b>	<b>1</b>	<b>2</b>
	<b>GHS264</b>	General Histology	<b>6</b>	<b>2</b>	<b>2</b>
	<b>BCH265</b>	Biochemistry	<b>6</b>	<b>2</b>	<b>2</b>
	<b>OHE266</b>	Oral Histology & Embryology	<b>6</b>	<b>2</b>	<b>2</b>
	<b>GPH267</b>	General Physiology	<b>6</b>	<b>2</b>	<b>2</b>
	<b>COP228</b>	Computer Science	<b>2</b>	<b>1</b>	<b>0</b>
<b>0</b>	<b>BPC229</b>	Baath Party Crimes	<b>2</b>	<b>1</b>	<b>0</b>
<b>Total</b>			<b>42</b>		

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

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

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

## 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 planing.

- 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.

### 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. Encouraging students to use the library as one of the learning methods.
- 3. The method of self-learning 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. Evaluation Methods

- 1. Daily, semester, semi-annual and final theoretical tests.
- 2. Practical tests
- 3. Scientific discussion during the theoretical lesson and during the

practical part of the course

#### 4. Clinical and laboratory practical requirements

### 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	Medicine and surgery of oral and dental	Aesthetic and restorative	Staff
9	Prof. Muthenna Sh. Rajab	Dentist	Laser application in dentistry/ conservative dentistry	Staff
10	Assis. Prof. Dr. Ban Ismael Sedeeq	Dentistry	Anatomy and histology	Staff
11	Assist. Prof. Dr. Mihammed Rhael Ali	B. D. S	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 Ibrahim Hazeem	dentistry	Periodontics and Periodontics	Staff
21	Assist Prof. Jamal Khidher Mahmoad	Dentistry	Orthodontic dentistry	Staff
22	Assesst. Prof. Sulafa Khair al-Deen Banoosh	Bachelor of Dental Surgery	Oral physiology	Staff
23	Assist. Prof. Azhar Ammash Hussein	Oral and dental medicine and surgery	Preventive dentistry	Staff
24	Assist. Prop. Maha Essam Abdulazeez	Dentist	Orthodontis	Staff
25	Assisst. Prof. Omar Basheer Taha	Dentistry	Oral and Maxillofacial Radiology	Staff
26	Assist. Prof. Anas Qahtan Hamdi	B.D. S	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	Dental Surgeon	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	Oral and dental medicine and surgery	Prosthodontics	Staff
40	Lec. Aseel Taha Khaudhair	Dentistry	Pediatric dentist	Staff
41	Lec. Noor Sabah Irhayyim	Dentistry	Periodontology	Staff
42	Lec. Suha Aswad Dahash	Dentistry	Periodontology	Staff
43	Lec. Saif Saad Kamil	Bachelor of dental science	Operative dentistry	Staff
44	Lec. Hind Thyab Hamid	Dentist	Dentist specializing in 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	Oral and dental surgery	Prosthodontics	Staff
49	Assist. lec. Areej Salim Dawood	Dentist	Oral histology	Staff
50	Assist. Lec. Sohaib Qais Alwan	Dentistry	Preventive Dentistry	Staff
51	Assist. Lec. Fatima Ghazi Aswad	Oral and dental medicine and surgery	Oral and maxillofacial pathology	Staff
52	Assist. lec. Saber mizher mohammed	Oral surgery	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	Dentist	Prosthodontics	Staff
56	Assist. Lec. Alalaa Jamal Mawlood	General dentistry	Operative dentistry	Staff
57	Assist. Lec. Rusal Saad Ahmed	Bachelor of Oral and Dental Medicine and Surgery	Master's degree in 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	Dentistry	General Anatomy and	Staff

	Saab		histology	
61	Assist. Lec. Mohammed Ayad Taha	Dentistry	Operative and Esthetic Dentistry.	Staff
62	Assist. Lec. Farah Mohammed Najeeb	BDS	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	Master's in 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?	Course name	Course code	Year/Level
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
				✓	✓	✓	✓		✓	✓	✓	essential	General Anatomy	GAN141	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	



Program Skills Chart															
Required learning outcomes of the program												Essential or optional?	Course name	Course code	Year/Level
Values				Skills				Knowledge							
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
				✓	✓	✓	✓		✓	✓	✓	essential	General Anatomy	GAN241	Second
		✓	✓	✓		✓	✓		✓		✓	essential	Prosthodontics	PRO262	
		✓	✓	✓		✓	✓		✓		✓	essential	Dental materials	DEM243	
✓				✓	✓	✓	✓		✓	✓	✓	essential	General Histology	GHS264	
			✓		✓	✓	✓				✓	essential	Biochemistry	BCH265	
	✓	✓		✓				✓			✓	essential	Oral Histology & Embryology	OHE266	
				✓		✓			✓		✓	essential	General Physiology	GPH267	
					✓	✓		✓	✓			essential	Computer Science	COP228	

Program Skills Chart															
Required learning outcomes of the program															
Values				Skills				Knowledge				Essential or optional?	Course name	Course code	Year/Level
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
								✓	✓	✓		essential	General Pathology	GPT361	Third
	✓				✓	✓	✓	✓	✓		✓		Preclinical Operative Dentistry	POD342	
	✓						✓	✓	✓		✓		Preclinical Fixed Prosthodontics	PFP343	
						✓	✓				✓	essential	Microbiology	MCB364	
	✓	✓	✓		✓	✓				✓			Community Dentistry	CMD345	
			✓		✓	✓	✓		✓	✓	✓		Oral Surgery	OSR346	
✓	✓	✓		✓	✓	✓		✓	✓				Dental Radiology	DRD347	
					✓		✓		✓	✓		essential	Pharmacology	PHC368	
✓	✓	✓	✓	✓		✓	✓		✓	✓			Prosthodontics	PRO349	
✓	✓	✓	✓	✓				✓				essential	Dental Ethics	DNE3210	

Program Skills Chart															
Required learning outcomes of the program															
Values				Skills				Knowledge				Essential or optional?	Course name	Course code	Year/Level
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
			✓		✓	✓	✓	✓	✓	✓	✓	essential	Oral Surgery	OSR461	Fourth
	✓	✓		✓			✓		✓	✓	✓	essential	Periodontics	PER452	
			✓		✓	✓	✓		✓	✓	✓	essential	General Surgery	GSR443	
			✓		✓	✓	✓		✓	✓	✓	essential	General Medicine	GMD444	
		✓	✓	✓		✓	✓		✓		✓	essential	Prosthodontics	PRO455	
✓	✓			✓		✓				✓		essential	Orthodontics	ORT466	
✓	✓	✓		✓	✓	✓		✓		✓		essential	Oral Pathology	OPT467	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		essential	Conservative Dentistry	CND488	
✓	✓		✓			✓	✓			✓	✓	essential	Pediatric Dentistry	PED449	

Required learning outcomes of the program															
Values				Skills				Knowledge				Essential or optional?	Course name	Course code	Year/Level
C4	C3	C2	C1	B4	B3	B2	B1	A4	A3	A2	A1				
		✓	✓	✓	✓	✓	✓			✓	✓	essential	Oral Surgery	ORS581	Fifth
	✓	✓				✓	✓	✓	✓	✓		essential	Periodontics	PER552	
✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		essential	Oral Medicine	OMD563	
✓	✓	✓	✓	✓		✓	✓		✓	✓		essential	Preventive Dentistry	PVD554	
		✓	✓	✓		✓	✓		✓		✓	essential	Prosthodontics	PRO585	
✓	✓	✓	✓	✓		✓	✓			✓		essential	Orthodontics	ORT566	
✓	✓	✓				✓	✓			✓	✓	essential	Pediatric Dentistry	PED557	
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		essential	Conservative Dentistry	CND588	
✓	✓			✓	✓			✓				essential	Research project	RSP529	

## Course Description Form

1. Course Name: human anatomy
2. Course Code: <b>GAN141</b>
3. Semester / Year: 2024-2025
4. Description Preparation Date: 15\9\2024
5. Available Attendance Forms:
Lectures & labs
6. Number of Credit Hours (Total) / Number of Units (Total)
30 theoretical + 60 practical = 90 Hrs/ 4 units
7. Course administrator's name (mention all, if more than one name)
Name: <div style="text-align: center;"><b>Assis.Prof. Ban Ismael Sedeeq    and    Assis.Lec. Noor Ghazi Saab</b></div> Email: <a href="mailto:banasnan@tu.edu.iq">banasnan@tu.edu.iq</a> ; <a href="mailto:noor.gsaab@tu.edu.iq">noor.gsaab@tu.edu.iq</a>
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>- To recognize the general structure of the human body, including the muscular, skeletal, nervous, and vascular systems.</li> <li>- To study the microscopic and macroscopic anatomy of different organs and tissues.</li> <li>- To understand the relationship between anatomical structure and the function of each organ and system.</li> <li>- To recognize standard anatomical terminology and how to use it accurately in clinical practice.</li> <li>- To connect theoretical knowledge with clinical skills to identify anatomical positions during examinations and medical or dental procedures.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>- To master the skills of examining and identifying anatomical structures in cadavers or anatomical models.</li> </ul>

- To accurately identify and describe muscles, bones, nerves, and blood vessels.
- To practice using educational tools such as 3D models and simulation software to facilitate learning.
- To enhance the ability to apply anatomical knowledge in clinical procedures and medical diagnosis.

#### Third: Behavioral/Value-Based Objectives

- To adhere to ethical standards and professional conduct when handling cadavers and models. - Developing responsibility, discipline, and precision in the study of practical and theoretical anatomy.
- Appreciating the importance of continuous learning in the field of anatomy to develop clinical and cognitive skills.

#### Fourth: Applied/Clinical Objectives

- Linking theoretical knowledge to clinical skills for application in dentistry and medical procedures.
- Being able to identify anatomical positions during injections, surgical procedures, and clinical examinations.
- Supporting accurate clinical decision-making based on an understanding of the relationship between anatomical structure and function.

### 9. Teaching and Learning Strategies

1. Interactive lectures (presenting basic information using presentations supported by 3D anatomical images, incorporating short questions during the lecture to stimulate thinking)
2. Problem-based learning (presenting simple clinical cases that connect anatomical concepts to clinical application)
3. Hands-on laboratory learning (using anatomical models, skulls, and plastic parts to illustrate anatomical relationships)
4. Visual learning (high-definition anatomical videos, 3D simulations)
5. Classroom discussions (discussing the importance of anatomical structures in dental procedures such as local anesthesia or tooth extraction)

### Course Evaluation

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]	daily and monthly 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]	daily and monthly 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]	daily and monthly 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]	daily and monthly exam
5	2	Understand the concepts, basics and application	Skeletal system of the body: Skull :Cranial Bones	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly 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]	daily and monthly exam
7	2	Understand the concepts, basics and application	External Views of the Skull		
8	2	Understand the concepts, basics and application	<ul style="list-style-type: none"> <li>• The Cranial Cavity</li> <li>• Major Foramina and Fissures locations and structures pass through</li> </ul>	Presentation method with illustration and explanation on	daily and monthly exam

			• Neonatal Skull	power point Video [you tube]	
		Understand the concepts, basics and application	<b>Midterm exam</b>		
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 Hyoid bone	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam
10	2	Understand the concepts, basics and application	The Vertebral Column	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly 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 Video [you tube]	daily and monthly 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]	daily and monthly 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]	daily and monthly 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]	daily and monthly exam
15	2	Understand the concepts, basics and application	<input type="checkbox"/> Bones of the Pelvic girdle <input type="checkbox"/> Bones of the Lower	Presentation method with illustration and	daily and monthly exam



			extremities	explanation on power point Video [you tube]	
16	2	Understand the concepts, basics and application	Abdominal cavity and organs	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam
10. Course Structure: Laboratory sessions			الامتحان النهائي		
Week	Hours	ILOs	Title of the sessions	Teaching Method	Assessment Method
1	2h	Understand the concepts, basics and application	Introduction to anatomy	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
2	2h	Understand the concepts, basics and application	Basic structures part 1 (Skin, Fasciae, Muscle, Joints, Ligament, Bursae)	Presentation method with illustration and explanation on modules 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	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
4	2h	Understand the concepts, basics and application	Basic structures part 3 (Nervous System, Mucous Membranes, Serous Membranes)	Presentation method with illustration and explanation on power point Video [you tube]	Practical exam

				tube]	
5	2h	Understand the concepts, basics and application	Frontal Bone, Parietal bones	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
6	2h	Understand the concepts, basics and application	Occipital bone	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
7	2h	Understand the concepts, basics and application	Temporal bones	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
8	2h	Understand the concepts, basics and application	Sphenoid bone	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
9	2h	Understand the concepts, basics and application	Ethmoid bone	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
10	2h	Understand the concepts, basics and application	Zygomatic bones, Maxillae	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
11	2h	Understand the concepts, basics and application	Nasal bones ,Lacrimal bones, Vomer,Palatine bones,Inferior conchae	Presentation method with illustration and explanation on modules Video [you	Practical exam

				tube]	
12	2h	Understand the concepts, basics and application	Mandible	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
13	2h	Understand the concepts, basics and application	External Views of the Skull	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
14	2h	Understand the concepts, basics and application	Cranial cavity	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
15	2h	Understand the concepts, basics and application	Major Foramina and Fissures locations and structures pass through the skull	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
16	2h	Understand the concepts, basics and application	Orbit	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
17	2h	Understand the concepts, basics and application	nasal cavity	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
18	2h	Understand the concepts, basics and application	Auditory ossicles , Hyoid bone	Presentation method with illustration and explanation on modules Video [you	Practical exam

				tube]	
19	2h	Understand the concepts, basics and application	General Characteristics of a Vertebra	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
20	2h	Understand the concepts, basics and application	Vertebral column	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
21	2h	Understand the concepts, basics and application	Structure of the Thoracic cage (Sternum ,Ribs, Costal Cartilages)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
22	2h	Understand the concepts, basics and application	Thoracic cavity (Mediastinum, Pleurae, Trachea, Bronchi)	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
23	2h	Understand the concepts, basics and application	lung	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
24	2h	Understand the concepts, basics and application	Anatomy of heart	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
25	2h	Understand the concepts, basics and application	Major arteries, veins and nerves of thorax	Presentation method with illustration and explanation on modules Video [you	Practical exam

				tube]	
26	2h	Understand the concepts, basics and application	Bones of the Shoulder (Pectoral girdle) girdles	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
27	2h	Understand the concepts, basics and application	Bones of the Upper extremities	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
28	2h	Understand the concepts, basics and application	Bones of the Pelvic girdle	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
29	2h	Understand the concepts, basics and application	Bones of the Lower extremities	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
30	2h	Understand the concepts, basics and application	Abdominal cavity and organs	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
	60 h				

#### 11- Course Evaluation

#### 12. Learning and Teaching Resources: Clinical anatomy Snell

Key references (sources) last anatomy: Grants Atlas

#### **Recommended books and references :Netter**

atlas of anatomy, Clinical anatomy Snell

Electronic References, Websites

## Course Description Form

1. Course Name: Dental anatomy
2. Course Code: DAN162
3. Semester / Year: year
4. Description Preparation Date 15\9\2024
5. Available Attendance Forms: Lectures and labs
6. Number of Credit Hours (Total) / Number of Units (Total)
60 hrs theory+ 60 hrs practical =120 hrs / 6 units
7. Course administrator's name (mention all, if more than one name)
Name: Assis.Lec. Noor Ghazi Saab Email: <a href="mailto:noor.gsaab@tu.edu.iq">noor.gsaab@tu.edu.iq</a>
8. Course Objectives
<p>1. To identify the general shape of teeth and their basic parts (crown, root, pulp, dentin, enamel, cementum).</p> <p>2. To distinguish the anatomical differences between permanent and primary teeth.</p> <p>3. To understand the morphological characteristics of each tooth individually (incisors, canines, premolars, molars).</p> <p>4. To recognize the anatomical relationships between teeth, supporting tissues, and surrounding elements within the oral system.</p> <p>5. To understand the principles of occlusion and the relationships between the jaws and their impact on oral function.</p> <p>6. To appreciate the importance of dental anatomy in the daily clinical practice of dentists.</p>

7. To promote adherence to safety and hygiene rules while working with models and instruments.

8. To foster a spirit of cooperation among students during practical and sculpting sessions.

#### 9. Teaching and Learning Strategies

##### 1. Interactive Lectures

- Explanation of the fundamental theories of dental anatomy using presentations supported by high-resolution images.
- Inclusion of short, immediate questions to assess student understanding during the lecture.

##### 2. Practical Laboratory Learning

- Use of 3D dental models, plaster models, and simulation materials to illustrate dental morphology.
- Practical station activities allow students to identify the surfaces, margins, and protrusions of each tooth.

##### 3. Dental Sculpting Training

- Practical sessions to teach students to sculpt teeth in wax or resin, enhancing spatial understanding of the nature of the dental surface.
- Performance assessment through direct feedback from the instructor.

#### 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
2	2 hour	Understanding the concept and basic and app	Introduction	Elocution with drawing and Power Point	Daily exam and oral questions

3	2 hour	Understanding the concept and basic and app	Tooth Numbering System	Elocution with drawing and Power Point	Daily exam and oral questions
4	2hour	Understanding the concept and basic and app	Tooth Numbering System	Elocution with drawing and Power Point	Daily exam and oral questions
5	2hour	Understanding the concept and basic and app	Anatomical Landmarks	Elocution with drawing and Power Point	Daily exam and oral questions
6	2 hour	Understanding the concept and basic and app	Anatomical Landmarks	Elocution with drawing and Power Point	Daily exam and oral questions
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
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
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
10	2hour	Understanding the concept and basic and app	Permanent Maxillary Lateral incisors	Elocution with drawing and Power Point	Daily exam and oral questions
11	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions
12	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions



13	2 hour	Understanding the concept and basic and app	Permanent Mandibular Incisors	Elocution with drawing and Power Point	Daily exam and oral questions
14	2 hour	Understanding the concept and basic and app	Permanent Canines	Elocution with drawing and Power Point	Daily exam and oral questions
15	2hour	Understanding the concept and basic and app	Permanent Canines	Elocution with drawing and Power Point	Daily exam and oral questions
16	2 hour	Understanding the concept and basic and app	Permanent Maxillary Premolars	Elocution with drawing and Power Point	Daily exam and oral questions
17	2hour	Understanding the concept and basic and app	Permanent Maxillary Premolars	Elocution with drawing and Power Point	Daily exam and oral questions
18	2hour	Understanding the concept and basic and app	Permanent Mandibular first premolars	Elocution with drawing and Power Point	Daily exam and oral questions
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
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
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
22	2 hour	Understanding the	Permanent Maxillary second and third	Elocution with drawing and	Daily exam and oral questions

		concept and basic and app	Molars	Power Point	
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
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
25	2 hour	Understanding the concept and basic and app	Tooth Development	Elocution with drawing and Power Point	Daily exam and oral questions
26	2hour	Semester Exam	Tooth Development	Second Semester Exam	Second Semester Exam
27	2 hour	Understanding the concept and basic and app	Pulp cavity	Elocution with drawing and Power Point	Daily exam and oral questions
28	2 hour	Understanding the concept and basic and app	Pulp cavity	Elocution with drawing and Power Point	Daily exam and oral questions
29	2 hour	Understanding 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	Understanding 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 modules Video [you tube]	Practical exam
2	2h	Understand the concepts, basics and application	Numbering systems.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
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
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
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
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
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

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
9	2h	Understand the concepts, basics and application	Practical Exam. Of Carving of P. Max. Right Central Incisor	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
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
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
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
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
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
15	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P.Max. Right 1 <sup>st</sup> Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam

16	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P.Max. Right 1 <sup>st</sup> Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
17	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Max. Right 1 <sup>st</sup> Premola	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
18	2h	Understand the concepts, basics and application	Practical Exam. Of Carving of P. Max. Right 1 <sup>st</sup> Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
19	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P.Mand. Right 1 <sup>st</sup> Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
20	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P.Mand. Right 1 <sup>st</sup> Premolar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
21	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Mand. Right 1 <sup>st</sup> Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
22	2h	Understand the concepts, basics and application	Practical Exam. Of Carving of P. Mand. Right 1 <sup>st</sup> Premolar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
23	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P Max.Right 1 <sup>st</sup> Molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam

24	2h	Understand the concepts, basics and application	Description, Carving & Finishing of the Occlusal Aspect of P. Max. Right 1 <sup>st</sup> Molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
25	2h	Understand the concepts, basics and application	Practical Training of Carving of P. Max. Right 1 <sup>st</sup> molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
26	2h	Understand the concepts, basics and application	Practical Exam. of Carving of P. Max. Right 1 <sup>st</sup> molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
27	2h	Understand the concepts, basics and application	Description & Carving of the Buccal & Mesial Aspects of P. Mand. Right 1 <sup>st</sup> Molar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
28	2h	Understand the concepts, basics and application	Description ,Carving & Finishing of the Occlusal aspect of P.Mand 1 <sup>st</sup> Molar/Practical Training of Carving p.Mand 1 <sup>st</sup> molar.	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
29	2h	Understand the concepts, basics and application	Practical Examination of Carving of P. Mand. Right 1 <sup>st</sup> molar	Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
30	2h	Understand the concepts, basics and application		Presentation method with illustration and explanation on modules Video [you tube]	Practical exam
	60 h				

11- Course Evaluation	
<p>The final grade is calculated out of 100. The grade distribution is based on the tasks assigned to the student, including daily, monthly, mid-year, and final exams (both oral and written), as well as practical requirements and seminars, as follows</p> <p>Mid-Year Exam %15  Annual Coursework (includes grades from the first and second semesters plus summer training for relevant courses) %25  Final Practical Exam %25  %35Final Written Exam</p>	
12- Learning and teaching resources	
Woelfels dental anatomy its relevance to dentistry 7th ed	Required textbooks (methodology, if applicable)
TOOTH FORM- Anatomy, physiology and occlusion-	Main references (sources)
	Recommended supporting books and references (scientific journals, reports...)
	Electronic references, websites

## Course Description Form

1. Course Name: Biology
2. Course Code: BIO163
3. Semester / Year: 1 <sup>st</sup> year/ 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 Muhsen, Muna Ahmed Abdulla, Sura Mustafa Kasim, Ranen Ibrahim Abdulla
8. Course Objectives
9. Teaching and Learning Strategies
<p>1. Interactive Lectures</p> <ul style="list-style-type: none"> <li>- Presenting fundamental concepts through visual presentations illustrating cell structure and biomolecules.</li> <li>- Incorporating quick, interactive questions to enhance understanding and stimulate critical thinking.</li> </ul> <p>2. Practical Laboratory Learning</p> <ul style="list-style-type: none"> <li>- Training students in microscope use, slide preparation, and cell and tissue identification.</li> <li>- Applied laboratory activities that help bridge the gap between theory and practice.</li> </ul> <p>3. Blended Learning</p> <ul style="list-style-type: none"> <li>- Combining in-person lectures with online content via learning platforms.</li> </ul>



- Assigning students online tasks that include videos, readings, and quizzes.

#### 4. Medical and Clinical Connections

- Explaining the relationship between biological processes and medical and oral diseases.

- Integrating clinical examples such as the mechanisms of inflammation, immunity, bacterial growth, and their impact on oral health.

### 10. Course Structure/ Theoretical lectures

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	2	Understand the basics and application	Introduction to medical biology and oral biology	Giving lectures And explanation using the computer	Daily exam
2	2	Understand the basics and application	Prokaryotes and Eukaryotes	Giving lectures And explanation using the computer	Daily exam
3	2	Understand the basics and application	General and oral immunity	Giving lectures And explanation using the computer	Daily exam
4	2	Understand the basics and application	Bacteria and oral disease	Giving lectures And explanation using the computer	Daily exam
5	2	Understand the basics and application	Genetics and its role in oral diseases	Giving lectures And explanation using the computer	Daily exam
6	2	Understand the basics and application	Simple epithelial tissue(tongue)	Giving lectures And explanation	Daily exam

				using the computer	
			<b>FIRST SEMESTER EXAM</b>		
7	2	Understand the basics and applicat	Stratified epithelial tissue	Giving lectures And explanation using the computer	Daily exam
8	2	Understand the basics and applicat	Glandular epithelial tissue	Giving lectures And explanation using the computer	Daily exam
9	2	Understand the basics and applicat	General connective tissue	Giving lectures And explanation using the computer	Daily exam
10	2	Understand the basics and applicat	Muscular tissue	Giving lectures And explanation using the computer	Daily exam
11	2	Understand the basics and applicat	Nerve tissue	Giving lectures And explanation using the computer	Daily exam
			<b>MID- YEAR EXAM</b>		
12	2	Understand the basics and applicat	Cell structure(oral mucus membrane)	Giving lectures And explanation using the computer	Daily exam
13	2	Understand the basics and applicat	Plasma membrane structure	Giving lectures And explanation using the computer	Daily exam
14	2	Understand the basics and applicat	Passage of materials across cell membrane	Giving lectures And explanation using the computer	Daily exam.
15	2	Understand the basics and applicat	Cell cycle	Giving lectures And explanation using the computer	Daily exam
16	2	Understand the basics and applicat	Mitosis and Meiosis	Giving lectures And explanation using the computer	Daily exam.
			<b>SECOND SEMESTER EXAM</b>		
17	2	Understand the basics and applicat	Cell cycle	Giving lectures And explanation using the computer	Daily exam.
18	2	Understand the basics and applicat	Nuclic acide , DNA and RNA	Giving lectures And explanation using the computer	Daily exam.
19	2	Understand the basics and applicat	Introduction to parasitology	Giving lectures And explanation using the computer	Daily exam.
20	2	Understand the basics and applicat	Types of parasites and host	Giving lectures And explanation using the computer	Daily exam
21	2	Understand the basics	General and oral protozoa	Giving lectures And explanation	Daily exam

		and applicat		using the computer	
22	2	Understand the basics and applicat	Human amoebas, E. histolytica, E. coli, E. gingivalis	Giving lectures And explanation using the computer	Daily exam
23	2	Understand the basics and applicat	Flagellates, Giardia lamblia, Trichomonas tenax, T. hominas, T. vaginalis	Giving lectures And explanation using the computer	Daily exam
24	2	Understand the basics and applicat	Leishmania , cutaneous and vesiral	Giving lectures And explanation using the computer	Daily exam
25	2	Understand the basics and applicat	Sporozoa, Plasmodium spp.	Giving lectures And explanation using the computer	Daily exam.
26	2	Understand the basics and applicat	Toxoplasma gondii &	Giving lectures And explanation using the computer	Daily exam
27	2	Understand the basics and applicat	Nemathelminthes, Ascaris lumbricoides,	Giving lectures And explanation using the computer	Daily exam.
28	2	Understand the basics and applicat	Ancylostoma duodenale, Entrobis vermicularis	Giving lectures And explanation using the computer	Daily exam.
29	2	Understand the basics and applicat	Platyhelminthes, fasciola hepatica	Giving lectures And explanation using the computer	Daily exam.
30	2	Understand the basics and applicat	Schistosoma spp.	Giving lectures And explanation using the computer	Daily exam
		Final examination			

#### Course Structure/ Practical lectures

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	2	Understand the basics and application	Laboratory safety	Giving lectures and practical application in the laboratory	Daily exam
2	2	Understand the basics and application	Parts of microscope	Giving lectures and practical application in the laboratory	Daily exam
3	2	Understand the basics	Types of cells	Giving lectures and practical	Daily exam

		and applicat		application in the laboratory	
4	2	Understand the basics and applicat	Simple epithelial tissue	Giving lectures and practical application in the laboratory	Daily exam
5	2	Understand the basics and applicat	Stratified epithelial tissue	Giving lectures and practical application in the laboratory	Daily exam
6	2	Understand the basics and applicat	Glandular epithelial tissue	Giving lectures and practical application in the laboratory	Daily exam
			<b>FIRST SEMESTER EXAM</b>		
7	2	Understand the basics and applicat	Seros mucous, sero-mucous cell glands Proper connective tissue, loose	Giving lectures and practical application in the laboratory	Daily exam
8	2	Understand the basics and applicat	Proper connective tissue dense	Giving lectures and practical application in the laboratory	Daily exam
9	2	Understand the basics and applicat	Special connective tissue, type of cells	Giving lectures and practical application in the laboratory	Daily exam
10	2	Understand the basics and applicat	Cartilage, Hyaline, Elastic, Fibro	Giving lectures and practical application in the laboratory	Daily exam
			<b>MID- YEAR EXAM</b>		
11	2	Understand the basics and applicat	Compact and spongy bone	Giving lectures and practical application in the laboratory	Daily exam
12	2	Understand the basics and applicat	Human Blood, W.B.C , R.B.C and frog blood	Giving lectures and practical application in the laboratory	Daily exam
13	2	Understand the basics and applicat	Muscular tissue: Skeletal, cardiac and smooth muscles	Giving lectures and practical application in the laboratory	Daily exam.
14	2	Understand the basics and applicat	Nerve cell	Giving lectures and practical application in the laboratory	Daily exam
15	2	Understand the basics and applicat	Central and peripheral nerve system	Giving lectures and practical application in the laboratory	Daily exam.
16	2	Understand the basics	Spinal cord and meninges	Giving lectures and practical application	Daily exam.

		and applicat		in the laboratory	
			<b>SECOND SEMESTER EXAM</b>		
17	2	Understand the basics and applicat	Entamoeba histolytica , Entamoeba coli	Giving lectures and practical application in the laboratory	Daily exam.
18	2	Understand the basics and applicat	Giardia lamblia , Trichomonas vaginalis	Giving lectures and practical application in the laboratory	Daily exam.
19	2	Understand the basics and applicat	Trichomonan tenax	Giving lectures and practical application in the laboratory	Daily exam
20	2	Understand the basics and applicat	Leishmania tropica, Leshmania donovani	Giving lectures and practical application in the laboratory	Daily exam
21	2	Understand the basics and applicat	Trypanosoms gambies	Giving lectures and practical application in the laboratory	Daily exam
22	2	Understand the basics and applicat	Plasmodium vivax and Toxoplasma gondii	Giving lectures and practical application in the laboratory	Daily exam
23	2	Understand the basics and applicat	Balantidium coli	Giving lectures and practical application in the laboratory	Daily exam
24	2	Understand the basics and applicat	Echinococcus granulosus, Taenia saginata Taenia solium	Giving lectures and practical application in the laboratory	Daily exam.
25	2	Understand the basics and applicat	Ancylostoma duodenale, Entrobis vermicularis	Giving lectures and practical application in the laboratory	Daily exam
26	2	Understand the basics and applicat	Fasciola hepatica	Giving lectures and practical application in the laboratory	Daily exam.
27	2	Understand the basics and applicat	Endoskeleton of frog.	Giving lectures and practical application in the laboratory	Daily exam.
28	2	Understand the basics and applicat	Experiment...exam ine samples of water	Giving lectures and practical application in the laboratory	Daily exam.
39	2	Understand the basics and applicat	Experiment...exam ine samples of water (one hour), Experiment ...Blood groups(one hour)	Giving lectures and practical application in the laboratory	Daily exam

30	2	Understand the basics and applicat	Experiment ...Blood groups	Giving lectures and practical application in the laboratory	Daily exam
		Final examination			

11. Course Evaluation					
Distributing the score out of 100 according to the tasks assigned to the student such as daily etc.....preparation, daily oral, monthly, or written exams, reports					
12. Learning and Teaching Resources					
Required textbooks (curricular books, if any)					
Main references (sources)					
Recommended books and references (scientific journals, reports...)					
Electronic References, Websites					

## Course Description Form

<b>1. Course Name:</b>
Medical Terminology
<b>2. Course Code:</b>
MDT128
<b>3. Semester / Year:</b>
1 <sup>st</sup> stage/ Annual
<b>4. Description Preparation Date:</b>
28/5/2025
<b>5. Available Attendance Forms:</b>
Student attendance is present and essential.
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
30 Theoretical hours / 2 units
<b>7. Course administrator's name (mention all, if more than one name)</b>
Asst. Lec. Reem Awad Shaban - <a href="mailto:Reem.a.shaban23@tu.edu.iq">Reem.a.shaban23@tu.edu.iq</a> Asst. Lec. Abdul Aziz Mohammed Husain Asst. Lec. Rusul Jassim Mohammed
<b>8. Course Objectives</b>
<ul style="list-style-type: none"> <li>• Understanding the linguistic foundations and components of medical terminology, such as prefixes, suffixes, and roots.</li> <li>• Recognizing how medical terms are formed and their meanings across various branches of medicine and dentistry.</li> <li>• Understanding terminology related to body systems (circulatory, nervous, digestive, musculoskeletal, etc.).</li> <li>• Comprehending terminology specific to oral health, dental care, and oral anatomy.</li> <li>• Understanding medical abbreviations and terms used in clinical files and records.</li> <li>• Being able to analyze medical terms into their components to understand their meaning.</li> <li>• Using medical terminology correctly in medical writing and communication.</li> </ul>

- Pronouncing terms accurately and clearly in academic and clinical contexts.
- Applying medical terminology to describe simple clinical conditions, signs, and symptoms.
- Developing the skill of reading and understanding basic medical reports and examinations.

## 9. Teaching and Learning Strategies

### Interactive Lectures

- Explaining word roots, prefixes, and suffixes using clinical examples from dentistry.
- Including short questions and discussions to encourage participation.

### 2. Context-Based Learning

- Introducing terminology within real medical contexts such as radiology reports, examinations, or clinical observations.
- Connecting terminology to everyday clinical procedures in dentistry.

### 3. Problem-Based Learning

- Presenting simple clinical cases that require analyzing terminology to determine the diagnosis or procedure.
- Working in student groups to discuss the meaning of terminology within this context.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
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1	1	understand the basic concepts	<b>Word Analysis &amp; Combining Forms, Suffixes, and Prefixes</b>	give lectures with explanation and clarification	Daily exam
2	1	understand the basic concepts	<b>In Person: Living With Type 1 Diabetes &amp;</b>	give lectures with explanation and clarification	Daily exam
3	1	understand the basic concepts	<b>Pronunciation of Terms &amp; Practical Applications</b>	give lectures with explanation and clarification	Daily exam
4	1	understand the basic concepts	<b>Picture Show &amp; Review</b>	give lectures with explanation and clarification	Daily exam
5	1	understand the basic concepts	<b>Terminology CheckUp &amp; Introduction to Body Systems</b>	give lectures with explanation and clarification	Daily exam
6	1	understand the basic concepts	<b>Body Cavities &amp; Divisions of the Back</b>	give lectures with explanation and clarification	Daily exam
7	1	understand the basic concepts	<b>Planes of the Body &amp; Terminology</b>	give lectures with explanation and clarification	Daily exam

8	1	understand the basic concepts	In Person: CT and MRI & Exercises and Answers	give lectures with explanation and clarification	Daily exam
9	1	understand the basic concepts	Pronunciation of terms and practical applications	give lectures with explanation and clarification	Daily exam
10	1	understand the basic concepts	Picture Show & Review	give lectures with explanation and clarification	Daily exam
11	1	understand the basic concepts	Combining FmN SuNxes, and Terminology	give lectures with explanation and clarification	Daily exam
12	1	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	Picture Show & Review	give lectures with explanation and clarification	Daily exam

15	1	understand the basic concepts	Additional Topic (e.g., Uedicat Ethics, Legal Issues)	give lectures with explanation and clarification	Daily exam
<b>Second Course</b>					
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., Uedicat Ethics, Legal Issues)	give lectures with explanation and clarification	Daily exam

<b>11.Course Evaluation</b>	
Theoretical tests	
Daily exams	
<b>12.Learning and Teaching Resources</b>	
<b>1- Required textbooks</b>	Connolly, D. (20 i 9). Medical tei•minology.' Quickly build your medical vocabulary.' Effective

(curricular books, if any)	<p>techniques for pronouncing, understanding, &amp; memorizing medical terms (Easy to follow on the go guide). [Self-published]. available on Amazon )</p> <ul style="list-style-type: none"> <li>- Gyls, B. A., &amp; MastfllrS, J. U. (?014). Medical terminology simplified. A programmed learning approach by body JyrJe»x (5th ed.). F. A. Davis Company.</li> <li>- GraCe, S. (2023). Medical terminology made easy.' The easy-to-follow guide to mastering terminology for nursing and healthcare professionals.</li> <li>- Nath, J. L., &amp; Lindsley, K. P. (2019). A short course in medical terminology (4th ed.). Wolters Kluwer Health. ISBN 9780781770700</li> <li>- Stanfield, P., H»i, Y. H., &amp; CroSs, N. (2015). Essential medical terminology (4th ed.). Jones &amp; Bartlett Learning</li> </ul>
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## Course Description Form

1. Course Name:
Medical Chemistry
2. Course Code:
MCH164
3. Semester / Year:
1 <sup>st</sup> stage/ Annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms:
Student attendance is present and essential.
6. Number of Credit Hours (Total) / Number of Units (Total)
60hr. theory+ 60hr. practical=120 Hours / 6 Units
7. Course administrator's name (mention all, if more than one name)
Name: Prof.Mahdi Salih Hamad Assist.prof.Shaimaa Essa Ahmed E. mail : shaemaa.essa@tu.edu.iq doaa mahmood abdulah
8-Course Objective
Understanding the general principles of chemistry and their relationship to biological processes in the human body.
<ul style="list-style-type: none"> <li>• Identifying the structure of major biomolecules: proteins, lipids, carbohydrates, and nucleic acids.</li> <li>• Understanding the role of enzymes, their mechanisms of action, and the influence of various factors on their activity.</li> <li>• Understanding basic biochemical processes such as metabolism, energy production, and oxidation-reduction.</li> <li>• Understanding the chemical basis of biological fluids such as blood and saliva, and their acid-base balance.</li> <li>• Understanding the relationship between medicinal chemistry and oral and systemic</li> </ul>

diseases.

## 9- Teaching and learning strategies

### 1. Interactive Lectures

- Explaining biochemical concepts using presentations and visual aids.
- Incorporating short questions and discussions during the lecture to stimulate deeper understanding.

### 2. Practical Laboratory Learning

- Training students to conduct basic experiments such as protein, glucose, and enzyme analysis.
- Using modern laboratory equipment and applying safe laboratory work skills.
- Practical activities to connect theoretical concepts with practical results.

## 10-Course structure

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	4	Understanding the concepts, basics and application	Radioactivity-I: types of radiation, isotopes, half-life, and nuclear reaction.	Lecture and explanation ppt presentation	Daily exam and oral questions
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
	64	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
	74	Understanding the concepts, basics and application	Chelation and possible application in Medicine	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	Pollutions	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, physical properties, substituted ammonium ion, preparing amines in living systems.	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 concepts, basics and application	Alcohol-II: preparation, oxidation of alcohol, 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 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
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-dimension 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 concepts, basics and application	Carbohydrate III: muco-polysacchrides, 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 or 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

11-course evaluation	
<p>The final grade is calculated out of 100. The grade distribution is based on the tasks assigned to the student, including daily, monthly, mid-year, and final exams (both oral :and written), as well as practical requirements and seminars, as follows</p> <p>Mid-Year Exam %15  Annual Coursework (includes grades from the first and second semesters plus %25 summer training for relevant courses)  Final Practical Exam %25  Final Written Exam %35</p>	
12-Learning and teaching resources .	Required textbooks (methodology, if applicable)
The Chemical Basis of Life	Main references (sources)
Different internet References	Electronic references, websites
International peer-reviewed journals Medical chemistry books	Recommended supporting books and references (scientific journals, reports...)

## Course Description Form

1. Course Name: Medical Physics
2. Course Code: MPH166
3. Semester / Year: First/Year
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)
Names: Dr. Lec. Thamer Mahmood Mohammed Email: <a href="mailto:thamer.mohammed@tu.edu.iq">thamer.mohammed@tu.edu.iq</a> Asst. Prof Dr. Yasir Khalaf Mohammed Email: <a href="mailto:yasirkhalaf@tu.edu.iq">yasirkhalaf@tu.edu.iq</a> Asst. Lec. Alyaa Ali Hameed Email: <a href="mailto:Alyaa.ali@tu.edu.iq">Alyaa.ali@tu.edu.iq</a>
8. Course Objectives
<ul style="list-style-type: none"> <li>• To introduce students to the fundamental physics concepts related to the human body.</li> <li>• To understand the principles of biomechanics and the effects of forces on teeth and jaws.</li> <li>• To learn about the nature of waves, sound, and light, and their applications in medical devices.</li> <li>• To understand the basics of electricity and magnetism as they relate to the operation of diagnostic equipment.</li> <li>• To study ionizing and non-ionizing radiation and their respective properties.</li> <li>• To understand the physical principles underlying medical imaging techniques used in dentistry.</li> </ul>

- To learn about radiation doses, radioactive interactions with tissues, and safety protocols.

## 9. Teaching and Learning Strategies

### 1-Interactive Lectures

- Presenting fundamental physics concepts using presentations and illustrations.
- Integrating direct questions and short discussions to enhance understanding and connect physics to clinical applications in dentistry.

### 2- Problem-Based Learning

- Presenting clinical scenarios involving the use of X-rays or devices based on physical principles.
- Training students to analyze problems, apply physical principles, and deduce appropriate solutions.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
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1	4 hours 2 theoretical 2 practicals	Understand the concepts, basics and application	Terminology	1- The method of giving lectures, explanation and clarification. 2- Student Center 3- Team Project 4- Work Shop 5- Scientific trips to follow up radioactive pollution and its relationship to the human body 6- Experiential Learning. 5- Application Learning	1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams 5-General questions and discussions
	2 2Hours	Understand the concepts, basics and application	Terminology		
	3 2Hours		Force on & in body		1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	4 2Hours	Understand the concepts, basics and application	Force on & in body		5-General questions and discussions
	5 2Hours		Physics of the skeleton		1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	6 2Hours		Physics of the skeleton	Lecture and explanation PPT presentation	5-General questions and discussions
	7 2Hours	Understand the concepts, basics and application	Heat and cold in medicine:		1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	8 2Hours		Heat and cold in medicine:	Lecture and explanation PPT presentation	
	9 2Hours		Energy, work and power of the body:		5-General questions and discussions
	10 2Hours	Understand the concepts, basics and application	Energy, work and power of the body:	Lecture and explanation PPT presentation	1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	11 2Hours		Pressure		
	12 2Hours	Understand the concepts, basics and application	Pressure	Lecture and explanation PPT presentation	1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	13 2Hours	Understand the concepts, basics and application	Electricity within the body:		5-General questions and discussions
	14 2Hours		Electricity within the body:	Lecture and explanation PPT presentation	
	15 2Hours	Understand the concepts, basics and application	Sound in medicine:		1- Theoretical tests 2- Practical tests 3- Reports and studies 4- Daily exams
	16 2Hours		Sound in medicine:		
	17 2Hours		Ultrasound	Lecture and	



18		Understand the concepts, basics and application	Ultrasound	explanation PPT presentation	5-General questions and discussions
19	2Hours		Light in medicine		
20	2Hours		Light in medicine	Lecture and explanation	1- Theoretical tests
21	2Hours	Understand the concepts, basics and application	Laser in medicine.	PPT presentation	2- Practical tests
22	2Hours		Laser in medicine.		3- Reports and studies
23	2Hours	Understand the concepts, basics and application	Physics of eye and vision		4- Daily exams
24	2Hours		Physics of eye and vision	Lecture and explanation PPT presentation	5-General questions and discussions
25	2Hours	Understand the concepts, basics and application	Physics of diagnostic X-ray		1- Theoretical tests
26	2Hours		Physics of diagnostic X-ray	Lecture and explanation PPT presentation	2- Practical tests
27	2Hours	Understand the concepts, basics and Application	Physics of nuclear medicine:		3- Reports and studies
28	2Hours		Physics of nuclear medicine:	Lecture and explanation PPT presentation	4- Daily exams
29	2Hours	Understand the concepts, basics and application	Physics of radiation therapy		5-General questions and discussions
30			Physics of nuclear medicine:	Lecture and explanation PPT presentation	

## 11-Course Evaluation

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: -

**15% half year**

**25% annual effort (includes first and second semester grades plus summer training for the courses included in it)**

**25% final practical exam**

**35% final written exam**

### 12. Learning and teaching resources

1-Medical Physics by John R.Cameron & James G.Skofronick(1978)	Required textbooks (methodology if any)
1-Medical Physics by John R.Cameron & James G. Skofronick (1978)	Main References (Sources)
	Recommended supporting books and references (scientific journals, reports, etc.)
Google scholar, research gates1- 2- Electronic Library of the College of Dentistry 3- 3- Electronic scientific books	Electronic references, websites



## Course Description Form

1. Course Name:
Human Rights
2. Course Code:
HRT127
3. Semester / Year:
1 <sup>st</sup> stage / Annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms:
Student attendance is present and essential.
6. Number of Credit Hours (Total) / Number of Units (Total)
30 h /2 units
7. Course administrator's name (mention all, if more than one name)
Asst. Lec. Zaid Ali Ahmed - zeidalkhaldiy@tu.edu.iq Asst. Lec. Ossama Muhammed Abed - Ossama-980@tu.edu.iq
8. Course Objectives
<p>Introducing the student to the fundamental principles of human rights and their • .legal and international sources</p> <p>Understanding international human rights conventions and agreements, such as the • .Universal Declaration of Human Rights</p> <p>Recognizing the concept of human dignity and the foundations of respecting it in • .the health and medical context</p> <p>Understanding the relationship between human rights and health practices, • .particularly those related to patients' rights</p> <p>Understanding the role of health and medical institutions in protecting and • .promoting human rights</p> <p>Introducing the student to the fundamental principles of human rights and their • .legal and international sources</p>

Understanding international human rights conventions and agreements, such as the •  
 .Universal Declaration of Human Rights

Recognizing the concept of human dignity and the foundations of respecting it in •  
 .the health and medical context

Understanding the relationship between human rights and health practices, •  
 .particularly those related to patients' rights

Understanding the role of health and medical institutions in protecting and •  
 .promoting human rights

## 9. Teaching and Learning Strategies

### 1- .Interactive Lectures

-Introducing fundamental human rights concepts through presentations and live discussions.

-Posing questions that encourage students to think critically and connect human rights principles to medical practice.

### 2- .Group Activities

-Forming working groups to give short presentations on topics such as children's rights, women's rights, or the rights of people with disabilities in healthcare.

-Fostering collaboration, division of roles, and the development of constructive dialogue skills.

### 3- .Problem-Based Learning

-Presenting scenarios involving ethical or human rights situations in dentistry.

-Training students to identify a problem, analyze its human rights dimensions, and make an informed decision based on legal and ethical principles.

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## Course Evaluation

Week	Hours	Required learning outcomes	Unit/ subject name	Learning Method	Evaluation Method
1	1	The concept of democracy	Defining the importance of democracy, it is development and dimension	Theoretical	General questions and discussions

2	1	The roots of democracy	Democracy between universality and privacy	Theoretical	General question and discussions
3	1	Forms of democracy	Direct and semi direct	Theoretical	General question and discussions
4	1	Representation democracy	The concept of the trigonometric system it is legal na ture itis pillars	Theoretical	General question and discussions
5	1	Forms of the parliamentary system	Parliamentary presidential and parliamentary system	Theoretical	General question and discussions
6	1	Election concept	Voters and the organization of the election process	Theoretical	General question and discussions
7	1	Election systems	Direct indirect individual	Theoretical	General question and dis cussions

11-Course Evaluation	
C1- observation and participation. C2- analyzing and interpretation.	
C3- conclusion and evaluation. C4- preparation and evaluation.	
12.Learning and Teaching Resources	
2- Required textbooks (curricular books, if any)	Human rights and democracy
3- Main references (sources)	Dr Zuhair Riyad
4- Recommended books and references (scientific journals, reports...).	
5- 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 <sup>st</sup> stage / Annual
4. Description Preparation Date:
15/9/2024
5. Available Attendance Forms:
Student attendance is present and essential.
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)
Lec. Dr. Tamara A. Anai- <a href="mailto:tamsamka@tu.edu.iq">tamsamka@tu.edu.iq</a> Asst. Lec. Shms Aldeen Saad Mohsen- <a href="mailto:shms.aldeen@tu.edu.iq">shms.aldeen@tu.edu.iq</a> Asst. Lec. Heba Hani Raheem - <a href="mailto:Heba.h.raheem22m@st.tu.edu.iq">Heba.h.raheem22m@st.tu.edu.iq</a> Asst. Lec. Raghda Awad Shaban - <a href="mailto:raghda.a.shaban@tu.edu.iq">raghda.a.shaban@tu.edu.iq</a>
8. Course Objectives
<ul style="list-style-type: none"> <li>• To equip students with a basic understanding of computer science concepts.</li>   <li>• To provide students with essential and important information about computer science and its relevance to our daily lives.</li>   <li>• To develop students' computer skills.</li>   <li>• To provide practical computer studies, including basic definitions, computer components, and applications.</li>   <li>• To explore the importance and relationship between computer science and dentistry, and to explore how these fields can be integrated.</li>   <li>• To familiarize students with the Windows operating system and keyboard</li> </ul>

shortcuts, while also acknowledging the differences between other operating systems and software.

- To equip students with knowledge of fundamental computer science concepts.
- To familiarize students with digital systems.
- To teach them about and utilize e-learning.
- To provide students with essential and important information in computer science and its relevance to our daily lives.
- To teach students how to use Microsoft Office applications (Word, Excel, Access, PowerPoint).

## 9. Teaching and Learning Strategies

### . 9. Teaching and Learning Strategies

#### 1- Interactive Lectures

- Explaining fundamental computer and software concepts using interactive presentations.
- Asking questions during the lecture to encourage participation and enhance understanding.

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#### 2- Practical Learning in the Lab

- Training students to use essential software such as:  
Microsoft Word, Excel, PowerPoint, and Data Management.
- Using the lab to apply skills directly during the explanation.

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#### 3- Project-Based Learning

- Assigning students small projects such as:
- Preparing professional reports using Word
- Creating scientific presentations
- Analyzing simple data using Excel
- This helps in acquiring real-world practical skills.

#### 4- Cognitive Objectives

- For the student to understand the fundamental concepts of computer science in general.
- To classify the relationship between fundamental computer concepts, dentistry, and our daily lives.
- To analyze the cognitive importance of computer science and its positive impact on our lives.

- To understand the importance of computer knowledge from an applied perspective. 5. Using Windows and the keyboard

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
<b>Course Structure // Theory</b>					
1	1	Understand the concepts, basics, and application	<b>Introduction In Computer:</b> Concepts of HW and SW with their components; Concept of computing, data and information;	give lectures with explanation and clarification using the computer	Daily exam and computer application
2	1	Understand the concepts, basics, and application	<b>Introduction In Computer:</b> applications of information electronics and communication technology (IECT); connecting input/output devices and peripherals to CPU	give lectures with explanation and clarification using the computer	Daily exam and computer application
3	1	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Hardware parts	give lectures with explanation and clarification using the computer	Daily exam and computer application

4	1	Understand the concepts, basics, and application	<b>Computer Components:</b> I/O units, Memory Types, Basic CPU Components	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
5	1	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer Ports, Personal Computer	give lectures with explanation and clarification using the computer	Daily exam and computer application Daily exam and computer application	- -
6	1	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Personal Computer (Features and Types)	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
7	1	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b> operating System; Basics of common OS; The user interface	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
8	1	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b>	give lectures with explanation	Daily exam and computer application	-

			using Mouse Techniques; use of Common Icons, Status bar	and clarification using the computer		
9	1	Understand the concepts, basics, and application	<b>Computer Components:</b> I/O units, Memory Types, Basic CPU Components	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
10	1	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer Ports, Personal Computer	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
11	1	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Personal Computer (Features and Types)	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
12	1	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b> operating System; Basics of common OS; The user interface	give lectures with explanation and clarification using the computer	Daily exam - and computer application	



13	1	Understand the concepts, basics, and application	<b>Word Processing:</b> formatting of text; table handling; spell check	give lectures with explanation and clarification using the computer	Daily exam and computer application
14	1	Understand the concepts, basics, and application	<b>Word Processing:</b> language setting and thesaurus; printing of word document.	give lectures with explanation and clarification using the computer	Daily exam and computer application
15	1		<b>Exam</b>		
16	1	Understand the concepts, basics, and application	<b>Spread Sheet:</b> Basics of Spreadsheet.		Daily exam and computer application
17	1	Understand the concepts, basics, and application	<b>Spread Sheet:</b> Manipulation of cells; formulas and functions.	give lectures with explanation and clarification using the computer	Daily exam and computer application
18	1	Understand the concepts, basics, and application	<b>Spread Sheet:</b> editing of spread sheet	give lectures with explanation and clarification using the computer	Daily exam and computer application
19	1	Understand the	<b>Spread Sheet:</b>	give	Daily exam

		concepts, basics, and application	printing of Spread Sheet.	lectures with explanation and clarification using the computer	and computer application	
20	1	Understand the concepts, basics, and application	<b>Presentation Software:</b> preparation and presentation of slides.	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
21	1	Understand the concepts, basics, and application	<b>Presentation Software:</b> slide show	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
22	5	Understand the concepts, basics, and application	<b>Presentation Software:</b> taking printouts of presentation/handouts.	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
23	1	Understand the concepts, basics, and application	<b>Presentation Software:</b> preparation and presentation of slides.	give lectures with explanation and clarification	Daily exam and computer application	-

				using the computer		
24	1	Understand the concepts, basics, and application	<b>Introduction to Internet and web Browsers:</b> Computer networks basics; LAN, WAN; concept of internet and its applications.	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
25	1	Understand the concepts, basics, and application	<b>Introduction to Internet and web Browsers:</b> Connecting to internet; World Wide Web; Browsing SW, search engines; understanding URL; Domain name; IP address.	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
26	1	Understand the concepts, basics, and application	<b>Communication and Emails:</b> Basics of electronic mail; getting an email account; sending and receiving emails.	give lectures with explanation and clarification using the computer	Daily exam and computer application	-
27	1	Understand the concepts, basics, and application	<b>Communication and Emails:</b> Accessing sent emails; using emails; document	give lectures with explanation and clarification	Daily exam and computer application	-

			collaboration.	using the computer	
28	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> identifying and solving common hardware and software problems that computer users encounter.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
29	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Basic Troubleshooting techniques and tools for diagnosing and resolving issues.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
30	1		<b>Exam</b>		
Total	30				

11. Course Structure // <b>Lab. Experiment</b>					
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	<b>Introduction</b> <b>Computer:</b> Concepts of HW and SW with their components; Concept of computing, data and information;	give lectures with explanation and clarification using the computer	Daily exam - and computer application
2	2	Understand the concepts, basics, and application	<b>Introduction</b> <b>Computer:</b> applications of information electronics and communication technology (IECT); connecting input/output devices and peripherals to CPU	give lectures with explanation and clarification using the computer	Daily exam - and computer application
3	2	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Hardware parts	give lectures with explanation and clarification using the computer	Daily exam - and computer application
4	2	Understand the concepts, basics, and application	<b>Computer Components:</b> I/O units, Memory Types, Basic CPU Components	give lectures with explanation and clarification using the computer	Daily exam - and computer application
5	2	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer Ports, Personal Computer	give lectures with explanation and clarification using the computer	Daily exam - and computer application Daily exam - and computer application
6	2	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Personal Computer (Features and Types)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
7	2	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b> operating System; Basics of common OS; The user interface	give lectures with explanation and clarification using the computer	Daily exam - and computer application
8	2	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b> using Mouse Techniques; use of Common Icons,	give lectures with explanation and clarification using the computer	Daily exam - and computer application

			Status bar			
9	2	Understand the concepts, basics, and application	<b>Computer Components:</b> I/O units, Memory Types, Basic CPU Components	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
10	2	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer Ports, Personal Computer	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
11	2	Understand the concepts, basics, and application	<b>Computer Components:</b> Computer portions, Personal Computer (Features and Types)	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
12	2	Understand the concepts, basics, and application	<b>Operating System and Graphical user Interface GUI:</b> operating System; Basics of common OS; The user interface	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
13	2	Understand the concepts, basics, and application	<b>Word Processing:</b> formatting of text; table handling; spell check	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
14	2	Understand the concepts, basics, and application	<b>Word Processing:</b> language setting and thesaurus; printing of word document.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
15	2		<b>Exam</b>			
16	2	Understand the concepts, basics, and application	<b>Spread Sheet:</b> Basics of Spreadsheet.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
17	2	Understand the concepts, basics, and application	<b>Spread Sheet:</b> Manipulation of cells; formulas and functions.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
18	2	Understand the concepts, basics, and application	<b>Spread Sheet:</b> editing of spread sheet	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
19	2	Understand the concepts, basics, and application	<b>Spread Sheet:</b> printing of Spread Sheet.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
20	2	Understand the concepts, basics, and application	<b>Presentation Software:</b> preparation and presentation of	give lectures with explanation and clarification using	Daily exam - computer application	and

		application	slides.	the computer		
21	2	Understand the concepts, basics, and application	<b>Presentation Software:</b> slide show	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
22	2	Understand the concepts, basics, and application	<b>Presentation Software:</b> taking of printouts presentation/handouts.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
23	2	Understand the concepts, basics, and application	<b>Presentation Software:</b> preparation and presentation of slides.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
24	2	Understand the concepts, basics, and application	<b>Introduction to Internet and web Browsers:</b> Computer networks basics; LAN, WAN; concept of internet and its applications.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
25	2	Understand the concepts, basics, and application	<b>Introduction to Internet and web Browsers:</b> Connecting to internet; World Wide Web; Browsing SW, search engines; understanding URL; Domain name; IP address.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
26	2	Understand the concepts, basics, and application	<b>Communication and Emails:</b> Basics of electronic mail; getting an email account; sending and receiving emails.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
27	2	Understand the concepts, basics, and application	<b>Communication and Emails:</b> Accessing sent emails; using emails; document collaboration.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
28	2	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> identifying and solving common hardware and software problems that computer users encounter.	give lectures with explanation and clarification using the computer	Daily exam - computer application	and
29	2	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Basic Troubleshooting	give lectures with explanation and clarification using the computer	Daily exam - computer application	and

		application	techniques and tools for diagnosing and resolving issues.	the computer	
30	2		<b>Exam</b>		
Total	60				

11.Course Evaluation	
Theoretical tests Practical tests Reports, studies, and practical application Daily exams	
12.Learning and Teaching Resources	
<b>6- Required textbooks (curricular books, if any)</b>	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).
<b>7- Main references (sources)</b>	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
<b>8- Recommended books and references (scientific journals, reports...).</b>	Computer Literacy BASICS: A Comprehensive Guide to IC3 by Connie Morrison and Dolores Wells (2012) My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1,2012) 4- Different internet Reference



<p><b>9- Electronic references, Internet sites...</b></p>	<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>
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## Course Description Form

1. Course Name: Human Anatomy
2. Course Code: <b>GAN241</b>
3. Semester / Year: 2 <sup>nd</sup> 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)
30 hours of theory+ 60 h practical/ 4 units
7. Course administrator's name (mention all, if more than one name)
Name: Assis.Prof. Ali Ghanim Abdullah Assis.Prof. Ban Ismael Sedeeq Assis.Lec. Noor Ghazi Saab Email: <a href="mailto:banasnan@tu.edu.iq">banasnan@tu.edu.iq</a> ; <a href="mailto:noor.gsaab@tu.edu.iq">noor.gsaab@tu.edu.iq</a> ;
8. Course Objectives
<ul style="list-style-type: none"> <li>• To identify the basic anatomical structures of the human body, with a focus on the head and neck.</li> <li>• To understand the relationships between muscles, bones, nerves, and blood vessels.</li> <li>• To interpret anatomical features essential for clinical dental procedures such as local anesthesia and tooth extraction.</li> <li>• To distinguish anatomical differences between various regions and relate them to vital functions.</li> <li>• To acquire the ability to read and interpret three-dimensional and CT anatomical diagrams and images, fostering the student's respect for the components of the human body and the importance of anatomy in medical practice.</li> </ul>

- To work as part of a team during anatomy labs and collaborate with colleagues.
- To adhere to safety regulations in anatomy labs and handle stored materials and instruments responsibly.
- To appreciate the role of anatomical knowledge in enhancing the clinical performance of dentists.

## 9. Teaching and Learning Strategies

### 1. Interactive Lectures

- Explaining fundamental anatomical concepts using presentations supported by images and videos.
- Asking short questions to encourage participation and understanding of concepts.

### 2. Practical Laboratory Learning

- Using anatomical models and preserved structures to introduce students to real structures.
- Training in identifying muscles, bones, nerves, and blood vessels.

### 3. Problem-Based Learning

- Presenting clinical cases related to anatomical aspects, such as facial pain or local anesthesia.
- Encouraging students to apply anatomical knowledge to solve problems.

### 4. Practical Demonstrations

- Demonstrating anatomical procedures or using 3D models to illustrate spatial relationships.

### 5. Team-Based Learning

- Short individual and group quizzes on knowledge of anatomical structures.
- Assigning teams to discuss cases or give short anatomical presentations.

### 6. Digital and Interactive Resources

- Using 3D Anatomy applications, educational videos, and interactive models to enhance spatial understanding.

### 7- Clinical Link

- Explaining the applications of anatomical information in clinical procedures such as anesthesia, tooth extraction, and radiographic image analysis.

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10. Course Structure: Title of the lectures					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Understand the concepts, basics and application	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]	daily and monthly exam
2	2	Understand the concepts, basics and application	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]	daily and monthly exam
3	1	Understand the concepts, basics and application	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	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam

			and Functions of Paranasal Sinuses • Clinical Notes		
4	1	Understand the concepts, basics and application	Mandibular nerve • Introduction • Branches of the Mandibular Nerve • Otic Ganglion • Clinical Notes	Presentation method with illustration and explanation on power point Video [you tube	daily and monthly exam
5	2	Understand the concepts, basics and application	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	daily and monthly exam
6	2	Understand the concepts, basics and application	Oral cavity The Lips The oral Cavity vestibule and Proper Sensory innervation of the Mouth Hard Palate & Soft palate Muscles of the Soft Palate Palatoglossal Arch & Palatopharyngeal Arch	Presentation method with illustration and explanation on power point Video [you tube	daily and monthly exam
7	1	Understand the concepts, basics and application	Tongue • Muscles of the Tongue • Movements of the Tongue		
8	1	Understand the concepts, basics and application	Temporal region • The temporal fossa anatomy • The infratemporal fossa • Communications • Muscles of mastication	Presentation method with illustration and explanation on power point Video [you tube	daily and monthly exam
9	2	Understand the concepts, basics and application	Parotid gland • Parotid Region (Boundaries) • Parotid Gland • Parotid Duct •	Presentation method with illustration and explanation on power point	daily and monthly exam

			Innervation of Parotid Gland and Related Structures • Arterial Supply • Venous Drainage • Lymph Drainage • The Buccal Pad of Fat • Clinical Notes	Video [you tube]	
10	1	Understand the concepts, basics and application	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]	daily and monthly exam
11	2	Understand the concepts, basics and application	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]	daily and monthly exam
12	2	Understand the concepts, basics and application	The neck • Overview • Skin of the Neck • Fasciae of the Neck • Superficial Cervical Fascia • Deep Cervical Fascia • Cervical Ligaments • Muscles of the Neck • Cervical Plexus • Bones of Neck • Blood Supply • Key Neck Muscles	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam
13	2	Understand the concepts,	Triangles of the neck • ANTERIOR TRIANGLE •	Presentation method with illustration and	daily and monthly exam

		basics and application	SUBMENTAL TRIANGLE • SUBMANDIBULAR TRIANGLE • CAROTID TRIANGLE • MUSCULAR TRIANGLE • Posterior Triangle • Thyroid Gland • blood supply & venous drainage • nerve supply	explanation on power point Video [you tube]	
14	1	Understand the concepts, basics and application	Submandibular region MUSCLES OF THE SUBMANDIBULAR REGION The submandibular gland Sublingual Gland	Presentation method with illustration and explanation on power point Video [you tube]	daily and monthly exam
15	2	Understand the concepts, basics and application	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]	daily and monthly exam
16	2	Understand the concepts, basics and application	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]	daily and monthly exam
17	1		Brain • Nervous System • Gross Anatomy of the Brain • Parts of the Brain • Ventricular System of the Brain • The Venous Blood Sinuses (Dural Sinuses) •	Presentation method with illustration and explanation on power point	daily and monthly exam

			Blood Supply of the Brain • Cranial Meninges • Dural Nerve Supply • Dural Arterial Supply Dural Venous Drainage Clinical Focus		
18	1		Cranial nerves • Introduction • Functional Components • Summary of cranial nerves	Video [you tube	daily and monthly exam
19	1		Pharynx • Muscles of the Pharynx • Pharynx divisions • Palatine Tonsils • Waldeyer's Ring of Lymphoid Tissue	Presentation method with illustration and explanation on power point	daily and monthly exam
20	1		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	daily and monthly exam
	30		Σ		

#### 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	Practical exam



				Video [you tube]	
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 Video [you tube]	Practical exam
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 modules Video [you tube]	Practical exam
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 venus 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	

## Course Description Form

1. Course Name:
Prosthodontics
2. Course Code:
<b>PRO262</b>
3. Semester / Year:
2 <sup>nd</sup> 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
<ul style="list-style-type: none"> <li>To learn about the types of materials used in dentistry and their physical and chemical properties.</li> <li>To understand the principles of selecting appropriate materials for each clinical procedure (such as fillings, crowns and bridges, and partial dentures).</li> <li>To understand the theoretical foundations of dental fabrication techniques and dental models.</li> <li>To understand the interactions between different materials and their impact on durability and safety.</li> <li>To understand quality and safety standards in the fabrication of dental prostheses.</li> <li>To respect safety and hygiene standards while working in the dental laboratory.</li> <li>To develop discipline and precision in performing practical tasks.</li> <li>To foster a spirit of cooperation and teamwork in the laboratory environment.</li> </ul>

- To appreciate the importance of the quality of laboratory work and its direct impact on dental treatment outcomes.
- To gain theoretical knowledge of the processes used in the fabrication of clinically applied dental prostheses.
- To understand how to select appropriate materials for each clinical case to ensure high functional and aesthetic results.
- To understand the impact of material properties on the appearance and lifespan of prostheses.
- To support the student's ability to communicate effectively with the dental laboratory and improve the quality of clinical work through understanding the fabrication process.

## 9. Teaching and Learning Strategies

### 1. Interactive Lectures

- o Presenting the theoretical properties of different dental materials using presentations supported by images and videos.
- o Incorporating short questions and discussions to stimulate students' critical thinking and connect theoretical knowledge with practical application.

### 2. Practical Laboratory Learning

- o Training students to prepare and fabricate dental models using plaster, wax, porcelain, and composite resins.
- o Practicing techniques for fillings, crowns, bridges, and partial dentures in a safe environment.

### 3. Problem-Based Learning

- o Presenting clinical scenarios that require selecting the appropriate material and fabrication technique.
- o Motivating students to apply theoretical knowledge to find practical solutions to problems.

### 4. Practical Demonstrations

- o Demonstrating the practical steps of fabricating fillings, crowns, and bridges by the instructor before students practice.

o Using educational and explanatory videos to simplify complex procedures.

#### 5. Team-Based Learning

o Assigning students to work in groups to complete collaborative laboratory projects.

o Discussing practical problems and finding collective solutions, with evaluation of group and individual performance. 6. Clinical Application

o Explaining how material properties affect treatment outcomes in the clinic.

o Linking laboratory techniques to the aesthetic and functional aspects of dental restorations.

#### 7. Digital and Interactive Tools

o Using 3D software and simulators to illustrate material properties and manufacturing techniques.

o Providing online resources to keep up-to-date with the latest advancements in dental materials and technologies.



10. Course Structure				
Week	Hours	Unit/Module or Topic Title	Teaching Method	Assessment Method
1 <sup>st</sup>	1hr.theoretical 2hr. practical	Course description, Introduction, definitions & objectives	power point	Questions and discussion
2 <sup>nd</sup>	1hr.theoretical 2hr. practical	Maxillary landmarks	power point	Questions and discussion
3 <sup>rd</sup>	1hr.theoretical 2hr. practical	Mandibular landmarks	power point	Questions and discussion
4 <sup>th</sup>	1hr.theoretical 2hr. practical	Impression trays, stock tray & primary impression	power point	Questions and discussion
5 <sup>th</sup>	1hr.theoretical 2hr. practical	Study cast, S.T.& final impression	power point	Questions and discussion
6 <sup>th</sup>	1hr.theoretical 2hr. practical	Base plate & bite rim	power point	Questions and discussion
7 <sup>th</sup>	1hr.theoretical 2hr. practical	Jaw relations, Orientation & Vertical	power point	Questions and discussion
8	1hr.theoretical 2hr. practical	Horizontal Jaw relations	power point	Questions and discussion
9	1hr.theoretical 2hr. practical	TMJ and mandibular movement	power point	Questions and discussion
10	1hr.theoretical 2hr. practical	Articulators & face-bow	power point	Questions and discussion
11	1hr.theoretical 2hr. practical	Mounting	power point	Questions and discussion
12	1hr.theoretical 2hr. practical	selection of teeth	power point	Questions and discussion
13	1hr.theoretical 2hr. practical	Setting of anterior teeth	power point	Questions and discussion
14	1hr.theoretical 2hr. practical	Setting of posterior teeth	power point	Questions and discussion

15	1hr.theoretical 2hr. practical	Waxing and carving	power point	Questions and discussion
	1hr.theoretical 2hr. practical	1st term exam	power point	
16	1hr.theoretical 2hr. practical	Flasking	power point	Questions and discussion
17	1hr.theoretical 2hr. practical	Wax illumination& processing	power point	Questions and discussion
18	1hr.theoretical 2hr. practical	Denture base materials	power point	Questions and discussion
19	1hr.theoretical 2hr. practical	Deflasking& finishing	power point	Questions and discussion
20	1hr.theoretical 2hr. practical	Selective grinding	power point	Questions and discussion
21	1hr.theoretical 2hr. practical	Trouble shooting	power point	Questions and discussion
22	1hr.theoretical 2hr. practical	Denture repair	power point	Questions and discussion
23	1hr.theoretical 2hr. practical	Revision	power point	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 <sup>nd</sup> 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)
Muthena Shabaan Email: muthenna@tu.edu.iq
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To identify the different types of dental materials and their physical and chemical properties.</li> <li>• To understand the scientific principles for selecting appropriate materials for each clinical procedure, such as fillings, crowns, bridges, and partial dentures.</li> <li>• To study the interactions between different materials and their impact on durability, safety, and integrity.</li> <li>• To grasp the fundamentals of fabricating dental prostheses and laboratory models.</li> <li>• To understand the scientific and quality standards associated with the use of materials in dentistry.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To acquire practical skills in preparing different dental materials (plaster, wax, porcelain, resins).</li> </ul>

- To be able to shape and fabricate dental models, fillings, crowns, bridges, and partial dentures.
- To use dental materials laboratory equipment correctly and safely.
- To develop manual dexterity and precision during laboratory work to ensure the quality of prostheses.

#### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene standards in the dental materials laboratory.
- To develop discipline and accuracy in performing practical tasks. • To foster a spirit of cooperation and teamwork among students in the laboratory.
- To appreciate the role of high-quality laboratory work in the success of clinical treatment.

#### Fourth: Applied/Clinical Objectives

- To connect theoretical knowledge of dental materials with practical application in clinics.
- To understand the impact of material properties on the functional and aesthetic outcomes of dental restorations.
- To select the appropriate material for each clinical case according to the requirements of function, durability, and appearance.
- To enhance the student's ability to communicate with laboratory technicians to ensure the quality of clinical work.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presenting the theoretical properties of dental materials using presentations supported by images and videos.
- Holding short questions and discussions to encourage students to think critically and connect theoretical knowledge with practical application.
- Practical Laboratory Learning

- Training students to prepare and fabricate dental models using plaster, wax, porcelain, and composite resins.
- Practicing techniques for fillings, crowns, bridges, and partial dentures in a safe environment.
- Problem-Based Learning
- Presenting clinical scenarios that require the selection of appropriate materials and fabrication techniques.
- Encouraging students to apply theoretical knowledge to find practical solutions to problems.
- Practical Demonstrations
- Demonstrating the practical steps of preparing and fabricating materials by the instructor before students practice.
- Using educational and explanatory videos to facilitate understanding of complex procedures.
- Team-Based Learning
- Assigning students to work in groups to complete collaborative laboratory projects.
- Discussing practical problems and finding collective solutions, with evaluation of individual and group performance. • Clinical connection
- Explaining how material properties affect treatment outcomes in the clinic.
- Linking laboratory techniques to the aesthetic and functional aspects of dental restorations.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1		Introduction and physical properties of dental material	Lecture / lab	theory exam/ Practical evaluation
2	1		Mechanical properties	Lecture / lab	theory exam/ Practical evaluation
3	1		Gypsum materials	Lecture / lab	theory exam/ Practical evaluation
4	1		Gypsum materials	Lecture / lab	theory exam/ Practical evaluation
5	1		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		Waxes	Lecture / lab	theory exam/ Practical evaluation
11	1		Waxes	Lecture / lab	theory exam/ Practical evaluation
12	1		Polymers	Lecture / lab	theory exam/ Practical evaluation
13	1		Polymers	Lecture / lab	theory exam/ Practical evaluation
14	1		Investment materials	Lecture / lab	theory exam/ Practical evaluation
15	1		Cement materials	Lecture / lab	theory exam/ Practical evaluation
16	1		Temporary filling	Lecture / lab	theory exam/ Practical evaluation
17	1		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		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		Preventive materials	Lecture / lab	theory exam/ Practical evaluation
26	1		Root canal filling materials (obturator materials)	Lecture / lab	theory exam/ Practical evaluation
27	1		Finishing and polishing material	Lecture / lab	theory exam/ Practical evaluation
28	1		Relining material	Lecture / lab	theory exam/ Practical evaluation
29	1		Implant materials	Lecture / lab	theory exam/ Practical evaluation
30	1		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					

## Course Description Form

1. Course Name:
General Histology
2. Course Code:
<b>GHS264</b>
3. Semester / Year:
2 <sup>nd</sup> 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 objective
First: Cognitive Objectives
<ul style="list-style-type: none"> <li>• To identify the structure and function of the basic tissues in the human body: epithelial, connective, muscular, and nervous.</li>   <li>• To understand the relationship between the microscopic structure of tissues and their vital functions.</li>   <li>• To study the properties of cells and the extracellular matrix and their impact on tissue integrity.</li>   <li>• To learn methods of preparing tissue slides and microscopic imaging techniques.</li>   <li>• To connect histological information to clinical functions and medical applications in dentistry.</li> </ul>
Second: Skill-Based Objectives
<ul style="list-style-type: none"> <li>• To master the skills of identifying tissues and cells under a light microscope.</li>   <li>• To be able to prepare tissue slides and observe basic morphological features.</li>   <li>• To analyze tissue slides and connect theoretical observations to practical applications.</li> </ul>



- To develop the skill of using precise scientific terminology when describing tissues and cells.

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### Third: Behavioral/Value-Based Objectives

- To cultivate in the student an appreciation for the importance of studying tissues to understand health and disease.
- To adhere to safety regulations while working in histology laboratories.
- To enhance cooperation and teamwork skills during practical sessions.
- Appreciating the role of tissue studies in improving the clinical and professional performance of the dentist.

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### 9-Teaching and learning strategies

- Interactive Lectures
- Presenting the theoretical properties of tissues and cells using presentations supported by microscopic images and videos.
- Incorporating short questions and discussions to enhance student understanding and connect theoretical information to biological functions.
- Practical Laboratory Learning
- Training students to identify tissues and cells under a light microscope.
- Practicing the analysis of histological slides and relating observations to theoretical concepts.
- Practical Demonstrations
- Presenting histological slides and explaining their main components and microscopic properties before students apply the observation.
- Using videos and 3D models to illustrate histological structure.
- Problem-Based Learning
- Presenting clinical cases related to histological changes in the mouth and teeth.
- Training students to interpret histological observations and relate them to function or disease.

- Team-Based Learning
- Assigning students to work in groups to analyze slides and share observations.
- Discussing cases and providing collaborative solutions to analyze histological phenomena.

#### 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 and explanation	Questions and discussion
2	2 hrs	The student learns about the epithelial tissue and how to distinguish between its types and the function of each type	Epithelial Tissue	Lecture and explanation	Questions and discussion
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 and explanation	Questions and discussion
4-5	4 hrs	The student learns about the organs and tissues of the respiratory system	Respiratory system	Lecture and explanation	Questions and discussion
6-7	4 hrs	The student learns about the organs and tissues of the urinary system	Urinary system	Lecture and explanation	Questions and discussion
8		First	Semester exams		
9-10	4-hrs	The student learns about the organs and tissues of the integumentary system	integumentary system		Questions and discussion
11-13	6 hrs.	Students learn	Digestive	Lecture and	Questions and

		about the organs and tissues of the digestive system	System	explanation	discussion
14-15	4 hrs	The student learns about the organs and tissues of the lymphoid system	lymphoid system	Lecture and explanation	Questions and discussion
		Mid-year	Exam		
16-17	4 hrs.	The student learns about the organs and tissues of the circulatory system	Cardiovascular system	Lecture and explanation	Questions and discussion
18-19	4 hrs	The student learns about the organs and tissues of the bone marrow and hemopoietic tissues	Hemopoiesis	Lecture and explanation	Questions and discussion
20-21	4 hrs	The student learns about the organs and tissues of the male reproductive system	Male reproductive system	Lecture and explanation	Questions and discussion
22-23	4 hrs.	The student learns about the organs and tissues of the female reproductive system	female reproductive system	Lecture and explanation	Questions and discussion
24		Second	Semester exams		
25-26	4 hrs.	The student learns about the organs and tissues of the endocrine system	Endocrine	Lecture and explanation	Questions and discussion
27-28	4 hrs.	The student learns about the nervous system and its tissues	Nervous system	Lecture and explanation	Questions and discussion
29-30	4 hrs.	The student learns about the	The special sense organs:	Lecture and explanation	Questions and discussion

		<b>special sense organs</b>	<b>Eye and ear</b>		

<b>11-Course Evaluation</b>	
The final grade is calculated out of 100. The grade distribution is based on the tasks assigned to the student, including daily, monthly, mid-year, and final exams (both oral and written), as well as practical requirements and seminars, as follows:	
15% Mid-Year Exam	
25% Annual Coursework (includes grades from the first and second semesters plus summer training for relevant courses)	
25% Final Practical Exam	
35% Final Written Exam	
<b>12- Learning and teaching resources</b>	
<b>Junqueira's Basic Histology Text and Atlas, 14th Edition_compressed</b>	Required textbooks (methodology, if applicable)
General Histology/ Jones B. et al/ 2010	Recommended Supporting Books and References (Scientific Journals, Reports, etc.)
<b>Nature</b>	Electronic References, Websites
<b>pumbed</b>	

## Course Description Form

1. Course Name: Biochemistry
2. Course Code: <b>BCH265</b>
3. Semester / Year:
2 <sup>nd</sup> 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) Assist. Prof.Dr.Salim Jasim Khalaf, doaa mahmood abdulah
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To learn the fundamentals of biochemistry and biological processes in the human body.</li>   <li>• To understand the structure and functions of basic biomolecules: proteins, carbohydrates, lipids, and nucleic acids.</li>   <li>• To study the mechanisms of enzyme action and the influence of various factors on their activity.</li> </ul>

- To identify the main metabolic pathways and energy production in cells.
- To understand the biochemical balance in biological fluids such as blood and saliva.
- To connect biochemical concepts to the physiological and health functions of the mouth and teeth.

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#### Second: Skill-Based Objectives

- To apply basic laboratory techniques for analyzing biological materials such as proteins, glucose, and enzymes.
- To use laboratory equipment correctly, such as spectrometers, centrifuges, and peptidoglycan filters.
- To conduct biochemical experiments and analyze the results accurately.
- To interpret laboratory results and relate them to theoretical concepts.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to laboratory safety rules and handle chemicals safely.
- To develop a sense of responsibility and discipline while conducting laboratory experiments. • Enhancing collaboration and teamwork skills during practical sessions.
- Appreciating the importance of biochemistry in understanding diseases and physiology related to oral and dental health.

#### 9-Teaching and Learning Strategies

#### 9. Teaching and Learning Strategies

- Interactive Lectures

- Presenting biochemical concepts using presentations supported by images and diagrams.
- Incorporating short questions and discussions to enhance student understanding and connect theoretical information to physiological functions.
- Practical Laboratory Learning
  - Training students to conduct basic biochemical experiments such as protein, glucose, and enzyme analysis.
  - Safe and accurate use of laboratory equipment such as spectrometers, centrifuges, and peptidoglycan filters.
- Problem-Based Learning
  - Presenting clinical scenarios that require interpreting chemical analyses and relating them to clinical cases.
  - Encouraging students to apply theoretical concepts to find practical solutions.
- Team-Based Learning
  - Dividing students into groups to discuss clinical issues or cases related to biochemistry.
  - Fostering collaboration and group analysis skills.
- Digital Tools and Simulations
  - Using simulation software to illustrate metabolic pathways, enzyme mechanisms, and the effects of various factors.
- Providing electronic resources such as educational videos and recent articles to promote self-directed learning.
- Practical Demonstrations
  - Live demonstrations or video presentations of laboratory experiments before students begin the practical application.
  - Practical explanations of analytical steps and methods for interpreting results.
- Clinical Application
  - Linking biochemical concepts to physiological functions and diseases related to oral and dental health.

- Discussion of the effects of medications used in dentistry on biochemical processes.

#### 10. Academic Course structure

Assessment method	Teaching Method	Academic Course name	Theoretical content	Hours	Week
Questions and Discussion	Lecture and explanation and display PowerPoint	Enzymes	Enzymes: Definition ,Terminology , and Classification	2	1
Questions and Discussion	Lecture and explanation and display PowerPoint	Enzymes	Mechanism of enzyme action. Clinical significance of enzyme assays	4	2-3
Questions and Discussion	Lecture and explanation and display PowerPoint	Vitanins	Vitamins, definition, classification	2	4
Questions and Discussion	Lecture and explanation and display PowerPoint	Digestion and absorption	Digestion and absorption of carbohydrates, lipids ,and proteins. Chemistry of carbohydrates	4	5-6
Questions and Discussion	Lecture and explanation and display PowerPoint	Metabolism of carbohydrates	Metabolism of Carbohydrates: part 1 Metabolism of Carbohydrates :part 2	4	7-8
Questions and Discussion	Lecture and explanation and display PowerPoint	Carbohydrate Metabolism	Carbohydrates metabolism regulation	2	9
Questions and Discussion	Lecture and explanation and display PowerPoint	Proteins and amino acids	Chemistry of Proteins and amino acids. Metabolism of Proteins and amino acids.	2	10-11
Questions and Discussion	Lecture and explanation and display PowerPoint	Proteins and amino acids	Metabolism of Protein and amino acid regulation. Metabolism of Protein and amino acid inherited disorder	2	12-13
Questions and Discussion	Lecture and explanation and display PowerPoint		Examination	2	14
Questions and Discussion	Lecture and explanation and display			2	عطلة نصر ف



	PowerPoint				السنة
Questions and Discussion	Lecture and explanation and display PowerPoint	Biochemistry of lipids	Lipid :definition, classification	2	15
Questions and Discussion	Lecture and explanation and display PowerPoint	Metabolism of lipids	Metabolism of Lipid: oxidation of Fatty Acids	2	16
Questions and Discussion	Lecture and explanation and display PowerPoint	Metabolism of lipids	Biosynthesis of Fatty Acids. Integration of metabolism of carbohydrates, lipid ,and Proteins	4	17-18
Questions and Discussion	Lecture and explanation and display PowerPoint	Metabolism of Purines and pyrimidines	Metabolism of Purines and pyrimidines. Metabolism of Purines and pyrimidines disorder	4	19-20
Questions and Discussion	Lecture and explanation and display PowerPoint	Nucleic acids	Nucleic Acids Definition and Protein synthesis.	2	21
Questions and Discussion	Lecture and explanation and display PowerPoint	Endocrine System and hormones	Hormone definition, classification. Hormone disorder	4	22-23
Acid-base balance			Acid-base balance ( Acidosis and alkalosis )	2	24
Questions and Discussion	Lecture and explanation and display PowerPoint	Trace elements	Trace elements disorder	2	25
Questions and Discussion	Lecture and explanation and display PowerPoint	Saliva and pancreatic juice	Salivary secretion(saliva), Pancreatic juice	2	26
Questions and Discussion	Lecture and explanation and display PowerPoint	Electrolytes	Electrolytes ( Na, K, Cl )	2	27
Questions and Discussion	Lecture and explanation and display PowerPoint	Liver Function Test. Kidney Function Test	Liver Function Tests(GOT,GPT,ALP) Kidney Function Tests (Blood urea, serum creatinine )	2	28-29
Questions and Discussion	Lecture and explanation and display PowerPoint	Examination	Examination	2	30

<b>Total</b>				<b>60</b>	<b>30</b>
<p><b>11-Course Evaluation .</b>  <b>The final grade is calculated from 011 The distribution of grades according to the tasks assigned to the student from daily, monthly, mid-year and final exams, including oral and</b>  <b>.- :written exams, in addition to practical requirements and seminars as follows</b>  <b>mid-year %01</b>  <b>annual effort (includes the grades of the first and second semesters in addition to the %51</b>  <b>summer training for the courses included in it)</b>  <b>final practical exam %51</b>  <b>final written exam %51</b></p> <p><b>12- Learning and teaching resources .</b>  <b>1-Harper's Illustrated Biochemistry</b>  <b>2-Lippincott Illustrated Biochemistry .</b>  <b>3-McKay book .</b>  <b>.4-Different internet References</b>  <b>Required textbooks</b>  <b>Main references (resources)</b>  <b>A) Recommended books and references</b>  <b>Scientific journals, reports)</b>  <b>B) Electronic references, websites</b>  <b>‘Internet</b></p>					

## Course Description Form

1. Course Name: General Physiology
2. Course Code: <b>GPH267</b>
3. Semester / Year:
2 <sup>nd</sup> 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) Assist. Prof.Dr.Takea shaker Ahmed, Assist. Prof.Dr Raghad Tahseen Thanoon, Assist. Lecturer Shatha Nasih
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the basic principles of the functions of different body systems: cardiovascular, respiratory, digestive, nervous, muscular, and endocrine.</li> <li>• To study the relationship between the structure (anatomy) and function (physiology) of each system.</li> <li>• To understand the mechanisms of regulating vital processes and hormonal and nervous control in the body.</li> <li>• To recognize the physiological basis of vital processes related to the mouth and teeth, such as saliva secretion, nerve sensation, and control of the jaw muscles.</li> <li>• To connect physiological concepts to pathological changes and common diseases.</li> </ul>

## Second: Skill-Based Objectives

- To conduct simple physiological experiments to observe vital functions in the laboratory.
- To use basic laboratory equipment to measure indicators of organ functions, such as blood pressure, respiratory rate, and cardiac activity.
- To interpret experimental data and connect it to theoretical concepts.

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## Third: Behavioral/Value-Based Objectives

- To develop the student's respect for the human body and an understanding of the complexity of its functions.
- To adhere to safety rules during physiological experiments and when handling biological materials. • Fostering a sense of responsibility and discipline while working in laboratories.
- Developing collaboration and teamwork skills during practical experiments.

## 9. Teaching and Learning Strategies

- Interactive Lectures
- Explaining basic physiological concepts using presentations supported by images and videos.
- Incorporating short questions and discussions to enhance student understanding and connect theoretical knowledge to vital functions.
- Practical Laboratory Learning
- Conducting physiological experiments to monitor vital functions such as blood pressure, respiratory rate, heart rate, and nerve conduction.
- Using basic laboratory equipment to measure physiological indicators and interpret results.
- Problem-Based Learning
- Presenting clinical scenarios related to physiology, such as cardiac or gastrointestinal disorders.

- Training students to analyze cases and relate physiological findings to theoretical concepts.
- Team-Based Learning
- Dividing students into groups to discuss physiological issues or cases.
- Fostering teamwork and developing analytical and critical scientific skills.
- Digital Tools and Simulations
- Using simulation software for metabolic pathways, the cardiac cycle, and nerve conduction.
- Providing electronic resources such as educational videos to illustrate complex physiological processes.
- Practical Demonstrations
- Demonstrating practical physiological experiments before students perform them. • Using videos or models to simplify understanding of complex biological processes.
- Clinical connection
- Linking physiological concepts to the clinical functions of the mouth and teeth, such as salivation, nerve sensation, and muscle control.

#### 10. Academic Course structure

Assessment Method	Teaching Method	Academic Course name	Theoretical content	Hours	Week
Short ,quarterly half-year and final exams	A Theoretical lesson using PowerPoint	Introduction	(Function organization of the human body, Cell physiology, Cell membrane , Cell components , Cell Junction)	2	1
Short,quarterly half-year and final exams	A Theoretical lesson 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,	2	2

			Specialized Fluids of the Body		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Edema</b>	Edema (Types of Edema, Causes of edema, Measurement of body fluid volume, Dehydration, Types of dehydration, Classification, Causes, Signs and Symptoms of Dehydrations)	<b>2</b>	<b>3</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Homeostasis and Transport across cell membrane</b>	Homeostasis and Transport across cell membrane (Diffusion (passive), Carrier-mediated transport (passive or active), .(Vesicular transport	<b>2</b>	<b>4</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>ORAL CAVITY and Salivary Glands</b>	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	<b>2</b>	<b>5</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Salivary functions and Regulation of Salivary Secretion</b>	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	<b>2</b>	<b>6</b>

			forensic uses of saliva, Disadvantages/Limitations (of Saliva)		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>BLOOD</b>	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)	<b>2</b>	<b>7</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>White Blood Cells</b>	White Blood Cells (Types of W.B.C. , Genesis of the leukocytes, Life span of the W.B.C, Phagocytosis, Inflammation, Leukemia's, Leukopenia	<b>2</b>	<b>8</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Hemoglobin</b>	Hemoglobin (Formation of Hemoglobin , Iron Metabolism , Hb Compounds , Destruction of Hb , The common causes of jaundice)	<b>2</b>	<b>9</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Blood groups</b>	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	<b>2</b>	<b>10</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Hemostasis and blood coagulation</b>	Hemostasis and blood coagulation Vascular Spasm , ) Formation of a Platelet Plug , Mechanism of the Platelet Plug , Mechanism of Blood Coagulation , Prevention of Clotting in	<b>2</b>	<b>11</b>

			the Normal Vascular System , Prevention of Blood Coagulation outside the Body , Blood Disease (		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Cardiovascular :system</b>	Cardiovascular 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 (	<b>2</b>	<b>12</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Cardiovascular system:</b>	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	<b>2</b>	<b>13</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Cardiovascular system:</b>	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	<b>2</b>	<b>14</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Respiratory system</b>	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	<b>2</b>	<b>15</b>



			and preventing collapsing tendency of lungs)		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Respiratory system</b>	Respiratory system: Lung volumes and capacities (Compliance, Variation in Compliance, The resistance and the work of 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	<b>2</b>	<b>16</b>
		<b>2</b>	<b>Half-year Break</b>		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>SPECIAL SENSATION:</b>	<b>SPECIAL SENSATION:</b> 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)	<b>2</b>	<b>17</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Temperature of the Body</b>	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”	<b>2</b>	<b>18</b>

			Excitation of heat production)		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Urinary system</b>	Urinary system (Parts of Renal system, The Kidney, Functions of kidneys, Components of kidney, Parenchyma of kidney, Nephron and Juxtaglomerular Apparatus, Renal corpuscle, Structure of renal corpuscle, Tubular portion of nephron, Collecting duct )	<b>2</b>	<b>19</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Urinary system</b>	Urinary system: 20 Urine formation (Mechanism of urine formation, Glomerular Filtration, Pressure determining filtration, Tubular Reabsorption, Tubular secretion <b>Micturition</b> , Nerve supply to urinary bladder and sphincters, Renal Function Tests, Relation between renal disease & (oral health	<b>2</b>	<b>20</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Endocrine System</b>	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	<b>2</b>	<b>21</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Endocrine System</b>	Major Endocrine Glands Oral manifestations of ) endocrine dysfunction, Control Systems	<b>2</b>	<b>22</b>

			Involving Hypothalamus and Pituitary glands, The pituitary gland, Thyroid gland, Pancreas gland, (Adrenal glands		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Digestive system</b>	Digestive system (The Functions of the digestive, Structural layers of digestive, Stomach, Secretions of the Stomach ‘ Regulation of Stomach Secretion , Mixing of Stomach Contents, Stomach Emptying	<b>2</b>	<b>23</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Digestive system</b>	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, Movement in the Large Digestion, Intestine Absorption, and (Transport	<b>2</b>	<b>24</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Muscular system</b>	Muscular system: Muscle structure Types, Structure, ) Microscopic Structure, Muscle Physiology, Properties, Contraction and contractile elements, Tone, Electrical and Molecular Changes during (Muscular Contraction	<b>2</b>	<b>25</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Muscular system</b>	Muscular system: Tone , contraction Molecular Changes ) During Muscular Contraction,	<b>2</b>	<b>26</b>

			Neuromuscular Junction- Neuromuscular Transmission and Blockers, Nutrition and Metabolism (Energy (Requirements)		
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Nervous System</b>	Nervous System: Nerve impulse, synapses Nervous System ) Division, Cranial nerves , Neuron and Neuroglia, Receptors, Nerve impulse, Synapse and (Neurotransmitters	<b>2</b>	<b>27</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Nervous System</b>	Nervous System Reflex Activity, ) Somatosensory System and Somatomotor System, (Physiology of Pain	<b>2</b>	<b>28</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Reproductive system</b>	Reproductive system: Aging & reproductive system (Male Reproductive System Female Reproductive System, Meiosis, Aging .and Reproductive system	<b>2</b>	<b>29</b>
<b>A Theoretical lesson using PowerPoint</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Aviation and Deep physiology</b>	Aviation and Deep physiology (Body Response in high altitudes, physiological .Changes in the Sea deep) Nutrition and metabolism (daily energy requirement, obesity and fitness )	<b>2</b>	<b>30</b>
<b>Total</b>				<b>2</b>	<b>60</b>

Lab number	Study unit 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-Course Evaluation

The final grade is calculated out of 100. The grade distribution is based on the tasks assigned to the student, including daily, monthly, mid-year, and final exams (both oral and written), as well as practical requirements and seminars, as follows

Mid-Year Exam %15

Annual Coursework (includes grades from the first and second semesters plus summer training for relevant courses) %25

Final Practical Exam %25

Final Written Exam %35

### 12-Learning and teaching resources

Required bibliography:	
- The basic texts	
- Course books	Medical Physiology 4th edition (Guyton & Hall)
- Other	Essentials of physiology for dental students (K Sembuling & Prema Sembulingam)
Special requirements (including, for example, work-shops, seminars, software and websites)	Organising workshops and seminars (seminars) to discuss various topics in physiology
Social services (for example, guest lesson and professional, Training and practical Academic courses.	

## Course Description Form

1. Course Name:	Oral Histology & Embryology
2. Course Code:	OHE266
3. Semester / Year:	2 <sup>nd</sup> 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)	120 hours (60 hours Theoretical +60hours lab)/6 units
7. Course administrator's name (mention all, if more than one name)	1. Name: Prof. Dr. Intesar Jasim Mohammed, Email: dr.intesarjm@tu.edu.iq 2. name: assest. Lec. Areej Salim Dawood, Email: Areej-salim@tu.edu.iq
8. Course Objectives	1. To equip the student with a general understanding of the fundamental concepts of oral tissues.

2. To introduce the student to the basic components of oral and dental tissues and cells.

3. To provide the student with information on their microbial origin.

4. To familiarize the student with the mechanisms of formation and crystallization of the hard layers of teeth, including both organic and inorganic matter.

5. To familiarize the student with the age-related changes that occur in oral and dental tissues.

6. To provide practical application of oral histology concepts through hands-on exercises.

7. To highlight the importance of oral histology, which is fundamental to all dental specialties and essential for the student's future career as a dentist.

## 9. Teaching and Learning Strategies

### 9. Teaching and Learning Strategies

#### 1. Interactive Lectures

- o Explaining the structure and function of different oral tissues using presentations and high-quality microscopic images.

- o Asking short questions and engaging in discussions to clarify concepts and reinforce understanding.

#### 2. Practical Laboratory Learning

- o Training students to identify oral tissue slides under a light microscope.

- o Practicing the analysis of the morphological characteristics of cells and tissues.

#### 3. Practical Demonstrations

- o Presenting prepared slides and explaining their components before students apply them practically.

- o Using videos and 3D models to illustrate the fine structure of tissues.

#### 4. Problem-Based Learning

- o Presenting clinical cases related to histological changes such as gingivitis or tooth decay.

- o Encouraging students to connect histological observations to function and disease.

#### 5. Team-Based Learning

- o Working in groups to analyze slides and engage in group discussions.

- o Enhancing collaboration and critical thinking skills.

#### 6. Digital and Interactive Resources

- o Using simulation software or digital images of dental tissues.

- o Providing electronic resources to keep up with the latest histological studies.

#### 7. Clinical Connection

- o Linking histological knowledge to clinical functions such as wound healing and periodontal disease treatment.

### 10. Course Structure

#### Theoretical part

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical hours	Understand the concepts & basics	Embryogenesis: first week, ovulation, fertilization and implantation	Deliver the lecture with explanation & clarification using power point	Quiz
2	2 theoretical hours	Understand the concepts & basics	2nd week, Bilaminar germ layer	Deliver the lecture with explanation & clarification using power point	Quiz
3	2 theoretical hours	Understand the concepts & basics	3rd week trilaminar germ layer: gastrulation and neurulation	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretical hours	Understand the concepts & basics	Development of head and neck(pharyngeal arch,pouch & cleft	Deliver the lecture with explanation & clarification	Quiz



				using power point	
5	2 theoretical hours	Understand the concepts & basics	Development of face and anomalies	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretical hours	Understand the concepts & basics	Development of tongue and anomalies	Deliver the lecture with explanation & clarification using power point	Quiz
7	2 theoretical hours	Understand the concepts & basics	Development of palate and anomalies	Deliver the lecture with explanation & clarification using power point	Quiz
8	2 theoretical hours	Understand the concepts & basics	Slide preparation	Deliver the lecture with explanation & clarification using power point	Quiz
9	2 theoretical hours	Understand the concepts & basics	Tooth development and developmental disturbances of teeth	Deliver the lecture with explanation & clarification using power point	Quiz
10	2 theoretical hours	Understand the concepts & basics	Dentinogenesis and dentin structure	Deliver the lecture with explanation & clarification using power point	Quiz
11	2 theoretical hours	Understand the concepts & basics	Amelogenesis, Enamel structures	Deliver the lecture with explanation & clarification using power point	Quiz
12	2 theoretical hours	Understand the concepts & basics	Clinical consideration for dentin and enamel	Deliver the lecture with explanation & clarification using power	1 <sup>st</sup> Sem.Exam.

				point	
13	2 theoretical hours	Understand the concepts & basics	Dental Pulp	Deliver the lecture with explanation & clarification using power point	Quiz
14	2 theoretical hours	Understand the concepts & basics	Cementum and clinical consideration	Deliver the lecture with explanation & clarification using power point	Quiz
15	2 theoretical hours	Understand the concepts & basics	Root formation& Cementogenesis	Deliver the lecture with explanation & clarification using power point	Quiz
			<b>Mid- Year Exam</b>		
16	2 theoretical hours	Understand the concepts & basics	Periodontal ligaments	Deliver the lecture with explanation & clarification using power point	Quiz
17	2 theoretical hours	Understand the concepts & basics	Principles fiber of PDL and gingival fibers	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretical hours	Understand the concepts & basics	Alveolar bone	Deliver the lecture with explanation & clarification using power point	Quiz
19	2 theoretical hours	Understand the concepts & basics	Bone formation and resorption	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretical hours	Understand the concepts & basics	Proteins involve in mineralization of bone and dentin	Deliver the lecture with explanation & clarification using power	Quiz

				point	
21	2 theoretical hours	Understand the concepts & basics	Oral mucosa and their types	Deliver the lecture with explanation & clarification using power point	Quiz
22	2 theoretical hours	Understand the concepts & basics	Gingiva and dentogingival junction	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam.
23	2 theoretical hours	Understand the concepts & basics	Eruption of teeth	Deliver the lecture with explanation & clarification using power point	Quiz
24	2 theoretical hours	Understand the concepts & basics	Shedding of teeth	Deliver the lecture with explanation & clarification using power point	Quiz
25	2 theoretical hours	Understand the concepts & basics	Salivary gland	Deliver the lecture with explanation & clarification using power point	Quiz
26	2 theoretical hours	Understand the concepts & basics	Salivary proteins	Deliver the lecture with explanation & clarification using power point	Quiz
27	2 theoretical hours	Understand the concepts & basics	TMJ	Deliver the lecture with explanation & clarification using power point	Quiz
28	2 theoretical hours	Understand the concepts & basics	Maxillary sinus	Deliver the lecture with explanation & clarification using power point	Quiz

29	2 theoretical hours	Understand the concepts & basics	Maxillary sinus	Deliver the lecture with explanation & clarification using power point	Quiz
30	2 theoretical hours	Understand the concepts & basics	Age changes of soft and a hard tissues	Deliver the lecture with explanation & clarification using power point	Quiz
Total	60 hours		Final Exam.		

### Practical part:

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	Infrastructure: mineralization of bone and dentin	data show	2
21	Oral mucosa	data show	2
22	Gingiva and dentogingival junction	1. ORBAN'S Oral Histology and Embryology. G.S. Kumar, 14th edition; C.V. Mosby Company; 2015, Elsevier.	2
23	Eruption of teeth	2. Langman's Medical Embryology. 12th Edition.	2
24	Shedding of teeth	data show	2
25	Salivary gland	data show	2
26	Salivary proteins	data show	2
27	TMJ	1. Ten Cate's Oral Histology; Antonio Nanci, 7th edition; C.V. Mosby; 2013.	2
28	Maxillary sinus	2. Essentials of Oral Histology and Embryology; James K. Avery, Pauline F. Steele; Mosby Year Book; 2000.	2
29	Histochemistry	3. Oral Anatomy Histology and Embryology; Berkovitz B.K.B., Holland G.R., Moxham B.J.; 5th edition; Mosby; 2018.	2
30	Changes in dental hard & soft tissue	data show	2
Total			60

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

### Course Description Form

<b>1. Course Name:</b>
Computer
<b>2. Course Code:</b>
COP228
<b>3. Semester / Year:</b>
2 <sup>nd</sup> stage / Annual
<b>4. Description Preparation Date:</b>
2024/9/15
<b>5. Available Attendance Forms:</b>
Lectures & labs
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
90 h- 2 units
<b>7. Course administrator's name (mention all, if more than one name)</b>
Lec. Dr. Tamara A. Anai- <a href="mailto:tamsamka@tu.edu.iq">tamsamka@tu.edu.iq</a> Asst. Lec. Shms Aldeen Saad Mohsen- <a href="mailto:shms.aldeen@tu.edu.iq">shms.aldeen@tu.edu.iq</a> Asst. Lec. Heba Hani Raheem - <a href="mailto:Heba.h.rahim@tu.edu.iq">Heba.h.rahim@tu.edu.iq</a> Asst. Lec. Raghda Awad Shaban - <a href="mailto:raghda.a.shaban@tu.edu.iq">raghda.a.shaban@tu.edu.iq</a>
<b>8. Course Objectives</b>
Cognitive Objectives:
<ul style="list-style-type: none"> <li>• To learn the fundamentals of computer science, operating systems, and basic software.</li> <li>• To understand computer components and the functions of hardware and software used in educational and medical environments.</li> <li>• To learn the principles of data processing and information management.</li> </ul>

- To understand the fundamentals of databases and health information systems.
- To recognize the role of computers in facilitating scientific research, data analysis, and digital health applications.

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#### Second: Skills Objectives:

- To master the use of basic software such as Microsoft Word, Excel, and PowerPoint for preparing scientific documents and reports.
- To be able to enter data, perform simple analyses, and create tables and graphs.
- To learn how to use computers in electronic medical record management systems.
- To develop electronic research skills and use the internet as a reliable scientific resource.

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#### Third: Behavioral/Values Objectives:

- To adhere to the ethics of computer and internet use, including intellectual property rights and data protection.
- To develop discipline and organizational skills while working with computers.
- To foster a spirit of cooperation and teamwork when implementing joint projects or activities. • Recognizing the importance of information technology in supporting the educational and clinical process.

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#### Fourth: Applied/Clinical Objectives

- Connecting computer skills to digital health applications such as patient management systems and medical laboratories.
- Using computers to analyze basic clinical and statistical data.
- Supporting the ability to prepare presentations and scientific reports related to dentistry.
- Enhancing the student's competence in scientific research using modern computer tools and techniques.

### 9. Teaching and Learning Strategies

## 9. Teaching and Learning Strategies

- Interactive Lectures
- Presenting fundamental computer and software concepts using presentations supported by images and videos.
- Incorporating short questions and discussions to encourage participation and connect theoretical knowledge with practical application.
- Hands-on Lab Learning
- Training students in using office computer programs such as Word, Excel, and PowerPoint.
- Practicing data entry skills, creating tables, charts, and scientific reports.
- Project-Based Learning
- Assigning students small projects such as preparing an electronic report or analyzing simple data.
- Enhancing the connection between theoretical knowledge and practical application.
- Team-Based Learning
- Conducting group activities to prepare presentations or collaborative projects.
- Enhancing collaboration, teamwork, and task organization skills.
- Digital Tools and Simulations
- Using simulation software or e-learning platforms to enhance understanding of software and systems.
- Providing online resources to support self-learning and practical application.
- Practical Demonstrations
- Explaining the steps for using programs and applications before students begin practical application.
- Using educational videos and interactive software to demonstrate skills.
- Practical and applied integration: • Applying computer skills to the analysis of clinical and statistical data. • Linking computer use to scientific research and the management of medical and electronic information.

## 10-Course Structure

Week	Hours	Required Learning	, if any)	Recommended books and	(scientific journals, reports...)
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		Electronic References, Websites			method
<b>Course Structure // Theory</b>					
1	1	Understand the concepts, basics, and application	<b>Security and Networking:</b> What is a network? Types of networks. Basic network components.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
2	1	Understand the concepts, basics, and application	<b>Security and Networking:</b> Basic network components. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
3	1	Understand the concepts, basics, and application	<b>Security and Networking:</b> Understanding network threats. Network Troubleshooting. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
4	1	Understand the concepts, basics, and application	<b>Security and Networking:</b> Introduction network. Common network issues. Network Tools of Troubleshooting. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
5	1	Understand the concepts, basics, and application	<b>Security and Networking:</b> Tools for diagnosing and resolving issues. Diagnosing network performance problem. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application Daily exam - and computer application

6	1	Understand the concepts, basics, and application	<b>E-Commerce:</b> Concepts of Electronic banking services include online banking: ATM and debit card services, Phone banking, SMS banking, electronic alert, Mobile banking.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
7	1	Understand the concepts, basics, and application	<b>E-Commerce:</b> Phone banking, SMS banking, electronic alert, Mobile banking. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
8	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> identifying and solving common hardware and software problems that computer users encounter.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
9	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Basic Troubleshooting techniques and tools for diagnosing and resolving issues. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
10	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Troubleshooting operating system issues t. identifying and resolving. Dealing with slow computer performance.	give lectures with explanation and clarification using the computer	Daily exam - and computer application

			(cont.)		
11	1	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Virus and malware removal techniques. Updating drivers and software (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
12	1	Understand the concepts, basics, and application	<b>Introduction to AI:</b> definition of AI, History of AI, AI Techniques and Approaches,	give lectures with explanation and clarification using the computer	Daily exam - and computer application
13	1	Understand the concepts, basics, and application	<b>Introduction to AI:</b> Characters of AI, Benefits of AI, Challenges and Ethical Considerations. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
14	1	Understand the concepts, basics, and application	<b>Introduction to AI:</b> Challenges and limitations of AI. Role of data in AI system (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
15	1	Understand the concepts, basics, and application	<b>Introduction to AI:</b> AI tools and frameworks (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
16	1	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> AI-Driven Mobile Technologies. Virtual Assistants (Siri, Google Assistant, Alexa)		Daily exam - and computer application
17	1	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> Adaptive learning, Rel- Time	give lectures with explanation and clarification using the computer	Daily exam - and computer application

			Translation services (cont.)			
18	1	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> The future of AI in smartphone technologies challenges implementing. AI mobile devices. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
19	1	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Overview of AI Applications in various industries, Education and Healthcare	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
20	1	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Transportation and Advertising (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
21	1	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Finance, Robotics and Automations (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
22	5	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> AI marketing: Targeting techniques and personalization (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application	
23	1	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> AI in image and video	give lectures with explanation and clarification using the computer	Daily exam - and computer application	

			analysis, smart cities (cont.)		
24	1	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Future trend in AI applications and tools (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
25	1	Understand the concepts, basics, and application	<b>AI and Society:</b> Introduction to AI and Its societal impact, the role of AI in enhancing public safety	give lectures with explanation and clarification using the computer	Daily exam - and computer application
26	1	Understand the concepts, basics, and application	<b>AI and Society:</b> Cultural perspectives on AI adoption, AI and governance: policy implications (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
27	1	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> Introduction to ethics in AI, Transparency and explainability of AI system, privacy concerns in AI data usage.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
28	1	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> The ethical implications of Autonomous systems, ethics in AI-driven marketing (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
29	1	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> Ethical considerations in education, Human rights and AI implementations (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
30	1	Understand the concepts, basics, and application	<b>The Future of AI:</b> Future trends in AI, recent research and emerging technologies	give lectures with explanation and clarification using the computer	Daily exam - and computer application
Total	30				



Course Structure // practical					
1	2	Understand the concepts, basics, and application	<b>Security and Networking:</b> What is a network? Types of networks. Basic network components.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
2	2	Understand the concepts, basics, and application	<b>Security and Networking:</b> Basic network components. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
3	2	Understand the concepts, basics, and application	<b>Security and Networking:</b> Understanding network threats. Network Troubleshooting. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
4	2	Understand the concepts, basics, and application	<b>Security and Networking:</b> Introduction network. Common network issues. Network Tools of Troubleshooting. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
5	2	Understand the concepts, basics, and application	<b>Security and Networking:</b> Tools for diagnosing and resolving issues. Diagnosing network performance problem. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application Daily exam - and computer application
6	2	Understand the concepts, basics, and application	<b>E-Commerce:</b> Concepts of	give lectures with explanation and clarification using	Daily exam - and computer application

			Electronic banking services include online banking: ATM and debit card services, Phone banking, SMS banking, electronic alert, Mobile banking.	the computer	
7	2	Understand the concepts, basics, and application	<b>E-Commerce:</b> Phone banking, SMS banking, electronic alert, Mobile banking. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
8	2	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> identifying and solving common hardware and software problems that computer users encounter.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
9	2	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Basic Troubleshooting techniques and tools for diagnosing and resolving issues. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
10	2	Understand the concepts, basics, and application	<b>Computer Troubleshooting:</b> Troubleshooting operating system issues t. identifying and resolving. Dealing with slow computer performance. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
11	2	Understand the	<b>Computer</b>	give lectures with	Daily exam - and



		concepts, basics, and application	<b>Troubleshooting:</b> Virus and malware removal techniques. Updating drivers and software (cont.)	explanation and clarification using the computer	computer application
12	2	Understand the concepts, basics, and application	<b>Introduction to AI:</b> definition of AI, History of AI, AI Techniques and Approaches,	give lectures with explanation and clarification using the computer	Daily exam - and computer application
13	2	Understand the concepts, basics, and application	<b>Introduction to AI:</b> Characters of AI, Benefits of AI, Challenges and Ethical Considerations. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
14	2	Understand the concepts, basics, and application	<b>Introduction to AI:</b> Challenges and limitations of AI. Role of data in AI system (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
15	2	Understand the concepts, basics, and application	<b>Introduction to AI:</b> AI tools and frameworks (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
16	2	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> AI-Driven Mobile Technologies. Virtual Assistants (Siri, Google Assistant, Alexa)		Daily exam - and computer application
17	2	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> Adaptive learning, Rel-Time Translation services	give lectures with explanation and clarification using the computer	Daily exam - and computer application

			(cont.)		
18	2	Understand the concepts, basics, and application	<b>The Role of AI in Modern Smartphones:</b> The future of AI in smartphone technologies challenges implementing. AI mobile devices. (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
19	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Overview of AI Applications in various industries, Education and Healthcare	give lectures with explanation and clarification using the computer	Daily exam - and computer application
20	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Transportation and Advertising (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
21	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Finance, Robotics and Automations (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
22	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> AI marketing: Targeting techniques and personalization (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
23	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> AI in image and video analysis, smart cities (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application

24	2	Understand the concepts, basics, and application	<b>Applications and Tools of AI:</b> Future trend in AI applications and tools (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
25	2	Understand the concepts, basics, and application	<b>AI and Society:</b> Introduction to AI and Its societal impact, the role of AI in enhancing public safety	give lectures with explanation and clarification using the computer	Daily exam - and computer application
26	2	Understand the concepts, basics, and application	<b>AI and Society:</b> Cultural perspectives on AI adoption, AI and governance: policy implications (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
27	2	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> Introduction to ethics in AI, Transparency and explainability of AI system, privacy concerns in AI data usage.	give lectures with explanation and clarification using the computer	Daily exam - and computer application
28	2	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> The ethical implications of Autonomous systems, ethics in AI-driven marketing (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
29	2	Understand the concepts, basics, and application	<b>Ethical Challenges in AI:</b> Ethical considerations in education, Human rights and AI implementations (cont.)	give lectures with explanation and clarification using the computer	Daily exam - and computer application
30	2	Understand the concepts, basics, and application	<b>The Future of AI:</b> Future trends in AI, recent research and emerging technologies	give lectures with explanation and clarification using the computer	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).
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
12- Recommended books and references (scientific journals, reports...).	1- 2016 Computer Literacy BASICS: A Comprehensive Guide to IC3 by Connie Morrison and Dolores Wells (2012)  My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1, 2012) (2014) 4- Different internet Reference
13- Electronic references, Internet sites...	My Parents Second Computer and Internet Guide, Beyond the Basics by Louise Latremouille and Dave Henry (Dec 1, 2012)  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).
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## Course Description Form

1. Course Name:	Oral surgery
2. Course Code:	<b>OSR346</b>
3. Semester / Year:	3 <sup>rd</sup> 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)	120 hours (30 hours Theoretical +60hours lab)/ 4 units
7. Course administrator's name (mention all, if more than one name)	Assist. Prof. Dr. Mohammed Rahil Asst. Lec. Ahmed Amer
8. Course Objectives	<p>First:Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To learn the principles and fundamentals of oral and maxillofacial surgery.</li> <li>• To study the diagnosis and treatment of common surgical conditions in the mouth, such as tooth extractions, abscesses, and benign tumors.</li> <li>• To understand the basics of local anesthesia and pain management techniques during surgical procedures.</li> <li>• To learn the scientific principles of managing jaw injuries and fractures.</li> </ul>

- To understand surgical complications and how to prevent and manage them.

#### Second: Skill-Based Objectives

- To master simple and complex tooth extraction techniques.
- To apply local anesthesia techniques safely and effectively.
- To administer first aid for oral wounds and injuries.
- To develop precise surgical skills using instruments and laboratory equipment.
- To be able to handle emergencies during surgical procedures.

#### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene standards in the surgical environment.
- To develop a sense of responsibility, precision, and discipline during surgical procedures.
- To enhance cooperation and teamwork skills with colleagues and nurses during surgery.
- Appreciating the importance of humane patient care and attending to their psychological and physical comfort during surgery.

#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and actual clinical surgery in dental clinics.
- Understanding how to assess a patient's surgical condition and plan appropriate treatment.

- The ability to apply preventive measures before and after surgery to ensure optimal outcomes.

- Supporting the ability to make clinical decisions based on a sound understanding of oral and maxillofacial anatomy and function.

## 9. Teaching and Learning Strategies

- Interactive Lectures
- Presenting the fundamental theoretical concepts of oral and maxillofacial surgery using images, diagrams, and surgical videos.
- Incorporating short questions and discussions to clarify concepts and promote critical thinking.
- Practical Laboratory Training
- Training students to perform simple and complex tooth extraction techniques on models or simulators.
- Practicing safe handling of surgical instruments.
- Problem-Based Learning
- Presenting clinical cases that require the diagnosis and management of oral surgical problems.
- Encouraging students to connect theoretical knowledge with practical application and make sound treatment decisions.
- Team-Based Learning
- Assigning students to discuss group treatment plans for various surgical cases.
- Fostering collaboration and communication skills among members of the medical team.
- Practical Demonstrations
- Demonstrating the steps of surgical procedures on models or via video before students perform them.

- Demonstrating anesthesia techniques, bleeding management, and complication prevention.
- Clinical Application
- Connecting surgical principles to clinical applications in dental clinics. • Discussion of how to manage postoperative complications such as bleeding or swelling.
- Digital tools and simulations
- Using simulation software to demonstrate surgical procedures and anesthesia.
- Providing digital resources to train students in preoperative case assessment.

## 10. Course Structure

### Theoretical part

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understand the concepts & basics	Diagnosis in oral surgery	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understand the concepts & basics	Diagnosis in oral surgery	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hours	Understand the concepts & basics	Infection Control in Surgical Practice	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical hours	Understand the concepts & basics	Infection Control in Surgical Practice	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical hours	Understand the concepts & basics	Extraction of teeth and Contra indications of extraction	Deliver the lecture with explanation & clarification using power	Quiz



				point	
6	1 theoretical hours	Understand the concepts & basics	Extraction of teeth and Contra indications of extraction	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understand the concepts & basics	General arrangement for extraction and Dental forceps	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical hours	Understand the concepts & basics	General arrangement for extraction and Dental forceps	Deliver the lecture with explanation & clarification using power point	Quiz
9	1 theoretical hours	Understand the concepts & basics	General arrangement for extraction and Dental forceps	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hours	Understand the concepts & basics	Techniques of forceps extraction and post-operative instructions	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hours	Understand the concepts & basics	Elevators	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical hours	Understand the concepts & basics	Elevators	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> Sem.Exam.
13	1 theoretical hours	Understand the concepts & basics	Complications of dental extraction	Deliver the lecture with explanation & clarification using power point	Quiz

14	1 theoretical hours	Understand the concepts & basics	Complications of dental extraction	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretical hours	Understand the concepts & basics	Basic surgical instruments	Deliver the lecture with explanation & clarification using power point	Quiz
	1 theoretical hours		Mid- Year Exam		
16	1 theoretical hours	Understand the concepts & basics	Introduction to local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hours	Understand the concepts & basics	Pharmacology of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hours	Understand the concepts & basics	Pharmacology of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hours	Understand the concepts & basics	Surgical anatomy in local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretical hours	Understand the concepts & basics	Surgical anatomy in local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understand the concepts & basics	Instruments of local anesthesia	Deliver the lecture with explanation & clarification	Quiz

				using power point	
22	1 theoretical hours	Understand the concepts & basics	Techniques of local anesthesia	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam.
23	1 theoretical hours	Understand the concepts & basics	Techniques of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
24	1 theoretical hours	Understand the concepts & basics	Techniques of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hours	Understand the concepts & basics	Complications of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hours	Understand the concepts & basics	Complications of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hours	Understand the concepts & basics	Complications of local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical hours	Understand the concepts & basics	Advances in local anesthesia	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hours	Understand the concepts & basics	Fundamentals of general anesthesia	Deliver the lecture with explanation & clarification	Quiz

				using power point	
30	1 theoretical hours	Understand the concepts & basics	Medical emergencies during dental treatment	Deliver the lecture with explanation & clarification using power point	Quiz
Total	60 hours		Final Exam.		

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

<b>11. Infrastructure</b>	
<b>1. Books Required reading:</b>	1- Local anesthesia in dentistry. .GeoffreyL.Howe,FluorH.Whitehead.

<b>2. Main references (sources)</b>	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.
<b>A- Recommended books and references (scientific journals, reports...).</b>	1- Journals of Oral surgery
<b>B-Electronic references, Internet sites...</b>	

### Course Description Form

1. Course Name: General pathology
2. Course Code: GPT361
.....
3. Semester / Year: 3 <sup>rd</sup> 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)
Assist.lecturer Tariq khalil
8. Course Objectives

#### First: Cognitive Objectives

- To understand the basic principles of general diseases, including disease concepts, causes, and mechanisms of progression.
- To study histological and cellular changes in tissues affected by various diseases.
- To understand the fundamentals of inflammation, healing, hematological changes, and immune disorders.
- To identify infectious and non-infectious diseases and their effects on the body and mouth.
- To connect theoretical knowledge with clinical cases related to the mouth and teeth, such as oral changes resulting from general diseases.

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#### Second: Skill-Based Objectives

- To perform basic laboratory tests to identify pathological changes.
- To use microscopes and laboratory techniques to examine affected tissues.
- To develop skills in interpreting laboratory results and relating them to pathological changes.
- To be able to identify signs of general diseases that affect oral and dental health.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene standards when handling pathological samples.
- To cultivate a sense of responsibility, accuracy, and discipline while working in laboratories and clinics.
- To enhance collaboration and teamwork skills during case analysis.
- To appreciate the importance of disease prevention and early detection for improving oral and dental healthcare.

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#### Fourth: Applied/Clinical Objectives

- To connect theoretical knowledge with clinical applications in the oral and dental field, such as the impact of systemic diseases on oral health.
- To understand the fundamentals of preventing and controlling disease complications

in dental clinics.

- To support the ability to make clinical decisions based on knowledge of general pathological changes and their impact on the mouth.
- To enhance the student's ability to identify and clinically interpret oral changes associated with general diseases.

## 9. Teaching and Learning Strategies

### 1. Interactive Lectures

- Presenting the fundamental principles of general diseases, their etiologies, and mechanisms of progression using presentations supported by images and diagrams.
- Holding short questions and discussions to promote critical thinking and connect theoretical information to clinical applications.

### 2. Practical Laboratory Training

- Training students to use a microscope to examine affected tissues and pathological changes.
- Practicing the identification of different histological patterns of diseases and their correlation with clinical symptoms.

### 3. Problem-Based Learning

- Presenting real or hypothetical clinical cases related to general diseases and their impact on the mouth and teeth.
- Encouraging students to analyze the case and develop appropriate diagnostic and treatment plans.

### 4. Team-Based Learning

- Working in groups to discuss disease cases and analyze laboratory results.
- Enhancing collaboration, critical thinking, and group decision-making skills.

### 5. Practical and Demonstrative Presentations

- Presenting slides of pathological tissues and clinical features before students' practical application.
- Using educational videos and models to visually illustrate pathological changes.

### 6-Digital Tools and Simulation ()

- Using simulation software to illustrate disease processes, inflammatory pathways,

and organ disorders.

- Providing electronic resources to track the latest studies and scientific information in pathology.

## 7. Clinical Application

- Linking theoretical information to clinical cases in dental clinics, such as the impact of systemic diseases on oral health.
- Discussing how to prevent and manage disease complications in the clinical setting.

## 10-Course structure.

<b>Week</b>	<b>Hours</b>	<b>ILOs</b>	<b>Unit/Module or Topic Title</b>	<b>Teaching Method</b>	<b>Assessment Method</b>
1	2	Clinical pathology Molecular pathology Cell damage reversible cell injury	<b>Introduction</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
2	4	Irreversible cell injury Deposits and pigmentation External and internal pigmentation	Cell injury	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
3	4	Acute inflammation Chronic pathology Chemical mediators	<b>Inflammation</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
4	4	Healing of skin wound Healing of bone	<b>Healing and repair</b>	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>



5	4	Thromboembolic Disease, and Shock	Hemodynamic Disorders	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
6	4	Genetic	Genetic Disorders	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
7	4	Hypersensitivity Autoimmune diseases Transplantation	Diseases of the Immune System	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
8	6	Bengin and malignant tumors molecular basis of tumors	Neoplasia	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
9	2	Bacterial and viral infection	Infections	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
10	2	Environmental and Nutritional Diseases	Environmental and Nutritional Diseases	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
11	2	Blood Vessels	Blood Vessels	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>

12	2	The Heart	The Heart	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
13	2	Red Blood Cell and Bleeding Disorders	Red Blood Cell and Bleeding Disorders	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
14	2	Diseases of White Blood Cells	Diseases of White Blood Cells	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
15	6	Diseases of G.I.T	Diseases of G.I.T	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
16	2	Diseases of liver	Diseases of liver, pancreas and gall bladder	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
17		pancreas and gall bladder	pancreas and gall bladder	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly half-year and final exams</b>
18	2	Diseases of respiratory system	Diseases of respiratory system	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>

19	2	Bone diseases	Bone diseases	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
20	2	Kidney	Kidney	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
20	2	Urinary system	Urinary system	<b>A Theoretical lesson using PowerPoint</b>	<b>Short ,quarterly, half-year and final exams</b>
60					<b>Total</b>

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 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 <sup>rd</sup> 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
<div style="display: flex; justify-content: space-between;"> <div> <p>First:Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To learn the fundamentals of restorative dentistry and the techniques of drilling and preparing fillings.</li> <li>To understand the properties of different restorative materials (such as composite resins, glass ionomer fillings, and metals).</li> <li>To study the theoretical principles of treating dental caries and preparing clinical cases.</li> <li>To learn the basics of caries prevention and the importance of early diagnosis.</li> <li>To connect theoretical knowledge with practical skills to ensure a smooth transition to the clinical phase.</li> </ul> </div> <div style="text-align: right;"> <p>.....</p> <p>.....</p> </div> </div>

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## Second: Skill-Based Objectives

- To master the techniques of preparing simple and complex fillings on model teeth (typodont).
- To be able to use drills, shaping tools, and auxiliary equipment accurately and safely.
- To practice techniques of filling and shaping fillings to achieve a suitable functional and aesthetic appearance.
- To develop the ability to evaluate the quality of the final filling and review and correct errors before moving to the clinical phase.
- To enhance hand-eye coordination skills while working on model teeth.

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## Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene rules in the laboratory before clinical work. • Developing accuracy, discipline, and responsibility in performing practical skills.
- Enhancing collaboration and teamwork skills during practical training with colleagues.
- Appreciating the importance of frequent practice for achieving practical proficiency and a successful transition to the clinical phase.

## 9. Teaching and Learning Strategies

### Interactive Lectures

- Explaining the theoretical principles of caries treatment, preparation techniques, and the properties of restorative materials using high-quality presentations, images, and videos.

- Incorporating short questions and discussions to reinforce understanding and connect theoretical knowledge with practical skills.
- Practical Laboratory Training
  - Training students in drilling and preparation techniques for fillings on model teeth (typodont).
  - Practicing filling and polishing, developing the ability to achieve accuracy and quality in work.
- Practical Demonstrations
  - Demonstrating the steps for preparing fillings and using tools and equipment before students apply them practically.
  - Using educational videos and models to illustrate the intricacies of the processes.
- Problem-Based Learning
  - Presenting hypothetical or complex caries cases that require the selection of appropriate materials, drilling techniques, and fillings.
  - Encouraging students to think critically and analyze practical scenarios before applying them.
- Team-Based Learning
  - Working in groups to analyze practical cases and discuss ways to improve the quality of fillings.
- Fostering collaboration and teamwork among students.
- Digital Tools and Simulation
  - Using 3D simulation software to illustrate preparation techniques and filling design.
  - Providing online resources to keep up-to-date with the latest studies and practices in dental treatment.
- Clinical Application
  - Connecting skills acquired in the laboratory to future clinical cases in clinics.
  - Discussing common errors and how to avoid them to ensure patient safety during the clinical transition.

## 10. Course Structure

Theoretical part

<b>Week</b>	<b>Hours</b>	<b>Required Learning Outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1	2 theoretical hours	Understand the concepts & basics	Definition of operative dentistry	Deliver the lecture with explanation & clarification using power point	Quiz
2	2 theoretical hours	Understand the concepts & basics	Definition of operative dentistry	Deliver the lecture with explanation & clarification using power point	Quiz
3	2 theoretical hours	Understand the concepts & basics	Instruments and general instrumentation of cavity preparation	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretical hours	Understand the concepts & basics	Instruments and general instrumentation of cavity preparation	Deliver the lecture with explanation & clarification using power point	Quiz
5	2 theoretical hours	Understand the concepts & basics	Sterilization of operative instruments	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretical hours	Understand the concepts & basics	Sterilization of operative instruments	Deliver the lecture with explanation & clarification using power point	Quiz
7	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class I	Deliver the lecture with explanation & clarification using power point	Quiz
8	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class I	Deliver the lecture with explanation & clarification using power	Quiz



				point	
9	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class II	Deliver the lecture with explanation & clarification using power point	Quiz
10	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class II	Deliver the lecture with explanation & clarification using power point	Quiz
11	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class II (MOD)	Deliver the lecture with explanation & clarification using power point	Quiz
12	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class II (MOD)	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> Sem.Exam.
13	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class III and class V	Deliver the lecture with explanation & clarification using power point	Quiz
14	2 theoretical hours	Understand the concepts & basics	Amalgam cavity preparations for class III and class V	Deliver the lecture with explanation & clarification using power point	Quiz
15	2 theoretical hours	Understand the concepts & basics	Cavity liners and cement bases (part 1)	Deliver the lecture with explanation & clarification using power point	Quiz
16	2 theoretical hours	Understand the concepts & basics	Cavity liners and cement bases (part 2)	Deliver the lecture with explanation & clarification using power point	Quiz

17	2 theoretical hours	Understand the concepts & basics	Cavity liners and cement bases (part 2)	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretical hours	Understand the concepts & basics	Dental amalgam alloys (material)	Deliver the lecture with explanation & clarification using power point	Quiz
19	2 theoretical hours	Understand the concepts & basics	Dental amalgam alloys (material)	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretical hours	Understand the concepts & basics	Complex amalgam restoration	Deliver the lecture with explanation & clarification using power point	Quiz
21	2 theoretical hours	Understand the concepts & basics	Complex amalgam restoration	Deliver the lecture with explanation & clarification using power point	Quiz
22	2 theoretical hours	Understand the concepts & basics	Failures in amalgam restorations	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam.
23	2 theoretical hours	Understand the concepts & basics	Failures in amalgam restorations	Deliver the lecture with explanation & clarification using power point	Quiz
24	2 theoretical hours	Understand the concepts & basics	Tooth colored restorations (composite)	Deliver the lecture with explanation & clarification using power point	Quiz
25	2 theoretical	Understand the concepts & basics	Tooth colored restorations	Deliver the lecture with	Quiz

	hours		(composite)	explanation & clarification using power point	
26	2 theoretical hours	Understand the concepts & basics	Cavity preparation for anterior restorations	Deliver the lecture with explanation & clarification using power point	Quiz
27	2 theoretical hours	Understand the concepts & basics	Cavity preparation for anterior restorations	Deliver the lecture with explanation & clarification using power point	Quiz
28	2 theoretical hours	Understand the concepts & basics	Resin material	Deliver the lecture with explanation & clarification using power point	Quiz
29	2 theoretical hours	Understand the concepts & basics	Resin material	Deliver the lecture with explanation & clarification using power point	Quiz

### Laboratory sessions

Lab number	Study unit title Preclinical Operative Dentistry	
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

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

## Course Description Form

1. Course Name:	Preclinical Fixed Prosthodontics
2. Course Code:	PFD343
3. Semester / Year:	3 <sup>rd</sup> 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 units
7. Course administrator's name (mention all, if more than one name)	Name: lec. Saif Saad

## 8-course Objective

### A: Cognitive Objectives

- To learn the basic principles of dental prosthetics and various dental restorations.
- To study the properties of materials used in dental prosthetics, such as plaster, wax, resins, and metals.
- To understand the steps involved in preparing dental restorations (fillings, crowns, bridges, and partial and complete dentures).
- To identify the factors that affect the quality and accuracy of dental restorations.
- To connect theoretical knowledge with clinical practice to improve professional performance in patient treatment.

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### Second: Skill-Based Objectives

- To master the skills of creating dental models using various laboratory materials.
- To be able to prepare fillings, crowns, bridges, and experimental models with high accuracy.
- To apply processing, shaping, and polishing techniques to various dental materials.
- To develop skills in using laboratory instruments and equipment safely and effectively.
- To be able to evaluate the quality of finished restorations and compare them to clinical standards.

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### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene rules while working in dental laboratories. • Developing discipline, accuracy, and responsibility in performing laboratory tasks.
- Enhancing collaboration and teamwork skills during the preparation of dental prostheses.
- Appreciating the importance of quality and precision in prosthesis fabrication to ensure patient comfort and satisfaction.

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### Fourth: Applied/Clinical Objectives

- Connecting theoretical knowledge with clinical prosthesis fabrication practices.
- Understanding the role of dental materials and fabrication techniques in improving oral function and aesthetics.
- Applying quality and fit assessment procedures for finished prostheses before clinical use.
- Supporting the student's ability to make appropriate clinical decisions when designing and fabricating dental prostheses.

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## 9. Teaching and Learning Strategies

- . Interactive Lectures, Presenting the theoretical concepts of dental materials and prosthetic fabrication techniques using high-resolution presentations and images.
- Incorporating short questions and discussions to enhance understanding and connect theoretical knowledge with practical application.
- Practical Laboratory Training , Training students to prepare dental models, fillings, crowns, and bridges using various laboratory materials.
- Practicing high-precision shaping, polishing, and treatment techniques under the supervision of professors.
- Practical and Demonstrative Demonstrations
- Demonstrating the steps of prosthetic fabrication on models before students apply them.
- Using educational videos or models to illustrate the intricate details of the processes.
- Problem-Based Learning
- Presenting clinical cases requiring the design of appropriate dental prosthetics.
- Encouraging students to select suitable materials and fabrication techniques for each case.
- Team-Based Learning , Working in groups to analyze clinical cases and design prosthetics.
- Fostering collaboration, critical thinking, and teamwork skills.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hours	Understand the concepts & basics	Biomechanical principles of tooth preparation:	Deliver the lecture with explanation & clarification using power point	Quiz



4	1 theoretical hours	Understand the concepts & basics	Biomechanical principles of tooth preparation:	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical hours	Understand the concepts & basics	Biomechanical principles of tooth preparation:	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hours	Understand the concepts & basics	Full metal crown	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understand the concepts & basics	Full metal crown	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical hours	Understand the concepts & basics	Porcelain fused to metal crown	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> sem. Exam
9	1 theoretical hours	Understand the concepts & basics	Porcelain fused to metal crown	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hours	Understand the concepts & basics	Complete ceramic crown (Porcelain Jacket Crown)	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hours	Understand the concepts & basics	Complete ceramic crown (Porcelain Jacket Crown)	Deliver the lecture with explanation & clarification using power point	Quiz

12	1 theoretical hours	Understand the concepts & basics	Partial veneer crown (three-quarter crown	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical hours	Understand the concepts & basics	Partial veneer crown (three-quarter crown	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical hours	Understand the concepts & basics	Post crown	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretical hours	Understand the concepts & basics	Post crown	Deliver the lecture with explanation & clarification using power point	Quiz
			Impression for crown and bridge work		
16	1 theoretical hours	Understand the concepts & basics	Impression for crown and bridge work	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hours	Understand the concepts & basics	Provisional restoration	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hours	Understand the concepts & basics	Provisional restoration	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hours	Understand the concepts & basics	Working cast and dies	Deliver the lecture with explanation & clarification	Quiz

				using power point	
20	1 theoretical hours	Understand the concepts & basics	Working cast and dies	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understand the concepts & basics	Waxing, investing, casting	Deliver the lecture with explanation & clarification using power point	Quiz
22	1 theoretical hours	Understand the concepts & basics	Waxing, investing, casting	Deliver the lecture with explanation & clarification using power point	Quiz
23	1 theoretical hours	Understand the concepts & basics	Finishing of the casting and clinical try-in	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
24	1 theoretical hours	Understand the concepts & basics	Finishing of the casting and clinical try-in	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hours	Understand the concepts & basics	Cementation	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hours	Understand the concepts & basics	Cementation	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hours	Understand the concepts & basics	CAD /CAM Technology for crown construction	Deliver the lecture with explanation & clarification	Quiz

				using power point	
28	1 theoretical hours	Understand the concepts & basics	CAD /CAM Technology for crown construction	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hours	Understand the concepts & basics	Definitions of crown	Deliver the lecture with explanation & clarification using power point	Quiz

### Laboratory sessions

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
12	Practicing lab under supervision	2
13	Practical assessment of porcelain fused to metal crown preparation on upper .central incisor	2
14	Demonstration on post crown preparation on extracted root canal filled upper .canine	2
15	Demonstration on post crown preparation on extracted root canal filled lower .1st premolar	2
16	.Practicing lab under supervision	2
17	.Practicing lab under supervision	2
18	Practical assessment of post crown preparation on extracted root canal filled upper canine	2
19	Demonstration on special tray construction	2
20	Demonstration on impression materials used in Fixed	2

21	Demonstration on impression materials used in Fixed	2
22	.Demonstration on die construction using dowel pin	2
23	.Demonstration on provisional restoration (Part 1): Materials	2
24	.Demonstration on provisional restoration (Part2): Materials	2
25	.Demonstration on direct waxing for post crown construction on upper canine	2
26	Demonstration on indirect waxing technique	2
27	Demonstration on investing and casting	2
28	Demonstration on cleaning and finishing of the cast restoration	2
29	Final assessment of the practical work	2
30	.Final practical exam	2
<b>TOTAL</b>		<b>60</b>

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

## Course Description Form

<b>1. Course Name:</b>
community
<b>2. Course Code:</b>
CMD345
<b>3. Semester / Year:</b>
3 <sup>rd</sup> stage / Annual
<b>4. Description Preparation Date:</b>
2025-2024
<b>5. Available Attendance Forms:</b>
Attendance (Theoretical+ labs)
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
90 hours (30 hours Theoretical +60hours lab)/4units
<b>7. Course administrator's name (mention all, if more than one name)</b>
<b>1. assist. Prof. Azhar Amash Hussien</b> <b>2. lecturer Hind Thyab Hamid</b> <b>3. assist. Lec. Sohaib Quis Alwan</b>
<b>8. Course Objectives</b>
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the principles of community medicine and the importance of prevention in oral and dental health.</li> <li>• To study the factors affecting oral health in the community, including social, economic, and cultural factors.</li> <li>• To understand methods for assessing oral and dental health needs in different population groups.</li> <li>• To become familiar with preventive public health programs, such as fluoride application, national caries control initiatives, and health education.</li> <li>• To connect theoretical knowledge with practical strategies for improving oral health in the community.</li> </ul> <p>Second: Skills Objectives</p> <ul style="list-style-type: none"> <li>• To develop skills in collecting health data and conducting population surveys on oral health.</li> <li>• To master clinical examination techniques for the mouth and teeth within field studies.</li> <li>• To be able to analyze and interpret data related to community health.</li> <li>• To apply basic preventive measures such as topical fluoride application, patient education, and providing health advice.</li> </ul> <p>Third: Behavioral/Values Objectives</p> <ul style="list-style-type: none"> <li>• To promote awareness of the importance of public health and the social impact of dentistry.</li> </ul>

- To develop communication and interaction skills with community members and to disseminate health awareness.
- Commitment to professional ethics and social responsibility towards the community.
- Appreciation of the importance of collaboration and teamwork in implementing public health programs.

#### Fourth: Applied/Clinical Objectives

- Linking theoretical knowledge to preventive practices and primary and secondary prevention of oral diseases.
- Ability to plan and implement preventive health programs for the community or targeted population groups.
- Enhancing the ability to evaluate the effectiveness of health programs and propose improvements based on results.
- Supporting evidence-based decision-making to improve oral and dental health in the community.

### 9. Teaching and Learning Strategies

#### 1. Interactive Lectures

- o Explaining the theoretical principles of community medicine and the importance of prevention in oral health using presentations supported by images and statistics.
- o Including short questions and discussions to enhance understanding and connect theoretical information to community realities.

#### 2. Practical Field Learning

- o Training students to conduct field surveys for oral and dental health examinations in the community.
- o Applying data collection methods and analyzing community health needs.

#### 3. Problem-Based Learning

- o Presenting real-life cases or field scenarios that require planning preventive programs for specific population groups.
- o Encouraging students to develop effective health intervention strategies based on field analysis.

#### 4. Team-Based Learning

- o Working in groups to design preventive programs or health awareness plans.
- o Enhancing collaboration and communication skills among students during the implementation of field projects.

#### 5. Practical and Demonstrative Presentations

- o Demonstrating prevention methods such as fluoride application, health awareness techniques, and the use of educational materials before practical application.

#### 6. Digital Tools and Simulation

- o Using simulation software to plan health programs and monitor the impact of virtual interventions.
- o Providing electronic resources to access the latest statistics and community studies.

#### 7. Clinical and Community Linkage

- o Connecting theoretical information with practical application in community centers, schools, and preventive clinics.



o Discussing the results of field surveys and how to improve public health programs based on those results.

Course structure :

Week	Hours	Required learning	Unit or subject	Learning	Assessment Method
1	2 hour	Understand the concepts, basics and application	Introduction to dental public health	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
2	2 hour	Understand the concepts, basics and application	Introduction to dental public health	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
3	2 hour	Understand the concepts, basics and application	Epidemiology of dental caries	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
4	2 hour	Understand the concepts, basics and application	Epidemiology of periodontal disease	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
5	2 hour	Understand the concepts, basics and application	Epidemiology of malocclusion	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
6	2 hour	Understand the concepts, basics and application	Epidemiology of oral cancer	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
7	2 hour	Understand the concepts, basics and application	Dental epidemiology and survey procedures	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
8	2 hour	Understand the concepts, basics and application	Dental epidemiology and survey procedures	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
9	2 hour	Understand the concepts, basics and application	Basic epidemiology	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
10	2 hour	Understand the concepts, basics and application	Pit and fissure sealants	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
11	2 hour	Understand the concepts, basics and application	Infection control	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
12	2 hour	Understand the	Statistic	Deliver the lecture with	theory exam

		concepts, basics and application		explanation & clarification using power point	Practical evaluation
13	2 hour	Understand the concepts, basics and application	Epidemiological study	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
14	2 hour	Understand the concepts, basics and application	Dental health education	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
15	2 hour	Understand the concepts, basics and application	semester exam	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
16	2 hour	Understand the concepts, basics and application	<b>Mid exam</b>	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
17	2 hour	Understand the concepts, basics and application	Dental auxiliary personnel	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
18	2 hour	Understand the concepts, basics and application	Dental auxiliary personnel	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
19	2 hour	Understand the concepts, basics and application	Primary teeth ( deciduous teeth )	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
20	2 hour	Understand the concepts, basics and application	Primary teeth care	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
21	2 hour	Understand the concepts, basics and application	Ethics in dentistry	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
22	2 hour	Understand the concepts, basics and application	Planning for manpower requirements in dental public health	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
23	2 hour	Understand the concepts, basics and application	Planning for manpower requirements in dental public health	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
24	2 hour	Understand the concepts, basics and application	Dental treatment needs, demands and utilization	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
25	2 hour	Understand the concepts, basics and application	Occupational hazards in dentistry	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
26	2 hour	Understand the concepts, basics and application	Dental public health programs	Deliver the lecture with explanation & clarification using	theory exam Practical evaluation

				power point	
27	2 hour	Understand the concepts, basics and application	Infection control	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
28	2 hour	Understand the concepts, basics and application	Patient seating and examination in dental clinic	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
29	2 hour	Understand the concepts, basics and application	Forensic dentistry and professional ethics	Deliver the lecture with explanation & clarification using power point	theory exam Practical evaluation
30	2 hour	Understand the concepts, basics and application	Infection control	Deliver the lecture with explanation & clarification using power point	
			semester exam		
			<b>Final exam</b>		

### 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

## Course Description Form

1. Course Name:
Dental radiology
2. Course Code:
<b>DRD347</b>
3. Semester / Year:
3 <sup>rd</sup> 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 units
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
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To learn the basic principles of oral and maxillofacial radiography and various imaging techniques.</li> <li>To understand the properties of x-rays and the operating principles of radiographic imaging equipment used in dentistry.</li> <li>To study different types of radiographic images, such as panoramic, byte-wing, computed tomography (CBCT), and digital radiography.</li> <li>To learn the fundamentals of diagnosing oral and skeletal diseases using radiographic images.</li> <li>To understand the scientific principles of radiation safety and minimizing radiation exposure for both patients and medical staff.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>To master patient positioning techniques and imaging equipment to obtain accurate</li> </ul>

and clear images.

- To practice various dental and maxillofacial imaging techniques on patients and preclinical models.
- To be able to interpret radiographic images and identify pathological and structural changes.
- To apply radiation safety procedures while working in clinics and laboratories.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene standards while working with radiographic equipment.
- To develop responsibility, accuracy, and discipline while taking radiographic images. • Enhance collaboration and teamwork skills with colleagues and specialists during patient imaging.
- Appreciate the importance of using radiology safely and effectively to improve diagnosis and patient care.

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#### Fourth: Applied/Clinical Objectives

- Connect theoretical knowledge with clinical application in the diagnosis of oral and skeletal diseases.
- Be able to select the appropriate type of radiography for each clinical case.
- Support the ability to accurately interpret images and make appropriate clinical decisions based on radiological findings.
- Enhance skills in evaluating the quality of radiographic images and improving patient imaging procedures.

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### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of dental and maxillofacial imaging, types of radiographs, and the characteristics of radiographic equipment.

- Use of real images, instructional videos, and diagrams to illustrate concepts.
- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Practical Laboratory and Clinical Training
  - Training students in patient positioning and equipment placement to obtain accurate and clear images.
- Practice of various imaging techniques, such as bitwing, panoramic, and digital imaging, on preclinical models.
- Practice of radiation safety procedures during work.
- Practical Demonstrations
  - Demonstration of equipment setup, patient positioning, and imaging settings adjustments before practical application for students.
- Use of instructional videos to illustrate common errors and their correction.
- Problem-Based Learning
  - Presentation of clinical cases requiring selection of the appropriate radiographic type and analysis of radiographic images.
- Encouraging students to interpret images and make correct diagnostic decisions.
- Team-Based Learning
  - Working in groups to analyze radiographic images and discuss cases.
- Fostering collaboration, critical thinking, and group decision-making skills. •
- Digital Tools and Simulation
  - Using simulation software for virtual imaging of teeth and jaws.
  - Providing electronic resources for studying, interpreting, and comparing different cases of radiographic images.
- Clinical Application
  - Linking theoretical knowledge and practical application to the clinical diagnosis of oral and skeletal diseases.
  - Discussing how to select the appropriate type of radiography for each case and improve the quality of radiographic images.

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understand the concepts & basics	Physics of radiation(introduction and definitions of nature of radiation, type of radiation)	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understand the concepts & basics	Production of radiation(x-ray machine, interaction of x-ray with matter) composition of matter	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hours	Understand the concepts & basics	Film imaging (types of x-ray films, processing cycle, dark room, intensifying screen	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical hours	Understand the concepts & basics	Factors controlling x-ray beam , dosimetry and invers square law	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical hours	Understand the concepts & basics	Projection geometry (sharpness, distortion, image characteristic and artifacts)	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hours	Understand the concepts & basics	Biological effects of radiation (direct & indirect effects, deterministic and stochastic effect	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understand the concepts & basics	Safety and Protection (source of exposure , dose limits , exposure and risk and reducing dental exposure)	Deliver the lecture with explanation & clarification using power	Quiz



				point	
8	1 theoretical hours	Understand the concepts & basics	Intraoral projection (periapical, bitwing, and occlusal radiography)	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> sem. Exam
9	1 theoretical hours	Understand the concepts & basics	Digital radiography (strength , limitations , comparing with conventional radiography and indications	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hours	Understand the concepts & basics	Patient's management(mangement of pt.child, contrast media & localization technique	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hours	Understand the concepts & basics	Cephalometric imaging (technique, indications, evaluation of the Image	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical hours	Understand the concepts & basics	Panoramic radiography (principels, technique ,positin and interpretation)	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical hours	Understand the concepts & basics	Craniofacial imaging (types , indication and interpretation)	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical hours	Understand the concepts & basics	CBCT (principles, components, strength and limitations).	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretical hours	Understand the concepts & basics	CBCT (clinical applications in maxillofacial region, anatomy and	Deliver the lecture with explanation & clarification	Quiz

			interpretations).	using power point	
			Mid Term Exam		
16	1 theoretical hours	Understand the concepts & basics	Radiographic anatomy part1 (teeth, supporting dentoalv. structures, maxilla and mid facial bones)	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hours	Understand the concepts & basics	Radiographic anatomy part 2(mandible, Tmj, base of skull, air way, restorative materials)	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hours	Understand the concepts & basics	Advanced imaging modalities(CT, MRI AND ULTRASOUND)	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hours	Understand the concepts & basics	Radiography & Implantology(modalities, indications)	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretical hours	Understand the concepts & basics	Infection control(infection control in radiography clinic, protection of pt., protection of workers)	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understand the concepts & basics	Prescribing diagnostic imaging(radiologic examination and guide lines for ordering imaging)	Deliver the lecture with explanation & clarification using power point	Quiz
22	1 theoretical hours	Understand the concepts & basics	Radiographical interpretations of common diseases(interpretation of dental caries, and periodontal disease	Deliver the lecture with explanation & clarification using power point	Quiz

23	1 theoretical hours	Understand the concepts & basics	Cysts of the jaw( odontogenic and non odontogenic cysts)	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
24	1 theoretical hours	Understand the concepts & basics	Dental anomalies(acquired and developmental)	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hours	Understand the concepts & basics	Inflammatory conditions of the jaws(periapical inf disease, osteomyelitis, pericoronitis)	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hours	Understand the concepts & basics	Trauma(dento alveolar trauma , dental fractures and bone fructose	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hours	Understand the concepts & basics	TMJ abnormalities( anatomy of TMJ, application)	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical hours	Understand the concepts & basics	Salivary gland disease (imaging modalities, interpretation)	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hours	Understand the concepts & basics	Craniofacial anomalies (Cleft lip and palat)	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical hours	Understand the concepts & basics	Computed tomography(indications ,strength, limitations)	Deliver the lecture with explanation & clarification using power point	Quiz

Total	30		Final Exam		
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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 <sup>rd</sup> edition, Eric Whites 2- Dental Radiography Principles and Techniques; 4 <sup>th</sup> 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:
Medical Pharmacology
2. Course Code:
<b>PHC368</b>
3. Semester / Year:
3 <sup>rd</sup> stage / Annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms:
Lectures & labs
6. Number of Credit Hours (Total)
120 Hours / 6 units
7. Course administrator's name (mention all, if more than one name)
Name: Ass. Lec. Farah Mohammed Najeeb Email: <a href="mailto:farahalzobaie@tu.edu">farahalzobaie@tu.edu</a> Ass. Prof. Waseem Ali Hasan Email: <a href="mailto:waj7@tu.edu.iq">waj7@tu.edu.iq</a>
8. Course Objectives
<div style="text-align: right;">.....</div> <div style="text-align: right;">.....</div> <p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the basic principles of medications, their mechanisms of action, and related biological mechanisms.</li>   <li>• To study the classification of different medications and their uses in treating common diseases related to dentistry and public health.</li>   <li>• To understand the pharmacokinetics and pharmacodynamics of different medications.</li>   <li>• To identify potential drug interactions and their side effects.</li>   <li>• To connect theoretical knowledge with the safe clinical use of medications and improve patient care.</li> </ul>

### Second: Skill-Based Objectives

- To be able to select the appropriate medication for each clinical case according to medical guidelines and patient needs.
- To practice calculating the correct dosages of different medications based on the patient's age, weight, and health status.
- To be able to evaluate the effectiveness of drug therapy and identify potential complications.
- To develop skills in handling medications safely during clinical and laboratory work.

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### Third: Behavioral/Value-Based Objectives

- To adhere to the ethics of medication use and to be responsible for patient safety. • Developing accuracy and discipline in handling medications and correctly recording prescriptions.
- Enhancing communication skills with patients and explaining the benefits and risks associated with medications.
- Appreciating the importance of continuous learning to stay up-to-date with pharmaceutical advancements and modern treatment recommendations.

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### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and the practical use of medications in dental and clinical settings.
- Being able to manage medication-related emergencies, such as allergies or adverse drug reactions.
- Supporting the ability to make appropriate medication-based treatment decisions for each patient based on their health status and medical history.
- Enhancing patient safety through the correct use of medications according to modern medical standards.

### 9-Learning and Teaching Strategies

- Interactive Lectures
- Explanation of the basic principles of medications, their classification, mechanisms of action, and clinical uses.

- Use of presentations, diagrams, and videos to illustrate pharmacokinetics and pharmacodynamics.
- Incorporation of short questions and discussions to promote critical thinking and connect theory to clinical application.
- Practical Laboratory Training
- Training students to calculate the correct dosages of different medications based on the patient's age, weight, and health condition.
- Practice identifying commonly used medications in dentistry and how to prepare or administer them safely.

#### Therapeutic

- Encouraging students to analyze benefits and risks and develop an appropriate medication treatment plan for each case.
- Team-Based Learning
- Working in groups to discuss clinical cases and analyze potential drug interactions.
- Enhancing collaboration, critical thinking, and group decision-making skills in medication selection.
- Practical Demonstrations
- Demonstrating the correct methods for preparing and recording prescriptions before practical application.
- Use of instructional videos to illustrate common errors and how to correct them.
- Digital Tools and Simulation
- Using simulation software to plan medication therapy and monitor drug effects virtually.
- Providing electronic resources for studying drug interactions and the mechanisms of action of different medications.
- Clinical Application
- Linking theoretical information to the practical use of medications in dental and clinical settings.
- Discussing medication emergencies and how to manage them to ensure patient safety.



<b>Weeks</b>	<b>Hours</b>	<b>Required learning outcomes</b>	<b>Unit or subject name</b>	<b>Learning method</b>	<b>Evaluation method</b>
1	2	Understand the concepts, basics and application	Pharmacology: General concepts	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
2	2	Understand the concepts, basics and application	Pharmacokinetics and pharmacodynamics	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
3	2	Understand the concepts, basics and application	Autonomic nervous system from a pharmacological perspective (including cholinergic agonist and antagonist)	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
4	2	Understand the concepts, basics and application	Adrenergic agonists	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
5	1	Understand the concepts, basics and application	Adrenergic antagonists	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
6	2	Understand the concepts, basics and application	Antihypertensive drugs	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
7	2	Understand the concepts, basics and application	Management of angina and heart failure	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
8	2	Understand the concepts,	Management of arrhythmia	give lectures with explanation and clarification	Daily, Quarterly, Half-Year

		basics and application			and Final Exams
9	2	Understand the concepts, basics and application	Anticoagulants, antiplatelet and anti-hyperlipidemic drugs	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
10	2	Understand the concepts, basics and application	Local Hemostatic Agents in Dentistry	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
11	2	Understand the concepts, basics and application	Introduction the pharmacology of CNS drugs, sedative, hypnotics and	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
12	2	Understand the concepts, basics and application	Antipsychotic and antidepressant drugs	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
13	2	Understand the concepts, basics and application	Local and general anaesthetics	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
14	2	Understand the concepts, basics and application	Drug of abuse and opioid analgesics	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
15	2	Understand the concepts, basics and application	Managements of diabetes mellitus	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
16	2	Understand the concepts, basics and	Drugs affecting GIT	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and

		application			Final Exams
17	3	Understand the concepts, basics and application	(Drugs acting on respiratory system (antihistamines and corticosteroids	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
18	2	Understand the concepts, basics and application	Non-steroidal anti-inflammatory drugs (NSAIDs) part 1	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
19	2	Understand the concepts, basics and application	Non-steroidal anti-inflammatory drugs (NSAIDs) part2 and Steroids in Dentistry	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
20	2	Understand the concepts, basics and application	(Chemotherapeutic drugs (Principles of antimicrobial therapy	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
21	2	Understand the concepts, basics and application	(Cell wall inhibitors (part 1	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
22	2	Understand the concepts, basics and application	(Cell wall inhibitors (part 2	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
23	2	Understand the concepts, basics and application	Protein synthesis inhibitors	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
24	3	Understand the concepts, basics and application	Quinolones, Folic acid antagonists and antimycobacteria	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams

25	2	Understand the concepts, basics and application	Antifungal, antiviral and antiprotozoal drugs	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
26	2	Understand the concepts, basics and application	Sex hormone and contraceptive	give lectures with explanation and clarification	Daily, Quarterly, Half-Year and Final Exams
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	Daily, Quarterly, Half-Year and Final Exams
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	Daily, Quarterly, Half-Year and Final Exams

10- Course structure (Practical)					
Hour	Week	Required learning outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Understand the	Introduction	Daily,	Daily,

		concepts, basics and application	and animal (e.g rabbits) handling	Quarterly, Half-Year and Final Exams	Quarterly, Half-Year and Final Exams
2	2	Understand the concepts, basics and application	Routes of drug administration (Part 1)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
3	2	Understand the concepts, basics and application	Routes of drug administration (Part 2)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
4	2	Understand the concepts, basics and application	Clinical parameters in drug pharmacokinetics (Part 1)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
5	2	Understand the concepts, basics and application	Clinical parameters in drug pharmacokinetics (Part 2)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
6	2	Understand the concepts, basics and application	Demonstration of common dosage forms used in clinical practice (Part 1)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
7	2	Understand the concepts, basics and application	Demonstration of common dosage forms used in dentistry (Part 2)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
8	2	Understand the concepts, basics and application	Cholinergic agonists and antagonists (Physostigmine Vs	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams

			Curare)		
9	2	Understand the concepts, basics and application	Effects of Drugs on Human Blood Pressure (Part 1-B-Blockers)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
10	2	Understand the concepts, basics and application	Effects of Drugs on Human Blood Pressure (Part 2) (Nitrates Effect on Human volunteers	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
11	2	Understand the concepts, basics and application	Effects of Drugs on The Arterial Blood Pressure Of Human (Part-3)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
12	2	Understand the concepts, basics and application	The effects of drugs and light on human eyes	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
13	2	Understand the concepts, basics and application	The effects of drugs and light on human eyes	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
14	2	Understand the concepts, basics and application	Effects of parasympat homimetic drugs on glandular secretions	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
15	2	Understand the concepts, basics and application	The response of human skin to histamine and adrenaline	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
16		Understand the	The	Daily,	Daily,

	2	concepts, basics and application	response of human skin to histamine and adrenaline	Quarterly, Half-Year and Final Exams	Quarterly, Half-Year and Final Exams
17	2	Understand the concepts, basics and application	Evaluation of Analgesics	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
18	2	Understand the concepts, basics and application	Evaluation of analgesics (Opioids)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
19	2	Understand the concepts, basics and application	Evaluation of Anti-inflammatory Drugs	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
20	2	Understand the concepts, basics and application	Evaluation of Anti-inflammatory Drugs	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
21	2	Understand the concepts, basics and application	Local Anaesthesia	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
22	2	Understand the concepts, basics and application	General Anaesthesia	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
23	2	Understand the concepts, basics and application	General Anaesthesia	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
24	2	Understand the concepts, basics	Prescription writing	Daily, Quarterly,	Daily, Quarterly,

		and application		Half-Year and Final Exams	Half-Year and Final Exams
25	2	Understand the concepts, basics and application	Prescription writing	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
26	2	Understand the concepts, basics and application	Prescription writing	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
27	2	Understand the concepts, basics and application	Oral conditions and their treatment	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
28	2	Understand the concepts, basics and application	Orodonal preparation (part 1)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
29	2	Understand the concepts, basics and application	Orodonal preparation (Part 2)	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams
30	2	Understand the concepts, basics and application	Dental health and endocarditis prevention	Daily, Quarterly, Half-Year and Final Exams	Daily, Quarterly, Half-Year and Final Exams

### 11- Course evaluation

The final grade is calculated out of 100. The grade distribution is based on the tasks assigned to the student, including daily, monthly, mid-year, and final exams (both oral and written), as well as :practical requirements and seminars, as follows

Mid-Year Exam %15

Annual Coursework (includes grades from the first and second semesters plus summer training %25



for relevant courses)

Final Practical Exam %25

Final Written Exam %35

## 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:
<b>Dental Ethics</b>
2. Course Code:
<b>DNE321</b>
3. Semester / Year:
3 <sup>rd</sup> stage / Annual
4. Description Preparation Date:
15\9\2024
5. Available Attendance Forms:
Lectures
6. Number of Credit Hours (Total) / Number of Units (Total)
30h/ 2 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 Objective
First: Cognitive Objectives
<ul style="list-style-type: none"> <li>• To recognize the fundamental principles of dental ethics and patient rights and responsibilities.</li> <li>• To understand the laws and regulations pertaining to the practice of dentistry and patient protection.</li> <li>• To study the concepts of confidentiality, honesty, integrity, and professional responsibility.</li> <li>• To recognize ethical principles in clinical decision-making and emergency management.</li> <li>• To connect theoretical knowledge with practical applications to ensure the provision of safe and effective patient care.</li> </ul>
Second: Skills Objectives

- To be able to apply ethical principles when interacting with patients and colleagues in the clinic and laboratory environment.
- To develop ethical communication skills with patients and explain procedures and treatments transparently and accurately.
- To practice clinical and professional decision-making in accordance with ethical principles and applicable laws.

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#### Third: Behavioral/Values Objectives

- To promote respect for patients' rights and maintain the confidentiality of their medical information.
- To cultivate integrity and credibility in all professional and research activities.
- To foster a sense of responsibility, discipline, and commitment to ethical and professional standards. • Developing a sense of social responsibility towards patients and the community in the field of dentistry.

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#### Fourth: Applied/Clinical Objectives

- Connecting theoretical knowledge with the ethics of professional practice in dental clinics and clinical settings.
- The ability to handle complex ethical situations and make sound decisions in clinical practice.
- Enhancing the student's ability to provide safe and effective care while adhering to ethical principles and applicable laws.
- Supporting the development of a positive professional environment based on respect, integrity, and fairness in clinical work and interactions with colleagues and patients.

#### 9-Learning and Teaching Strategies

- Interactive Lectures
- Presenting the fundamental principles of professional ethics and patients' rights and responsibilities using presentations and discussions.
- Posing short questions and practical examples to foster critical thinking and connect theory to practice.
- Ethical Case Studies
- Presenting clinical or professional cases containing ethical dilemmas to apply theoretical principles to real-world situations.

- Discussing possible decisions and analyzing the potential consequences of each option.
- Group Discussions
  - Organizing groups to discuss complex ethical topics such as patient confidentiality, conflicts of interest, and emergency management.
  - Enhancing critical thinking and group decision-making skills.
- Problem-Based Learning
  - Presenting practical situations that require resolving ethical dilemmas and finding solutions consistent with professional principles.
- Practical Demonstrations
  - Using role-playing to demonstrate ethical interactions with patients and colleagues in various clinical settings.
- Digital Tools and Simulations
  - Using simulations of professional situations and hypothetical scenarios to apply ethical principles before interacting with patients.
- Clinical and Field Application
  - Connecting ethical principles to daily practices in clinics and laboratories to ensure sound professional decision-making.

### **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 <b>The Relationship between Dentistry and the Larger Community</b>	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	<b>Patients with Compromised Capacity</b> 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"> <li>- Conflict of interest</li> <li>- Personal interest versus patient interest</li> <li>- Public versus patient interest</li> <li>- Third-party interests</li> <li>- Professional versus business ethics</li> </ul>	1	1
Lec. 23,24	Ethics and dental research	<ul style="list-style-type: none"> <li>- Importance of Dental Research</li> <li>- Research in Dental Practice</li> <li>- Ethical Requirements</li> <li>- Ethics Review Committee Approval</li> </ul>	2	2
Lec. 25,26	Ethics and dental research	<ul style="list-style-type: none"> <li>- Scientific Merit</li> <li>- Social Value</li> <li>- Risks and Benefits</li> <li>- Informed Consent</li> <li>- Confidentiality</li> <li>- Conflict of Roles</li> <li>- Honest Reporting of Results:</li> </ul>	2	2
Lec. 27	The standard of care	<ul style="list-style-type: none"> <li>-Who determines how a dentist should behave?</li> <li>-A local or a global standard of care?</li> <li>-Transparency of care, guidelines, and protocols.</li> <li>-Shared decision-making, evidence informed decision-making, and evidence-guided decision-making.</li> <li>-Individualization and the standard of care based on a long-term goal for dental treatment.</li> </ul>	1	1
Lec.28	Ethical Decision Making and Conflicting Obligations	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	The Central Values of Dental Practice The Patient's Life and General Health The Patient's Oral Health The Patient's Autonomy	1	1



		The Dentist's Preferred Patterns of Practice Aesthetic Values Efficiency in the Use of Resources Ranking Dentistry's Central Values Thinking about the Case		
Lec. 30	The duty to treat	-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

### 11-Course Evaluation

Attendance and participation / Assignments, reports, and midterm exam / Midterm exam / Case studies and discussions / Final exam

### 12-Infrastructure

- 1- Ethics Handbook for Dentists Introduction to Ethics, Professionalism, and Ethical Decision Making
- 2- Principles of Biomedical Ethics by Tom L. Beauchamp and James F. Childress.  
Ethical Decision Making in Dentistry by Suzanne U. Stucki– McCormick



## Course Description Form

1. Course Name:
Oral Microbiology
2. Course Code:
<b>MCB 364</b>
3. Semester / Year:
3 <sup>rd</sup> 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)
<p>Name: Asst. Prof. Dr. Chateen Izaddin A. Pambuk</p> <p>Prof. Dr. Hadeel Mizher Yunis / Email: dr.hadeelmi2her@tu.edu.iq</p> <p>- Asst.Lec. Sura Mustafa Qasim</p> <p>- Asst.Lec. Ranen Ibraheem Abdullah</p> <p>Lecturer : Fatma Mustafa Muhammed <span style="float: right;">.....</span></p> <p>Email:dr.chateen@tu.edu.iq <span style="float: right;">.....</span></p>
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To learn the fundamentals of microbiology and classify microorganisms: bacteria, viruses, fungi, and parasites.</li> <li>To understand the characteristics of microorganisms and their roles in health and disease.</li> <li>To study microbiological methods for diagnosing various infections in the body and mouth.</li> <li>To understand the mechanisms of infection and transmission of infectious diseases and methods of prevention.</li> <li>To connect theoretical knowledge with clinical practices such as sterilization, chemical and mechanical sterilization, and infection control procedures in dental clinics.</li> </ul> <hr/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>To master basic laboratory techniques in microbiology, such as slide preparation, bacterial staining, and microorganism culture.</li> <li>To be able to identify bacteria and fungi under a microscope and interpret laboratory results.</li> <li>To develop skills in using laboratory equipment safely and accurately.</li> <li>To apply infection control and sterilization procedures in laboratory and clinical settings.</li> </ul>

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### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene rules while working in laboratories. • Developing a sense of responsibility and discipline when handling microorganisms.
- Enhancing collaboration and teamwork skills in preparing experiments and analyzing results.
- Appreciating the importance of microbiology in disease prevention and improving oral and dental healthcare.

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### IV. Applied/Clinical Objectives

- Connecting microbiology knowledge to oral infections such as gingivitis and tooth decay.
- Understanding the fundamentals of antibiotic resistance and its safe use in treating infections.
- Implementing sterilization and infection control procedures in dental clinics.
- Supporting the ability to interpret laboratory results related to microorganisms and make appropriate clinical decisions.

## 9-Learning and teaching strategies

### Interactive Lectures

- Presenting fundamental concepts in microbiology using images, diagrams, and videos of cocci, bacteria, and fungi.
- Incorporating short questions and discussions to reinforce understanding and connect theoretical knowledge to clinical applications.

### 2- Practical Laboratory Training

- Training students in bacterial culture techniques, spore staining, and preparing slides for microscopic examination.
- Practicing the identification of bacteria and fungi and the correct interpretation of laboratory observations.

### 3- Problem-Based Learning

- Presenting clinical cases related to oral or systemic infections.
- Motivating students to identify disease-causing microorganisms and develop appropriate treatment plans.

### 4- Team-Based Learning

- Working in groups to discuss disease cases and analyze laboratory results.
- Fostering collaboration and critical thinking skills among students.

### 5- Practical Demonstrations

- Demonstrating culture, staining, and sterilization techniques before students apply them practically.

- Using educational videos and models to illustrate microorganisms and how to handle them.

### 6. Digital Tools and Simulation

- Using simulation software for microorganisms and infection pathways.
- Providing electronic resources to keep up with the latest scientific studies in microbiology.
- Clinical Application: Linking theoretical information to its clinical applications, such as infection control in dental clinics and managing cases of gingivitis and caries.

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	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	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	- Introduction to general immunology and oral immunology	culture media	The method of giving lectures, explanation and clarification,	daily exam and quiz

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

	2 practical	the subject and application	streptococci		explanation and clarification, and sometimes the method of discussion	
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	prevention	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	G negative diplococci, <i>Vellionella</i> and <i>Moraxella</i> <i>Neisseria</i> gonorrhea, <i>N. meningitidis</i>	tests( 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> & Diphtheroids	tests( 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	<u>B.ceres</u>	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> : <u>C. perfringens</u> , <u>C. tetani</u> , <u>C. botulinum</u> , and <u>difficile</u>	test( part 2).	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
			<b>Mid Term Exam</b>			
	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	Understand			The method of	daily exam



	2 theoretical 2 practical	the basics of the subject and application	Yersinia	tests) (part 2).	giving lectures, explanation and clarification, and sometimes the method of discussion	and quiz
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Leprae	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	Haemophilus, Vibrio			
	4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	Prevotella, 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	<u>ium</u>	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz
			Treponema	<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	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	-Supplemental flora -Transient flora	<u>m</u> spp.	The method of giving lectures, explanation and clarification,	daily exam and quiz

		application			and sometimes the method of discussion	
4 hours 2 theoretical 2 practical	Understand the basics of the subject and application	- plaque homeostasis -cariogenic microorganisms	aceae (part1)	The method of giving lectures, explanation and clarification, and sometimes the method of discussion	daily exam and quiz	
			aceae (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	<b>Microbiology of periodontal disease and Endodontics</b> <b>-Subgingival microbial complex</b> <b>-specific , non-specific and Ecological plaque hypothesis</b> <b>- Porphyromonas, prevotella, Aggregatibacter virulencefactors of periodontal pathogens</b> <b>endodontic microbiota and Routes of root canal infection</b> <b>-ecology of endodontic microbiology</b>	aceae( 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	spp.	The method of giving lectures, explanation and clarification, and sometimes the method of	daily exam and quiz	

					discussion	
	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	-E.histolotica, E.gingivalis, T.tenax -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
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	2- Different internet <b>References</b>
12. The development of the curriculum plan	
The development of the curriculum plan made by :	
Asst. Prof. Dr. <b>Chateen Izaddin A. Pambuk</b> Prof. Dr. <b>Hadeel Mizher Younis</b> Lecturer : <b>Fatma Mustafa Muhammed Raneen Ibrahim</b> <b>Sura Mustafa</b>	

## Course Description Form

1. Course Name:	prosthodontics
2. Course Code:	<b>PRO349</b>
3. Semester / Year:	Third stage/ year
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	<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the theoretical principles of designing and preparing teeth for crowns and bridges.</li> <li>• To study the types of crowns and bridges and the properties of the materials used in their fabrication, such as metals, ceramics, and composite resins.</li> <li>• To understand the steps for proper tooth preparation, impression taking, and fabricating crowns and bridges on laboratory models.</li> <li>• To understand the quality and fit standards for crowns and bridges before clinical application.</li> <li>• To connect theoretical knowledge with the practical skills required to ensure a smooth transition to the clinical phase.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To master tooth preparation for crown and bridge prototypes using laboratory instruments.</li> </ul>

- To practice impression taking techniques and preparing dental models for fabricating restorations.
  - To apply shaping, polishing, and accurate evaluation steps for crowns and bridges on models.
  - To develop hand-eye coordination and high precision while performing complex preparations.
  - To be able to evaluate the quality of restorations and correct errors before moving to the clinical phase.
- Third: Behavioral/Value-Based Objectives
- Adherence to safety and hygiene standards while working in the laboratory.
  - Development of accuracy, discipline, and responsibility while performing practical skills.
  - Enhancement of cooperation and teamwork skills during the preparation of prostheses.
  - Appreciation of the importance of quality and accuracy to ensure patient comfort and satisfaction upon transition to the clinical phase.

#### Fourth: Applied/Clinical Objectives

- Connection of practical skills acquired in the laboratory to future clinical cases of crown and bridge fitting.
- Ability to assess the suitability of final prostheses and correct errors before interacting with patients.
- Enhancement of the student's ability to make sound clinical decisions when designing and fitting fixed prostheses.
- Development of the confidence and competence necessary to handle clinical cases in dental clinics.

### 9. Teaching and Learning Strategies

#### 1. Lectures

- o Explaining the theoretical principles of tooth preparation and crown and bridge design using presentations supported by images and educational videos.
- o Holding short questions and discussions to clarify concepts and reinforce the

connection between theory and practice.

## 2. Practical Laboratory Training

- o Training students to prepare teeth for prototype crowns and bridges using typods.

- o Practicing techniques for taking impressions, refining edges, and preparing models for submission to the prosthodontics lab.

## 3. Demonstrations and Practice

- o Demonstrating the steps of preparation, shaping, and refining before practical application for students.

- o Using educational videos and models to illustrate the intricacies of the process.

## 4. Problem-Based Learning

- o Presenting hypothetical cases requiring the design of appropriate crowns or bridges for each situation.

- o Encouraging students to select suitable materials and preparation and shaping techniques.

## 5. Team-Based Learning

- o Working in groups to discuss practical cases and analyze the quality of restorations.

- o Fostering collaboration and critical thinking skills among students.

## 6. Digital Tools and Simulation

- o Using CAD/CAM software to digitally design crowns and bridges on virtual models.

- o Providing online resources to keep up-to-date with the latest advancements in the design and manufacture of fixed prosthetics.

## 7. Clinical Application

- o Connecting practical skills acquired in the laboratory to future clinical cases in dental clinics.

- o Discussing common errors and their correction before moving on to patient applications.

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	Intracoronaral Direct Retainers (Internal Attachments, Precision Attachments)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
13	2	Stress-Breakers	Theoretical	short exam ,semester ,mid and final exam

		(Stress Equalizers)	lecture using power point	
14	2	Indirect Retainers	Theoretical lecture using power point	short exam ,semester ,mid and final exam
15	2	Indirect Retainers (continue)	Theoretical lecture using power point	short exam ,semester ,mid and final exam
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

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

### 8. Course Objective

### 8. Course Objectives

#### Cognitive Objectives

- To understand the anatomy and tissues of the periodontium and their normal functions.
- To study periodontal diseases and cavities, their causes, and stages of

development.

- To understand clinical and laboratory diagnostic methods for periodontal diseases.
  - To understand the basic principles of treating periodontal diseases, both conservative and surgical.
  - To study the fundamentals of simple and complex surgical procedures for orthodontics and periodontal treatment.
  - To connect theoretical knowledge with clinical application to improve periodontal and dental health.
- 

#### Second: Skills Objectives

- To master clinical examination skills of the periodontium and periodontal tissues, including measuring periodontal pockets and assessing inflammation.
- To practice root planing and scaling techniques and primary prevention methods.
- To master simple surgical procedures for treating periodontal diseases, such as removing diseased tissue and placing simple implants.
- To develop the ability to evaluate treatment outcomes and monitor the improvement of periodontal health.

#### Third: Behavioral Objectives

- To promote adherence to hygiene and safety standards during clinical and surgical work.
- To develop responsibility, accuracy, and discipline when dealing with patients and performing surgical procedures.
- To enhance communication skills with patients and explain methods of prevention and treatment.

- To appreciate the importance of teamwork and cooperation with colleagues and other dental professionals.

## 9-Teaching and Learning Methods

- Interactive Lectures
  - Presentation of the fundamental principles of periodontal and gingival diseases, their causes, and methods of diagnosis and treatment.
  - Use of clinical images, diagrams, and videos to illustrate pathological and surgical manifestations.
  - Incorporation of short questions and discussions to foster critical thinking and connect theory with practice.
- Practical Laboratory and Clinical Training
  - Training students in clinical examination of the periodontium and pocket depth measurement.
  - Practice of root canal cleaning techniques, plaque and tartar removal, and management of mild gingivitis.
  - Practice of simple surgical procedures on models before moving on to patients.
- Practical Demonstrations and Demonstrations
  - Demonstration of the steps of basic surgical procedures and preventive techniques before practical application by students.
  - Use of instructional videos to illustrate common errors and their correction.
- Problem-Based Learning
  - Presentation of real or hypothetical clinical cases requiring disease diagnosis and selection of the appropriate treatment method.
  - Encouragement of students to analyze cases and develop individualized treatment plans.

- Team-Based Learning
- Working in groups to discuss clinical cases and analyze treatment outcomes. • Fostering collaboration and team decision-making skills among students.
- Clinical Application
- Connecting theoretical knowledge and practical skills to clinical application in dental clinics.
- Discussing common errors and methods for improving treatment outcomes.

#### 10-Assessment methods

- 1- Quizzes, 1<sup>st</sup> & 2<sup>nd</sup> semester exam, mid-year exam and final theoretical exam.
- 2- Practical tests
- 3- Scientific discussion during the theoretical lesson and during the practical part of the course.

#### C. Affective and value goals

C1. The student's awareness of the importance of this specialization in community service.

C 2- Creating a spirit of cooperation with his colleagues and working as a team.

C 3- Motivating the student towards positive trends that make him a dentist in a state of continuous development

C4 - prompting him to participate in conferences and training through workshops.

#### Teaching and Learning Methods

- Interactive lectures by stimulating scientific discussion between teachers and students.
- The use of scientific analysis, which is the head of the pyramid of knowledge.
- Use of illustrations.
- Motivating self-learning by reviewing the library, reviewing source books, and using the Internet to expand information.

#### Assessment methods

1. Panel discussions
2. Oral exams
3. Practical tests

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)
D1. Skills of reading books and recent research related to the general specialty of dentistry, and the subspecialty of periodontology and how to elicit and extrapolate the information presented.
Teaching and Learning Methods
1. Conducting the practical side and attending workshops. 2. Participation as a member or researcher in scientific conferences held in his college or in a wider scope.
Assessment methods
1. Certificate of participation to attend seminars, conferences and workshops. 2. Evaluation of the discussion committees for the completed research.

11. Course Structure : Theoretical part					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1 theoretical hour	Understand the concepts & basics	Terms & definitions frequently used in periodontology	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hour	Understand the concepts & basics	Anatomy of the periodontium Oral mucosa -Gingiva	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hour	Understand the concepts & basics	Anatomy of the periodontium Periodontal ligaments (PDL)	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical hour	Understand the concepts & basics	Anatomy of the periodontium Cementum	Deliver the lecture with explanation & clarification using power point	Quiz

5	1 theoretical hour	Understand the concepts & basics	Anatomy of the periodontium -Alveolar process	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hour	Understand the concepts & basics	Classification of periodontal diseases and conditions (2017) Reasons for classification	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hour	Understand the concepts & basics	Classification of periodontal diseases and conditions (2017) -Periodontitis	Deliver the lecture with explanation & clarification using power point	<b>1<sup>st</sup>.Sem. Exam.</b>
8	1 theoretical hour	Understand the concepts & basics	Classification of periodontal diseases and conditions (2017) Other conditions affecting the periodontium	Deliver the lecture with explanation & clarification using power point	Quiz
9	1 theoretical hour	Understand the concepts & basics	Etiology of periodontal disease -Periodontal disease pathogenesis	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hour	Understand the concepts & basics	Etiology of periodontal disease and risk factors Dental plaque biofilm and periodontal microbiology	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hour	Understand the concepts & basics	Microbiologic specificity of periodontal diseases	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical hour	Understand the concepts & basics	Dental calculus	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical hour	Understand the concepts & basics	Dental stain	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical	Understand the	Etiology of periodontal disease	Deliver the lecture with explanation &	Quiz

	hour	concepts & basics	- Risk factors for periodontal diseases	clarification using power point	
15	1 theoretical hour	Understand the concepts & basics	Etiology of periodontal disease - Molecular biology of host-microbe interactions	Deliver the lecture with explanation & clarification using power point	Quiz
			<b>Mid- Year Exam</b>		
16	1 theoretical hour	Understand the concepts & basics	Etiology of periodontal disease and risk factors - Smoking and Periodontal Disease	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hour	Understand the concepts & basics	Impact of periodontal infection on systemic health	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hour	Understand the concepts & basics	Impact of periodontal infection on systemic health	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hour	Understand the concepts & basics	Periodontal indices	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretical hour	Understand the concepts & basics	The periodontal pocket Classification - Clinical features - Pathogenesis - Histopathology	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hour	Understand the concepts & basics	The periodontal pocket - Periodontal disease activity	Deliver the lecture with explanation & clarification using power point	Quiz
22	1 theoretical hour	Understand the concepts & basics	Treatment plan guidelines - Phase 1 (behavior change, removal of supragingival dental biofilm and risk factor control):	Deliver the lecture with explanation & clarification using power point	<b>2<sup>nd</sup> Sem. Exam.</b>
23	1	Understand	Treatment plan	Deliver the lecture with	Quiz



	theoretical hour	the concepts & basics	guidelines - Phase 2 (cause-related therapy)	explanation & clarification using power point	
24	1 theoretical hour	Understand the concepts & basics	Treatment plan guidelines - Phase 3 (corrective/surgical phase)	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hour	Understand the concepts & basics	Treatment plan guidelines - Phase 4 (maintenance therapy)	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hour	Understand the concepts & basics	Plaque biofilm control for the periodontal patient	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hour	Understand the concepts & basics	Plaque biofilm control for the periodontal patient - Chemical plaque biofilm control with oral rinses	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical hour	Understand the concepts & basics	Periodontal instruments and sharpening - Types of periodontal instruments	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hour	Understand the concepts & basics	Breath Malodor (Halitosis)	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical hour	Understand the concepts & basics	Systemic anti-infective therapy for periodontal diseases	Deliver the lecture with explanation & clarification using power point	Quiz
Total	30hours		Final Exam.		

### Course Structure (Clinical requirement)

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

12. Infrastructure	
1. Books Required reading:	<b>Newman and Carranza's Clinical periodontology thirteen edition</b>
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:
<b>PRO455</b>
3. Semester / Year:
4 <sup>th</sup> 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/ 5 units
7. Course administrator's name (mention all, if more than one name)
Ali Saad
8. Course Objectives
<p>Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To understand the fundamental principles of fabricating crowns, bridges, and partial and complete dentures.</li> <li>To study the properties of materials used in dental prosthesis fabrication, such as metals, ceramics, and composite resins.</li> <li>To understand the stages of dental prosthesis fabrication, from preparation and impression taking to casting models, finishing, and delivery.</li> <li>To recognize the aesthetic and functional criteria of good dental prostheses.</li> </ul>

- To connect theoretical knowledge with practical skills to ensure a smooth transition to the clinical phase.

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#### Second: Skill-Based Objectives

- To master the techniques of preparing and accurately casting dental models.
- To practice fabricating crowns, bridges, and partial and complete dentures on models.
- To develop the ability to refine and adjust prostheses to achieve the required form and function.
- To be able to assess the quality of finished prostheses and correct errors before clinical delivery.
- To enhance hand-eye coordination and precision while working with dental prostheses.

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#### Third: Behavioral Objectives

- To adhere to hygiene and safety standards while working in the laboratory. • Developing responsibility, accuracy, and discipline while performing dental prosthetic tasks.
- Enhancing collaboration and teamwork skills with colleagues during practical training.
- Appreciating the importance of prosthetic quality and work precision to ensure patient comfort and satisfaction.

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#### Fourth: Applied/Clinical Objectives

- Connecting skills acquired in the laboratory to future clinical cases involving the fabrication of crowns, bridges, and dentures.
- The ability to select appropriate materials and techniques for each clinical case.
- Supporting accurate clinical decision-making to ensure the functional and aesthetic outcomes of prosthetics.
- Developing the confidence and competence necessary to handle dental

prosthetics in clinics.

## 9. Teaching and Learning Strategies

### 1. Interactive Lectures

- o Presenting the theoretical principles of fabricating crowns, bridges, and dentures, and the properties of different materials.
- o Using presentations, images, and videos to illustrate the fabrication and finishing steps.
- o Incorporating short questions and discussions to clarify concepts and connect theory to practical application.

### 2. Practical Laboratory Training

- o Training students in preparing and casting dental models with high precision.
- o Practicing the fabrication of crowns, bridges, and partial and complete dentures on models before moving on to clinical application.
- o Practicing polishing, shaping, and adjusting prostheses to suit the required form and function.

### 3. Practical Demonstrations and Demonstrations

- o Demonstrating the steps of model preparation and prosthesis fabrication before students' clinical application.
- o Using instructional videos to illustrate common errors and how to correct them.

### 4. Problem-Based Learning

- o Presenting hypothetical or real-life cases that require selecting appropriate materials and techniques for each case.
  - o Encouraging students to analyze problems and develop accurate and effective fabrication plans.
- ### 5. Team-Based Learning
- o Working in groups to exchange ideas and discuss improving the quality of prostheses.
  - o Enhancing collaboration and critical thinking skills among students during practical work.

## 6. Digital Tools and Simulation

o Using CAD/CAM software to virtually design prostheses before practical application.

o Providing electronic resources to keep up with the latest developments in dental materials and manufacturing techniques.

## 7. Clinical Connection

o Connecting skills acquired in the lab to future clinical cases.

o Discussing common errors and ways to improve the quality of prostheses before interacting with patients.

10. Course Structure				
Week	Hours	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Course description, &infection control In prosthodontics	Theoretical lecture using power point	short exam ,semester ,mid and final exam
2	2	Anatomy& physiology	Theoretical lecture using power point	short exam ,semester ,mid and final exam
3	2	Myology	Theoretical lecture using power point	short exam ,semester ,mid and final exam
4	2	Diagnosis& treatment plan for RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
5	2	Mouth preparations	Theoretical lecture using power point	short exam ,semester ,mid and final exam
6	2	Impression materials and techniques	Theoretical lecture using power point	short exam ,semester ,mid and final exam
7	2	Support and impression procedure	Theoretical lecture using power point	short exam ,semester ,mid and final exam
8	2	Framework try-in	Theoretical lecture using power point	short exam ,semester ,mid and final exam
9	2	Jaw relations and record base for RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam

10	2	Selection of teeth & setting in RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
11	2	Try-in for RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
12	2	Partial Denture Design II	Theoretical lecture using power point	short exam ,semester ,mid and final exam
13	2	Insertion of RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
14	2	Post insertion problems for RPD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
15	2		Theoretical lecture using power point	short exam ,semester ,mid and final exam
16	2		Theoretical lecture using power point	short exam ,semester ,mid and final exam
17	2	Patient examination for CD	Theoretical lecture using power point	short exam ,semester ,mid and final exam
18	2	Pre prosthetic Surgery	Theoretical lecture using power point	short exam ,semester ,mid and final exam
19	2	<b>Impressions for CD, materials and techniques</b>	Theoretical lecture using power point	short exam ,semester ,mid and final exam
20	2	Jaw relations, Orientation & Vertical relation II	Theoretical lecture using power point	short exam ,semester ,mid and final exam
21	2	Horizontal Jaw Relations II	Theoretical lecture using power point	short exam ,semester ,mid and final exam
22	2	Setting of teeth in abnormal Jaw relations	Theoretical lecture using power point	short exam ,semester ,mid and final exam
23	2	Try-in and Post-dam	Theoretical lecture using power point	short exam ,semester ,mid and final exam
24	2	Insertion of CD	Theoretical	short exam ,semester ,mid and final exam

			lecture using power point	
25	2	Post insertion problems for CD	Theoretical lecture using power point	short exam ,semester ,mid and final exam

## Course Description Form

1. Course Name:
Oral Pathology
2. Course Code:
OPT467
3. Semester / Year:
4 <sup>th</sup> 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)/ 6units
7. Course administrator's name (mention all, if more than one name)
Name: assist. Lec. Fatima Gazi Aswad Email: FatimaGAswad@tu.edu.iq
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the anatomy and functions of the mouth, teeth, and surrounding tissues.</li>   <li>• To study the causes, manifestations, and classification of various oral diseases, including infections, tumors, and connective tissue disorders.</li>   <li>• To understand clinical and laboratory diagnostic methods for oral diseases, including clinical examination, biopsies, and laboratory tests.</li> </ul>



- To learn the fundamentals of prevention and medical treatment for common and complex oral diseases.
- To connect theoretical knowledge with clinical skills to provide an accurate diagnosis and an appropriate treatment plan.

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### Second: Skill-Based Objectives

- To master the clinical examination of the mouth, teeth, and gums to detect pathological changes.
- To practice taking samples (biopsies) and handling laboratory specimens correctly.
- To develop the ability to interpret laboratory results and radiographic images related to oral diseases.
- To develop an appropriate treatment plan for each case based on an accurate diagnosis.

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### Third: Behavioral/Value-Based Objectives

- To promote adherence to hygiene and safety standards during clinical examination and treatment. • Developing responsibility, accuracy, and discipline when dealing with patients and complex cases.
- Enhancing communication skills with patients and clearly explaining the diagnosis and treatment plan.
- Appreciating the importance of continuous learning to keep up with advancements in the diagnosis and treatment of oral diseases.

## 9. Teaching and Learning Strategies

- Interactive Lectures
- Presenting the fundamental principles of oral disease diagnosis, classification, and etiology using presentations, clinical images, and videos.

- Incorporating short questions and discussions to clarify concepts and connect theory to clinical application.
- Practical Laboratory and Clinical Training
- Training students in the clinical examination of the mouth, gums, and teeth to detect pathological changes.
- Practical application of biopsies and microscopic examination, along with interpretation of laboratory results.
- Analysis of radiographic images related to oral and surrounding tissue diseases.
- Practical Demonstrations
- Demonstrating how to examine the mouth and gums, handle biopsies, and analyze results before students apply these techniques practically.
- Using educational videos to illustrate common errors and their correction.
- Problem-Based Learning
- Presenting real or hypothetical clinical cases that require disease diagnosis and the development of an appropriate treatment plan.
- Encouraging students to analyze problems and make sound clinical decisions.
- Team-Based Learning
- Working in groups to discuss complex oral cases and share experiences. • Enhancing collaboration, critical thinking, and group decision-making skills.
- Digital tools and simulations
- Using simulation software to virtually examine oral diseases before practical application.
- Providing electronic resources to stay up-to-date on the latest studies and diagnostic techniques.
- Clinical application
- Connecting theoretical knowledge and practical skills to real-life cases in dental clinics.
- Discussing common diagnostic errors and methods to improve examination and treatment accuracy.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical hours	Understanding the basics and applying them	Biopsy in oral pathology	Deliver the lecture with explanation & clarification using power point	Quiz
2	2 theoretical hours	Understanding the basics and applying them	Healing in oral pathology	Deliver the lecture with explanation & clarification using power point	Quiz
3	2 theoretical hours	Understanding the basics and applying them	Dental caries	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretical hours	Understanding the basics and applying them	Pulpitis	Deliver the lecture with explanation & clarification using power point	Quiz
5	2 theoretical hours	Understanding the basics and applying them	Periapical lesions	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretical hours	Understanding the basics and applying them	Osteomyelitis	Deliver the lecture with explanation & clarification using power point	Quiz
7	2 theoretical hours	Understanding the basics and applying them	Developmental disorder of teeth	Deliver the lecture with explanation & clarification using power point	First semester exam
	28 theoretical hours	Understanding the basics and applying them	Developmental disorder of soft and hard tissue	Deliver the lecture with explanation & clarification using power	Quiz

				point	
2 9	theoretical hours	Understanding the basics and applying them	Non odontogenic cysts	Deliver the lecture with explanation & clarification using power point	Quiz
2 10	theoretical hours	Understanding the basics and applying them	Odontogenic cysts	Deliver the lecture with explanation & clarification using power point	Quiz
2 11	theoretical hours	Understanding the basics and applying them	Odontogenic tumors 1	Deliver the lecture with explanation & clarification using power point	Quiz
2 12	theoretical hours	Understanding the basics and applying them	Odontogenic tumors 2	Deliver the lecture with explanation & clarification using power point	Quiz
2 13	theoretical hours	Understanding the basics and applying them	Benign epithelial lesions, leukoplakia	Deliver the lecture with explanation & clarification using power point	Quiz
2 14	theoretical hours	Understanding the basics and applying them	Epithelial Hyperplasia, atrophy and dysplasia	Deliver the lecture with explanation & clarification using power point	Quiz
2 15	theoretical hours	Understanding the basics and applying them	Squamous cell carcinoma and other malignant epithelial neoplasms	Deliver the lecture with explanation & clarification using power point	Quiz

			Mid-year Exam.		
16	2 theoretical hours	Understanding the basics and applying them	Fibro osseous lesions, metabolic and genetic conditions	Deliver the lecture with explanation & clarification using power point	Quiz
17	2 theoretical hours	Understanding the basics and applying them	Giant cell lesions	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretical hours	Understanding the basics and applying them	Benign tumor of the bone	Deliver the lecture with explanation & clarification using power point	Quiz
19	2 theoretical hours	Understanding the basics and applying them	Malignant tumor of the bone	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretical hours	Understanding the basics and applying them	Viral infection	Deliver the lecture with explanation & clarification using power point	Quiz
21	2 theoretical hours	Understanding the basics and applying them	Diseases of salivary glands	Deliver the lecture with explanation & clarification using power point	Quiz
22	2 theoretical hours	Understanding the basics and applying them	Immune mediated disorder 1	Deliver the lecture with explanation & clarification using power point	Second semester exam

23	2 theoretical hours	Understanding the basics and applying them	Immune mediated disorder 2	Deliver the lecture with explanation & clarification using power point	Quiz
24	2 theoretical hours	Understanding the basics and applying them	Connective tissue lesions	Deliver the lecture with explanation & clarification using power point	Quiz
25	2 theoretical hours	Understanding the basics and applying them	Connective tissue lesions	Deliver the lecture with explanation & clarification using power point	Quiz
26	2 theoretical hours	Understanding the basics and applying them	Salivary gland disorders	Deliver the lecture with explanation & clarification using power point	Quiz
27	2 theoretical hours	Understanding the basics and applying them	Salivary gland neoplasms	Deliver the lecture with explanation & clarification using power point	Quiz
28	2 theoretical hours	Understanding the basics and applying them	Physical and chemical injuries	Deliver the lecture with explanation & clarification using power point	Quiz
29	2 theoretical hours	Understanding the basics and applying them	Hematopoietic tumors	Deliver the lecture with explanation & clarification using power point	Quiz
30	2 theoretical hours	Understanding the basics and applying them	Forensic odontology	Deliver the lecture with explanation & clarification using power point	Quiz

Practical part:		
Lab. No.	Practical Subject Title	Hours

Total	60		Final Exam.		
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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, kerratocyst ,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



11. 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. RegeziJA, Sciubba JJ, Jordan RCK. 5 <sup>th</sup> edi. 2009.
A- Recommended books and references (scientific journals, reports...).	
B-Electronic references, Internet sites...	

## Course Description Form

1. Course Name:
Conservative Dentistry
2. Course Code:
CND488
3. Semester / Year:
4 <sup>th</sup> 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+180 cln)/ 8 units
7. Course administrator's name (mention all, if more than one name)
Name: pro. Dr Haithim Younis
Name: assesst. Lec. Mohammed Ieaad
8. Course Objectives
<p>First:Cognitive Objectives</p> <p style="text-align: right;">.....</p> <ul style="list-style-type: none"> <li>• To understand the fundamental principles of diagnosing and treating dental caries and hard tissue diseases.</li> </ul> <p style="text-align: right;">.....</p> <ul style="list-style-type: none"> <li>• To study the types of restorative materials and their physical, chemical, and mechanical properties.</li> <li>• To understand the different methods of preparing, filling, and restoring teeth both functionally and aesthetically.</li> <li>• To recognize dental treatment complications and how to prevent or manage them.</li> <li>• To connect theoretical knowledge with practical skills to ensure the provision of effective and safe treatment for patients.</li> </ul>

## Second: Skill-Based Objectives

- To master tooth preparation techniques for direct and indirect fillings.
- To practice aesthetic and traditional fillings using different materials such as composite and amalgam.
- To be able to assess the quality of fillings and ensure the evenness of surfaces and conformity to oral functions.
- To develop skills in complex dental treatment, including step preparation and multi-layered fillings.
- To enhance hand-eye coordination and precision during clinical work.

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## Third: Behavioral/Value-Based Objectives

- To adhere to hygiene and safety standards during clinical procedures.
- To develop responsibility, accuracy, and discipline when dealing with patients. • Enhance communication skills with patients and explain the treatment plan and its objectives.
- Appreciate the importance of quality work to ensure patient comfort and satisfaction with treatment.

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## Fourth: Applied/Clinical Objectives

- Connect theoretical knowledge and practical skills to clinical application in dental clinics.
- Be able to select appropriate materials and techniques for each clinical case to ensure effective and long-lasting results.
- Support accurate clinical decision-making to improve dental function and aesthetics.

- Develop skills in patient follow-up and evaluating the quality of fillings to ensure the sustainability of treatment results.

## 9. Teaching and Learning Strategies

### 1. Interactive Lectures

- o Presenting the theoretical principles of diagnosing and treating dental caries and hard tissue diseases.
- o Using presentations, clinical images, and illustrative videos of preparation and filling steps.
- o Holding short questions and discussions to reinforce the connection between theory and practice.

### 2. Practical Training in the Laboratory and Clinic

- o Training students in tooth preparation and filling using different materials such as composite and amalgam.
- o Practicing aesthetic and traditional fillings on models before moving on to patients.
- o Monitoring the quality of fillings and ensuring surface uniformity and conformity to oral functions.

### 3. Practical and Demonstrative Demonstrations

- o Demonstrating preparation and filling steps before practical application for students.
- o Using educational videos to illustrate common errors and their correction methods.

### 4. Problem-Based Learning

- o Presenting realistic clinical cases that require diagnosing caries and selecting the appropriate treatment method.
- o Encouraging students to analyze cases and develop effective treatment plans.

### 5. Team-Based Learning

- o Working in groups to analyze clinical cases and discuss the results of fillings. • Enhancing collaboration, critical thinking, and group decision-making skills.

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6. Clinical Application
- Connecting theoretical knowledge and practical skills to real-life clinical cases.
  - Discussing common errors and methods for improving the quality of fillings and the sustainability of treatment outcomes.

#### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 theoretical hours	Understanding the basics and applying them	Definition of operative dentistry	Deliver the lecture with explanation & clarification using power point	Quiz
2	2 theoretical hours	Understanding the basics and applying them	Definition of operative dentistry	Deliver the lecture with explanation & clarification using power point	Quiz
3	2 theoretical hours	Understanding the basics and applying them	Instruments and general instrumentation of cavity preparation	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretical hours	Understanding the basics and applying them	Instruments and general instrumentation of cavity preparation	Deliver the lecture with explanation & clarification using power point	Quiz
5	2 theoretical hours	Understanding the basics and applying them	Sterilization of operative instruments	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretical hours	Understanding the basics and applying them	Sterilization of operative instruments	Deliver the lecture with explanation & clarification using power point	Quiz

7	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class I	Deliver the lecture with explanation & clarification using power point	First semester exam
8	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class I	Deliver the lecture with explanation & clarification using power point	Quiz
9	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class II	Deliver the lecture with explanation & clarification using power point	Quiz
10	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class II	Deliver the lecture with explanation & clarification using power point	Quiz
11	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class II (MOD)	Deliver the lecture with explanation & clarification using power point	Quiz
12	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class II (MOD)	Deliver the lecture with explanation & clarification using power point	Quiz
13	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class III and class V	Deliver the lecture with explanation & clarification using power point	Quiz
14	2 theoretical hours	Understanding the basics and applying them	Amalgam cavity preparations for class III and class V	Deliver the lecture with explanation & clarification using power point	Quiz

15	2 theoretical hours	Understanding the basics and applying them	Cavity liners and cement bases (part 1)	Deliver the lecture with explanation & clarification using power point	Quiz
			Cavity liners and cement bases (part 1)		
16	2 theoretical hours	Understanding the basics and applying them	Cavity liners and cement bases (part 2)	Deliver the lecture with explanation & clarification using power point	Quiz
17	2 theoretical hours	Understanding the basics and applying them	Cavity liners and cement bases (part 2)	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretical hours	Understanding the basics and applying them	Dental amalgam alloys (material)	Deliver the lecture with explanation & clarification using power point	Quiz
19	2 theoretical hours	Understanding the basics and applying them	Dental amalgam alloys (material)	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretical hours	Understanding the basics and applying them	Complex amalgam restoration	Deliver the lecture with explanation & clarification using power point	Quiz
21	2 theoretical hours	Understanding the basics and applying them	Complex amalgam restoration	Deliver the lecture with explanation & clarification using power point	Quiz

22	2 theoretical hours	Understanding the basics and applying them	Failures in amalgam restorations	Deliver the lecture with explanation & clarification using power point	Second semester exam
23	2 theoretical hours	Understanding the basics and applying them	Failures in amalgam restorations	Deliver the lecture with explanation & clarification using power point	Quiz
24	2 theoretical hours	Understanding the basics and applying them	Tooth colored restorations (composite)	Deliver the lecture with explanation & clarification using power point	Quiz
25	2 theoretical hours	Understanding the basics and applying them	Tooth colored restorations (composite)	Deliver the lecture with explanation & clarification using power point	Quiz
26	2 theoretical hours	Understanding the basics and applying them	Cavity preparation for anterior restorations	Deliver the lecture with explanation & clarification using power point	Quiz
27	2 theoretical hours	Understanding the basics and applying them	Cavity preparation for anterior restorations	Deliver the lecture with explanation & clarification using power point	Quiz
28	2 theoretical hours	Understanding the basics and applying them	Resin material	Deliver the lecture with explanation & clarification using power point	Quiz
29	2 theoretical hours	Understanding the basics and applying them	Resin material	Deliver the lecture with explanation & clarification using power point	Quiz



30	2 theoretical hours	Understanding the basics and applying them	Definitions of crown	Deliver the lecture with explanation & clarification using power point	Quiz
Total	60		Final Exam.		

**Practical part:**

Lab. No.	Practical Subject Title	Hours
1	<b>Clinic</b> <b>work.</b>	3
2	<b>Clinic</b> <b>work.</b>	3
3	<b>Clinic</b> <b>work.</b>	3
4	<b>Clinic</b> <b>work.</b>	
5	<b>Clinic work .</b>	3
6	<b>Clinic</b> <b>work.</b>	3
7	<b>Clinic</b> <b>work.</b>	3
8	<b>Clinic</b> <b>work.</b>	3
9	<b>Clinic</b> <b>work.</b>	3
10	<b>Clinic</b> <b>work.</b>	3
11	<b>Clinic</b> <b>work.</b>	3
12	<b>Clinic</b> <b>work.</b>	3
13	<b>Clinic</b> <b>work.</b>	3
14	<b>Clinic</b> <b>work.</b>	3
15	<b>Clinic</b> <b>work.</b>	3

16	Clinic work.	3
17	Clinic work.	3
18	Clinic work.	3
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

## 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:
Oral surgery
2. Course Code:
ORS461
3. Semester / Year:
4 <sup>th</sup> 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)
150 h (30 Theoretical+ 120 clinic)/ 6 units
7. Course administrator's name (mention all, if more than one name)
Asst lec. Ahmed abdulalkarim
8. Course Objectives
<p>Cognitive Objectives: .....</p> <p>.....</p> <ul style="list-style-type: none"> <li>• To understand the anatomy of the mouth, jaw, teeth, and surrounding tissues and their relationship to surgery.</li> <li>• To study oral diseases and conditions requiring surgical intervention, such as tooth extraction, tumors, and oral malformations.</li> <li>• To understand the basic principles of oral surgery, including sterilization techniques, anesthesia, and pain management.</li> <li>• To recognize potential complications during and after surgical procedures and how to manage them.</li> <li>• To connect theoretical knowledge with clinical skills to ensure safe and effective surgical decisions.</li> </ul>

#### Skill-Based Objectives:

- To master the skills of assessing surgical patients and preparing appropriate treatment plans.
- To practice simple and complex tooth extraction techniques safely and accurately.
- To master local anesthesia procedures and techniques for controlling bleeding during operations.
- To develop the ability to handle surgical and oral emergencies.
- To enhance hand-eye coordination and precision during surgical procedures.

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#### Behavioral/Value-Based Objectives:

- To adhere to hygiene and safety standards during surgical procedures. • Developing responsibility, precision, and discipline in patient care and surgical procedures.
- Enhancing communication skills with patients and explaining surgical procedures, their risks, and benefits.
- Appreciating the importance of continuous learning to develop surgical skills and stay abreast of the latest technologies.

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#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in dental clinics and surgery.
- Being able to select the appropriate surgical approach for each case to ensure optimal results.
- Supporting accurate clinical decision-making to minimize complications and improve patient recovery.
- Developing skills in post-operative patient follow-up and outcome evaluation to ensure treatment sustainability and enhance the patient experience.

#### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of oral surgery, tooth extraction, and

simple and complex surgical procedures.

- Use of presentations, clinical images, and illustrative videos of surgical procedures.
- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab and Clinic
  - Training students to perform simple and complex tooth extractions on models before moving on to patients.
  - Practice local anesthesia techniques and pain management during surgical procedures.
  - Learn to control bleeding and handle emergencies during surgery.
- Practical Demonstrations
  - Demonstration of the steps of surgical procedures before students apply them practically.
  - Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
  - Presentation of clinical cases requiring diagnosis and the development of an appropriate surgical plan.
  - Encouraging students to analyze cases and make accurate surgical decisions.
- Team-Based Learning
  - Working in groups to analyze surgical cases and discuss the results of different interventions.
  - Fostering collaboration, critical thinking, and group decision-making skills.
- Clinical Application
  - Connecting theoretical knowledge and practical skills to real-life cases in clinics and surgeries.
  - Discussing common errors and methods to improve the accuracy and efficiency of surgical procedures.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understand the concepts & basics	Cardiovascular diseases	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understand the concepts & basics	Bleeding disorder	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hours	Understand the concepts & basics	Endocrinology	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical hours	Understand the concepts & basics	Pulmonary diseases	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical hours	Understand the concepts & basics	Liver Diseases	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hours	Understand the concepts & basics	Chronic kidney disease and dialysis	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understand the concepts & basics	Neurologic disorders	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical hours	Understand the concepts & basics	Pregnancy	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> sem. Exam
9	1 theoretical hours	Understand the concepts & basics	AIDS and HIV infection	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hours	Understand the concepts & basics	Rheumatologic and connective tissue disorders	Deliver the lecture with explanation & clarification using power point	Quiz

11	1 theoretical hours	Understand the concepts & basics	Allergy	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical hours	Understand the concepts & basics	Patients on radiotherapy and chemotherapy	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical hours	Understand the concepts & basics	Odontogenic infections and fascial space infections	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical hours	Understand the concepts & basics	Fascial space infections	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretical hours	Understand the concepts & basics	Principles of treatment of odontogenic infections	Deliver the lecture with explanation & clarification using power point	Quiz
			Mid Term Exam		
16	1 theoretical hours	Understand the concepts & basics	Principles of Flaps, suturing and management of difficult extraction	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hours	Understand the concepts & basics	Management of difficult extraction	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hours	Understand the concepts & basics	Principles of management of impacted teeth	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hours	Understand the concepts & basics	Impacted upper third molars	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretical hours	Understand the concepts & basics	Impacted mandibular canines	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understand the concepts & basics	Surgical aids to orthodontics	Deliver the lecture with explanation & clarification using power point	Quiz



22	1 theoretical hours	Understand the concepts & basics	Principles of endodontic surgery	Deliver the lecture with explanation & clarification using power point	Quiz
23	1 theoretical hours	Understand the concepts & basics	Surgical procedure	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
24	1 theoretical hours	Understand the concepts & basics	Osteomyelitis and osteonecrosis of the jaw	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hours	Understand the concepts & basics	Radiation induced osteomyelitis and osteoradionecrosis	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hours	Understand the concepts & basics	Dental Implants: Basic Concepts and Techniques	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hours	Understand the concepts & basics	Surgical Treatment Planning Considerations	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical hours	Understand the concepts & basics	Biopsy in oral and maxillofacial surgery	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hours	Understand the concepts & basics	Diagnostic imaging in oral and maxillofacial surgery	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical hours	Understand the concepts & basics	Principles of treatment of odontogenic infections	Deliver the lecture with explanation & clarification using power point	Quiz
Total	30		Final Exam		

<b>11. Infrastructure</b>	
<b>1. Books Required reading:</b>	<b>1-Little and Falaces Dental management of the medically compromised patient 9th Edition, 2018.</b>
<b>2. Main references (sources)</b>	<b>2-Contemporary oral and maxillofacial surgery 7th edition 2019 (Elsevier)</b>
<b>A- Recommended books and references (scientific journals, reports...).</b>	
<b>B-Electronic references, Internet sites...</b>	<a href="https://dental.washington.edu/oral-pathology/case-of-the-month/">https://dental.washington.edu/oral-pathology/case-of-the-month/</a> <a href="https://www.elsevier.com/open-access/open-access-journals">https://www.elsevier.com/open-access/open-access-journals</a>

Practical Part:

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

## Course Description Form

1. Course Name:
General Surgery
2. Course Code:
GSR443
3. Semester / Year:
4 <sup>th</sup> 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 Units
7. Course administrator's name (mention all, if more than one name)
Prof.Dr. Ali Ghanim
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To learn the basic principles of general surgery, including sterilization techniques, surgical principles, and preparation for surgery.</li> <li>To study human anatomy and its relationship to surgery.</li> <li>To understand the types of wounds, injuries, and common surgical procedures, and their indications.</li> <li>To learn modern methods of surgical diagnosis and emergency management.</li> <li>To study surgical complications and methods of prevention and management.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skill-Based Objectives</p>

- To master surgical examination skills and analyze the patient's condition before making decisions.
  - To practice simple surgical procedures, such as suturing wounds, draining abscesses, and managing minor bleeding.
  - To use surgical instruments safely and effectively.
  - To develop skills in planning and executing surgical procedures according to safety and quality standards.
- 

#### Third: Behavioral/Value-Based Objectives

- To adhere to professional ethics and health standards when dealing with patients and surgical procedures.
  - To promote responsibility, accuracy, and discipline during surgical and clinical work. • Developing communication skills with patients and explaining surgical procedures, their risks, and benefits.
  - Respecting patients' rights and maintaining the confidentiality of medical information.
- 

#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills in surgical examination and clinical case management.
- The ability to handle emergency situations and make appropriate decisions quickly and accurately.
- Supporting the development of the ability to evaluate the outcomes of surgical interventions and follow up with patients to ensure proper recovery.
- Enhancing the ability to select the optimal surgical approach for each case to ensure effective and safe outcomes.

## 9. Teaching and Learning Strategies

1. Interactive Lectures (o) Presenting the fundamental principles of general surgery, surgical diagnosis, and sterilization techniques.

o) Using presentations, images, and illustrative videos of surgical procedures and emergency interventions.

o) Holding short questions and discussions to promote critical thinking and connect theory with practice.

2. Practical Training in the Laboratory and Clinic (o) Training students in surgical patient examination and case analysis before decision-making.

o) Practicing simple procedures such as suturing wounds, draining abscesses, and managing minor bleeding.

o) Applying safety and quality standards while using surgical instruments.

3. Practical Demonstrations and Demonstrations (o) Demonstrating the steps of surgical procedures before students apply them practically.

o) Using instructional videos to illustrate common errors and their correction.

4. Problem-Based Learning (o) Presenting real or simulated clinical cases that require diagnosis and selection of the appropriate treatment method.

o) Encouraging students to analyze cases and develop effective surgical treatment plans.

5. Team-Based Learning (o) Working in groups to discuss complex surgical cases and share experiences.

o) Enhancing collaboration, critical thinking, and group decision-making skills.

6. Digital Tools and Simulations 7. Clinical Application: • Using simulation software to train students on surgical procedures before practical application.

• Providing electronic resources to keep up with the latest surgical studies and techniques.

7. Clinical Application: • Connecting theoretical knowledge and practical skills to real-life cases in clinics and hospitals.

• Discussing common errors and ways to improve the accuracy and efficiency of surgical procedures.

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understanding the basics and applying them	Case history	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understanding the basics and applying them	Clinical examination	Deliver the lecture with explanation & clarification using power point	Quiz
3	2 theoretical hours	Understanding the basics and applying them	Surgical wound and infections	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretical hours	Understanding the basics and applying them	Wound healing	Deliver the lecture with explanation & clarification using power point	Quiz
5	2 theoretical hours	Understanding the basics and applying them	Hemorrhage and blood transfusion	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretical hours	Understanding the basics and applying them	Fracture and dislocation of bones	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understanding the basics and applying them	Head injuries	Deliver the lecture with explanation & clarification using power point	First semester exam

8	2 theoretical hours	Understanding the basics and applying them	Parenteral feeding	Deliver the lecture with explanation & clarification using power point	Quiz
9	2 theoretical hours	Understanding the basics and applying them	Fluid and electrolytes balance	Deliver the lecture with explanation & clarification using power point	Quiz
10	2 theoretical hours	Understanding the basics and applying them	Surgical resuscitation and medical emergencies	Deliver the lecture with explanation & clarification using power point	Quiz
11	2 theoretical hours	Understanding the basics and applying them	Differential diagnosis of swelling in the neck	Deliver the lecture with explanation & clarification using power point	Quiz
			Mid-year Exam.		
12	2 theoretical hours	Understanding the basics and applying them	Diseases of the nose and Para nasal sinuses	Deliver the lecture with explanation & clarification using power point	Quiz
13	2 theoretical hours	Understanding the basics and applying them	Diseases of pharynx and larynx and esophagus	Deliver the lecture with explanation & clarification using power point	Quiz
14	2 theoretical hours	Understanding the basics and applying them	General anesthesia, pain management and postoperative care	Deliver the lecture with explanation & clarification using power point	Quiz

15	2 theoretical hours	Understanding the basics and applying them	Chest trauma and diseases	Deliver the lecture with explanation & clarification using power point	Quiz
16	2 theoretical hours	Understanding the basics and applying them	Thyroid gland and goiter	Deliver the lecture with explanation & clarification using power point	Quiz
17	2 theoretical hours	Understanding the basics and applying them	Tumors, Cyst, Ulcer & fistula	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretical hours	Understanding the basics and applying them	Diseases of the nose and Para nasal sinuses	Deliver the lecture with explanation & clarification using power point	Second semester exam
19	2 theoretical hours	Understanding the basics and applying them	Diseases of pharynx and larynx and esophagus	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretical hours	Understanding the basics and applying them	General anesthesia, pain management and postoperative care	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understanding the basics and applying them	Chest trauma and diseases	Deliver the lecture with explanation & clarification using power point	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

1. Course Name:
General Medicine
2. Course Code:
GMD444
3. Semester / Year:
4 <sup>th</sup> 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) /2 units
7. Course administrator's name (mention all, if more than one name)
Dr. Mohammed Salih Alawi
8. Course Objectives
<div style="display: flex; justify-content: space-between;"> <div> <p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the basic principles of systemic diseases and their impact on oral and dental health.</li> <li>• To study the most common systemic diseases, such as heart, lung, liver, and kidney diseases, and their relationship to dental practice.</li> <li>• To understand clinical diagnostic methods and laboratory tests for systemic diseases.</li> <li>• To understand the principles of prevention, treatment, and management of patients with chronic medical conditions during dental care.</li> <li>• To connect theoretical knowledge with clinical application to ensure safe patient care. _____</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• Mastering general clinical examination skills for patients, including physical</li> </ul> </div> <div style="text-align: right;"> <p>.....</p> <p>.....</p> </div> </div>

examination and medical history.

- Ability to recognize important vital signs (blood pressure, pulse, respiration, temperature).
- Developing the ability to interpret basic laboratory results and relate them to the patient's clinical condition.
- Understanding how to modify dental procedures according to the patient's medical condition to avoid complications.

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### Third: Behavioral/Value-Based Objectives

- Promoting adherence to safety and public health standards when dealing with patients.
- Developing responsibility, accuracy, and discipline during clinical examination and case management.
- Enhancing communication skills with patients and explaining risks and necessary precautions during treatment.
- Appreciating the importance of continuous learning to keep pace with developments in general medicine and its impact on dental practice.

## 9. Teaching and Learning Strategies

- Interactive Lectures
  - Presentation of the basic principles of general diseases and their impact on oral and dental health.
  - Use of illustrative images, diagrams, and videos of various medical cases.
  - Inclusion of short questions and discussions to reinforce the connection between theory and practice.
- Practical Laboratory/Clinical Training
  - Training students in general clinical examination of patients, including measuring vital signs (blood pressure, pulse, respiration, temperature).
  - Practice analyzing the patient's medical history and relating laboratory results to the patient's clinical condition.
  - Training students to modify dental procedures according to the patient's general medical condition.
- Practical Demonstrations
  - Demonstration of how to perform clinical examinations and manage simple medical cases before practical application.

- Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
- Presentation of common or complex medical cases that require analyzing the patient's medical history, performing a clinical examination, and making appropriate decisions.
- Encouraging students to develop safe treatment plans for patients with chronic medical conditions.
- Team-based learning
- Working in groups to analyze medical cases and discuss their impact on dental treatment.
- Enhancing teamwork and collective decision-making skills.
- .
- Clinical application
- Connecting theoretical knowledge and practical skills to real-life cases in dental clinics.
- Discussing how to modify the dental treatment plan based on the patient's overall medical condition.

#### 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours weekly	Understand the concepts & basics	Systemic hypertension	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours weekly	Understand the concepts & basics	Ischemic heart disease	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical	Understand the concepts & basics	Hematemesis	Deliver the lecture with explanation &	Quiz

	hours weekly			clarification using power point	
4	1 theoretical hours weekly	Understand the concepts & basics	Rheumatic fever	Lecture using power point	1 <sup>st</sup> Sem. Exam.
5	1 theoretical hours weekly	Understand the concepts & basics	Infective endocarditis	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hours weekly	Understand the concepts & basics	Diseases of the heart valves	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours weekly	Understand the concepts & basics	Hemorrhagic diseases	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical hours weekly	Understand the concepts & basics	Anemias	Deliver the lecture with explanation & clarification using power point	Quiz
9	1 theoretical hours weekly	Understand the concepts & basics	Hemolytic anemia	Deliver the lecture with explanation & clarification using power point	Quiz
10	1 theoretical hours weekly	Understand the concepts & basics	Erythrocytosis and polycythemia	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hours weekly	Understand the concepts & basics	Leukemia	Deliver the lecture with explanation & clarification using power	Quiz

				point	
12	1 theoretic al hours weekly	Understand the concepts & basics	Esophagitis	Deliver the lecture with explanation & clarification using power point	Quiz
			Mid- Year Exam.		
13	1 theoretic al hours weekly	Understand the concepts & basics	Acute abdomen	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretic al hours weekly	Understand the concepts & basics	Diabetes mellitus	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretic al hours weekly	Understand the concepts & basics	Tuberculosis	Deliver the lecture with explanation & clarification using power point	Quiz
16	1 theoretic al hours weekly	Understand the concepts & basics	Symptoms of elimentary tract disease	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretic al hours weekly	Understand the concepts & basics	Branchial asthma	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretic al hours weekly	Understand the concepts & basics	Peptic ulcer	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam

19	1 theoretic al hours weekly	Understand the concepts & basics	Jaundice	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretic al hours weekly	Understand the concepts & basics	Diarrhea and constipation	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretic al hours weekly	Understand the concepts & basics	Congestive heart failure	Deliver the lecture with explanation & clarification using power point	Quiz
Total	30		Final Exam.		

<b>11. Infrastructure</b>	
<b>1. Books Required reading:</b>	<b>Dental Management of the Medically Compromised Patient, Ninth Edition, 2018</b>
<b>2. Main references (sources)</b>	
<b>A- Recommended books and references (scientific journals, reports...).</b>	
<b>B-Electronic references, Internet sites...</b>	

## Course Description Form

<b>1. Course Name:</b>
<b>Orthodontic</b>
<b>2. Course Code:</b>
<b>ORT466</b>
<b>3. Semester / Year:</b>
<b>4<sup>th</sup> stage / Annual</b>
<b>4. Description Preparation Date:</b>
<b>2025-2024</b>
<b>5. Available Attendance Forms:</b>
<b>Attendance (Theoretical + lab)</b>
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
<b>90 h (30 Theoretical+ 60 lab)/ 4</b>
<b>7. Course administrator's name (mention all, if more than one name)</b>
<b>Name: Assist. Prof Anas Qahtan</b>
<b>8. Course Objectives</b>
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To understand the basic principles of diagnosing and correcting dental and jaw disorders.</li> <li>To study the types of factors that cause dental and jaw disorders (genetic and environmental).</li> <li>To understand the foundations of tooth and jaw growth and development and their impact on treatment planning.</li> <li>To become familiar with the different types of orthodontic appliances (fixed and removable) and their characteristics.</li> <li>To connect theoretical knowledge with practical skills to plan effective and safe orthodontic treatment.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>To master examination and diagnostic skills to identify occlusion problems and dental and jaw disorders.</li> <li>To be able to take impressions and analyze models to study orthodontic cases.</li> <li>To practice fitting fixed and removable orthodontic appliances accurately and safely.</li> <li>To develop the ability to monitor patient treatment and make necessary adjustments during the treatment period.</li> </ul>



- To enhance hand-eye coordination and precision during practical procedures.

#### Third: Behavioral/Value-Based Objectives

- To adhere to hygiene and safety standards when dealing with patients and orthodontic appliances.
- Developing responsibility, accuracy, and discipline during the implementation of the orthodontic treatment plan.
- Enhancing communication skills with patients and explaining the treatment plan and expected treatment period.
- Appreciating the importance of continuous learning to keep up with the latest methods and technologies in orthodontics.

#### Fourth: Practical/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in orthodontic clinics.
- Being able to select appropriate orthodontic appliances for each case based on accurate diagnosis.
- Supporting clinical decision-making to ensure effective, aesthetic, and functional treatment outcomes.
- Developing skills in patient follow-up and evaluating treatment progress to ensure the success of the orthodontic plan.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles for diagnosing and correcting dental and jaw disorders.
- Use of images, videos, and illustrative diagrams to demonstrate the steps of examination, analysis, and treatment planning.
- Short questions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Laboratory and Clinic (• Training students in clinical examination and diagnosis of dental and jaw disorders. • Practice taking impressions and analyzing models for orthodontic case studies. • Training students in fitting fixed and removable orthodontic appliances and monitoring treatment. • Practical Demonstrations)
- Demonstration of the steps for fitting orthodontic appliances and correcting occlusion before students' practical application.
- Use of educational videos to illustrate common errors and their correction methods.
- Problem-Based Learning)
  - Presentation of real or hypothetical cases requiring occlusion diagnosis and the development of an appropriate treatment plan.
  - Encouraging students to analyze cases and select suitable appliances and techniques for each case.
- Team-Based Learning)
  - Working in groups to discuss orthodontic cases and exchange experiences among students.
  - Enhancing collaboration, critical thinking, and group decision-making skills.

- .

- Clinical Application (1)
- Connecting theoretical knowledge and practical skills to real-life cases in orthodontic clinics.
- Discussing common errors and methods to improve the accuracy of orthodontic treatment and its aesthetic and functional outcomes.

## 10. Course Structure

Week	Hours	Required learning	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Tutorial and slides	Introduction Definition of orthodontics Definition of occlusion, normal occlusion, ideal occlusion and malocclusion Six keys of normal occlusion	Power point lectures	Short exams, Semester, and final Exam
2	1	Tutorial and slides	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	Power point lectures	Short exams, Semester, and final Exam
3	1	Tutorial and slides	Classification of malocclusion a. Angle's classification including division and subdivisions	Power point lectures	Short exams, Semester, and final Exam
4	1	Tutorial and slides	b. molar, canine, incisor classifications c. classification of deciduous and mixed dentitions	Power point lectures	Short exams, Semester, and final Exam
5	1	Tutorial and slides	Growth and development Definitions of growth, development and maturity Stages of development (ovum till birth) Theories of bone growth (cartiligenous, sutural,	Power point lectures	Short exams, Semester, and final Exam
6	1	Tutorial and slides	Definitions of growth site, growth center, displacement, and drift Growth curve and maximum growth spurt	Power point lectures	Short exams, Semester, and final Exam
7	1	Tutorial and slides	Growth and development of hard tissues (cranial base, cranial vault, 8nasomaxillary complex, 9mandible) including p10renatal and postnatal Growth and development	Power point lectures	Short exams, Semester, and final Exam

			of soft tissues (lip, nose, cheek and tongue) including prenatal and postnatal		
8	1	Tutorial and slides	Developmental anomalies Jaw rotation and adaptation	Power point lectures	Short exams, Semester, and final Exam
9	1	Tutorial and slides	Deciduous and permanent dentition Stages of tooth development: Formation, calcification and root completion	Power point lectures	Short exams, Semester, and final Exam
10	1	Tutorial and slides	Tooth eruption (stages and theories) Sequences and timing of eruption	Power point lectures	Short exams, Semester, and final Exam
11	1	Tutorial and slides	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)	Power point lectures	Short exams, Semester, and final Exam
12	1	Tutorial and slides	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)	Power point lectures	Short exams, Semester, and final Exam
13	1	Tutorial and slides	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) .	Power point lectures	Short exams, Semester, and final Exam
14	1	Tutorial and slides	ii. Soft tissue (muscles of face and mastication, muscles of lip and tongue, relation to skeletal factors,	Power point lectures	Short exams, Semester, and final Exam

			abnormalities of orofacial musculature, interference with soft tissue function) iii. Tooth size and arch length relationship (Crowding and spacing) including types		
15	2	Tutorial and slides	b. Local factors: 2 i. Extra-teeth (supernumerary) and missing teeth (hypodontia) ii. Anomalies of tooth size and shape	Power point lectures	Short exams, Semester, and final Exam
16		Tutorial and slides		Power point lectures	Short exams, Semester, and final Exam
17	1	Tutorial and slides	iii. Early loss of deciduous teeth iv. Retained deciduous teeth, delayed eruption of permanent teeth, impacted teeth, ankylosis	Power point lectures	Short exams, Semester, and final Exam
18	1	Tutorial and slides	v. Abnormal eruptive behavior (displacement, transposition) vi. Large frenum (labial and lingual), periodontal diseases	Power point lectures	Short exams, Semester, and final Exam
19	1	Tutorial and slides	vii. Oral habits viii. Dental caries, improper dental restoration	Power point lectures	Short exams, Semester, and final Exam
20	1	Tutorial and slides	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)	Power point lectures	Short exams, Semester, and final Exam
21	1	Tutorial and slides	b. Biomechanics i. Force (application, type, magnitude, duration and direction) ii. Center of resistance and rotation, moment of force and moment of couple.	Power point lectures	Short exams, Semester, and final Exam
22	1	Tutorial and slides	iii. Types of tooth movement iv. Rate of tooth movement and factors affecting it	Power point lectures	Short exams, Semester, and final Exam
23	1	Tutorial and slides	Orthodontic appliances a. Overview: i. passive orthodontic appliances	Power point lectures	Short exams, Semester, and final Exam

			(habit breaker, retainer and space maintainer) ii. active orthodontic appliances (removable, fixed, orthopedic and myofunctional, and combination)		
24	1	Tutorial and slides	b. Removable Orthodontic Appliance: i. Properties of various components (SS wire, acrylic) ii. Components: 1) active components (springs, screws and elastics)	Power point lectures	Short exams, Semester, and final Exam
25	1	Tutorial and slides	2) retentive components (clasps) 3) acrylic base plate and bite planes 4) anchorage	Power point lectures	Short exams, Semester, and final Exam
26	1	Tutorial and slides	iii. Design of a removable orthodontic appliance iv. Construction of a removable orthodontic appliance	Power point lectures	Short exams, Semester, and final Exam
27	1	Tutorial and slides	v. Soldering and welding vi. Post-insertion instructions and guidelines	Power point lectures	Short exams, Semester, and final Exam
28	1	Tutorial and slides	c. Fixed orthodontic appliance: Types, components, advantages, limitation, biomechanics, banding vs. bonding	Power point lectures	Short exams, Semester, and final Exam
29	1	Tutorial and slides	Use of extra-oral anchorage, temporary anchorage devices (TADs), and lingual fixed appliance	Power point lectures	Short exams, Semester, and final Exam
30	1	Tutorial and slides	d. Orthopedic and Myofunctional appliance: Types, components, advantages, limitation, mode of action e. Other active appliances: combination appliances, Invisalign	Power point lectures	Short exams, Semester, and final Exam
	2	Tutorial and slides	f. Retention and retainers 2 Retention (definition, reason, time) Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)		Short exams, Semester, and final Exam

*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 <sup>st</sup> Molar	4
18	Adams' Clasps on Upper Left 1 <sup>st</sup> Molar	4
19	Adams' Clasps on Upper Right 1 <sup>st</sup> Premolar	4
20	Double Adams' Clasps on Upper Right 2 <sup>nd</sup> premolar & 1 <sup>st</sup> 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
<b>Total</b>		<b>120</b>

## Course Description Form

<b>1. Course Name:</b>
Pediatric Dentistry
<b>2. Course Code:</b>
PED449
<b>3. Semester / Year:</b>
4 <sup>th</sup> stage / Annual
<b>4. Description Preparation Date:</b>
15/9/2024
<b>5. Available Attendance Forms:</b>
Attendance (Theoretical)
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
30 hours / one hour per week
<b>7. Course administrator's name (mention all, if more than one name)</b>
Name: lec. Aseel taha Name: assist. Lec. Hella thamer
<b>8. Course Objectives</b>
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To identify the characteristics of the mouth and teeth in children and the different stages of tooth and jaw development.</li> <li>• To study common dental and gum diseases in children, including caries, periodontal disease, and dental malformations.</li> <li>• To understand methods of preventing oral diseases in children, such as fluoride application and dental education.</li> <li>• To learn the basics of diagnosing and treating dental conditions in children, including complex cases.</li> <li>• To study the psychological and communicative principles of interacting with children during treatment to ensure their cooperation and comfort.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To master clinical examination skills in children and detect dental problems in their early stages.</li> </ul>



- To be able to provide preventive treatments, such as applying fluoride and sealants.
  - To practice therapeutic procedures for children, including fillings, extraction of primary teeth, and treatment of early caries.
  - To develop the ability to work safely and effectively with children with special needs.
  - To enhance hand-eye coordination and precision during therapeutic procedures for children.
- Third: Behavioral/Value-Based Objectives
- Adherence to safety and hygiene standards when dealing with children.
  - Development of patience, responsibility, and precision in providing care to children.
  - Enhancement of communication skills with children and parents, explaining the treatment plan and its benefits.
  - Appreciation of the importance of continuous learning to keep up with the latest preventive and treatment methods in pediatric dentistry.

#### Fourth: Applied/Clinical Objectives

- Linking theoretical knowledge and practical skills to clinical application in pediatric dental clinics.
- Ability to select appropriate treatment methods for each child according to their age and dental condition.
- Supporting clinical decision-making to ensure effective and safe treatment while minimizing risks and complications.
- Enhancing skills in following up with children after treatment to evaluate the effectiveness of preventive and therapeutic procedures.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of pediatric dentistry, tooth and jaw development, and common dental diseases in children.
- Use of images, videos, and diagrams to illustrate various cases.

- Short questions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab/Clinic
  - Training students in the clinical examination of children and the detection of early dental problems.
  - Practice in applying fluoride, preventive fillings, and treating early caries.
  - Training students in working with children with special needs and ensuring their safety during treatment.
- Practical Demonstrations
  - Demonstration of how to perform examinations and treatments on children before practical application.
  - Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
  - Presentation of pediatric cases requiring diagnosis and the development of an appropriate treatment plan.
  - Encouraging students to choose the safest and most effective treatment methods.
- Team-Based Learning
  - Working in groups to discuss pediatric dental cases and share experiences.
  - Fostering collaboration, critical thinking, and group decision-making skills. •
- Clinical Application (• Connecting theoretical knowledge and practical skills to real-life cases in pediatric dental clinics. • Discussing common errors and ways to improve treatment accuracy and child comfort during procedures.)

Week	Hours	Required learning outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Eruption of teeth , normal eruption process	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
2	1	Teething and difficult eruption	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
3	1	Eruption haematoma , sequestrum ,ectopic eruption	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
4	1	Epstein pearls, Bohn nodules, Dental lamina cysts, Shedding of the primary teeth, Mechanism of resorption and shedding, Factors causes differences in time of eruption	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
5	1	Systemic (disease) Factors which cause late eruption Deciduous Dentition Period, Ugly Duckling Stage	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
6	1	Morphology of the primary teeth	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
7	1	Normal morphology of	pedodontics	Lecture presentation by	Quizzes, quarterly, mid-year and final

		all primary teeth and their clinical consideration		power point program and educational movies	exams
8	1	Morphological differences between primary and permanent teeth	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
9	1	Functions of primary teeth	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final exams
10	1	Dental caries; Definition and Classification	pedodontics	Lecture presentation by power point program and educational movies	Quizzes, quarterly, mid-year and final Exams

### 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

<b>17</b>	<b>Root canal treatment</b>	<b>2</b>
<b>18</b>	<b>Management of molar incisor hypomineralization MIH</b>	<b>2</b>
<b>19</b>	<b>Behavior management for young patients</b>	<b>2</b>
<b>20</b>	<b>Infection control re-assurance and guidance of students</b>	<b>2</b>
<b>21</b>	<b>Tooth colored restoration technique</b>	<b>2</b>
<b>22</b>	<b>Radiographic prescription and interpretation of results</b>	<b>2</b>
<b>23</b>	<b>Space maintainers</b>	<b>2</b>
<b>24</b>	<b>Fluoride application as a preventive measure</b>	<b>2</b>
<b>25</b>	<b>Cleft lip and palate</b>	<b>2</b>
<b>26</b>	<b>Supernumerary teeth and their impact on teeth eruption</b>	<b>2</b>
<b>27</b>	<b>Management of medically compromised children</b>	<b>2</b>
<b>28</b>	<b>Diagnosis and treatment plan</b>	<b>2</b>
<b>29</b>	<b>ART technique</b>	<b>2</b>
<b>30</b>	<b>Periodontal diseases in children</b>	<b>2</b>
<b>Total</b>		<b>60</b>

## Course Description Form

1. Course Name:
Oral surgery
2. Course Code:
<b>ORS581</b>
3. Semester / Year:
5th 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)/8Units
7. Course administrator's name (mention all, if more than one name)
Assisst Prof.Dr. Mohammed Rahil Asst lec Ahmed Amer
8. Course Objectives
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To understand the anatomy of the mouth, jaw, teeth, and surrounding tissues and their relationship to surgery.</li> <li>To study oral diseases and conditions requiring surgical intervention, such as tooth extraction, tumors, oral malformations, and abscesses.</li> <li>To understand the basic principles of oral surgery, including sterilization techniques, anesthesia, and pain management.</li> <li>To recognize potential complications during and after surgical procedures and how to prevent and manage them.</li> <li>To connect theoretical knowledge with clinical skills to ensure safe and effective surgical decisions.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>To master the skills of surgical patient assessment and preparing an appropriate</li> </ul>

treatment plan.

- To practice simple and complex tooth extraction techniques safely and accurately.
- To master local anesthesia procedures and techniques for controlling bleeding during operations.
- To be able to handle surgical and oral emergencies.
- To enhance hand-eye coordination and precision during surgical procedures.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to hygiene and safety standards during surgical work. • Developing responsibility, precision, and discipline in patient care and surgical procedures.
- Enhancing communication skills with patients and explaining surgical procedures, their risks, and benefits.
- Appreciating the importance of continuous learning to develop surgical skills and stay abreast of the latest technologies.

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#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in dental clinics and surgery.
- Being able to select the appropriate surgical approach for each case to ensure optimal results.
- Supporting accurate clinical decision-making to minimize complications and improve patient recovery.
- Developing skills in post-operative patient follow-up and outcome evaluation to ensure treatment sustainability and enhance the patient experience.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of oral surgery, tooth extraction, and simple and complex surgical procedures.
- Use of images, videos, and illustrative presentations of surgical procedures.

- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab and Clinic
  - Training students to perform simple and complex tooth extractions on models before moving on to patients.
  - Practice of local anesthesia techniques and pain management during surgical procedures.
  - Learning to control bleeding and handle emergencies during surgery.
- Practical Demonstrations
  - Demonstration of the steps of surgical procedures before students apply them practically.
  - Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
  - Presentation of real or hypothetical clinical cases that require diagnosis and the development of an appropriate surgical plan.
  - Encouraging students to analyze cases and make precise surgical decisions.
- Team-Based Learning
  - Working in groups to discuss complex surgical cases and share experiences among students.
  - Fostering collaboration, critical thinking, and group decision-making skills.
- Digital Tools and Simulation
  - Using virtual simulation software to train students in surgical procedures before practical application.
  - Providing electronic resources to keep up with the latest surgical studies and techniques.
- Clinical Connection
  - Linking theoretical knowledge and practical skills to real-life cases in clinics and



surgeries.

- Discussing common errors and ways to improve the accuracy and efficiency of surgical procedures.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	1 theoretical hours	Understand the concepts & basics	Orofacial pain	Deliver the lecture with explanation & clarification using power point	Quiz
2	1 theoretical hours	Understand the concepts & basics	Preliminary management of patients with facial fractures	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical hours	Understand the concepts & basics	Fractures of the mandible	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical hours	Understand the concepts & basics	Fractures of the mandible	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical hours	Understand the concepts & basics	Fractures of the middle third of facial skeleton	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical hours	Understand the concepts & basics	Fractures of the middle third of facial skeleton	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical hours	Understand the concepts & basics	Dentoalveolar and soft tissue injuries	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical hours	Understand the concepts & basics	Preprosthetic surgery	Deliver the lecture with explanation & clarification using power point	1 <sup>st</sup> sem. Exam
9	1 theoretical hours	Understand the concepts & basics	Potentially malignant disorders of the oral mucosa	Deliver the lecture with explanation & clarification using power point	Quiz

10	1 theoretical hours	Understand the concepts & basics	Odontogenic diseases of the maxillary sinus	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical hours	Understand the concepts & basics	Benign cystic lesions of the oral cavity	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical hours	Understand the concepts & basics	Non-odontogenic tumors and fibro-osseous lesions	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical hours	Understand the concepts & basics	Oral cancer	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical hours	Understand the concepts & basics	Oral cancer	Deliver the lecture with explanation & clarification using power point	Quiz
			Mid Term Exam		
16	1 theoretical hours	Understand the concepts & basics	Implant Treatment: Advanced Concepts	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical hours	Understand the concepts & basics	Implant Treatment: Advanced Concepts	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical hours	Understand the concepts & basics	Salivary gland diseases	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical hours	Understand the concepts & basics	Salivary gland diseases	Deliver the lecture with explanation & clarification using power point	Quiz
20	1 theoretical hours	Understand the concepts & basics	Temporomandibular joint (TMJ) disorders	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical hours	Understand the concepts & basics	Temporomandibular joint (TMJ) disorders	Deliver the lecture with explanation & clarification using power point	Quiz

22	1 theoretical hours	Understand the concepts & basics	Orthognathic surgery	Deliver the lecture with explanation & clarification using power point	Quiz
23	1 theoretical hours	Understand the concepts & basics	Orthognathic surgery	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
24	1 theoretical hours	Understand the concepts & basics	Cleft lip and palate	Deliver the lecture with explanation & clarification using power point	Quiz
25	1 theoretical hours	Understand the concepts & basics	Cleft lip and palate	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical hours	Understand the concepts & basics	Laser and Cryosurgery in oral and maxillofacial surgery	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical hours	Understand the concepts & basics	Vascular anomalies	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical hours	Understand the concepts & basics	Principles of reconstructive surgery of defects of the jaws	Deliver the lecture with explanation & clarification using power point	Quiz
29	1 theoretical hours	Understand the concepts & basics	Principles of reconstructive surgery of defects of the jaws	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical hours	Understand the concepts & basics	Vascular anomalies	Deliver the lecture with explanation & clarification using power point	Quiz
Total	30		Final Exam		

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

Practical Part:	
Extraction of teeth (simple extraction)	<b>6 hours/ week</b> <b>180 hours/ year</b>
Surgical extraction of teeth Surgical assistant in minor oral surgery and dental implants	

## Course Description Form

<b>1.Course name</b>
(periodontology)
<b>2.Course code</b>
PER552
<b>3.semester/ year</b>
5th stage / Annual
<b>4.Date of preparation of this description</b>
2024/9/15
<b>5.Available of attendance forms</b>
Lectures and clinics
<b>6.Totl number hours/ Number of credits</b>
120hr. (30 theoretical and 90 clinical)/5 units
<b>7.Name of lecturers</b>
Assist prof. Muhammed Ibrahim Ai Hazeem
Lect. Dr. Hadeel Muhammed Abood

### 8. course objectives

#### First: Cognitive Objectives

- To understand the anatomy and function of the gingiva and supporting tissues (periodontal ligament, alveolar bone, and cementum).
- To study the causes and etiologies of periodontal diseases, including bacterial, genetic, and environmental factors.
- To understand the classification of periodontal diseases and their different clinical patterns (gingivitis, periodontitis, and chronic and acute periodontal diseases).
- To become familiar with modern diagnostic methods for periodontal diseases, including clinical examination, radiography, and laboratory tests.

- To study the treatment principles for periodontal diseases, both conservative and surgical, and their relationship to overall oral and dental health.

#### Second: Skill-Based Objectives

- To master clinical examination skills for the gingiva, measuring the depth of periodontal pockets, and identifying alveolar bone loss.
- To practice periodontal pocket cleaning procedures and treat inflammation using periodontal preservation techniques.
- To be able to perform simple and advanced surgical procedures for treating periodontal diseases when necessary.
- To develop the ability to create an individualized treatment plan for each patient based on the severity of the disease and their clinical needs.

#### Third: Behavioral/Value-Based Objectives

- Adherence to hygiene and safety standards during examination and treatment.
- Development of responsibility, accuracy, and discipline when dealing with patients with periodontal diseases.
- Enhancement of communication skills with patients, explaining the treatment plan and methods for preventing gum deterioration.
- Appreciation of the importance of continuous learning to keep up with the latest therapeutic and diagnostic technologies for periodontal diseases.

#### Fourth: Applied/Clinical Objectives

- Linking theoretical knowledge and practical skills to clinical application in periodontal clinics.
- Ability to diagnose cases and determine an appropriate treatment plan for each case.
- Supporting clinical decision-making to ensure effective and sustainable treatment of the gums and supporting tissues.
- Enhancing skills in post-treatment patient follow-up to assess the gum response to treatment and maintain long-term results.

## 9. Learning and Teaching Strategies

### Interactive Lectures

- Presentation of the theoretical principles for the diagnosis and treatment of periodontal diseases.
- Use of images, videos, and illustrative presentations of various clinical cases.
- Inclusion of short questions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab/Clinic
  - Training students in clinical examination of the periodontium, measuring the depth of periodontal pockets, and identifying alveolar bone loss.
  - Practice of periodontal pocket cleaning procedures and treatment of inflammation using periodontal preservation techniques.
  - Training students to perform simple and advanced surgical procedures when needed.
- Practical Demonstrations
  - Demonstration of examination and treatment steps before practical application by students.
  - Use of instructional videos to illustrate common errors and their correction.
- Problem-Based Learning

- Presentation of real or hypothetical cases requiring diagnosis and the development of an appropriate treatment plan.
  - Encouraging students to select the most suitable treatment procedures for each case.
  - Team-Based Learning
  - Working in groups to discuss clinical cases and share experiences among students.
  - Fostering collaboration, critical thinking, and group decision-making skills.
- Clinical Application
- Connecting theoretical knowledge and practical skills to real-life cases in periodontal clinics.
  - Discussing common errors and methods to improve treatment accuracy and long-term outcomes.

#### Assessment methods

- 1- Quizzes, 1<sup>st</sup> & 2<sup>nd</sup> semester, mid-year and final theoretical exams.
- 2- Practical tests
- 3- Scientific discussion during the theoretical lesson and during the practical part of the course.

#### C. Affective and value goals

- C1. The student's awareness of the importance of this specialization in community service.
- C 2- Creating a spirit of cooperation with his colleagues and working as a team.
- C 3- Motivating the student towards positive trends that make him a dentist in a state of continuous development
- C4 - prompting him to participate in conferences and training through workshops.

#### Teaching and Learning Methods



- Interactive lectures by stimulating scientific discussion between teachers and students.
- The use of scientific analysis, which is the head of the pyramid of knowledge.
- Use of illustrations.
- Motivating self-learning by reviewing the library, reviewing source books, and using the Internet to expand information.

#### Assessment methods

1. Panel discussions
2. Oral exams
3. Practical tests

D. General and rehabilitative transferred skills(other skills relevant to employability and personal development)

D1. Skills of reading books and recent research related to the general specialty of dentistry, and the subspecialty of periodontology and how to elicit and extrapolate the information presented

#### Teaching and Learning Methods

1. Conducting the practical side and attending workshops.
2. Participation as a member or researcher in scientific conferences held in his college or in a wider scope.

#### Assessment methods

1. Certificate of participation to attend seminars, conferences and workshops.
2. Evaluation of the discussion committees for the completed research.

10. Course Structure		Theoretical part			
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Understand	Periodontal	Deliver the lecture	Quiz

	theoretical 1 hour	the concepts & basics	examination and diagnosis - Overall appraisal of the patient - Medical history - Dental history	with explanation & clarification using power point	
2	1 theoretical 1 hour	Understand the concepts & basics	Bone loss and patterns of bone destruction	Deliver the lecture with explanation & clarification using power point	Quiz
3	1 theoretical 1 hour	Understand the concepts & basics	Radiographic aids in the diagnosis of periodontal disease	Deliver the lecture with explanation & clarification using power point	Quiz
4	1 theoretical 1 hour	Understand the concepts & basics	Advanced diagnosis	Deliver the lecture with explanation & clarification using power point	Quiz
5	1 theoretical 1 hour	Understand the concepts & basics	Periodontal response to external forces	Deliver the lecture with explanation & clarification using power point	Quiz
6	1 theoretical 1 hour	Understand the concepts & basics	Immunology Innate immunity	Deliver the lecture with explanation & clarification using power point	Quiz
7	1 theoretical 1 hour	Understand the concepts & basics	Immunology - Adaptive immunity	Deliver the lecture with explanation & clarification using power point	Quiz
8	1 theoretical 1 hour	Understand the concepts & basics	Tooth mobility	Deliver the lecture with explanation & clarification using power point	<b>1<sup>st</sup> sem. Exam</b>
9	1 theoretical 1 hour	Understand the concepts & basics	Epidemiology of periodontal diseases	Deliver the lecture with explanation & clarification using power point	Quiz

10	1 theoretical 1 hour	Understand the concepts & basics	Determination of prognosis	Deliver the lecture with explanation & clarification using power point	Quiz
11	1 theoretical 1 hour	Understand the concepts & basics	Interrelationships of periodontal disease and therapy with other dental disciplines	Deliver the lecture with explanation & clarification using power point	Quiz
12	1 theoretical 1 hour	Understand the concepts & basics	Periodontal surgery. General principles	Deliver the lecture with explanation & clarification using power point	Quiz
13	1 theoretical 1 hour	Understand the concepts & basics	Sonic and ultrasonic instrumentation and irrigation	Deliver the lecture with explanation & clarification using power point	Quiz
14	1 theoretical 1 hour	Understand the concepts & basics	Gingivectomy and local excision	Deliver the lecture with explanation & clarification using power point	Quiz
15	1 theoretical 1 hour	Understand the concepts & basics	Flap surgery	Deliver the lecture with explanation & clarification using power point	Quiz
			<b>Mid Term Exam</b>		
16	1 theoretical 1 hour	Understand the concepts & basics	Mucogingival and aesthetic surgery	Deliver the lecture with explanation & clarification using power point	Quiz
17	1 theoretical 1 hour	Understand the concepts & basics	Furcation: involvement and treatment	Deliver the lecture with explanation & clarification using power point	Quiz
18	1 theoretical 1 hour	Understand the concepts & basics	Laser therapy	Deliver the lecture with explanation & clarification using power point	Quiz
19	1 theoretical	Understand the	Locally delivered, controlled-release	Deliver the lecture with explanation &	Quiz

	1 hour	concepts & basics	antimicrobials	clarification using power point	
20	1 theoretical 1 hour	Understand the concepts & basics	Management of medically compromised patients	Deliver the lecture with explanation & clarification using power point	Quiz
21	1 theoretical 1 hour	Understand the concepts & basics	Management of medically compromised patients	Deliver the lecture with explanation & clarification using power point	Quiz
22	1 theoretical 1 hour	Understand the concepts & basics	Gingival crevicular fluid (GCF)	Deliver the lecture with explanation & clarification using power point	Quiz
23	1 theoretical 1 hour	Understand the concepts & basics	Dentin hypersensitivity 605.e1	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
24	1 theoretical 1 hour	Understand the concepts & basics	Tissue regeneration. General principles Periodontal Wound Healing	Deliver the lecture with explanation & clarification using power point	
25	1 theoretical 1 hour	Understand the concepts & basics	Regenerative periodontal therapy	Deliver the lecture with explanation & clarification using power point	Quiz
26	1 theoretical 1 hour	Understand the concepts & basics	Reconstructive surgical techniques	Deliver the lecture with explanation & clarification using power point	Quiz
27	1 theoretical 1 hour	Understand the concepts & basics	Advanced regenerative approaches	Deliver the lecture with explanation & clarification using power point	Quiz
28	1 theoretical 1 hour	Understand the concepts & basics	Oral implantology	Deliver the lecture with explanation & clarification using power point	Quiz

29	1 theoretical 1 hour	Understand the concepts & basics	Oral implantology	Deliver the lecture with explanation & clarification using power point	Quiz
30	1 theoretical 1 hour	Understand the concepts & basics	Oral implantology Supportive implant treatment	Deliver the lecture with explanation & clarification using power point	Quiz
Total	30		<b>Final Exam</b>		

### Course Structure (Clinical requirement)

Credit hours required	Details
<b>3 h/week (90 h/year)</b>	<p><b>Clinical</b></p> <p>Recording medical and dental history</p> <ul style="list-style-type: none"> <li>-Patient's education and motivation</li> <li>-Oral hygiene instructions (OHI)</li> </ul> <p>Recording periodontal indices</p> <ul style="list-style-type: none"> <li>Bleeding on probing (BOP)</li> <li>Plaque index (% of plaque)</li> <li>Probing pocket depth (PPD)</li> <li>Clinical attachment loss (CAL)</li> <li>-For periodontitis cases, determination of bone loss level by radiograph or clinically</li> <li>-Diagnosis according to classification of periodontal disease and conditions (2017)</li> <li>-Non-surgical periodontal therapy (manual/ultrasonic scaling, root planing) and removal of all plaque retentive factors</li> <li>-Referral of cases that potentially requiring surgical therapy</li> <li>-Maintenance and follow-up after 3 months</li> </ul> <p><b>Requirements</b></p>

	-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)
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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

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	
8. Course Objectives	
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To identify the different types of prosthetic teeth (fixed, removable, partial, and complete) and their design principles.</li> <li>• To understand the properties of materials used in dental fabrication, such as metals, resins, ceramics, and various composites.</li> <li>• To study the steps involved in prosthetic tooth fabrication, from taking impressions to final fitting.</li> <li>• To understand the biomechanical principles of force distribution during chewing and how these affect the design of prosthetic teeth.</li> <li>• To connect theoretical knowledge with practical skills to ensure the accuracy and effectiveness of prosthetic products.</li> </ul> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To master impression-taking and dental model-making skills with high accuracy.</li> <li>• To design and fabricate crowns, bridges, and partial and complete dentures.</li> <li>• To practice different dental material processing techniques to achieve optimal results in both form and function.</li> <li>• To develop the ability to finalize prosthetic teeth and ensure their proper fit to the mouth.</li> <li>• To enhance hand-eye coordination and precision while applying laboratory and practical techniques.</li> </ul> <p>Third: Behavioral/Value-Based Objectives</p> <ul style="list-style-type: none"> <li>• Adherence to hygiene and safety standards when handling laboratory materials and equipment.</li> </ul>	



- Development of responsibility, accuracy, and discipline during the fabrication and fitting of prosthetic teeth.
- Enhancement of communication skills with the patient to explain the fitting process and select the appropriate design.
- Appreciation of the importance of continuous learning to keep up with the latest materials and technologies in dentistry.

## 9. Teaching and Learning Strategies

- Interactive Lectures
- Introduction to the theoretical principles of prosthodontics, materials used, and types of prostheses.
- Use of images, videos, and illustrative presentations to demonstrate the steps involved in fabricating crowns, bridges, and dentures.
- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Practical Laboratory Training
- Training students to take impressions and prepare dental models with high accuracy.
- Practical design and fabrication of crowns, bridges, and partial and complete dentures using various materials.
- Development of the ability to manipulate dental materials to achieve optimal results in both form and function.
- Practical Demonstrations
- Demonstration of the steps involved in designing and fabricating prostheses before students apply them practically.
- Use of instructional videos to illustrate common errors and their correction.
- Problem-Based Learning
- Presentation of real or hypothetical clinical cases requiring the design of appropriate prostheses.
- Encouraging students to select the appropriate materials and techniques for each case to achieve the best results.

- Team-Based Learning
- Working in groups to analyze and design prosthesis solutions for various clinical situations.
- Enhancing teamwork and collective decision-making skills.
- Clinical Application
- Connecting theoretical knowledge and practical skills to clinical application in dental clinics.
- Discussing common errors and methods to improve the accuracy and design of prosthetic teeth to ensure effective and aesthetic results.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1hour theoretical 2hour practical		<b>Occlusion in Complete Denture</b>	Lecture / ppt	Questions and discussion
2	1hour theoretical 2hour practical		<b>Occlusion in Complete Denture (Continue)</b>	Lecture / ppt	Questions and discussion
3	1hour theoretical 2hour practical		<b>Retention, Stability and Support</b>	Lecture / ppt	Questions and discussion
4	1hour theoretical 2hour practical		<b>Retention, Stability and Support (Continue)</b>	Lecture / ppt	Questions and discussion
5	1hour theoretical 2hour practical		<b>Post Insertion Problems</b>	Lecture / ppt	Questions and discussion
5	1hour theoretical		<b>Post Insertion Problems (Continue)</b>	Lecture / ppt	Questions and discussion

	2hour practical				
7	1hour theoretical 2hour practical		<b>Complications Of Complete Denture</b>	Lecture / ppt	Questions and discussion
8	1hour theoretical 2hour practical		<b>Complications Of Complete Denture (Continue)</b>	Lecture / ppt	Questions and discussion
9	1hour theoretical 2hour practical		<b>Immediate Denture</b>	Lecture / ppt	Questions and discussion
10	1hour theoretical 2hour practical		<b>Immediate Denture (Continue)</b>	Lecture / ppt	Questions and discussion
11	1hour theoretical 2hour practical		<b>Classification system for completely edentulous patients</b>	Lecture / ppt	Questions and discussion
12	1hour theoretical 2hour practical		<b>Classification system for completely edentulous patients (Continue)</b>	Lecture / ppt	Questions and discussion
13	1hour theoretical 2hour practical		<b>Posterior palatal seal area</b>	Lecture / ppt	Questions and discussion
14	1hour theoretical 2hour practical		<b>Single CD</b>	Lecture / ppt	Questions and discussion
15	1hour theoretical 2hour practical		<b>Single CD (Continue)</b>	Lecture / ppt	Questions and discussion
16			<b>Geriatric dentistry</b>		
17			<b>Maxillofacial Prosthesis</b>		
18	1hour theoretical 2hour practical		<b>Maxillofacial Prosthesis (Continue)</b>	Lecture / ppt	Questions and discussion
19	1hour theoretical 2hour		<b>Residual Ridge resorption</b>	Lecture / ppt	Questions and discussion

	practical				
20	1hour theoretical 2hour practical		<b>Residual Ridge resorption (Continue)</b>	Lecture / ppt	Questions and discussion
21	1hour theoretical 2hour practical		<b>Dental implantology</b>	Lecture / ppt	Questions and discussion
22	1hour theoretical 2hour practical		<b>Dental implantology (Continue)</b>	Lecture / ppt	Questions and discussion
23	1hour theoretical 2hour practical		<b>Esthetics in CD</b>	Lecture / ppt	Questions and discussion
24	1hour theoretical 2hour practical		<b>Characteristics Of Ideal Materials For Dental Implant</b>	Lecture / ppt	Questions and discussion
25	1hour theoretical 2hour practical		<b>Copy denture</b>	Lecture / ppt	Questions and discussion
26	1hour theoretical 2hour practical		<b>Over Denture</b>	Lecture / ppt	Questions and discussion
27	1hour theoretical 2hour practical		<b>Over Denture (Continue)</b>	Lecture / ppt	Questions and discussion
28	1hour theoretical 2hour practical		<b>Neutral zone in CD</b>	Lecture / ppt	Questions and discussion
29	1hour theoretical 2hour practical		<b>Attachments in over denture</b>	Lecture / ppt	Questions and discussion
30	1hour theoretical 2hour practical		<b>Attachments in over denture (Continue)</b>	Lecture / ppt	Questions and discussion

#### 11. Infrastructure

<b>1. Books Required reading:</b>	<b>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.</b> <b>2. Golden and Driscoll. “Treating the complete denture patient” 1st edition 2020 John Wiley &amp; Sons, Inc.</b> <b>3. Rahn, Ivanhoe and Plummer. “Textbook of complete dentures” 6th edition 2009 People’s Medical Publishing House-USA.</b>
<b>2. Main references (sources)</b>	<b>Articles</b>
<b>B-Electronic references, Internet sites...</b>	<b>Google scholar and you tube</b>
<b>12. The development of the curriculum plan</b>	
<b>It will be replaced, added and deleted to develop the academic scientific content</b>	

## Course Description Form

<b>1. Course Name:</b>	Conservative Dentistry
<b>2. Course Code:</b>	CND588
<b>3. Semester / Year:</b>	5th stage / Annual
<b>4. Description Preparation Date:</b>	15/ 9/ 2024
<b>5. Available Attendance Forms:</b>	Attendance (Theoretical+ clinic)
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>	210 h( 30 Theoretical + 120 clinic) /8 Units
<b>7. Course administrator's name (mention all, if more than one name)</b>	Pro. Dr. Huda Abass Lec.Dr. Ahmad Ibrahem Lec. Saif Saad

## 8. Course Objectives

### First: Cognitive Objectives

- To understand the principles of diagnosing various dental conditions, including caries and hard tissue diseases.
- To study the properties of materials used in dental treatment, such as metal fillings, resin composites, and ceramics.
- To understand drilling and preparation techniques for obtaining effective and safe fillings.
- To learn about methods of prevention and early treatment of caries and other hard tissue diseases.
- To connect theoretical knowledge with practical skills to ensure accurate and effective treatment decisions.

### Second: Skill-Based Objectives

- To master dental examination skills and detect caries and hard tissue diseases in their early stages.
- To be able to accurately prepare tooth cavities for the use of various fillings.
- To practice applying permanent and temporary fillings, polishing techniques, and final treatments.
- To develop the ability to handle complex cases and determine the appropriate materials and techniques for each case.
- To enhance hand-eye coordination and precision during treatment procedures.

### Third: Behavioral/Value-Based Objectives

- Adherence to hygiene and safety standards when dealing with patients and materials.
- Development of responsibility, accuracy, and discipline during dental treatment.
- Enhancement of communication skills with patients and explaining the treatment plan and its benefits.
- Appreciation of the importance of continuous learning to keep up with the latest

materials and techniques in dental treatment.

#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in dental clinics.
- Ability to select appropriate materials and techniques for each case to ensure the best functional and aesthetic results.
- Support for accurate clinical decision-making to minimize complications and improve treatment effectiveness.
- Enhancement of post-treatment patient follow-up skills to assess the tooth's response to the filling and ensure the longevity of the results.

### 9. Teaching and Learning Strategies

#### Interactive Lectures

- Presentation of the theoretical principles of diagnosing and treating teeth and hard tissue diseases.

- Use of images, videos, and illustrative presentations of various preparation and filling procedures.

- Short Q&A sessions and discussions to reinforce the connection between theory and practice.

#### • Practical Training in the Lab and Clinic

- Training students in dental examination and the detection of caries and hard tissue diseases in their early stages.

- Practical application of cavity preparation and the application of permanent and temporary fillings.

- Training students in polishing and finishing techniques to ensure the quality of fillings.

#### • Practical Demonstrations

- Demonstration of preparation and filling procedures before practical application by students.

- Use of educational videos to illustrate common errors and their correction.

- Problem-Based Learning
- Presentation of real or hypothetical clinical cases requiring diagnosis and selection of an appropriate treatment plan.
- Encouraging students to choose the appropriate materials and techniques for each case to ensure optimal results.
- Team-Based Learning
- Working in groups to discuss complex dental cases and share experiences. • Enhancing collaboration, critical thinking, and group decision-making skills.
- Digital tools and simulations
- Using simulation software to train students in preparing and applying fillings before interacting with patients.
- Providing online resources for studying the latest materials and treatment techniques.
- Clinical application
- Connecting theoretical knowledge and practical skills to real-life cases in dental clinics.
- Discussing common errors and methods for improving the accuracy of filling preparation and application.

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
	2 theoretical hours weekly				
1	2 theoretical hours weekly	Understand the concepts & basics	Terminology, definition of fixed partial denture , Effect of Tooth Loss, Comparism with R.P.D	Deliver the lecture with explanation & clarification using power point	Quiz
2	2 theoretical hours weekly	Understand the concepts & basics	Types of Fixed Bridge including Basic Bridge Design	Deliver the lecture with explanation & clarification using power point	Quiz



3	2 theoretic al hours weekly	Understand the concepts & basics	Components of Fixed Bridge; ♦ Retainers.--- -----	Deliver the lecture with explanation & clarification using power point	Quiz
4	2 theoretic al hours weekly	Understand the concepts & basics	Components of Fixed Bridge; ♦ Pontics ♦ Connectors.-----	Lecture using power point	1 <sup>st</sup> Sem. Exam.
5	2 theoretic al hours weekly	Understand the concepts & basics	♦ Clinical Consideration for Bridge Construction.- _Abutment Tooth(evaluation and selection) _Crown/Root Ratio. _Splinting of teeth. _Patient Occlusal Status. _General Factors	Deliver the lecture with explanation & clarification using power point	Quiz
6	2 theoretic al hours weekly	Understand the concepts & basics	♦ Clinical Situations affecting Bridge Design; ♦ (Post. Tilted Abutments, Span Length, Pier Abut., Arch curvature	Deliver the lecture with explanation & clarification using power point	Quiz
7	2 theoretic al hours weekly	Understand the concepts & basics	Resin bonded bridge	Deliver the lecture with explanation & clarification using power point	Quiz
8	2 theoretic al hours weekly		♦ Diagnosis And Treatment Plan. a. Intra-oral Examination. b. X-Rays Examination. c. Diagnostic Cast Examination	Deliver the lecture with explanation & clarification using power point	Quiz
9	2 theoretic al hours weekly	Understand the concepts & basics	♦ Gingival retraction and impression(techniques) and impression disinfection	Deliver the lecture with explanation & clarification using power point	Quiz
10	2 theoretic al hours	Understand the concepts & basics	♦ provisional Restoration , Occlusion and Aesthetics (Principles of occlusion	Deliver the lecture with explanation & clarification	Quiz

	weekly		occlusal plane, Anterior guidance) Bite Registration, and Articulation	using power point	
11	2 theoretic hours weekly	Understand the concepts & basics	provisional Restoration , Oclusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	Deliver the lecture with explanation & clarification using power point	Quiz
12	2 theoretic hours weekly	Understand the concepts & basics	♦ Try-in and Shade Selection ( Colour dimensions Hue,Chroma,and Value)	Deliver the lecture with explanation & clarification using power point	Quiz
13	2 theoretic hours weekly	Understand the concepts & basics	♦ Final Cementation of F.P.Ds.( Techniques)	Deliver the lecture with explanation & clarification using power point	Quiz
14	2 theoretic hours weekly	Understand the concepts & basics	♦ Failure in Fixed Prosthodontics.	Deliver the lecture with explanation & clarification using power point	Quiz
15	2 theoretic hours weekly	Understand the concepts & basics	Porcelain in Fixed Prosthodontics (Current Ceramic ).	Deliver the lecture with explanation & clarification using power point	Quiz
	2 theoretic hours weekly	Understand the concepts & basics	امتحان نصف السنة	Deliver the lecture with explanation & clarification using power point	Quiz
16	2 theoretic hours weekly	Understand the concepts & basics	Endodontic diagnosis	Deliver the lecture with explanation & clarification using power point	Quiz

17	2 theoretic al hours weekly	Understand the concepts & basics	Pain control in Endodontic	Deliver the lecture with explanation & clarification using power point	Quiz
18	2 theoretic al hours weekly	Understand the concepts & basics	Endodontic radiography	Deliver the lecture with explanation & clarification using power point	Quiz
19	2 theoretic al hours weekly	Understand the concepts & basics	Working length determination	Deliver the lecture with explanation & clarification using power point	Quiz
20	2 theoretic al hours weekly	Understand the concepts & basics	Microbiology	Deliver the lecture with explanation & clarification using power point	Quiz
21	2 theoretic al hours weekly	Understand the concepts & basics	Microbiology	Deliver the lecture with explanation & clarification using power point	Quiz
22	2 theoretic al hours weekly	Understand the concepts & basics	Intracanal instruments	Deliver the lecture with explanation & clarification using power point	Quiz
23	2 theoretic al hours weekly	Understand the concepts & basics	Intracanal instruments .	Deliver the lecture with explanation & clarification using power point	Quiz
24	2 theoretic al hours weekly	Understand the concepts & basics	Obturation of the root canal system	Deliver the lecture with explanation & clarification using power point	Quiz

25	2 theoretic al hours weekly	Understand the concepts & basics	Obturation of the root canal system	Deliver the lecture with explanation & clarification using power point	Quiz
26	2 theoretic al hours weekly	Understand the concepts & basics	Endodontic Emergency Treatment	Deliver the lecture with explanation & clarification using power point	Quiz
27	2 theoretic al hours weekly	Understand the concepts & basics	Restoration of Endodontically Treated Teeth	Deliver the lecture with explanation & clarification using power point	Quiz
28	2 theoretic al hours weekly	Understand the concepts & basics	Endodontic-Periodontal Relations	Deliver the lecture with explanation & clarification using power point	Quiz
29	2 theoretic al hours weekly	Understand the concepts & basics	Tooth discoloration and bleaching.	Deliver the lecture with explanation & clarification using power point	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

<b>1. Course Name:</b>
<b>Preventive Dentistry</b>
<b>2. Course Code:</b>
<b>PVD554</b>
<b>3. Semester / Year:</b>
<b>5th stage / Annual</b>
<b>4. Description Preparation Date:</b>
<b>2025-2024</b>
<b>5. Available Attendance Forms:</b>
<b>Attendance (Theoretical + lab)</b>
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
<b>120 hours / 5 units</b>
<b>7. Course administrator's name (mention all, if more than one name)</b>
<b>Name: Ass. Prof Azhar Ammash Hussein</b> <b>lecturer Hind Thyab Hamid</b> <b>Assist lecturer Sohab Quis</b>
<b>8. Course Objectives</b>
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the fundamentals of preventive dentistry and its importance in maintaining oral and dental health.</li> <li>• To study the factors that lead to dental and gum diseases and methods of prevention.</li> <li>• To understand primary, secondary, and tertiary prevention strategies, such as education, fluoride application, and groove sealing.</li> <li>• To learn the scientific principles of health education for children, adults, and parents.</li> <li>• To study methods for assessing oral and dental health and measuring the effectiveness of preventive programs.</li> </ul> <hr/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To master oral and dental examination skills for the early detection of caries and gum disease.</li> </ul>

- To practice preventive procedures such as fluoride application and sealants.
- To develop the ability to design and implement individual and group preventive programs.
- To work with children and people with special needs using appropriate preventive methods.
- To enhance hand-eye coordination and precision during practical preventive procedures.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to hygiene and safety standards while performing preventive procedures.
- Developing responsibility, discipline, and dedication to preventive work to protect patients' health.
- Enhancing communication skills with patients and parents to explain the importance of prevention and methods for maintaining oral health.
- Appreciating the importance of continuous learning to keep up with the latest preventive initiatives and methods.

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#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in preventive dentistry clinics.
- The ability to design effective preventive programs for each patient according to their age and health condition.
- Supporting clinical decision-making to reduce the prevalence of caries and periodontal disease.
- Enhancing patient follow-up skills to assess adherence to preventive measures and their long-term effectiveness.

### 9. Teaching and Learning Strategies

#### 1. Interactive Lectures

- o Presenting the theoretical principles of preventive dentistry and the importance of maintaining oral and dental health.

- o Using images, videos, and illustrative presentations of various preventive procedures.
  - o Facilitating short questions and discussions to reinforce the connection between theory and practice.
2. Practical Training in the Laboratory and Clinic
- o Training students in clinical examination for the early detection of caries and periodontal disease.
  - o Practical application of fluoride and preventive sealants on patients or training models.
  - o Training students in designing and implementing individual and group preventive programs.
3. Practical Demonstrations
- o Demonstrating the steps of preventive procedures before students apply them practically.
  - o Using educational videos to illustrate common errors and how to correct them.
4. Problem-Based Learning
- o Presenting real or hypothetical cases that require selecting the appropriate preventive procedures for each patient.
  - o Encouraging students to analyze the results and determine the most suitable prevention strategy.
5. Team-Based Learning
- o Working in groups to discuss complex preventive cases and share experiences. • Enhancing collaboration, critical thinking, and group decision-making skills.
6. Digital Tools and Simulation
- Using simulation software to train students in fluoride application and preventive fillings before interacting with patients.
  - Providing electronic resources for studying the latest preventive principles and procedures.
7. Clinical Application
- Connecting theoretical knowledge and practical skills to real-world application in preventive dentistry clinics.

- Discussing common errors and ways to improve the effectiveness of preventive programs and patient satisfaction.



10. Course structure					
Evaluation method	Teaching method	Module / course or topic name	Theoretical contents	hour	week
Quizzes half year and final written examination	lecture using power point program	prevention	<p><b>Prevention of oral diseases (introduction)</b></p> <ul style="list-style-type: none"> <li>• What is preventive dentistry?</li> <li>• prevention is better than a cure</li> <li>• Is preventive dentistry still needed?</li> <li>• Levels of prevention</li> <li>• Caries prevention: how far it had come in one century!</li> </ul>	1	1
Quizzes half year and final written examination	lecture using power point program	prevention	<p><b>Dental caries development</b></p> <ul style="list-style-type: none"> <li>• Etiology of dental caries</li> <li>• Inorganic and organic components of tooth</li> <li>• Terminology of dental caries</li> <li>• Dynamics Process of De-/Remineralization</li> <li>• The development of a carious lesion</li> <li>• Root caries</li> <li>• Clinical appearance of root caries</li> <li>• Classification of root caries</li> </ul>	1	2
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p><b>Diagnosis of dental caries</b></p> <ul style="list-style-type: none"> <li>• Detection systems of caries</li> <li>• visual and tactile examinations</li> <li>• Radiographic techniques</li> <li>• Electrical current measurement (electronic resistant method)</li> <li>• Fiber Optic Transillumination (FOTI and DiFOTI) (Enhanced visual techniques)</li> <li>• Fluorescent techniques</li> <li>• Other techniques like Dyes, Ultrasound techniques, Photo-thermal Radiometry (PTR).</li> </ul>	1	3
Quizzes mid-term	lecture	prevention	<b>Fluoride in Dentistry</b>	1	4

and final written examination	using power point program		<ul style="list-style-type: none"> <li>● Introduction</li> <li>● Fluoride in Environment</li> <li>● Fluoride Metabolism (Absorption, Distribution and Excretion of Fluoride in the Body).</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Fluorides in prevention and controlling dental caries</p> <ul style="list-style-type: none"> <li>● Mechanism of action</li> <li>● Fluoride's effect on tooth mineral</li> <li>● Fluoride effect on plaque and bacterial metabolism</li> </ul>	1	5
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Topical fluoride therapy Professionally applied fluoride</p> <ul style="list-style-type: none"> <li>● Introduction</li> <li>● Advantages and disadvantages of topical fluoride application</li> <li>● Fluoride Compounds</li> <li>● Classification of Professionally applied fluoride.</li> </ul>	1	6
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Topical fluoride therapy :Self-applied fluoride</p> <ul style="list-style-type: none"> <li>● Requisites for self-applied fluoride agents</li> <li>● Fluoride dentifrices and Mechanism of Action</li> <li>● Fluoride mouth rinses, Indications and Recommendations.</li> </ul>	1	7
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Safety and toxicity of fluoride</p> <ul style="list-style-type: none"> <li>● Fluoride Toxicity</li> <li>● Factors influencing acute toxicity</li> <li>● Management of acute toxicity</li> <li>● Recommendations for parents</li> <li>● Chronic Toxicity( Dental fluorosis and bone fluorosis)</li> </ul>	1	8
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Dental sealants</p> <ul style="list-style-type: none"> <li>● definition</li> <li>● History</li> <li>● indication and contraindication</li> <li>● sealant in adult</li> <li>● Ideal sealants materials</li> <li>● Requisites for Sealant</li> </ul>	1	9

			<b>Retention</b> <ul style="list-style-type: none"> <li>● Sealant Placement Guidelines</li> <li>● Fluoride-Releasing Sealants</li> <li>● Glass ionomer sealants</li> <li>● Colored Versus Clear Sealants</li> <li>● Sealants for proximal enamel surfaces</li> <li>● Sealing over caries lesions</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	<b>New approach in restorative dentistry</b> <ul style="list-style-type: none"> <li>● Minimally Invasive Treatment Technique</li> <li>● Minimally Invasive Cavity Preparation</li> <li>● Non-machinery Preparation</li> <li>● LASER</li> <li>● Chemo mechanical Caries Removal</li> <li>● Preventive Resin Restorations</li> <li>● Remineralization Treatment</li> </ul>	1	10
Quizzes mid-term and final written examination	lecture using power point program	prevention	<b>Microbiology of dental caries</b> <ul style="list-style-type: none"> <li>● Microbial ecology in the oral cavity</li> <li>● Acquisition of the resident oral microflora</li> <li>● Site distribution of oral bacteria</li> <li>● Ecological factors affecting the growth and metabolism of oral bacteria</li> <li>● Dental biofilms: development, structure, composition and properties</li> <li>● Development of dental biofilms</li> <li>● Pellicle formation</li> <li>● Microbial colonization</li> <li>● Initial microbial colonization</li> <li>● Microbial succession</li> <li>● Microbial composition of the climax community (mature biofilm)<sup>[1][2][3][4][5][6][7][8][9][10][11][12][13][14][15][16][17][18][19][20][21][22][23][24][25][26][27][28][29][30][31][32][33][34][35][36][37][38][39][40][41][42][43][44][45][46][47][48][49][50][51][52][53][54][55][56][57][58][59][60][61][62][63][64][65][66][67][68][69][70][71][72][73][74][75][76][77][78][79][80][81][82][83][84][85][86][87][88][89][90][91][92][93][94][95][96][97][98][99][100]</sup></li> <li>● Virulence of microorganisms</li> </ul>	1	11

			<ul style="list-style-type: none"> <li>● Major dental caries-associated bacteria</li> <li>● Other caries-associated bacteria</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Saliva and host defense mechanism</p> <ul style="list-style-type: none"> <li>● Function of saliva</li> <li>● Composition of saliva</li> <li>● Salivary flow rate</li> <li>● Influence of saliva on dental caries</li> <li>● Oral immune system</li> <li>● Non-specific immune factors</li> <li>● Specific immune factors</li> <li>● Immunization of dental caries</li> </ul>	1	12
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Caries risk assessment</p> <ul style="list-style-type: none"> <li>● Goals of Caries Risk Assessment</li> <li>● Caries Disease Indicators</li> <li>● Caries Risk Factors</li> <li>● Caries Protective Factors</li> <li>● Factors in Low, Moderate and High Caries</li> <li>● Cariogram</li> </ul>	1	13
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>infection control</p> <ul style="list-style-type: none"> <li>● Transmission of infection</li> <li>● Standard precautions</li> <li>● Components of infection control</li> <li>● Treatment room features</li> <li>● Single use disposable instruments</li> <li>● Biomedical waste management</li> </ul>	1	14
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p>Oral hygiene measures (Mechanical)</p> <ul style="list-style-type: none"> <li>● Acquired pellicle</li> <li>● Dental plaque</li> <li>● Dental calculus</li> <li>● Mechanical plaque control aids</li> <li>● Toothbrushes</li> <li>● Tooth brushing methods</li> <li>● Powered toothbrush</li> <li>● Objectives of toothbrushing</li> <li>● Interdental Cleaning aids</li> <li>● Dental floss</li> <li>● Wooden tips</li> </ul>	1	15

			<ul style="list-style-type: none"> <li>• Interdental brushes</li> <li>• Miswak</li> <li>• Oral irrigation devices</li> <li>• Gingival massage</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p><b>Oral hygiene measures (Chemical)</b></p> <ul style="list-style-type: none"> <li>• Ideal properties of chemical plaque control agents</li> <li>• Modes of action</li> <li>• Chlorhexidine</li> <li>• Triclosan</li> <li>• Essential oil mouthwashes or Listerine</li> <li>• Enzymes</li> <li>• Sanguinarine extracts</li> <li>• Metal ions</li> <li>• Antibiotics</li> <li>• Dentifrices</li> <li>• Composition of dentifrices</li> </ul>	1	16
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p><b>Diet and dental caries</b></p> <ul style="list-style-type: none"> <li>• Role of carbohydrates in caries development</li> <li>• Evidences</li> <li>• Factors affecting food cariogenicity</li> <li>• Physical form of food and clearance time</li> <li>• Types of fermentable carbohydrate</li> <li>• The basic Stephan curve</li> <li>• Frequency of intake sugar and dental caries</li> </ul>	1	17
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p><b>Non- sugar sweeteners</b></p> <ul style="list-style-type: none"> <li>• The sweetness of sugars</li> <li>• Non- sugar sweeteners</li> <li>• Bulk sweeteners</li> <li>• Intense sweeteners</li> <li>• Protective factors in food</li> <li>• Fruit and dental caries</li> <li>• Testing food cariogenicity</li> </ul>	1	18
Quizzes mid-term and final written examination	lecture using power point program	prevention	<p><b>Dietary counseling in dental practice</b></p> <ul style="list-style-type: none"> <li>• Nutritional status assessment <ul style="list-style-type: none"> <li>▪ Body Mass Index</li> </ul> </li> <li>• Assessment of dietary intake</li> <li>• Objectives of dietary</li> </ul>	1	19

			assessment <ul style="list-style-type: none"> <li>• 24-hour recall</li> <li>• Dietary record</li> <li>• Food frequency questionnaires</li> <li>• Evaluation of cariogenic potential</li> <li>• Evaluation of nutritive value</li> <li>• Dietary counseling</li> <li>• Approach to counseling</li> <li>• Motivation</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	Nutrition and dental health <ul style="list-style-type: none"> <li>• Nutrition dental caries</li> <li>• Systemic effect</li> <li>▪ Morphology of the teeth</li> <li>▪ The quality of the hard tissues</li> <li>• Quality of saliva</li> <li>• Evidences of the effect of some nutrients on dental caries</li> <li>• Nutrition and eruption of teeth</li> </ul>	1	20
Quizzes mid-term and final written examination	lecture using power point program	prevention	Prevention of periodontal disease and oral cancer by nutrition <ul style="list-style-type: none"> <li>• Nutrition and periodontal health</li> <li>• The mechanisms by which nutrition may affect periodontal disease</li> <li>• Effect of food texture on periodontal health</li> <li>• Nutrition and oral mucosal disease</li> <li>• Nutrition and oral cancer</li> <li>• Primary prevention</li> <li>• Secondary prevention</li> </ul>	1	21
Quizzes mid-term and final written examination	lecture using power point program	prevention	Probiotics and dental health <ul style="list-style-type: none"> <li>• Caries-related mechanisms of probiotic activity</li> <li>• Probiotics and counts of <i>mutans streptococci</i></li> <li>• Probiotics and caries occurrence</li> <li>• Probiotics and periodontal health</li> </ul>	1	22
Quizzes mid-term	lecture	prevention	Diagnosis and prevention of	1	23

and final written examination	using power point program		dental erosion <ul style="list-style-type: none"> <li>• Prevalence</li> <li>• Early detection</li> <li>• Etiology</li> <li>• Protection against erosion</li> <li>• Prevention of erosion</li> </ul>		
Quizzes mid-term and final written examination	lecture using power point program	prevention	Prevention of malocclusion <ul style="list-style-type: none"> <li>• Normal development</li> <li>• Etiology of malocclusion</li> <li>• Interceptive measures</li> <li>• Tooth anomalies</li> <li>• Risk assessment</li> </ul>	1	24
Quizzes mid-term and final written examination	lecture using power point program	prevention	preventive measure for population with developmental disabilities <ul style="list-style-type: none"> <li>• Disability definition</li> <li>• Classification of disabling conditions</li> <li>• The issues regarding the delivery of care to people with disabilities</li> <li>• Dental management and preventive measures among disabled individuals</li> <li>• The risk factors for dental caries among disabled individuals</li> <li>• People with physical (neurological) impairment</li> <li>• Visual Deficits</li> <li>• Hearing problems</li> <li>• Mentally retardation</li> <li>• Specialized Equipment for disabled patient management</li> <li>• Dental care for Institutionalized disabled individual</li> </ul>	1	25
Quizzes mid-term and final written examination	lecture using power point program	prevention	preventive treatment strategies for medically compromised populations <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Eating disorders: Characteristics and preventive treatment strategies</li> <li>• Depression: Characteristics and preventive treatment strategies</li> <li>• Diabetes mellitus: Characteristics and preventive treatment strategies</li> <li>• Epilepsy: Characteristics and preventive treatment</li> </ul>	1	26

			<b>strategies</b> <ul style="list-style-type: none"> <li>● <b>Blood disorders:</b></li> </ul> <b>Characteristics and preventive treatment strategies</b>		
<b>Quizzes mid-term and final written examination</b>	<b>lecture using power point program</b>	<b>prevention</b>	<b>Ozone in the prevention of dental diseases</b> <ul style="list-style-type: none"> <li>● <b>Definition and physical properties</b></li> <li>● <b>Mode of action</b></li> <li>● <b>Safety</b></li> <li>● <b>Application of ozone in dentistry</b></li> <li>● <b>Effects of ozone on oral microorganisms and oral cells</b></li> <li>● <b>Ozone for disinfecting dentures</b></li> <li>● <b>Ozone instruments designed for dentistry</b></li> <li>● <b>Ozone in the management of incipient caries</b></li> <li>● <b>Ozone in the management of open caries</b></li> <li>● <b>Treating root caries with ozone</b></li> </ul>	<b>1</b>	<b>27</b>
<b>Quizzes mid-term and final written examination</b>	<b>lecture using power point program</b>	<b>prevention</b>	<b>Geriatric dentistry</b> <ul style="list-style-type: none"> <li>● <b>population characteristics</b></li> <li>● <b>Physiologic Changes</b></li> <li>● <b>Functional status</b></li> <li>● <b>common oral manifestation</b></li> <li>● <b>preventive measures</b></li> <li>● <b>long term care</b></li> </ul>	<b>1</b>	<b>28</b>
<b>Quizzes mid-term and final written examination</b>	<b>lecture using power point program</b>	<b>prevention</b>	<b>Implant care</b> <ul style="list-style-type: none"> <li>● <b>Dental implant parts</b></li> <li>● <b>Dental implant and biofilm</b></li> <li>● <b>Implant Maintenance</b></li> <li>● <b>Professional care in dental clinic</b></li> <li>● <b>Home care</b></li> </ul>	<b>1</b>	<b>29</b>
<b>Quizzes, half year and final written examination</b>	<b>lecture using power point program</b>	<b>prevention</b>	<b>Protection of the dentition</b> <ul style="list-style-type: none"> <li>● <b>Impact of dental trauma</b></li> <li>● <b>Types of traumatic dental injuries to teeth</b></li> <li>● <b>Sports dentistry</b></li> <li>● <b>Protective mouth-guards</b></li> <li>● <b>Evidence of effectiveness</b></li> <li>● <b>mouth-guards and oral &amp;</b></li> </ul>	<b>1</b>	<b>30</b>



			<b>systemic infections</b>		

**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
<b>Total</b>		<b>90</b>

## Course Description Form

<b>1. Course Name:</b>
Pediatric Dentistry
<b>2. Course Code:</b>
PED557
<b>3. Semester / Year:</b>
5th stage / Annual
<b>4. Description Preparation Date:</b>
2025-2024
<b>5. Available Attendance Forms:</b>
Attendance (Theoretical + lab)
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
120 hours /5 units
<b>7. Course administrator's name (mention all, if more than one name)</b>
Name: Assist .prof Maha Issam Abdulazeez Lecturer .Aseel Taha
<b>8. Course Objectives</b>
<p><b>First: Cognitive Objectives</b></p> <ul style="list-style-type: none"> <li>To understand the anatomy of the mouth and teeth in children and the stages of tooth and jaw development.</li> <li>To study common dental and gum diseases in children, including caries, periodontal diseases, and dental malformations.</li> <li>To understand methods of preventing oral diseases in children, such as fluoride application, preventive fillings, and groove sealants.</li> <li>To understand the basics of diagnosing and treating dental conditions in children, including complex cases.</li> <li>To study the psychological and communicative principles of interacting with children during treatment to ensure their cooperation and comfort.</li> </ul> <p><b>Second: Skill-Based Objectives</b></p> <ul style="list-style-type: none"> <li>To master clinical examination skills in children and detect dental problems in their early stages.</li> </ul> <p style="text-align: center;">347</p> <ul style="list-style-type: none"> <li>To be able to provide preventive treatments, such as applying fluoride and</li> </ul>

preventive fillings (sealants).

- To practice therapeutic procedures for children, including fillings, extraction of primary teeth, and treatment of early caries.
  - To develop the ability to work safely and effectively with children with special needs.
  - To enhance hand-eye coordination and precision during therapeutic procedures for children.
- Third: Behavioral/Value-Based Objectives
- Adherence to safety and hygiene standards when dealing with children.
  - Development of patience, responsibility, and precision in providing care to children.
  - Enhancement of communication skills with children and parents, explaining the treatment plan and its benefits.
  - Appreciation of the importance of continuous learning to keep up with the latest preventive and treatment methods in pediatric dentistry.

#### Fourth: Practical/Clinical Objectives

- Linking theoretical knowledge and practical skills to clinical application in pediatric dental clinics.
- Ability to select appropriate treatment methods for each child according to their age and dental condition.
- Supporting clinical decision-making to ensure effective and safe treatment while minimizing risks and complications.
- Enhancing skills in following up with children after treatment to evaluate the effectiveness of preventive and therapeutic procedures.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of pediatric dentistry, tooth and jaw development, and common dental diseases in children.
- Use of images, videos, and diagrams to illustrate various cases.
- Short questions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab/Clinic
- Training students in the clinical examination<sup>348</sup> of children and the detection of early

dental problems.

- Practice in applying fluoride, preventive fillings, and treating early caries.
- Training students in dealing with children with special needs and ensuring their safety during treatment.
- Practical Demonstrations
- Demonstration of how to perform examinations and treatments on children before practical application.
- Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
- Presentation of pediatric cases requiring diagnosis and the development of an appropriate treatment plan.
- Encouraging students to choose the safest and most effective treatment methods.
- Team-Based Learning
- Working in groups to discuss pediatric dental cases and share experiences.
- Fostering collaboration, critical thinking, and group decision-making skills. •

#### Clinical Application

- Connecting theoretical knowledge and practical skills to real-life cases in pediatric dental clinics.
- Discussing common errors and ways to improve treatment accuracy and child comfort during procedures.

10. Course Structure					
Week	Hours	Required learning outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Diagnosis and treatment planning	Advantage of treatment planning, diagnostic method,	(clinic) practical	Quizzes ,requirements, final oral examination
2	1	Preliminary medical and dental history,Clinical examination , Radio graphic examination	Clinical examination and radiographic examination	clinic) practical	Quizzes ,requirements, final oral examination
3	1	Art and science of behavior management	Child development ,major area of development variable influence dental behavior, classification of child behavior	clinic) practical	Quizzes ,requirements, final oral examination
4	1	Non pharmacological management of patient behavior	Purpose, classifying children cooperative behavior	(clinic) practical	Quizzes ,requirements, final oral examination
5	1	pharmacological management of patient behavior	Degree of sedation, indication,pre treatment documentation and assesment	(clinic) practical	Quizzes ,requirements, final oral examination
6	1	Sedation in pediatric dentistry	Conscious sedation,route of drug adimistration ,enteral sedation, rectal,IM route,IV route, inhl ation ,drug used, GA	(clinic) practical	Quizzes ,requirements, final oral examination
7	1	traumatic injuries management to teeth and supporting structure		clinic) practical	Quizzes ,requirements, final oral examination
8	1	Classification to injuries of anterior teeth		clinic) practical	Quizzes ,requirements, final oral examination
9	1	Traumatic injuries to primary teeth and its effect on permanent teeth		clinic) practical	Quizzes ,requirements, final oral examination
10	1	Treatment injury to permanent teeth , emergency , temporary restoration		clinic) practical	Quizzes ,requirements, final oral examination

11	1	Advanced in pediatric dentistry ,diagnostic aid and cavity preparation		clinic) practical	Quizzes ,requirements, final oral examination
12	1	Advanced in endodontic ,advanced in local ansthesia		clinic) practical	Quizzes ,requirements, final oral examination
13	1	Advanced in restorative material , surgical procedure, miscellounous		clinic) practical	Quizzes ,requirements, final oral examination
14	1	Acquired disturbance of oral structure		clinic) practical	Quizzes ,requirements, final oral examination
15	1	Developmental disturbance of oral structure		clinic) practical	Quizzes ,requirements, final oral examination
16	1	Gingivitis and periodontal disease in children		clinic) practical	Quizzes ,requirements, final oral examination
17	1	Gingival lesion of gentic origin,ascorbic acid defficiency		clinic) practical	Quizzes ,requirements, final oral examination
18	1	Acute candidiasis (thrush) Acute bacterial infection		clinic) practical	Quizzes ,requirements, final oral examination
19	1	Periodontal disease in children ,early onset ,prepurtal, localized juvenile periodtintits		clinic) practical	Quizzes ,requirements, final oral examination
20	1	Papillion lever syndrome, gingival recession, extrinsic stain and deposit		clinic) practical	Quizzes ,requirements, final oral examination
21	1	Management of space maintainer problems Planning for space maintenance		clinic) practical	Quizzes ,requirements, final oral examination
22	1	Space Maintenance for the First and Second Primary Molar and the Primary Canine Area, premature loss of second primary molar		clinic) practical	Quizzes ,requirements, final oral examination
23	1	Loss of the Second Primary Molar Before Eruption of the First Permanent Molar, Areas of Multiple Primary Molar Loss		clinic) practical	Quizzes ,requirements, final oral examination



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

#### 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	Prosthesis usage in pediatric dentistry	3

## Course Description Form

<b>1. Course Name:</b>
<b>Orthodontics</b>
<b>2. Course Code:</b>
<b>ORT566</b>
<b>3. Semester / Year:</b>
<b>5th stage / Annual</b>
<b>4. Description Preparation Date:</b>
<b>15/9/2024</b>
<b>5. Available Attendance Forms:</b>
<b>Attendance (Theoretical + lab)</b>
<b>6. Number of Credit Hours (Total) / Number of Units (Total)</b>
<b>120 hours / 6 units</b>
<b>7. Course administrator's name (mention all, if more than one name)</b>
<b>Name: Ass. Prof Jamal khidher</b>
<b>8. Course Objectives</b>
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>To understand the growth and development of the jaws and teeth, and the mechanics of dental movement.</li> <li>To study the causes and diagnose various types of dental and jaw malocclusions.</li> <li>To understand the scientific principles of designing fixed and removable orthodontic appliances.</li> <li>To learn about methods of prevention and early intervention to correct dental and jaw malocclusions.</li> <li>To connect theoretical knowledge with practical skills to plan appropriate orthodontic treatment for each case.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>To master clinical examination and diagnostic skills for orthodontic cases.</li> <li>To be able to take measurements and impressions and analyze dental models to</li> </ul>

determine the treatment plan.

- To practice fitting fixed and removable orthodontic appliances and adjusting the forces acting on the teeth and jaws.
- To develop the ability to monitor treatment cases and make necessary adjustments to ensure treatment effectiveness.
- To enhance hand-eye coordination and precision during the application of orthodontic appliances.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to hygiene and safety standards during appliance fitting and patient follow-up. • Developing responsibility, accuracy, and discipline during orthodontic treatment.
- Enhancing communication skills with patients and parents to explain the treatment plan and the importance of adhering to it.
- Appreciating the importance of continuous learning to keep up with the latest technologies and equipment in orthodontics.

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#### Fourth: Practical/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in orthodontic clinics.
- The ability to design an individualized treatment plan for each patient according to the degree of malocclusion and their dental and jaw needs.
- Supporting clinical decision-making to ensure the effectiveness of orthodontic treatment and minimize complications.
- Enhancing patient follow-up skills to evaluate treatment outcomes and ensure the stability of teeth and jaws after treatment.

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### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles for diagnosing and treating dental and jaw disorders.
- Use of images, videos, and illustrative presentations of treatment stages and

various appliances.

- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Practical Training in the Lab and Clinic
- Training students in the clinical examination of orthodontic cases.
- Practice taking measurements and impressions and analyzing dental models to determine the treatment plan.
- Fitting fixed and removable orthodontic appliances and monitoring tooth and jaw movement.
- Practical Demonstrations
- Demonstrating the steps for fitting and adjusting orthodontic appliances before students apply them practically.
- Using educational videos to illustrate common errors and their correction.
- Problem-Based Learning
- Presentation of real or hypothetical orthodontic cases requiring the selection of an appropriate treatment plan for each case.
- Encouraging students to analyze results and choose the most suitable appliances and techniques.
- Team-Based Learning
- Working in groups to discuss orthodontic cases and share experiences.
- Enhancing collaboration, critical thinking, and group decision-making skills.
- Clinical Application
- Connecting theoretical knowledge and practical skills to real-life cases in orthodontic clinics.
- Discussing common errors and methods to improve appliance fitting accuracy and treatment effectiveness.

10. Course Structure					
Week	Hour	Required learning outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Understand the concepts, basics and practical application	Orthodontic diagnosis and treatment planning: a- Personal data b- Consent form c- Clinical examination i. General body stature	a lecture and a theoretical explanation , questions	Quiz, semester, mid and final exams
2	1	Understand the concepts, basics and practical application	ii. Face examination in 3 dimensions iii. skeletal examination iv. Soft tissue examination	power point	Quiz, semester, mid and final exams
3	1	Understand the concepts, basics and practical application	v. Occlusion	Lecture & explanation	Quiz, semester, mid and final exams
4	1	Understand the concepts, basics and practical application	vi. Dentition vii. Temporomandibular joint	Lecture & explanation	Quiz, semester, mid and final exams
5	1	Understand the concepts, basics and practical application	d- Diagnostic aids i. Cephalometrics	Lecture & explanation	Quiz, semester, mid and final exams
6	1	Understand the concepts, basics and practical application	ii. Orthopantomography iii. Other views	Lecture & explanation	Quiz, semester, mid and final exams
7	1	Understand the concepts, basics and practical application	iv. Study models	power point	Quiz, semester, mid and final exams
8	1	Understand the concepts, basics and practical application	v. Photography vi. 3D imaging	power point	Students participate lecture in explaining
9	1	Understand the concepts, basics and practical application	e- Treatment planning	Lecture & explanation	Students participate lecture in explaining
10	1	Understand	f- Treatment of Medically	Lecture &	Questions &

		the concepts, basics and practical application	compromised patients	explanation	discussion
11	1	Understand the concepts, basics and practical application	g- Orthodontic indices		
12	1	Understand the concepts, basics and practical application	Space analysis, Bolton's ratio	Lecture & explanation	Questions &
13	1	Understand the concepts, basics and practical application	Teeth extraction in orthodontics	Lecture & explanation	Questions & discussion
14	1	Understand the concepts, basics and practical application	Serial extraction	Lecture & explanation	Questions & discussion
15	1	Understand the concepts, basics and practical application	Vertical and transverse problems: a. Deep bite	Lecture & explanation	Questions & discussion
16	1	Understand the concepts, basics and practical application	b. Open bite	Lecture & explanation	Questions & discussion
17	1	Understand the concepts, basics and practical application	c. Crossbite and scissors bite	Lecture & explanation	Questions & discussion
18	1	Understand the concepts, basics and practical application	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 & explanation	Questions & discussion
19	1	Understand the concepts, basics and practical	f. Bad oral habits	Lecture & explanation	Questions & discussion

		<b>application</b>			
<b>20</b>	<b>1</b>	<b>Understand the concepts, basics and practical application</b>	<b>Treatment of aberrant position of canines</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>21</b>		<b>Understand the concepts, basics and practical application</b>	<b>Treatment of general factors: a. Class I treatment (crowding, spacing, biprotrusion)</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>22</b>		<b>Understand the concepts, basics and practical application</b>	<b>Continue class I treatment (method of space creation)</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>23</b>		<b>Understand the concepts, basics and practical application</b>	<b>b. Class II div. 1 treatment</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>24</b>		<b>Understand the concepts, basics and practical application</b>	<b>c. Class II div. 2 treatment</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>25</b>		<b>Understand the concepts, basics and practical application</b>	<b>d. Class III treatment</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>26</b>		<b>Understand the concepts, basics and practical application</b>	<b>Treatment of adults a- Periodontal problems</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>27</b>		<b>Understand the concepts, basics and practical application</b>	<b>b- Orthognathic surgery</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>28</b>		<b>Understand the concepts, basics and practical application</b>	<b>Continue cleft lip and palate</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>
<b>29</b>		<b>Understand the concepts, basics and practical application</b>	<b>Digital orthodontics</b>	<b>Lecture &amp; explanation</b>	<b>Questions &amp; discussion</b>



**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

1. Course Name:
Oral Medicine
2. Course Code:
<b>OMD563</b>
3. Semester / Year:
5th stage / Annual
4. Description Preparation Date:
15/9/2024
5. Available Attendance Forms:
Attendance (Theoretical+ clinics)
6. Number of Credit Hours (Total) / Number of Units (Total)
150 h( 30 Theoretical + 120 clinic) /6 Units
7. Course administrator's name (mention all, if more than one name)
Name: assist. Lec. Marwah Waleed Shakir E. mail: marwah89@gmail.com
8-Course Objective
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the anatomy and functions of the mouth and surrounding tissues. .....</li> <li>• To study various oral diseases, including infections, tumors, and chronic conditions. .....</li> <li>• To understand the fundamentals of diagnosing oral diseases using clinical examination, radiography, and laboratory tests.</li> <li>• To understand the principles of non-surgical treatment for oral conditions and symptom management.</li> <li>• To connect theoretical knowledge with clinical skills to determine the correct diagnosis and appropriate treatment plan.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skill-Based Objectives</p> <ul style="list-style-type: none"> <li>• To master clinical examination skills of the mouth, teeth, and surrounding tissues.</li> <li>• To be able to recognize the initial signs of oral diseases and assess the severity of the condition.</li> <li>• To practice clinical diagnostic skills using instruments, radiography, and laboratory</li> </ul>

tests.

- To develop the ability to create an individualized treatment plan based on the patient's condition and needs.
- To enhance hand-eye coordination and accuracy during the clinical examination of oral diseases.

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#### Third: Behavioral/Value-Based Objectives

- To adhere to safety and hygiene standards during clinical examination. • Developing responsibility, accuracy, and discipline when dealing with oral medicine patients.
- Enhancing communication skills with patients to explain the diagnosis, treatment plan, and its benefits.
- Appreciating the importance of continuous learning to keep up with the latest principles and techniques in oral medicine.

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#### Fourth: Applied/Clinical Objectives

- Bridging the gap between theoretical knowledge and practical skills with clinical application in oral medicine clinics.
- Being able to diagnose various oral conditions and determine an appropriate treatment plan for each patient.
- Supporting clinical decision-making to ensure effective and safe management of oral diseases.
- Enhancing patient follow-up skills to assess treatment response and monitor the patient's long-term condition.

### 9. Teaching and Learning Strategies

- Interactive Lectures
- Presentation of the theoretical principles of oral disease diagnosis and non-surgical case management.
- Use of images, videos, and illustrative diagrams of various clinical cases.
- Short Q&A sessions and discussions to reinforce the connection between theory and practice.
- Clinical Practice

- Training students in the clinical examination of the mouth and surrounding tissues.
- Practice of clinical diagnostic skills using instruments, radiographs, and laboratory tests.
- Training students to develop an individualized treatment plan for each case based on the clinical diagnosis.
- Practical Demonstrations
- Demonstration of how to perform examinations and diagnoses before students apply them practically.
- Use of educational videos to illustrate common errors and how to correct them.
- Problem-Based Learning
- Presentation of real or hypothetical oral disease cases requiring diagnosis and the development of an appropriate treatment plan.
- Encouraging students to analyze results and select the best treatment options for each case.
- Team-Based Learning
- Working in groups to discuss complex oral cases and share experiences.
- Fostering collaboration, critical thinking, and group decision-making skills.
- Providing online resources for studying the latest principles and techniques in the diagnosis and management of oral diseases.
- Clinical Application
- Connecting theoretical knowledge and practical skills to real-life cases in oral medicine clinics.
- Discussing common errors and methods for improving diagnostic accuracy, treatment planning, and patient satisfaction.

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
2&1	1 theoretical hours weekly	Understand the concepts & basics	The principles of oral diagnosis Clinical examinations	Deliver the lecture with explanation & clarification using power point	Quiz
4&3	1 theoretical hours weekly	Understand the concepts & basics	Laboratory investigations in dentistry	Deliver the lecture with explanation & clarification using power point	Quiz
6&5	1 theoretical hours weekly	Understand the concepts & basics	orofacial pain	Deliver the lecture with explanation & clarification using power point	Quiz
8&7	1 theoretical hours weekly	Understand the concepts & basics	TMJ disorder	Lecture using power point	1 <sup>st</sup> Sem. Exam.
&10&9 11	1 theoretical hours weekly	Understand the concepts & basics	Oral ulceration and Vesiculo-bullous lesions	Deliver the lecture with explanation & clarification using power point	Quiz
13&12	1 theoretical hours weekly	Understand the concepts & basics	White & red lesions	Deliver the lecture with explanation & clarification using power point	Quiz
15&14	1 theoretical hours weekly	Understand the concepts & basics	Early detection of oral cancer	Deliver the lecture with explanation & clarification using power point	Quiz
			Mid- Year Exam.		
17&16	1 theoretical hours weekly	Understand the concepts & basics	Pigmented oral lesions 364	Deliver the lecture with explanation & clarification using power	Quiz

				point	
19&18 & 21&20	1 theoretic al hours weekly	Understand the concepts & basics	Benign, Premalignant and malignant lesions of the oral cavity	Deliver the lecture with explanation & clarification using power point	Quiz
23&22	1 theoretic al hours weekly	Understand the concepts & basics	Neuromuscular disorder	Deliver the lecture with explanation & clarification using power point	2 <sup>nd</sup> Sem. Exam
25&24	1 theoretic al hours weekly	Understand the concepts & basics	Salivary gland diseases	Deliver the lecture with explanation & clarification using power point	Quiz
&27&28 26	1 theoretic al hours weekly	Understand the concepts & basics	Autoimmune diseases	Deliver the lecture with explanation & clarification using power point	Quiz
29&30	1 theoretic al hours weekly	Understand the concepts & basics	Oral manifestation of allergic reaction	Deliver the lecture with explanation & clarification using power point	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 clinic	4
Total		120

<b>11. Infrastructure</b>	
<b>1. Books Required reading:</b>	<b>Burket's oral medicine. Michael Glick, Martin Greenberg, Peter Lockhart and Dstephen Challacombe. 13th edition.2021, Wiley Black well</b>
<b>2. Main references (sources)</b>	<b>1- BURKETS Oral Medicine, thirteen edition, 2015. 2- Cawsons essentials of oral pathology and oral medicine 2002.</b>
<b>A- Recommended books and references (scientific journals, reports...).</b>	<b>1- TEXTBOOK OF ORAL MEDICINE, 2nd edition, 2010. 2- Cawsons essentials of oral pathology and oral medicine 2002.</b>
<b>B-Electronic references, Internet sites...</b>	



## Course Description Form

1- Course Name
Research project
2- Course code
<b>RSP529</b>
3-3-Semester/Year: Annual
Fifth stage / Annual
4- Date this description was prepared 4-
<b>2024/9/15</b>
5-Available forms of attendance:
Lectures in classrooms
6--Number of study hours (total) / Number of units (total):
15hr/2 credit
7--Name of the course coordinator (if there is more than one, please state).
Lec. Dr. Hadeel Mohammed Aboud Lec.Montaser Hassan Mohammed
8-Course objective
<p>First: Cognitive Objectives</p> <ul style="list-style-type: none"> <li>• To understand the concept of scientific research and its importance in developing scientific and clinical knowledge.</li> <li>• To study the types of scientific research (descriptive, analytical, experimental, and clinical studies).</li> <li>• To understand the steps of scientific research, from topic selection and research question formulation to data collection and analysis.</li> <li>• To understand the principles of scientific study design and the basic statistical methods used in research.</li> <li>• To study the foundations of evaluating scientific articles and research sources, and to conduct critical literature reviews.</li> </ul> <hr style="width: 40%; margin-left: 0;"/> <p>Second: Skills Objectives</p> <ul style="list-style-type: none"> <li>• To be able to formulate a clear research problem and achievable objectives.</li> <li>• To develop data collection skills using various research tools (questionnaires, interviews, laboratory or clinical measurements).</li> <li>• To practice data analysis using appropriate statistical methods.</li> </ul>

- To master the skills of writing research reports and scientific papers for publication in scientific journals.
- To develop the ability to use computer programs for data analysis and research information management. Third: Behavioral/Value-Based Objectives
- Developing ethical conduct in scientific research, including adherence to standards of scientific integrity and respect for the rights of participants.
- Promoting responsibility, accuracy, and discipline at all stages of scientific research.
- Appreciating the importance of continuous learning and staying informed about the latest scientific research to develop knowledge and skills.
- Enhancing teamwork and collaboration skills during the implementation of research projects.

## 9-Learning and Teaching Strategies

### 1. Interactive Lectures

- o Presenting the theoretical principles of scientific research, types of studies, and research steps.
- o Using examples from medical and dental research to illustrate concepts.
- o Posing short questions and discussions to promote critical understanding of research methods.

### 2. Practical Instruction

- o Training students to formulate research problems, objectives, and questions.
- o Practicing the design of research studies appropriate to each type of research.
- o Using computer programs to analyze statistical data and interpret results.

### 3. Practical Demonstrations

- o Demonstrating the steps of data collection using questionnaires, interviews, and laboratory equipment.
- o Using practical examples to illustrate data analysis and how to write results.

### 4. Problem-Based Learning

- o Presenting real-world research cases that require selecting a study design and analyzing results.
- o Encouraging students to identify the best research methods to reach accurate conclusions.

### 5. Team-Based Learning

- o Working in groups to discuss study design, analyze data, and present results.

### 6. Digital Tools and Simulation

- o Using simulation software to analyze data and design research studies.
- o Providing electronic resources for accessing scientific databases and research journals.

### 7. Critical Evaluation of Scientific Literature

o Training students to evaluate published studies and analyze their methodologies and results.

o Enhancing the ability to use scientific evidence to support clinical decisions.

## 10. Course Structure(Theroy)

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	The Research Question	Understanding what is the research question	PowerPoint Presentation, Online lecture and discussion	Quiz, semester, and midyear exams
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		
9	1		Declaration of Helsinki		
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

<b>1. Books Required reading:</b>	<b>1- An introduction to research methods for undergraduate health profession students</b>  <b>2- Oxford handbook of medical statistics</b>
<b>2. Main references (sources)</b>	
<b>A- Recommended books and references (scientific journals, reports...).</b>	
<b>B-Electronic references, Internet sites...</b>	<b>Declaration of World medical associatio Helsinki: <a href="http://www.wma.net">www.wma.net</a></b>

## 12. The development of the curriculum plan