

Course Description

1. *Course Name:*

Community Dentistry

2. *Course Code:*

DNT308

3. *Semester / Year:*

2023-2024

4. *Description Preparation Date:*

28/4/2024

5. Available Attendance Forms:

Attendance and Laboratories

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

30h: Theory -60h clinical

4 Units

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

Wesam Adnan Sami

wisamsami08@uoanbar.edu.iq

8. Course Objectives

Course Objectives

Provide critical knowledge of dental public health -

Develop students understanding of the major oral health problems of a community -

- Enable students to understand health services, public health program dental occupation hazard and most important scientific research methods

9. Teaching and Learning Strategies

Strategy

Active and Cooperative Learning: Encouraging students to actively participate in educational processes, such as group discussions and collaborative projects. Case studies and simulations can be used to enhance students' understanding of the applications of community dentistry in real-life contexts.

Problem-Based Learning: Presenting real-life and specific problems related to the field of community dentistry, forcing students to engage in critical thinking and search for innovative solutions using acquired knowledge.

Innovative and Stimulating Teaching: Using innovative teaching materials such as educational videos, interactive presentations, and smartphone applications to make learning more exciting and effective.

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Dental public health	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
2	1	Dental Public Care	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
3	1	Epidemiology	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
4	1	Epidemiological studies	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
5	1	Experimental studies	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
6	1	Epidemiology of dental caries	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
7	1	Epidemiology of periodontal disease	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
8	1	Epidemiology of oral cancer	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
9	1	Dental indices	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
10	1	Indices used for assessment of dental caries	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
11	1	Indices used for assessment of periodontal disease	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
12	1	Dental fluorosis	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
13	1	Biostatistics	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
14	1	Data presentation	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
15	1	Measures of central tendency	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		and dispersion			
16	1	Fluoridation as a public health measure	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
17	1	Fluoridation Mechanism and Effects	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
18	1	Occupational hazards in Dentistry	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
19	1	Environment and health	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
20	1	Effect of air pollution on health	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
21	1	School dental health program	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
22	1	Treatment need and demand	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
23	1	Manpower	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
24	1	Ethics in Dentistry	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
25	1	Oral health care for special population	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
26	1	Forensic Dentistry	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
27	1	Dental auxiliary persons	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
28	1	Primary health care	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
29	1	infection control	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
30	1	Dental health education	Community Dentistry	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

Practical requirements

Lab. number	Lab. Title	Hours
1	Community Dentistry	2

2	Patients setting and examination	2
3	Clinical examination	2
4	Basic tooth numbering	2
5	Clinical examination	2
6	index	2
7	Dental caries	2
8	Theories of caries formation	2
9	Dental caries index	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	2
16	fluoride	2
17	Periodontal diseases	2
18	Index for plaque assessment	2
19	Clinical examination	2
20	Clinical examination	2
21	Index for calculus assessment	2
22	Clinical examination	2
23	Clinical examination	2
24	Gingival disease index	2
25	Clinical examination	2
26	Clinical examination	2
27	Periodontal prevention	2
28	Tooth brushing/ mechanical plaque control	2
29	Clinical assistant	2
30	Clinical assistant	2

11. Course Evaluation

1	The first term exam (theory and practical)	20
2	The second term exam (theory and practical)	20
3	The final exam (theory and practical)	60

12. Learning and Teaching Resources

Main references (source)	Daly B, Watt R, Btchelor P, Treasure E. Essential Dental Public Health. University Press Bowling A., Research Methods in Health
Recommended books and references (scientific journals, reports...)	Monthly scientific journals, in addition to reports that work periodically to improve the properties of materials The strategy of preventive medicine Community oral health
Electronic references, websites.	Using the Internet for the purpose of learning everything new in the field of dental materials. Pub med , Google scholar, Web of Science

Course Description

1. Course Name:	
Orthodontics	
2. Course Code:	
DNT 50	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
1/5/2024	
5. Available Attendance Forms:	
Attendance and clinical practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60/120/6	
7. Course administrator's name (mention all, if more than one name)	
Assist. Prof. Zena Hekmet Basheer	
8. Course Objectives	
Course Objectives	Providing the student with a knowledge skill about the basic concepts of community dentistry in general 2- It is concerned with introducing the student to dealing with the individual within the family, with knowledge of preventive methods and the ability to diagnose and treat. 3- Providing the student with information about connecting with the patient within the family regarding physical, social and psychological aspects 4. Definition of the importance of Preventive Dentistry and applications for individuals and society, and in particular to the widespread diseases such as dental diseases
9. Teaching and Learning Strategies	
Strategy	1- Giving lectures (explanation and clarification). 2- Using technological teaching aids as teaching aids (educational films, electronic lectures). 3- Urging students to use the library as one of the learning methods. 4- Practical training for the student and enabling him to treat several cases of patients attending the Teaching Hospital of the College of Dentistry / Tikrit University, and the treatment is under the direct supervision of the specialized teachers.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Tutorial and slides	<u>Orthodontic diagnosis and treatment planning:</u>	Powerpoint lectures	Short exams, Semester, and final Exam

			a. Personal data (name, age, gender, race, address, reference and chief complaint, motivation, dental and medical history, prenatal history, postnatal history, and family history)		
2	2	Tutorial and slides	b. Clinical examination i. General body stature ii. Face examination in 3 dimensions (facial proportion, facial divergence, profile analysis)	Powerpoint lectures	Short exams, Semester, and final Exam
3	2	Tutorial and slides	iii. skeletal examination (sagittal, vertical and transverse relationship) iv. Soft tissue examination: extraoral (lips, nose and nasolabial angle, chin, cheek) and intraoral (tongue, frenum, gingiva, palate, tonsils and adenoids)	Powerpoint lectures	Short exams, Semester, and final Exam
4	2	Tutorial and slides	v. Occlusion (classification, midline, overjet and overbite) vi. Dentition (teeth number, position, dental age, wear, cracks and white spots)	Powerpoint lectures	Short exams, Semester, and final Exam

			vii. Temporomandibular joint		
5	2	Tutorial and slides	c. Diagnostic aids i. orthopantomography (development, advantages, disadvantages, limitations, uses) ii. Study models (preparation, advantages, disadvantages, uses)	Powerpoint lectures	Short exams, Semester, and final Exam
6	2	Tutorial and slides	radiographs (skeletal maturity, localization, root resorption)	Powerpoint lectures	Short exams, Semester, and final Exam
7	2	Tutorial and slides	<u>Orthodontic diagnosis and treatment planning:</u> a. Personal data (name, age, gender, race, address, reference and chief complaint, motivation, dental and medical history, prenatal history, postnatal history, and family history)	Powerpoint lectures	Short exams, Semester, and final Exam
8	2	Tutorial and slides	v. Photography vi. 3D imaging	Powerpoint lectures	Short exams, Semester, and final Exam
9	2	Tutorial and slides	d. Consent form	Powerpoint lectures	Short exams, Semester, and final Exam

10	2	Tutorial and slides	e. treatment planning: preventive, interceptive, and corrective	Powerpoint lectures	Short exams, Semester, and final Exam
11	2	Tutorial and slides	treatment of medically compromised patients	Powerpoint lectures	Short exams, Semester, and final Exam
12	2	Tutorial and slides	<u>Incisal overbite and crossbite:</u> a. Deep bite (types, etiology, treatment)	Powerpoint lectures	Short exams, Semester, and final Exam
13	2	Tutorial and slides	b. Open bite (types, etiology, treatment skeletal vs. dental)	Powerpoint lectures	Short exams, Semester, and final Exam
14	2	Tutorial and slides	c. Cross bite and scissors bite (types, etiology, treatment, skeletal vs. dental)	Powerpoint lectures	Short exams, Semester, and final Exam
15	2	Tutorial and slides	<u>Crowding, spacing, space need:</u> a. Types of crowding (primary, secondary and tertiary)	Powerpoint lectures	Short exams, Semester, and final Exam
16	2	Tutorial and slides	b. Space analysis (in permanent and mixed dentition, space required and potential space, methods, Bolton's ratio) c. Space creation	Powerpoint lectures	Short exams, Semester, and final Exam
17	2	Tutorial	Digital	Powerpoint	Short exams,

		and slides	orthodontic	lectures	Semester, and final Exam
18	2	Tutorial and slides	d. Closure of spaces (molar protraction, incisor retraction, conservative)	Powerpoint lectures	Short exams, Semester, and final Exam
19	2	Tutorial and slides	e. Teeth extraction in orthodontics (Types: enforced, therapeutic, Wilkinson, balancing and compensating extractions) (indications, advantages, disadvantages for each tooth) f. Serial extraction (definition, indications, procedure, advantages, limitations)	Powerpoint lectures	Short exams, Semester, and final Exam
20	2	Tutorial and slides	<u>Treatment of common local factors:</u> Including definition, prevalence, etiology, types, effect on occlusion, and treatment (with emphasis maxillary canine): a. Extra-teeth (supernumerary) and missing teeth (hypodontia)	Powerpoint lectures	Short exams, Semester, and final Exam
21	2	Tutorial	b. Early loss of	Powerpoint	Short exams,

		and slides	deciduous teeth(space maintainers and space regainers) c. Retained deciduous teeth, delayed eruption of permanent teeth, impacted teeth, ankylosis	lectures	Semester,and final Exam
22	2	Tutorial and slides	d. Abnormal eruptive behavior (displacement, transposition) e. Large frenum (labial and lingual)	Powerpoint lectures	Short exams, Semester,and final Exam
23	2	Tutorial and slides	f. Bad oral habits	Powerpoint lectures	Short exams, Semester,and final Exam
24	2	Tutorial and slides	Treatment of general factors: a. Class I treatment (etiology, skeletal and soft tissue pattern, dental factors, bimaxillary proclination, treatment methods and time)	Powerpoint lectures	Short exams, Semester,and final Exam
25	2	Tutorial and slides	b. Class II div. 1 treatment (etiology, skeletal and soft tissue pattern, dental factors, habits, treatment methods and time)	Powerpoint lectures	Short exams, Semester,and final Exam
26	2	Tutorial and slides	c. Class II div. 2 treatment (etiology, skeletal	Powerpoint lectures	Short exams, Semester,and final Exam

			and soft tissue pattern, dental factors, treatment methods and time)		
27	2	Tutorial and slides	d. Class III treatment (etiology, skeletal and soft tissue pattern, dental factors, treatment methods and time)	Powerpoint lectures	Short exams, Semester, and final Exam
28	2	Tutorial and slides	Treatment of adults Periodontal problems	Powerpoint lectures	Short exams, Semester, and final Exam
29	2	Tutorial and slides	Cleft lip and palate	Powerpoint lectures	Short exams, Semester, and final Exam
30	2	Tutorial and slides	Cleft lip and .palate cont	Powerpoint lectures	Short exams, Semester, and final Exam

11. Course Evaluation

The practical aspect consists of attending orthodontics lab at a rate of 4 hours per week and 120 hours annually, During this the student will practice wire bending under direct supervision, The annual practical requirements for the fourth-stage student include the following:

- Wire bending for all types of springs used in the construction of removable orthodontic appliance.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Contemporary orthodontics 2. Textbook of orthodontics 3. Orthodontics; current principles and technique 4. Introduction to orthodontic
Main references (source)	1. Contemporary orthodontics 2. Textbook of orthodontics 3. Orthodontics; current principles and technique 4. Introduction to orthodontic
Recommended books and references (scientific journals, reports...)	1. Contemporary orthodontics 2. Textbook of orthodontics

	<ul style="list-style-type: none"> 3. Orthodontics; current principles and technique 4.Introduction to orthodontic
Electronic references, websites.	<ul style="list-style-type: none"> 1.Contemporay orthodontics 2. Textbook of orthodontics 3. Orthodontics; current principles and technique 4.Introduction to orthodontic

Course Description

1. Course Name:						
Oral and maxillofacial radiology						
2. Course Code:						
DNT307						
3. Semester / Year:						
Third Stage						
4. Description Preparation Date:						
25/4/2024						
5. Available Attendance Forms:						
Weekly						
6. Number of Credit Hours (Total) / Number of Units (Total)						
30 Hours theory/ 60 Hours practical						
7. Course administrator's name (mention all, if more than one name)						
Name: Lecturer Dr. Mahmood Abd Mohammed Email: mahmood.alfahdawi@uoanbar.edu.iq						
8. Course Objectives						
Course Objectives		<ul style="list-style-type: none"> • This course is intended to provide the student with an understanding of the generation, properties, and techniques for use of X-rays in dentistry. • This course is also intended to provide the student with an understanding of the advanced imaging techniques like computed tomography, cone beam computed tomography, magnetic resonance imaging and ultrasound. • Furthermore, this course is intended to provide the student with an understanding and knowledge of the radiographic interpretation of oral diseases where diagnostic imaging provides detailed information about structural or disease related changes. In end of this course the students can discover problems in the mouth, jaws, teeth, bone loss, fractures, cysts by radiographs at an early stage. 				
9. Teaching and Learning Strategies						
Lectures and seminars by powerpoint. Practical training on dental radiographic techniques.						
10. Course Structure						
Week	Required Outcomes	Learning	Unit or subject name	Hours	Learning method	Evaluation method
1	Fundamentals of radiology	of	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
2	Production & interaction of X-ray		Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
3	X-ray film & processing cycle	&	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
4	Factors relating to the production of radiograph	of	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
5	Ideal radiographic projections & artifacts		Oral and maxillofacial	1	Lectures by powerpoint	Exams and Seminars

		radiology			
6	Hazards of X-radiation & its biological effects	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
7	Protection from X-radiation in the clinic of radiography	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
8	Intraoral techniques 1	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
9	Intraoral techniques 2	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
10	Darkroom	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
11	Patient's management	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
12	Localization techniques	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
13	Radiographic survey	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
14	Viewing techniques (conventional & digital)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
15	Dental panoramic radiography (principals)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
16	Dental panoramic radiography (anatomy)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
17	Introduction for normal radiographic anatomy	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
18	Radiographic appearance of normal intraoral landmarks	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
19	Radiographic appearance of common diseases of teeth & supporting structure	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
20	Extra oral radiography	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
21	Digital imaging system	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
22	Computed Tomography (theory & physics)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
23	Computed Tomography (clinical application in maxillofacial region).	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars
24	CBCT (theory & advantages over	Oral and maxillofacial	1	Lectures by powerpoint	Exams and Seminars

	conventional CT).	radiology				
25	CBCT (clinical applications in maxillofacial region).	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
26	TMJ Radiography (normal & pathological)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
27	TMJ Imaging	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
28	MRI (theory, physics and clinical applications)	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
29	Radiography & Implantology	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
30	Guidelines for Prescribing Radiographs	Oral and maxillofacial radiology	1	Lectures by powerpoint	Exams and Seminars	
			Total 30			

11. Clinical requirements

Number	Title of clinical requirements	Hours
1	"Fundamentals of radiology: Introduction , Similarity and differences between x-ray and visible light, component of x-ray machine." Fundamentals of radiology :X-ray tube ,Generation of x-ray, Selection of target material,	2
2	Production & interaction of X-ray :X-ray beam shape and position, Inverse square law, Rectification, Filtration , and Colimation. X-ray spectrum, half value layer, X-ray measuring units.	2
3	X-ray film & processing cycle X-ray films, intra-oral, chemical composition, film type and speed, extra-oral , screen an non screen, film properties, density, contrast, details.	2
4	Ideal radiograph	2
5	Intraoral techniques	2
6	Factors relating to the production of radiograph	2
7	Hazards & protection	2
8	Dental panoramic radiography	2
9	Clinical work	2
10	Clinical work	2
11	Clinical work	2
12	Clinical work	2
13	Clinical work	2
14	Clinical work	2
15	Clinical work	2
16	Clinical work	2
17	Clinical work	2
18	Clinical work	2
19	Clinical work	2
20	Clinical work	2
21	Clinical work	2
22	Clinical work	2

23	Clinical work	2
24	Clinical work	2
25	Clinical work	2
26	Clinical work	2
27	Clinical work	2
28	Clinical work	2
29	Clinical work	2
30	Clinical work	2
Total		60

12. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

13. Learning and Teaching Resources

Required textbooks (curricular books, if any)	White and Pharoah's Oral Radiology: Principles and Interpretation
Main references (source)	Dental Radiography: Principles and Techniques by by Joen Iannucci and Laura Jansen Howerton
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

Course Description

Course Description

1. Course Name:	
<i>General histology</i>	
2. Course Code:	
DNT203	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
23/4/2024	
5. Available Attendance Forms:	
<i>Attendance and clinical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>120 hours</i> <i>6 unit</i>	
7. Course administrator's name (mention all, if more than one name)	
8. Course Objectives	
Course Objectives	
9. Teaching and Learning Strategies	
Strategy	

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	<i>General histology</i>	Cells and Basic .Tissues	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
2	2	<i>General histology</i>	Cells and Basic Tissue	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
3	2	<i>General histology</i>	Epithelial Tissues	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
4	2	<i>General histology</i>	Epithelial Tissues	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
5	2	<i>General histology</i>	Connective Tissues	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
6	2	<i>General histology</i>	Connective Tissues	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
7	2	<i>General histology</i>	Urinary system :Nephrons	Theoretical lecture using the program	Short, quarterly, half-year and final exams

				power point	
8	2	<i>General histology</i>	Urinary system :Ureter	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
9	2	<i>General histology</i>	Hemopoiesis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
10	2	<i>General histology</i>	Hemopoiesis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
11	2	<i>General histology</i>	The circulatory system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
12	2	<i>General histology</i>	The circulatory system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
13	2	<i>General histology</i>	Lymphatic Vascular System And Lymphoid System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
14	2	<i>General histology</i>	Lymphatic Vascular System And Lymphoid System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
15	2	<i>General histology</i>	Skin : Epidermis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
16	2	<i>General histology</i>	Skin : Dermis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
17	2	<i>General histology</i>	Endocrine System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
18	2	<i>General histology</i>	Endocrine System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
19	2	<i>General histology</i>	Endocrine System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
20	2	<i>General histology</i>	The Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
21	2	<i>General histology</i>	The Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
22	2	<i>General histology</i>	The Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
23	2	<i>General histology</i>	The Digestive System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
24	2	<i>General histology</i>	The Digestive System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
25	2	<i>General histology</i>	Male Reproductive system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
26	2	<i>General histology</i>	Male Reproductive system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
27	2	<i>General histology</i>	Female Reprod. System	Theoretical lecture using the program	Short, quarterly, half-year and final exams

				power point	
28	2	<i>General histology</i>	Female Reprod. System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
29	2	<i>General histology</i>	Sense Organ (Eye)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
30	2	<i>General histology</i>	Sense Organ (Eye)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
31	2	<i>General histology</i>		Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

11. Course Evaluation

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (source)	
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

Course Description

1. Course Name:	
Biochemistry	
2. Course Code:	
DNT204	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
23/4/2024	
5. Available Attendance Forms:	
Attendance and clinical practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
120 hours 6 unit	
7. Course administrator's name (mention all, if more than one name)	
8. Course Objectives	
Course Objectives	
9. Teaching and Learning Strategies	
Strategy	

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Biochemistry	Enzymes: Definition Terminology: substrate; cofactor; coenzyme ...ect Classification Kinetic properties of enzyme Enzyme inhibition Model of enzyme – substrate binding Enzyme regulation Effect of pH and Temp. on enzyme activity Plasma enzymes in diagnosis GPT and GOT LDH Isoenzymes	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
2	2	Biochemistry	Classification	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
3	2	Biochemistry	Kinetic properties of enzyme	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
4	2	Biochemistry	Enzyme inhibition	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
5	2	Biochemistry	Model of enzyme – substrate binding	Theoretical lecture using the program	Short, quarterly, half-year and final exams

				power point	
6	2	Biochemistry	Plasma enzymes in diagnosis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
7	2	Biochemistry	:Lipid Lipid classes Lipid metabolism: Triacylglycerol synthesis F.A. degradation F.A. biosynthesis Regulation of F.A. metabolism in mammals Cholesterol metabolism	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
8	2	Biochemistry	Lipid metabolism	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
9	2	Biochemistry	Triacylglycerol synthesis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
10	2	Biochemistry	F.A. degradation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
11	2	Biochemistry	Carbohydrate metabolism: Glycogen metabolism (synthesis & degradation) Glycolysis and its Regulation Gluconeogenesis Metabolism of other important sugars Citric acid cycle and Regulation Electron transport system Oxidative phosphorylation Oxidative stress Glucose-6-phosphate dehydrogenase deficiency	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
12	2	Biochemistry	Glycogen metabolism (synthesis & degradation)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
13	2	Biochemistry	Glycolysis and its Regulation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
14	2	Biochemistry	Gluconeogenesis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
15	2	Biochemistry	Metabolism of other important sugars	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
16	2	Biochemistry	Citric acid cycle and Regulation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
17	2	Biochemistry	Citric acid cycle and Regulation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
18	2	Biochemistry	Electron transport system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
19	2	Biochemistry	Vitamins: Definition The major groups(fat& water soluble vitamins) Study the individual vitamins under certain general heading: sources,chemistry,metabolism,physiological functions, deficiency diseases, daily requirements,hypervitaminosis, vitamin antagonists, vitamin A,D,E,K,C &B, niacin,	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

			pyridoxine, pantothenic acid ,biotin, folic acid		
20	2	Biochemistry	The major groups(fat& water soluble vitamins)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
21	2	Biochemistry	sources,chemistry ,metabolism,	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
22	2	Biochemistry	daily requirements,hypervit aminosis	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
23	2	Biochemistry	vitamin A,D,E,K,C	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
24	2	Biochemistry	Protein and aminoacids metabolism .Dynamic equilibrium and nitrogen balance .Essential and non- essential A.As .Nitrogen catabolism of A.As .Formation of NH ₃ and urea .Metabolism and fate ofNH ₃ in the body a.Formation of urea (urea cycle) inherited disorder associated with urea cycle b.Glutamin formation c.Amination of alpha ketoacids .Fate of carbon skeletons break down of C,H,O. These pathways converge to form seven intermediate product a.Glycogenic amino acids b.Ketogenic amino acids .Amino acids degradation and synthesis c-A.As forming pyruvate d- A.As forming fumarate e-A.As forming actyl-coA or acetoacyl-coA f-A.As forming succinyl- coA 9.Decarboxylation reaction of amino acids and biogenic amines 10.Other nitrogen containing compounds which produced from A.As 11.Metabolic defects in A.As metabolism	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
25	2	Biochemistry	.Dynamic equilibrium	Theoretical lecture	Short, quarterly, half-year

			and nitrogen balance	using the program power point	and final exams
26	2	Biochemistry	Essential and non-essential A.A	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
27	2	Biochemistry	Nitrogen catabolism of A.A	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
28	2	Biochemistry	Formation of NH ₃ and ure	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
29	2	Biochemistry	Metabolism and fate of NH ₃ in the body	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
30	2	Biochemistry	a. Formation of urea (urea cycle)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
31	2	Biochemistry	a. Formation of urea (urea cycle)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
32	2	Biochemistry	formation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
33	2	Biochemistry	c. Amination of alpha ketoacids	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

11. Course Evaluation

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lippincott's Illustrated Reviews Biochemistry
Main references (source)	
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	Internet website

Course Description

1. Course Name:	
Biology	
2. Course Code:	
DNT102	
3. Semester / Year:	
2023-2024/first	
4. Description Preparation Date:	
27/4/2024	
5. Available Attendance Forms:	
<i>lectures and practical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60 hr/60 hr/6	
7. Course administrator's name (mention all, if more than one name)	
Karama Tahrir Ahmed den.karama.tahrer@uoanbar.edu.iq Khadija Khleaf Abdulla den.khadija.khlif@uoanbar.edu.iq Zainab Kamil Yousif den.zaynab.kaml@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	The student learns the basics of biology and its branches, such as cell and histology, bacteriology, and molecular biology. The student also learns parasitology and examples of the most common pathogenic parasites that infect humans, such as intestinal and oral parasites
9. Teaching and Learning Strategies	
Strategy	Lectures that encourage students and teach them ways to confront and solve problems. - Monitoring the way students think, their ways of expression and their speed of response. - Experiments in laboratories. -Self education

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method

1	2	Introduction to medical and oral biology	Biology	Lectures and practical practice	Daily, semester, and final exams
2	2	Prokaryotic and eukaryotic	Biology	Lectures and practical practice	Daily, semester, and final exams
3	2	General and oral immunology	Biology	Lectures and practical practice	Daily, semester, and final exams
4	2	Bacteria and Oral disease	Biology	Lectures and practical practice	Daily, semester, and final exams
5	2	Genetics and its role in oral disease	Biology	Lectures and practical practice	Daily, semester, and final exams
6	2	Simple epithelial tissue stratified epithelial tissue	Biology	Lectures and practical practice	Daily, semester, and final exams
7	2	Glandular epithelial tissue	Biology	Lectures and practical practice	Daily, semester, and final exams
8	2	General connective tissue and blood	Biology	Lectures and practical practice	Daily, semester, and final exams
9	2	Muscular tissue	Biology	Lectures and practical practice	Daily, semester, and final exams
10	2	Nerve tissue	Biology	Lectures and practical practice	Daily, semester, and final exams
11	2	Cell structure (oral mucous membrane)	Biology	Lectures and practical practice	Daily, semester, and final exams
12	2	Plasma membrane structure and passage of materials across cell membrane	Biology	Lectures and practical practice	Daily, semester, and final exams
13	2	Cell energy	Biology	Lectures and practical practice	Daily, semester, and final exams
14	2	Cell cycle ,Mitosis and miosis	Biology	Lectures and practical practice	Daily, semester, and final exams
15	2	Nucleic	Biology	Lectures and	Daily, semester, and

		acid ,DNA and RNA		practical practice	final exams
16	2	Introduction to parasitology Types of parasites and host General and oral protozoa	Biology	Lectures and practical practice	Daily, semester, and final exams
17	2	Human amoebas E.histolytica ,E. coli E.gingivalis	Biology	Lectures and practical practice	Daily, semester, and final exams
18	2	Flagellates ,Giardia lamblia ,Trichomonas tenax , .T.hominas ,T.vaginalis	Biology	Lectures and practical practice	Daily, semester, and final exams
19	2	Leishmania ,cutaneous and vesiral	Biology	Lectures and practical practice	Daily, semester, and final exams
20	2	, Sporozoa ,plasmodium spp	Biology	Lectures and practical practice	Daily, semester, and final exams
21	2	Toxoplasma gondi Nemathelminthes ,Ascaris	Biology	Lectures and practical practice	Daily, semester, and final exams
22	2	Ancylostoma duodenale ,Enterobius vermicularis	Biology	Lectures and practical practice	Daily, semester, and final exams
23	2	Platyhelminthes ,Fasciola hepatica ,Schistosoma spp	Biology	Lectures and practical practice	Daily, semester, and final exams
24	2	Overview of biological safety & security equipment Introduction of biosecurity risk characterization in biosecurity vulnerability assessment components of laboratory biosecurity	Biology	Lectures and practical practice	Daily, semester, and final exams

25	2	Biosafety practices part biosafety rules simulations 3D Disinfection & sterilization hazardous chemical decontamination and biological wast disposal	Biology	Lectures and practical practice	Daily, semester, and final exams
26	2		Biology	Lectures and practical practice	Daily, semester, and final exams
27	2		Biology	Lectures and practical practice	Daily, semester, and final exams
28	2		Biology	Lectures and practical practice	Daily, semester, and final exams
29	2		Biology	Lectures and practical practice	Daily, semester, and final exams
30	2		Biology	Lectures and practical practice	Daily, semester, and final exams

11. Course Evaluation

Final exams	daily exams	.Lab	semester
60	1	7	12

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Biology - 2e Mary Ann Clark, Fort Worth, Texas Jung Choi, Marietta, Georgia Matthew Douglas, Grand Rapids, Michigan ,2018
Main references (source)	Jawetz, Melnick, & Adelberg's Medical Microbiology, 28e
Recommended books and references (scientific journals, reports...)	Reports

Electronic references, websites.

websites of college

Course Description

1. *Course Name:*

Medical Physics

2. Course Code:

DNT103

3. Semester / Year:

2023-2024/ first

4. Description Preparation Date:

27/4/2024

5. Available Attendance Forms:

lectures and practical practice

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

60 hr/60 hr/6 units

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

Ehsan Ali Abed den.ehsan.ali@uoanbar.edu.iq

8. Course Objectives

Course Objectives

Study and application of physical concepts in dentistry

9. Teaching and Learning Strategies

Strategy

Lectures that encourage students and teach them ways to confront and solve problems.
- Monitoring the way students think, their ways of expression and their speed of response.
- Experiments in laboratories.
-Self education

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Terminology Terms: Medical Physics, physical medicine, Physical therapy, Health Physics, Radiological Physics, clinical physics. Modeling, Accuracy, Precision, False	Physics	Lectures and practical practice	Daily, semester, and final exams

		Positive, False Negative			
2	2	Terminology Terms: Medical Physics, physical medicine, Physical therapy, Health Physics, Radiological Physics, clinical physics. Modeling, Accuracy, Precision, False Positive, False Negative	Physics	Lectures and practical practice	Daily, semester, and final exams
3	2	Force on & in body: Static forces :(type of levers with medical examples). Dynamic forces (Centrifuge	Physics	Lectures and practical practice	Daily, semester, and final exams
4	2	Force on & in body: Static forces :(type of levers with medical examples). Dynamic forces (Centrifuge	Physics	Lectures and practical practice	Daily, semester, and final exams
5	2	Physics of the skeleton: Bones:(Function of bones, Composition of bone, bone remodeling, compact and trabecular bone) Stress-strain curve : (compressive and tensile stress, young modulus). Bone joints : (Synovial fluid, coefficient of a joint)	Physics	Lectures and practical practice	Daily, semester, and final exams
6	2	Physics of the skeleton: Bones:(Function of bones, Composition of bone, bone remodeling, compact and	Physics	Lectures and practical practice	Daily, semester, and final exams

		<p>trabecular bone) Stress-strain curve : (compressive and tensile stress, young modulus). Bone joints : (Synovial fluid, coefficient of a , joint)</p>			
7	2	<p><i>Heat and cold in medicine:</i> Physical basis of heat and temperature, Temperature scales, Converting Temperatures, Temperature in Dentistry, Thermal expansion, (Linear, Area, Volume Thermal Expansion), Thermometry, Heat therapy, Thermography, Cold in medicine and cryosurgery. Thermal , conductivity</p>	Physics	Lectures and practical practice	Daily, semester, and final exams
8	2	<p><i>Heat and cold in medicine:</i> Physical basis of heat and temperature, Temperature scales, Converting Temperatures, Temperature in Dentistry, Thermal expansion, (Linear, Area, Volume Thermal Expansion), Thermometry, Heat therapy, Thermography, Cold in medicine and cryosurgery. Thermal , conductivity</p>	Physics	Lectures and practical practice	Daily, semester, and final exams

9	2	<p><i>Energy, work and power of the body:</i> First law of thermodynamic. Energy change in the body (Met, Basal metabolic rate (BMR). Work and power. Efficiency heat losses from the body. Anaerobic phase and aerobic phase. Hypothalamus (body's thermostat).Heat lost by (radiation, convection, evaporation of sweat and .respiration)</p>	Physics	Lectures and practical practice	Daily, semester, and final exams
10	2	<p><i>Energy, work and power of the body:</i> First law of thermodynamic. Energy change in the body (Met, Basal metabolic rate (BMR). Work and power. Efficiency heat losses from the body. Anaerobic phase and aerobic phase. Hypothalamus (body's thermostat).Heat lost by (radiation, convection, evaporation of sweat and .respiration)</p>	Physics	Lectures and practical practice	Daily, semester, and final exams
11	2	<p><i>Pressure:</i> Definition, absolute pressure, gauge pressure, negative pressure, unit of pressure. Measurement of pressure in the body</p>	Physics	Lectures and practical practice	Daily, semester, and final exams

		(Manometer).Pressure inside the skull. Eye pressure. Pressure in the skeleton. Pressure in the urinary bladder.Boyle's law: (pressure while diving).HOT (hyperbaric oxygen therapy)			
12	2	Pressure: Definition, absolute pressure, gauge pressure, negative pressure, unit of pressure. Measurement of pressure in the body (Manometer).Pressure inside the skull. Eye pressure. Pressure in the skeleton. Pressure in the urinary bladder.Boyle's law: (pressure while diving).HOT (hyperbaric oxygen therapy)	Physics	Lectures and practical practice	Daily, semester, and final exams
13	2	Electricity within the body: Electrical potential of nerves (resting potential, action potential in myelinated and unmyelinated nerves) Electromyogram Electrical .(EMG) potential in the heart (electrocardiogram ECG). Electroencephalogram (EEG)	Physics	Lectures and practical practice	Daily, semester, and final exams
14	2	Electricity within the body: Electrical potential	Physics	Lectures and practical practice	Daily, semester, and final exams

		of nerves (resting potential, action potential in myelinated and unmyelinated nerves) Electromyogram Electrical .(EMG) potential in the heart (electrocardiogram ECG). Electroencephalogram (EEG)			
15	2	Sound in medicine: Properties of sound. Stethoscope (including heart sound).mechanism of hearing	Physics	Lectures and practical practice	Daily, semester, and final exams
16	2	Sound in medicine: Properties of sound. Stethoscope (including heart sound).mechanism of hearing	Physics	Lectures and practical practice	Daily, semester, and final exams
17	2	Ultrasound A-scan, B-scan,) M-scan and .(Doppler effect Physiological effect of ultrasound in therapy	Physics	Lectures and practical practice	Daily, semester, and final exams
18	2	Ultrasound A-scan, B-scan,) M-scan and .(Doppler effect Physiological effect of ultrasound in therapy	Physics	Lectures and practical practice	Daily, semester, and final exams
19	2	Light in medicine: Light nature, Planck Equation, (Reflection, Refraction and Absorption of Light, Properties of light), Diffuse reflection, Specular reflection, Phototherapy, Applications of ultraviolet and infrared light in medicine, Tanning and Skin Cancer	Physics	Lectures and practical practice	Daily, semester, and final exams
20	2	Light in medicine: Light nature, Planck Equation,	Physics	Lectures and practical practice	Daily, semester, and final exams

		(Reflection, Refraction and Absorption of Light, Properties of light), Diffuse reflection, Specular reflection, Phototherapy, Application of ultraviolet and infrared light in medicine, Tanning and Skin .Cancer			
21	2	<i>Laser in medicine.</i> What is laser? Application of laser in medicine Atomic Transitions, Population inversion, Laser Typical Characteristics, General Applications of Laser, Laser Dental Applications, Reshape gum tissue, Laser aided teeth whitening, .Laser Drill	Physics	Lectures and practical practice	Daily, semester, and final exams
22	2	<i>Laser in medicine.</i> What is laser? Application of laser in medicine Atomic Transitions, Population inversion, Laser Typical Characteristics, General Applications of Laser, Laser Dental Applications, Reshape gum tissue, Laser aided teeth whitening, .Laser Drill	Physics	Lectures and practical practice	Daily, semester, and final exams
23	2	<i>Physics of eye and vision:</i> Focusing element of the eye (cornea, lens).	Physics	Lectures and practical practice	Daily, semester, and final exams

		Element of the eye (pupil, aqueous humor, vitreous humor, sclera). Visual acuity, Snellen chart, optical .density			
24	2	<i>Physics of eye and vision:</i> Focusing element of the eye (cornea, lens). Element of the eye (pupil, aqueous humor, vitreous humor, sclera). Visual acuity, Snellen chart, optical .density	Physics	Lectures and practical practice	Daily, semester, and final exams
25	2	<i>Physics of diagnostic X-ray:</i> Properties of X-ray, production of X-ray. Absorption of X-ray, contrast media-ray image (penumbra, grid, and intensifying screens). Radiation to patients from X-.ray (filters)	Physics	Lectures and practical practice	Daily, semester, and final exams
26	2	<i>Physics of diagnostic X-ray:</i> Properties of X-ray, production of X-ray. Absorption of X-ray, contrast media-ray image (penumbra, grid, and intensifying screens). Radiation to patients from X-.ray (filters)	Physics	Lectures and practical practice	Daily, semester, and final exams
27	2	<i>Physics of nuclear medicine:</i> Radioactivity decay, half-life, units. Basic instrumentation and its medical application (GM-	Physics	Lectures and practical practice	Daily, semester, and final exams

		tube, Photomultiplier tube, scintillation detector, solid state detector).Therapy with radioactivity. Radiation doses in .nuclear medicine			
28	2	Physics of nuclear medicine: Radioactivity decay, half-life, units. Basic instrumentation and its medical application (GM- tube, Photomultiplier tube, scintillation detector, solid state detector).Therapy with radioactivity. Radiation doses in .nuclear medicine	Physics	Lectures and practical practice	Daily, semester, and final exams
29	2	Physics of radiation therapy: The dose units (Rad and Gray).Principles of radiation therapy. Brach therapy, .quality factor (QF)	Physics	Lectures and practical practice	Daily, semester, and final exams
30	2	Physics of radiation therapy: The dose units (Rad and Gray).Principles of radiation therapy. Brach therapy, .quality factor (QF)	Physics	Lectures and practical practice	Daily, semester, and final exams

11. Course Evaluation

Final exams	daily exams	.Lab	semester
60	1	7	12

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Medical Physics ,John R Cameron 1992

	Physics of the Human Body 2006
Main references (source)	1. Diagnostic Radiology Physics: A Handbook for Teachers and Students, 2014 2. Nuclear Medicine Physics: A Handbook for Teachers and Students, 2014 3. THE PHYSICS OF RADIATION THERAPY, 2003
Recommended books and references (scientific journals, reports...)	Reports
Electronic references, websites.	Websites of college

Course Description

1. Course Name:	Medical chemistry
2. Course Code:	DNT104
3. Semester / Year:	2023-2024/ first
4. Description Preparation Date:	27/4/2024
5. Available Attendance Forms:	<i>lectures and practical practice</i>
6. Number of Credit Hours (Total) / Number of Units (Total)	<i>60 hr/60 hr/6 units</i>

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

Mahmoud Saleh Muter den.mahmood.sale@uoanbar.edu.iq

Amal Shakir Abboud amal.shakir@uoanbar.edu.iq

8. Course Objectives

Course Objectives	<p>The student should know the science of chemistry and its branches.</p> <p>To distinguish between the branches of chemistry -</p> <p>That the student knows the relationship between chemistry and daily life, and recognizes -</p> <p>On the nature of the material</p> <p>The student should distinguish between subjects and how to deal with them quantitatively and qualitatively.</p> <p>The student should know the truth about the chemical reaction, its conditions and factors.</p> <p>To determine the reactions occurring within the body and their relationship to growth and health.</p> <p>And illness</p>
--------------------------	---

9. Teaching and Learning Strategies

Strategy	<p>Lectures that encourage students and teach them ways to confront and solve problems.</p> <ul style="list-style-type: none">- Monitoring the way students think, their ways of expression and their speed of response.- Experiments in laboratories.-Self education
-----------------	---

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	Acid, Base and Salt	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
2	2	salts, preparation of salts	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
3	2	Fluid and electrolyte	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
4	2	Buffer-pH and Acid-Base Balance	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams

5	2	acid-base balance and blood pH	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
6	2	Colloids and colloidal dispersions	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
7	2	Molar concentration (Molarity)	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
8	2	Chirality in Biological Systems	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
9	2	Pollution	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
10	2	Radiochemistry	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
11	2	Alkanes and Cycloalkanes	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
12	2	Alkenes and Alkynes	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
13	2	Aromatic compounds	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
14	2	Aromatic compounds in Nature	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
15	2	Stereoisomers of Carbon	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
16	2	Diastereomers	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
17	2	Phenols (preparation, reactions)	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
18	2	Carboxylic Acids And Their Derivatives	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
19	2	Amides	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams

20	2	Aldehydes and ketones	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
21	2	Carbohydrates	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
22	2	Monosaccharides	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
23	2	Disaccharides	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
24	2	Lipids	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
25	2	Derived lipids	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
26	2	Proteins and Amino Acids	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
27	2	Amino acids	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
28	2	Nucleic Acids	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
29	2	Acid, Base and Salt	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams
30	2	Examination	Medical chemistry	Lectures and practical practice	Daily, semester, and final exams

11. Course Evaluation

Final exams	daily exams	.Lab	semester
60	2	6	12

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)

Main references (source)	
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

Course Description

1. <i>Course Name:</i>	
Computer	
2. <i>Course Code:</i>	
UOA141	
3. <i>Semester / Year:</i>	
2023-2024/ first	
4. <i>Description Preparation Date:</i>	
27/4/2024	
5. Available Attendance Forms:	
<i>Lectures and practical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30hr/2 units	
7. Course administrator's name (mention all, if more than one name)	
Lamia Faris den.lamia.faris@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	The Computers Unit teaches computer applications, computer applications for all scientific departments. The goal of the unit is to teach students and prepare them to pursue the topics they receive in some specialized lessons
9. Teaching and Learning Strategies	

Strategy	<p>Lectures that encourage students and teach them ways to confront and solve problems.</p> <ul style="list-style-type: none"> - Monitoring the way students think, their ways of expression and their speed of response. - Experiments in laboratories. -Self education
-----------------	---

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Introduction about computer /Hardware and Software	Computer	Lectures and practical practice	Daily, semester, and final exams
2	1	computer structure/ Floppy magnetic disks	Computer	Lectures and practical practice	Daily, semester, and final exams
3	1	Introduction to E-learning	Computer	Lectures and practical practice	Daily, semester, and final exams
4	1	Google Classroom Platform	Computer	Lectures and practical practice	Daily, semester, and final exams
5	1	Google drive	Computer	Lectures and practical practice	Daily, semester, and final exams
6	1	Google forms	Computer	Lectures and practical practice	Daily, semester, and final exams
7	1	Online conferencing	Computer	Lectures and practical practice	Daily, semester, and final exams
8	1	A look at Windows 10/Stating Windows /10	Computer	Lectures and practical practice	Daily, semester, and final exams
9	1	Working	Computer	Lectures and	Daily, semester, and

		with a windows Program		practical practice	final exams
10	1	Working with files and folders/ Using My computer	Computer	Lectures and practical practice	Daily, semester, and final exams
11	1	Working with Taskbar and Desktop - Using Windows Accessories	Computer	Lectures and practical practice	Daily, semester, and final exams
12	1	A look at Control Panel	Computer	Lectures and practical practice	Daily, semester, and final exams
13	1	Windows Explorer	Computer	Lectures and practical practice	Daily, semester, and final exams
14	1	Libraries	Computer	Lectures and practical practice	Daily, semester, and final exams
15	1	Introduction about Microsoft Word2016	Computer	Lectures and practical practice	Daily, semester, and final exams
16	1	Introduction about Microsoft Word2016	Computer	Lectures and practical practice	Daily, semester, and final exams
17	1	A look at Microsoft Word /Editing Document	Computer	Lectures and practical practice	Daily, semester, and final exams
18	1	Formatting Text	Computer	Lectures and practical practice	Daily, semester, and final exams
19	1	Formatting paragraphs ,	Computer	Lectures and practical practice	Daily, semester, and final exams

		Proofing documents			
20	1	Adding Tables	Computer	Lectures and practical practice	Daily, semester, and final exams
21	1	Inserting Graphic Elements	Computer	Lectures and practical practice	Daily, semester, and final exams
22	1	Controlling page Appearance	Computer	Lectures and practical practice	Daily, semester, and final exams
23	1	Introduction about Excels /A Look at Microsoft Excel	Computer	Lectures and practical practice	Daily, semester, and final exams
24	1	modifying A Worksheet /performing Calculations	Computer	Lectures and practical practice	Daily, semester, and final exams
25	1	Formatting a worksheet/ Developing a workbook	Computer	Lectures and practical practice	Daily, semester, and final exams
26	1	Printing Workbook Contents/ Customizing Layout	Computer	Lectures and practical practice	Daily, semester, and final exams
27	1	Introduction about Microsoft Access/ A look at Microsoft Access	Computer	Lectures and practical practice	Daily, semester, and final exams
28	1	Creating Data	Computer	Lectures and practical	Daily, semester, and final exams

		tables /propertie s of the fields		practice	
29					
30					

11. Course Evaluation

Final exams	daily exams	.Lab	semester
60	2	8	10

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	The principle of computer science
Main references (source)	
Recommended books and references (scientific journals, reports reports...)	
Electronic references, websites.	Websites of college

Course Description

1. <i>Course Name:</i>	
English language/ Terminology	
2. <i>Course Code:</i>	
UOA140	
3. <i>Semester / Year:</i>	
2023-2024/ first	
4. <i>Description Preparation Date:</i>	
27/4/2024	
5. Available Attendance Forms:	
<i>Lectures</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hrs/ 2 units	
7. Course administrator's name (mention all, if more than one name)	
Noor Hameed Mchayet : noor.h.majit@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	<p>Introducing students to the nature and development of the English language,</p> <p>increasing students' awareness, and understanding of the language, and working to develop listening, speaking, writing, and reading skills by having them read texts and solve exercises related to English grammar to increase the students' ability to speak the language.</p> <p>Acquiring knowledge of medical terminology and focusing on the terminology used during the years of study in addition to the terminology used in dentistry</p>
9. Teaching and Learning Strategies	
Strategy	<p>Lectures that encourage students and teach them ways to confront and solve problems.</p> <p>- Monitoring the way students think, their ways of expression and their speed of response.</p> <p>-Self education</p>

10. Course Structure					
Week	Hrs	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method

1	1	Tenses in English	English language Terminology	Lectures	Daily, semester, and final exams
2	1	The Passive Voice	English language/ Terminology	Lectures	Daily, semester, and final exams
3	1	Direct and Indirect Speech	English language/ Terminology	Lectures	Daily, semester, and final exams
4	1	Prepositions in English	English language/ Terminology	Lectures	Daily, semester, and final exams
5	1	Adjectives	English language/ Terminology	Lectures	Daily, semester, and final exams
6	1	Common Mistakes in English	English language/ Terminology	Lectures	Daily, semester, and final exams
7	1	Integrating a Quotation into an Essay	English language/ Terminology	Lectures	Daily, semester, and final exams
8	1	Paraphrasing	English language/ Terminology	Lectures	Daily, semester, and final exams
9	1	Essay Writing Skills	English language/ Terminology	Lectures	Daily, semester, and final exams
10	1	Synonyms in English	English language/ Terminology	Lectures	Daily, semester, and final exams
11	1	Synonyms and Antonyms	English language/ Terminology	Lectures	Daily, semester, and final exams
12	1	Idioms and Phrases	English language/ Terminology	Lectures	Daily, semester, and final exams
13	1	Writing Assignment	English language/ Terminology	Lectures	Daily, semester, and final exams
14	1	Pronunciation Rules	English language/ Terminology	Lectures	Daily, semester, and final exams
15	1	Small Talk	English language/ Terminology	Lectures	Daily, semester, and final exams
16	1	Prefixes and Suffixes	English language/	Lectures	Daily, semester, and final exams

			Terminology		
17	1	Integumentary System	English language/ Terminology	Lectures	Daily, semester, and final exams
18	1	Muscular System	English language/ Terminology	Lectures	Daily, semester, and final exams
19	1	Respiratory System	English language/ Terminology	Lectures	Daily, semester, and final exams
20	1	Digestive System	English language/ Terminology	Lectures	Daily, semester, and final exams
21	1	Nervous System	English language/ Terminology	Lectures	Daily, semester, and final exams
22	1	Cardiovascular System	English language/ Terminology	Lectures	Daily, semester, and final exams
23	1	Blood and Lymph	English language/ Terminology	Lectures	Daily, semester, and final exams
24	1	Immune System	English language/ Terminology	Lectures	Daily, semester, and final exams
25	1	Endocrine System	English language/ Terminology	Lectures	Daily, semester, and final exams
26	1	Five Senses	English language/ Terminology	Lectures	Daily, semester, and final exams
27	1	Genitourinary System	English language/ Terminology	Lectures	Daily, semester, and final exams
28	1	Dental Terminology I	English language/ Terminology	Lectures	Daily, semester, and final exams
29	1	Dental Terminology II	English language/ Terminology	Lectures	Daily, semester, and final exams
30	1		English language/ Terminology	Lectures	Daily, semester, and final exams

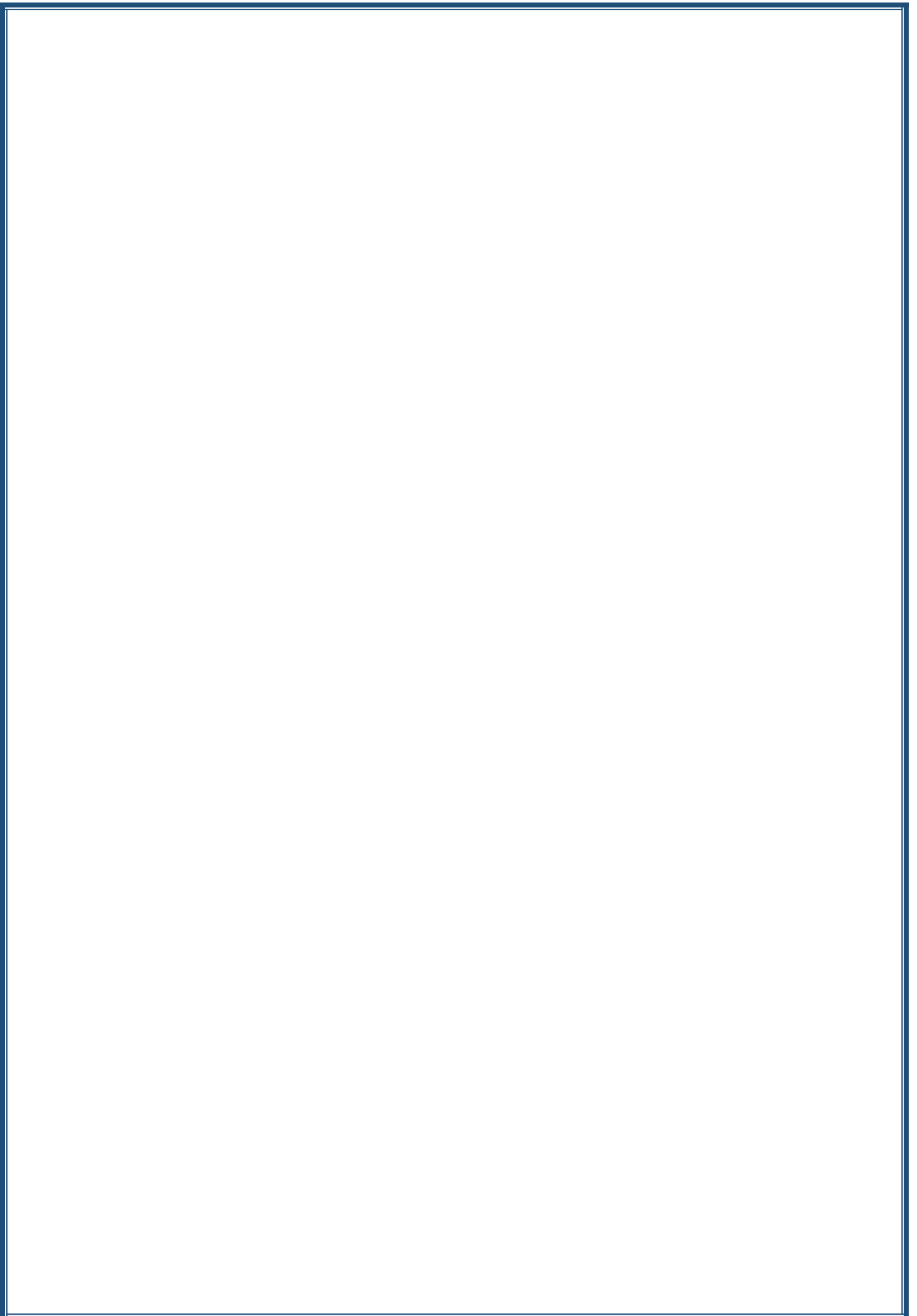
11. Course Evaluation

--

Final exams	daily exams	.Lab	semester
70	5	0	25

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<p>New Headway Plus Intermediate by Liz & John Soars</p> <p>Dental Terminology 3rd Ed by Charline Dofka</p>
Main references (source)	<p>Oxford English Grammar Course by Michael Swan and Catherine Walter</p> <p>A Dictionary of Medical Terminology, Dental Surgery, and the</p> <p>Collateral Sciences by Chapin Harris</p>
Recommended books and references (scientific journals, reports reports...)	
Electronic references, websites.	Websites of college



Course Description

1. *Course Name:*

Prosthetic

2. *Course Code:*

DNT406

3. *Semester / Year:*

2023-2024

4. *Description Preparation Date:*

25/4/2024

5. Available Attendance Forms:

Attendance and clinical practice

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

30h: Theory -90h clinical

8:Units

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

Lecture: Mohammed. R.abduljabbar

Email: den.m.ryadh@uoanbar.edu.iq

8. Course Objectives

Course Objectives

- Enabling students to obtain knowledge and understanding of the work of dentures. The student learns the basics of this work.
- Enabling students to obtain knowledge and how to deal with the patient without causing any harm to the patient.
- Enabling students to obtain knowledge and understanding of each subject and what is the best method of work through comprehensive knowledge of the anatomical signs that help stabilize the denture

9. Teaching and Learning Strategies

Strategy

- Theoretical lectures inside the classroom.
- Student groups
- Clinic activities
- E-learning on campus (use of the Internet)

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	4	<ul style="list-style-type: none"> Osteology importance • Factors that influence the form and size of the supporting structures • Supporting structures in the maxillary edentulous foundation • The limiting structures of the upper denture • Osseous structures associated with the mandibular denture • Maxillary and mandibular stressbearing areas • Areas requiring relief in impression • The pattern of bone resorption 	Anatomy and physiology as related to dental prosthesis (osteology)	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
2	4	<ul style="list-style-type: none"> Muscles of facial expression • Functions of muscles of facial expression • Muscles of mastication 	Anatomy and physiology as related to dental prosthesis (Myology)	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		<ul style="list-style-type: none"> • Muscles of the soft palate • Tongue • Muscle physiology • Oral mucous membrane • Salivary gland and saliva } Physiologic factors affect salivation } Function of saliva 			
3	4	Patient interview <ul style="list-style-type: none"> • The objectives of prosthodontic treatment • Oral examination <ul style="list-style-type: none"> • Sequences of oral examination 	Diagnosis and treatment plan for RPD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
4	4	Interpretation of Examination Data <ul style="list-style-type: none"> • Root morphology • Periodontal considerations • Needs for extraction • Indication of RPD • The Recommended Infection Control Practices for Dental Treatment 	To be continued Diagnosis and treatment	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
5	4	Pre-prosthetic procedures <ul style="list-style-type: none"> } Oral surgical preparation } Exostosis and tori } Hyperplastic tissue } Bony spine and knife edge ridge } Augmentation of alveolar bone 	Preparation of the mouth to receive an RPD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

6	4	Maximum benefit from using tissue conditioning material } Periodontal preparation } Abutment teeth preparation } The sequences of abutment tooth preparation on sound enamel or existing restoration are as follow } The procedure of rest seat preparation on sounds enamel surface	Preparation of the mouth to receive an RPD (Continued	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
7	4	Impression material } Differences between reversible and irreversible hydrocolloid } Important Precautions to Be Observed in the Handling of 1 124 Hydrocolloid Impressions. • Steps in impression making } The step-by-step procedure and important points to observe in the making of a hydrocolloid impression	Classification of impression technique	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
8	4	Step-by-Step Procedure for Making a Stone Cast from a Hydrocolloid	Classification of impression technique (To be	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		<ul style="list-style-type: none"> Impression • Possible Causes of an Inaccurate and/or a Weak Cast of a Dental Arch • Technique used for individual impression trays • McLean's physiologic impression • The Recommended Infection Control Practices for Dental Treatment 	continue		
9	4	<ul style="list-style-type: none"> The main problems which might occur in tooth-tissue support • Factors influencing the support of a distal extension denture base • Anatomic form impression • Methods for obtaining functional support for the distal extension base 	Designing Support	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
10	4	<ul style="list-style-type: none"> Initial inspection • Methods and procedures for fitting the framework • Laboratory inspection • Clinical procedures • Occlusal evaluation • Clinical procedures after fitting the 	Fitting the removable partial denture framework	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		framework			
11	4	The establishment of satisfactory occlusion for RPD • Desirable occlusal contact relationships for various RPD • Occlusion in RPD's (Requirements)	Occlusal Relationship for Removable Partial Denture	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
12	4	Methods for establishing occlusal relationship • Interocclusal records • Excellent occlusal recording materials	Jaw relation in RPD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
13	4	The trial dentures on the mounted casts • The trial dentures in patient's mouth • Esthetic try-in • Denture base consideration • The patient evaluation • Phonetics evaluation • Verification of Jaw Relation • Choice of tooth materials	Trial RPD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
14	4	Final inspection of the prosthesis before insertion • Verifying the removable partial denture (RPD) framework fit • Assessment of acrylic resin denture base adaptation	Initial placement and adjustment of RP	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>Assessment of peripheral extension of the denture base • Evaluating occlusion • Adjusting retentive clasp assembly, if needed • Providing instructions for the patient in the use and care of the prosthesis</p>			
15	4	<p>Surgical Guides(Templates) • Commonly Used Pre-prosthetic Procedures • Ridge Alveoloplasty with Extraction • Intra-septal Alveoloplasty • Edentulous Ridge Alveoloplasty • Buccal Exostosis • Maxillary Tuberosity Reductions } Mandibular Tori } Maxillary Tori } Mylohyoid Ridge Reduction } Genial Tubercle Reduction</p>	Pre-prosthetic surgery	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
16	4	<p>Soft Tissue Procedures } Maxillary Soft Tissue Tuberosity Reduction } Maxillary Labial Frenectomy } Excision of Redundant/Hyper</p>	Pre-prosthetic Surgical Considerations (Continued	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		mobile Tissue Overlying the Tuberosities } Excision of inflammatory Fibrous Hyperplasia (Epulis Fissuratum) } Inflammatory Papillary Hyperplasia of the Palate			
17	4	Mental Attitude (Psychological factor) } House classification } Social information. } Systemic (medical) status	Diagnosis and treatment plan CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
18	4	Past dental history } Local factors } Intraoral examination (mucosa, ridge, hard palate, soft palate, tongue and post mylohyoid space) } Radiographic examination } Diagnostic cast- advantages • Treatment planning • Prognosis • Patient education	To be continued diagnosis and treatment plan for CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
19	4	Definition • Objective of complete denture impression • Biologic considerations for mandibular impressions • Theories of	Impression in CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>impression techniques • Primary impression • Common errors in impression makings • Secondary (final) impression } Materials used for final impression } Steps for making final impression Correction of special tray } Making the final impression } Making final impression utilizing digital intraoral scanner</p>			
20	4	<p>Anatomy of TMJ • How does the TMJ move during function? • The muscles and ligaments of TMJ • Mandibular axis • Mandibular movement. (Basic and functional movement) • Border movement (sagittal, horizontal and coronal) • Jaw registration of condylar movements • Articulator's classifications • Face-bow transfer</p>	<p>TMJ and mandibular movement</p>	<p>Lectures + clinic</p>	<p>Daily, semester, and final exams = weekly evaluation in the clinic</p>
21	4	<p>Digital partial dentures and rapid prototyping procedure •</p>	<p>Digital RPD</p>	<p>Lectures + clinic</p>	<p>Daily, semester, and final exams = weekly evaluation in the clinic</p>

		Difference between conventional and digital RPD Procedure • Advantages highlight the benefits of the digital over the conventional method			
22	4	Definition • Importance of Vertical Jaw Relation • Factors Affecting Vertical Jaw Relation • Effects of increased vertical relation • Effects of decreased vertical relation • Vertical Dimension at Rest • Facial measurements after swallowing and relaxing • Vertical Dimension at Occlusion • Methods of Measuring } Mechanical methods } Physiological methods	Vertical jaw relation	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
23	4	Centric relation } Methods must be used to position the jaw in centric relation	Horizontal jaw relation (Centric occlusion)	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
24	4	Definition • Importance of trial denture • Objective of trail denture • Extra	Try in stage in CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>oral examination of trial denture •</p> <p>Trail denture assessment in the mouth •</p> <p>Incorporation of posterior palatal seal • Patient role in trial denture •</p> <p>Technician role in trial denture</p>			
25	4	<p>Complete denture insertion procedure •</p> <p>Denture base adjustment •</p> <p>Adjustment of denture border •</p> <p>Dentist evaluation</p> <p>Patient evaluation</p> <ul style="list-style-type: none"> • Friend's evaluation 	Insertion of CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
26	4	<p>Errors in occlusion</p> <ul style="list-style-type: none"> • Intra oral occlusal correction • Extra oral selective grinding (centric and eccentric correction) • <p>Appearance with new denture •</p> <p>Mastication with new denture •</p> <p>Speaking with new denture •</p> <p>Oral hygiene with dentures</p>	Adjustments of CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
27	4	<p>Freeway space problem • Pain in the sulcus • Pain on crest of the alveolar ridge •</p> <p>Looseness of one or both dentures</p> <ul style="list-style-type: none"> • Speech problems • 	Post insertion complications in CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic

		Chewing problems			
28	4	Factors influencing the decision to reline an existing denture • Impression Technique for relining and rebasing	relining and rebasing of CD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
29	4	Repair of fractured denture teeth • Complex fracture repairs	Repair of fractured RPD	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
30	4	Denture base material • Clasp material • Types of clasps	Esthetic denture materials	Lectures + clinic	Daily, semester, and final exams = weekly evaluation in the clinic
31					

11. Course Evaluation

1	The first theoretical exam	12
2	The first practical exam	8
3	The second theoretical exam	12
4	The second practical exam	8
5	Final practical and theoretical exam	60

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Book of complete denture.
Main references (source)	complete denture.
Recommended books and references (scientific journals and reports...)	Monthly scientific journals, in addition to reports that work periodically to improve the properties of materials
Electronic references, websites.	Using the Internet for the purpose of learning everything new in the field of dental materials.

Course Description

1. Course Name:	
periodontology	
2. Course Code:	
DNT507	
3. Semester / Year:	
2 semester/fifth stage.	
4. Description Preparation Date:	
26/4/2024	
5. Available Attendance Forms:	
weekly	
6. Number of Credit Hours (Total) / Number of Units (Total)	
30 hr theory/90 practical.	
7. Course administrator's name (mention all, if more than one name)	
Assist.lec.Ahmed.M.Abdul Razag. Email: Den.ahmed.maki@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	For having the knowledge of disease distribution and management
9. Teaching and Learning Strategies	
Strategy	-Knowledge and understanding -Pharmaceutical and surgical treatment of gum diseases.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Examination and treatment	Periodontal tissue components	Lecture(power {point	Exam &seminar
2	1	Examination and treatment	Introduction to periodontology	Lecture(power {point	Exam &seminar
3	1	Examination and treatment	Control of microbial growth	Lecture(power {point	Exam &seminar
4	1	Examination and treatment	Advances in periodontal management	Lecture(power {point	Exam &seminar

5	1	Examination and treatment	Gingival and periodontal pocket	Lecture(power {point	Exam &seminar
6	1	Examination and treatment	Pathogenesis of periodontal disease	Lecture(power {point	Exam &seminar
7	1	Examination and treatment	Tooth mobility	Lecture(power {point	Exam &seminar
8	1	Examination and treatment	Furcation involvement	Lecture(power {point	Exam &seminar
9	1	Examination and treatment	Treatment of furcation involvement	Lecture(power {point	Exam &seminar
10	1	Examination and treatment	Epidemiology of periodontal disease	Lecture(power {point	Exam &seminar
11	1	Examination and treatment	seminars	Lecture(power {point	Exam &seminar
12	1	Examination and treatment	seminars	Lecture(power {point	Exam &seminar
13	1	Examination and treatment	seminars	Lecture(power {point	Exam &seminar
14	1	Examination and treatment	seminars	Lecture(power {point	Exam &seminar
15	1	Examination and treatment	Exam& seminars	Lecture(power {point	Exam &seminar

16	1	Examination and treatment	The relation of periodontics with different dental disciplines	Lecture(power {point	Exam &seminar
17	1	Examination and treatment	Periodontal surgery	Lecture(power {point	Exam &seminar
18	1	Examination and treatment	New attachment and guided tissue regeneration (GTR) The original WIDMAN flap	Lecture(power {point	Exam &seminar
19	1	Examination and treatment	Phases of wound healing	Lecture(power {point	Exam &seminar
20	1	Examination and treatment	Dental implant	Lecture(power {point	Exam &seminar
21	1	Examination and treatment	Gingival crevicular fluid (GCF)	Lecture(power {point	Exam &seminar
22	1	Examination and treatment	Dentine hypersensitivity (DH)	Lecture(power {point	Exam &seminar
23	1	Examination and treatment	Occlusion	Lecture(power {point	Exam &seminar
24	1	Examination and	Laser and its	Lecture(power {point	Exam &seminar

		treatment	application in dentistry		
25	1	Examination and treatment	seminar	Lecture(power {point	Exam &seminar
26	1	Examination and treatment	seminar	Lecture(power {point	Exam &seminar
27	1	Examination and treatment	seminar	Lecture(power {point	Exam &seminar
28	1	Examination and treatment	seminar	Lecture(power {point	Exam &seminar
29	1	Examination and treatment	seminar	Lecture(power {point	Exam &seminar
30	1		Exam & seminar	Lecture(power {point	
31					

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (source)	Text book of periodontology and implantology
Recommended books and references (scientific journals, reports...)	

Electronic references, websites.	
----------------------------------	--

Course Description

1. <i>Course Name:</i>	
Oral histology	
2. <i>Course Code:</i>	
DNT202	
3. <i>Semester / Year:</i>	
2023-2024	
4. <i>Description Preparation Date:</i>	
25/4/2024	
5. Available Attendance Forms:	
<i>weekly</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>60 Hours theory/ 30 Hours practical</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Lecturer.Aseel Mohsin Yousif</i> <i>Lecturer.Abdulnasir Hatem</i>	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none"> • Qualifying dentists capable of identifying the important of various oral tissues • Studying the cells forming oral hard tissues.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> ❖ <i>Knowledge and understanding</i> ○ <i>The ability to distinguish of oral soft & hard tissues</i>

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	<i>Knowing development of embryo</i>	Embryogenesis: first week, ovulation, fertilization and implantation	<i>Lectures</i>	Exam + Seminar
2	2	<i>Knowing development of embryo</i>	2nd week, Bilaminar germ layer	<i>Lectures</i>	Exam + Seminar
3	2	<i>Knowing development of embryo</i>	3rd week trilaminar germ layer: gastrulation and neurulation	<i>Lectures</i>	Exam + Seminar

4	2	Knowing development of embryo	Development of head and neck(pharyngeal arch,pouch & cleft)	Lectures	Exam + Seminar
5	2	Knowing development of embryo	Development of face and anomalies	Lectures	Exam + Seminar
6	2	Knowing development of embryo	Development of tongue and anomalies	Lectures	Exam + Seminar
7	2	Knowing development of embryo	Development of palate and anomalies	Lectures	Exam + Seminar
8	1	Knowing the tissues of oral cavity	Slide preparation: Sectioning,Staining	Lectures	Exam + Seminar
9	2	Knowing the tissues of oral cavity	Tooth development and developmental disturbances of teeth	Lectures	Exam + Seminar
10	2	Knowing the tissues of oral cavity	Dentinogenesis and dentin structure	Lectures	Exam + Seminar
11	2	Knowing the tissues of oral cavity	amelogenesis and enamel structure	Lectures	Exam + Seminar
12	2	Knowing the tissues of oral cavity	Clinical consideration: Genetic and local factors	Lectures	Exam + Seminar
13	2	Knowing the tissues of oral cavity	Dental Pulp	Lectures	Exam + Seminar
14	2	Knowing the tissues of oral cavity	Cementum and clinical consideration	Lectures	Exam + Seminar
15	2	Knowing the tissues of oral cavity	Root formation& Cementogenesis	Lectures	Exam + Seminar
16	2	Knowing the tissues of oral cavity	Periodontal ligament	Lectures	Exam + Seminar
17	2	Knowing the tissues of oral	Principles fiber of pdl and	Lectures	Exam + Seminar

		<i>cavity</i>	gingival fibers		
18	2	<i>Knowing the tissues of oral cavity</i>	Alveolar bone	<i>Lectures</i>	Exam + Seminar
19	2	<i>Knowing the tissues of oral cavity</i>	Bone formation and resorption	<i>Lectures</i>	Exam + Seminar
20	2	<i>Knowing the tissues of oral cavity</i>	Proteins involve in mineralization of bone and dentin	<i>Lectures</i>	Exam + Seminar
21	2	<i>Knowing the tissues of oral cavity</i>	Oral mucosa and their types	<i>Lectures</i>	Exam + Seminar
22	2	<i>Knowing the tissues of oral cavity</i>	Gingiva and dentogingival junction	<i>Lectures</i>	Exam + Seminar
23	2	<i>Knowing the tissues of oral cavity</i>	Eruption of teeth	<i>Lectures</i>	Exam + Seminar
24	1	<i>Knowing the tissues of oral cavity</i>	Shedding of teeth	<i>Lectures</i>	Exam + Seminar
25	2	<i>Knowing the tissues of oral cavity</i>	Salivary gland	<i>Lectures</i>	Exam + Seminar
26	2	<i>Knowing the tissues of oral cavity</i>	Salivary proteins	<i>Lectures</i>	Exam + Seminar
27	2	<i>Knowing the tissues of oral cavity</i>	TMJ	<i>Lectures</i>	Exam + Seminar
28	2	<i>Knowing the tissues of oral cavity</i>	Histochemistry	<i>Lectures</i>	Exam + Seminar
29	2	<i>Knowing the tissues of oral cavity</i>	Age changes of soft and hard tissues	<i>Lectures</i>	Exam + Seminar
30	2	<i>Knowing the tissues of oral cavity</i>	Maxillary sinus	<i>Lectures</i>	Exam + Seminar

11. Course Evaluation Exam + Seminar

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Orban's Oral Histology and Embryology
Main references (source)	Orban's Oral Histology and Embryology
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

Course Description

1. Course Name:	
Operative Dentistry	
2. Course Code:	
DNT505	
3. Semester / Year:	
2023-2024/ Fifth Year	
4. Description Preparation Date:	
27/04/2024	
5. Available Attendance Forms:	
Attendance and clinical practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60/30/5	
7. Course administrator's name (mention all, if more than one name)	
L. Ayad M. AL-kadhi den.ayad.mahmod@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	Training the student on how to examine patients and diagnose the condition with approved modern diagnostic methods, then prepare a treatment plan then begin treating the condition in a correct scientific manner, and use modern materials and methods in treating root fillings, crowns, and bridges by giving theoretical lectures while working in clinics.
9. Teaching and Learning Strategies	
Strategy	<p>A- Cognitive objectives A-1 Training the student on how to examine and diagnose medical conditions. A-2 Giving important information and treatment steps A-3 Giving instructions and following up on root filling operations A-4 Giving instructions and following up on bridge and crown operations</p> <p>B- Skills objectives for the course B - 1 Describe the tools used to prepare canals for root fillings B - 2 Describe the tools used in the steps to prepare teeth for crowns and bridges B - 3 Teach the student how to use them and follow him during the work</p>

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method

					d
1	1h	<p>1. Recognize diagnosis of and treatment planning for pulpal and periapical conditions</p> <p>Understand the importance of the medical and dental history to endodontic diagnosis..</p>	Endodontic diagnosis	A theoretical lecture using PowerPoint	Short, semester, and final exams
2	1h	<p>1. be able to understand all the methods to control and manage pain in endodontic patients.</p> <p>Management of dental pain during and after endodontic treatment.</p>	Pain control in Endodontics	A theoretical lecture using Power Point	Short, semester, and final exams
3	1h	<p>1. Describe the importance of radiographs in endodontic diagnosis, treatment, and postoperative evaluation.</p> <p>2. Discuss special applications of radiography to endodontics..</p>	Endodontic radiography	A theoretical lecture using Power Point	Short, semester, and final exams
4	1h	<p>1. The importance of accurately measuring the length of the root canal.</p> <p>2. Different methods and techniques for determining the working length, such as using electronic apex locators or radiographs.</p>	Working length Determination	A theoretical lecture using Power Point	Short, semester, and final exams

5	1h	<ol style="list-style-type: none"> 1. Understand the microbial etiology of apical periodontitis. 2. Describe the routes of entry of microorganisms to the pulp and periradicular tissues. 3. Recognize the different types of endodontic infections and the main microbial species involved in each one. 4. Understand the ecology of the endodontic microbiota and the features of the endodontic ecosystem. 	Microbiology	A theoretical lecture using Power Point	Short, semester, and final exams
6	1h	=	Microbiology	A theoretical lecture using Power Point	Short, semester, and final exams
7	1h	<ol style="list-style-type: none"> 1. Describe the basic design (longitudinal, cross-sectional, and tip configuration) of the more common canal preparation instruments and their mode of use. 2. Explain the basis for sizing and taper (standardization) of hand-operated instruments. 3. Describe and differentiate between conventional files and files of alternative designs. 4. Define the differences 	Intracanal instruments	A theoretical lecture using Power Point	Short, semester, and final exams

		between stainless steel and nickel-titanium intracanal instruments, including physical properties and usage characteristics			
8	1h	1. Describe and differentiate between different rotary system 2. Describe the action and use of rotary instruments for both cleaning and shaping canals.	Intracanal instruments	A theoretical lecture using Power Point	Short, semester, and final exams
9	1h	1. Recognize the clinical criteria that determine when to obturate. 2. List the criteria for the ideal obturating material. 3. Identify the core obturating materials most commonly used and list their constituents and physical properties., the advantages and disadvantages of each core material.	Obturation of the root canal system	A theoretical lecture using PowerPoint	Short, semester, and final exams
10	1h	1. Describe the lateral compaction technique. 2. Describe the vertical compaction technique. 3. Describe briefly other techniques used for obturation, including thermoplasticization, thermocompaction, paste injection, core carrier systems, and sectional obturation.	Obturation of the root canal system	A theoretical lecture using PowerPoint	Short, semester, and final exams

		5.17. List criteria for the ideal sealer.			
11	1h	<ol style="list-style-type: none"> 1. Recognize the incidence of flare-ups. 2. Describe appropriate diagnostic procedures for endodontic emergencies. 3. Describe the initial patient contact and patient management issues. 	Endodontic Emergency Treatment	A theoretical lecture using Power Point	Short, semester, and final exams
12	1h	<ol style="list-style-type: none"> 1. Describe the requirements of an adequate restoration. 2. Identify restorative options before root canal treatment is started. 3. Discuss the advantages and disadvantages of direct and indirect restorations. 4. Outline indications for post placement in anterior and posterior teeth. 5. Describe common post systems and the advantages and disadvantages of each. 6. Describe core materials and their placement. 	Restoration of Endodontically Treated Teeth	A theoretical lecture using Power Point	Short, semester, and final exams
13		<ol style="list-style-type: none"> 1. Delineate the anatomic pathways of communication between the dental pulp and the periradicular tissues. 2. Describe the 	Endodontic-Periodontal Relations	A theoretical lecture using Power Point	Short, semester, and final exams

		<p>effects of pulpal diseases and endodontic procedures on the periodontium.</p> <p>3. Describe the effects of periodontal disease and procedures on the dental pulp.</p> <p>4. Identify the clinical and radiographic findings that are important to identify the origin of periodontal pockets.</p> <p>5. Know the clinical classification of endodontic-periodontal diseases.</p>			
14	1h	<p>1. Identify the causes and nature of tooth discoloration.</p> <p>2. Select the bleaching agent and technique according to the cause of discoloration.</p> <p>3. Describe each step of the internal "walking bleach" technique.</p> <p>4. Recognize the potential adverse effects of bleaching and discuss means of prevention.</p>	<p>Tooth discoloration and bleaching</p>	<p>A theoretical lecture using Power Point</p>	<p>Short, semester, and final exams</p>
15	1h	=	<p>Tooth discoloration and bleaching</p>	<p>A theoretical lecture using Power Point</p>	<p>Short, semester, and final exams</p>
16	1h	<p>Showing terminology and definition of fixed partial dentures</p>	<p>Terminology, definition of fixed partial denture , Effect of Tooth Loss, Comparism with</p>	<p>A theoretical lecture using Power Point</p>	<p>Short, semester, and final exams</p>

			R.P.D		
17		Demonstrate principles of bridge construction	Types of Fixed Bridge including Basic Bridge Design	A theoretical lecture using Power Point	Short, semester, and final exams
18		Describe components of fixed bridge	Components of Fixed Bridge; ◆ Retainer -----,s	A theoretical lecture using Power Point	Short, semester, and final exams
19		Describe pontics and retainers	Components of Fixed Bridge; ◆ Pontics ◆ Connector -----,s	A theoretical lecture using Power Point	Short, semester, and final exams
20		Demonstrate factors in bridge construction	◆ Clinical Consideration for Bridge Construction.- _Abutment Tooth(evaluation and selection) _Crown/Root Ratio. _Splinting of teeth. _Patient Occlusal Status. General_ .Factors	A theoretical lecture using Power Point	Short, semester, and final exams
21		Describe bridge design	◆ Clinical Situations affecting Bridge Design; ◆ (Post. Tilted Abutments, Span Length, Pier Abut., Arch 1 175 (Curvature	A theoretical lecture using Power Point	Short, semester, and final exams
22		Describe different types of impression materials and impression techniques	Diagnosis And Treatment Plan. a. Intra-oral Examination. b. X-Rays Examination. c. Diagnostic Cast .Examination	A theoretical lecture using Power Point	Short, semester, and final exams
23		Describe different types of impression	Gingival retraction and	A theoretical lecture using	Short, semester, and final exams

		materials and impression techniques	impression(techniques)and impression Disinfection	Power Point	
24		Demonstrate temporary restoration, their types and fabrication	provisional Restoration , Oclusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	A theoretical lecture using Power Point	Short, semester, and final exams
25		Demonstrate temporary restoration, their types and fabrication	provisional Restoration , Oclusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	A theoretical lecture using Power Point	Short, semester, and final exams
26		Describe the steps of the try-in procedure	Try-in and Shade Selection (Colour dimensions Hue, Chroma, .(and Value	A theoretical lecture using PowerPoint	Short, semester, and final exams
27		Demonstrate the different types of cements used in fixed restoration	◆ Final Cementation of F.P.Ds. (Techniques)	A theoretical lecture using PowerPoint	Short, semester, and final exams
28		Demonstrate the types and causes of crown and bridge failures	Failure in Fixed .Prosthodontics	A theoretical lecture using Power Point	Short, semester, and final exams
29		Describe the uses of ceramic as a fixed restoration in dentistry	◆ Porcelain in Fixed Prosthodontics (Current Ceramic .)	A theoretical lecture using Power Point	Short, semester, and final exams
30		Describe different types and indications of resin bonded bridge	Resin bonded bridge	A theoretical lecture using Power Point	Short, semester, and final exams

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Cohens pathways of the pulp Contemporary Fixed Prosthodontics
Main references (source)	
Recommended books and references (scientific journals, reports...)	Cohens pathways of the pulp Contemporary Fixed Prosthodontics
Electronic references, websites.	Cohens pathways of the pulp Contemporary Fixed Prosthodontics

Course Description

1. <i>Course Name:</i>	
Orthodontics	
2. <i>Course Code:</i>	
DNT403	
3. <i>Semester / Year:</i>	
2023-2024	
4. <i>Description Preparation Date:</i>	
22/4/2024	
5. Available Attendance Forms:	
<i>Attendance and clinical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>30 theoretical hours and 120 practical hours</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Lecturer Laith Hamood Aswad (den.laith.hamood@uoanbar.edu.iq)</i>	
8. Course Objectives	
Course Objectives	Cognitive objectives: Gaining knowledge about the causes of malocclusion Methods of diagnosis and treatment Identify the types of orthodontic devices • Skills objectives for the course: Learn how to make different types of removable orthodontic devices • Emotional and value-based goals: Solving problems of poor dishes • General transferable skills: Preparing the student practically to deal with the removable orthodontic device
9. Teaching and Learning Strategies	
Strategy	Lectures using powerpoint Training laboratories for making removable orthotics Quarterly exams, mid-year exams, final exams, and short exams

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	<i>Orthodontic</i>	Introduction - Definition of orthodontics Definition of - occlusion, normal,	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final

			ideal and malocclusion		
2	1	<i>Orthodontic</i>	Six keys of normal occlusion Aims of - orthodontic treatment	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
3	1	<i>Orthodontic</i>	Important - orthodontic definitions Classification of - malocclusion	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
4	1	<i>Orthodontic</i>	Growth and development - Definitions of growth, development and maturity Stages of development (ovum till birth)	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
5	1	<i>Orthodontic</i>	- Theories of bone growth Definitions of growth site, growth center, displacement, and drift	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
6	1	<i>Orthodontic</i>	- Growth curve and maximum growth spurt Prenatal and postnatal growth and development of hard tissues	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
7	1	<i>Orthodontic</i>	Prenatal and postnatal growth and development of soft tissues Developmental anomalies	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
8	1	<i>Orthodontic</i>	- Jaw rotation Compensation and adaptation	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
9	1	<i>Orthodontic</i>	Deciduous and permanent dentition a- Stages of tooth :development	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final

			Formation,) calcification and (root completion		
10	1	<i>Orthodontic</i>	b-Tooth eruption (stages and theories), Sequences and timing of eruption	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
11	1	<i>Orthodontic</i>	Development of occlusion a. new .born oral cavity b. Deciduous dentition stage - Dental changes .till 6 years of age	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
12	1	<i>Orthodontic</i>	c. Early mixed dentition stage - eruption of first molars and incisors. d. Late mixed dentition stage - eruption of canines and premolars Permanent dentition - eruption second and third .molars	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
13	1	<i>Orthodontic</i>	Etiology of malocclusion: Genetic and-inherited etiological factors of malocclusion	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
14	1	<i>Orthodontic</i>	Classification of etiological factors a. General factors i. Skeletal factors	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
15	1	<i>Orthodontic</i>	ii. Soft tissue factors	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
16	1	<i>Orthodontic</i>	iii. dental factors	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
17	1	<i>Orthodontic</i>	b. Local factors (definitions	Theoretical lecture using	Short, sedimentary exams, semi -year

			without treatment)	Power Point	and final
18	1	<i>Orthodontic</i>	Tooth movement Tissue a. changes associated with :tooth movement i. Histology of periodontium ii. Theories of tooth movement b. Accelerated tooth .movement	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
19	1	<i>Orthodontic</i>	c. Biomechanics i. Force (application, type, magnitude, duration and direction) ii. Center of resistance and rotation, moment of force and moment of .couple iii. Types of tooth movement iv. Rate of tooth movement and factors affecting .it	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
20	1	<i>Orthodontic</i>	d. iatrogenic effect of tooth movement (pain, mobility, pulp effect, root resorption, white .spot lesions)	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
21	1	<i>Orthodontic</i>	Biomechanics	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
22	1	<i>Orthodontic</i>	Anchorage (definition, indications, types)	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
23	1	<i>Orthodontic</i>	Orthodontic appliances a. :Overview i. passive	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final

			<p>orthodontic appliances (habit breaker, retainer and space maintainer) ii. active orthodontic appliances (removable, fixed, orthopedic and myofunctional, and combination) iii. Other active appliances: space regainer, Invisalign</p>		
24	1	<i>Orthodontic</i>	<p>b. Removable Orthodontic :Appliance i. Properties of various components (SS wire, acrylic) ii. Components:) active components (springs, screws and elastics)) retentive components (clasps)) acrylic base plate and bite planes) anchorage</p>	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
25	1	<i>Orthodontic</i>	<p>iii. Design of a removable orthodontic appliance iv. Construction of a removable orthodontic appliance v. Soldering and welding vi. Post-insertion instructions and</p>	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final

			guidelines		
26	1	<i>Orthodontic</i>	c. Fixed orthodontic appliance Types, components, advantages, limitation, biomechanics, banding vs. bonding	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
27	1	<i>Orthodontic</i>	d. Orthopedic and Myofunctional appliance: Types, components, advantages, limitation, mode of action	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
28	1	<i>Orthodontic</i>	<u>continue</u> Orthopedic and Myofunctional appliance: Types, components, advantages, limitation, mode of action	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
29	1	<i>Orthodontic</i>	f. Retention and retainers Retention (definition, reason, time)	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
30	1	<i>Orthodontic</i>	Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)	Theoretical lecture using Power Point	Short, sedimentary exams, semi -year and final
31					

11. Course Evaluation

Distributing the degree from 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, editorial, reports ... etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Contemporary Orthodontics, William R. Proffit Sixth edition Textbook of Orthodontics Singh 2007
Main references (source)	Text books
Recommended books and references (scientific journals, reports...)	Reports published on the college website
Electronic references, websites.	College website

Course Description

1. Course Name:	
<i>Periodontology</i>	
2. Course Code:	
DNT407	
3. Semester / Year:	
2 semester/fourth stage	
4. Description Preparation Date:	
25/4/2024	
5. Available Attendance Forms:	
<i>weekly</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>90hr practical/30 hr theoretical</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Lec.Nuha.O.Hamid. den.nuha.agab@uoanbar.edu.iq</i>	
8. Course Objectives	
Course Objectives	For diagnosis, treatment and prevention of periodontal diseases.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> -Knowledge and understanding -Pharmaceutical and surgical treatment of gum diseases.

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Examination and treatment	<i>Terms & definitions frequently used in periodontology</i>	Lecture(power {point	Exam & seminar
2	1	Examination and treatment	Anatomy of the periodontium	Lecture(power {point	Exam & seminar
3	1	Examination and treatment	Anatomy of the periodontium	Lecture(power {point	Exam & seminar
4	1	Examination and treatment	<i>Anatomy of the periodontium</i>	Lecture(power {point	Exam & seminar

5	1	Examination and treatment	<i>Anatomy of the periodontium</i>	Lecture(power {point	Exam &seminar
6	1	Examination and treatment	Classification of periodontal diseases and conditions (2017)	Lecture(power {point	Exam &seminar
7	1	Examination and treatment	Classification of periodontal diseases and conditions (2017)	Lecture(power {point	Exam &seminar
8	1	Examination and treatment	Classification of periodontal diseases and conditions (2017)	Lecture(power {point	Exam &seminar
9	1	Examination and treatment	<i>Etiology of periodontal disease</i>	Lecture(power {point	Exam &seminar
10	1	Examination and treatment	<i>Etiology of periodontal disease and risk factors</i>	Lecture(power {point	Exam &seminar
11	1	Examination and treatment	Microbiologic specificity of periodontal diseases	Lecture(power {point	Exam &seminar
12	1	Examination and treatment	Dental calculus	Lecture(power {point	Exam &seminar
13	1	Examination and treatment	<i>Dental stain</i>	Lecture(power {point	Exam &seminar
14	1	Examination and treatment	<i>Etiology of periodontal disease</i>	Lecture(power {point	Exam &seminar
15	1	Examination and treatment	<i>Etiology of periodontal disease</i>	Lecture(power {point	Exam &seminar

16	1	Examination and treatment	<i>Etiology of periodontal disease and risk factors</i>	Lecture(power {point	Exam &seminar
17	1	Examination and treatment	Impact of periodontal infection on systemic health	Lecture(power {point	Exam &seminar
18	1	Examination and treatment	<i>Impact of periodontal infection on systemic health</i>	Lecture(power {point	Exam &seminar
19	1	Examination and treatment	<i>Periodontal indices</i>	Lecture(power {point	Exam &seminar
20	1	Examination and treatment	<i>The periodontal pocket</i>	Lecture(power {point	Exam &seminar
21	1	Examination and treatment	Treatment plan guidelines	Lecture(power {point	Exam &seminar
22	1	Examination and treatment	Treatment plan guidelines § Phase 1 (behavior - change, removal of supragingival dental biofilm and :risk factor control)	Lecture(power {point	Exam &seminar
23	1	Examination and treatment	Treatment plan guidelines Phase 2 (cause- - related therapy)	Lecture(power {point	Exam &seminar
24	1	Examination and treatment	Treatment plan guidelines Phase 3 - (corrective/surgical phase)	Lecture(power {point	Exam &seminar
25	1	Examination and treatment	Treatment plan guidelines Phase 4 - (maintenance	Lecture(power {point	Exam &seminar

			therapy)		
26	1	Examination and treatment	Plaque biofilm control for the periodontal patient	Lecture(power {point	Exam &seminar
27	1	Examination and treatment	Plaque biofilm control for the periodontal patient	Lecture(power {point	Exam &seminar
28	1	Examination and treatment	Periodontal instruments and sharpening	Lecture(power {point	Exam &seminar
29	1	Examination and treatment	Breath Malodor (Halitosis)	Lecture(power {point	Exam &seminar
30	1	Examination and treatment	Systemic anti-infective therapy for periodontal diseases	Lecture(power {point	Exam &seminar

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Lindhe's Clinical Periodontology and Implant Dentistry
Main references (source)	Carranza's Clinical Periodontology
Recommended books and references (scientific journals, reports...)	

Electronic references, websites.	
----------------------------------	--

Clinical and preclinical requirement

Credit hours required Requirement details

3 h/week (90 h/year)

Preclinical:

- Training on ergonomic aspects of grasping and use of the instruments and their maintenance i.e. resharpening

Clinical:

- Recording medical and dental history

- Patient's education and motivation

- Oral hygiene instructions (OHI)

- Recording periodontal indices

- Diagnosis according to classification of periodontal disease and conditions (2017)

- Non-surgical periodontal therapy (manual scaling + polishing)

Course Description

1. <i>Course Name:</i>	
Prevention	
2. <i>Course Code:</i>	
DNT 508	
3. <i>Semester / Year:</i>	
2023-2024	
4. <i>Description Preparation Date:</i>	
26/4/2024	
5. Available Attendance Forms:	
<i>Attendance and clinical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
<i>Theoretical hours are 30 hours</i>	
<i>Practical hours: 37.5 hours</i>	
<i>Number of total units 4</i>	
7. Course administrator's name (mention all, if more than one name)	
<i>Teacher: Mohammed ismail Abdullah E.mail: den.mohammed.esmail@uoanbar.edu.iq</i>	
8. Course Objectives	
Course Objectives	<p>Identify and understand the causes of various oral diseases such as caries, gingivitis, and cavities.</p> <ul style="list-style-type: none"> • Identify effective ways to prevent oral diseases and encourage good oral health through awareness and education. • Study and evaluate health behaviors that may affect oral and dental health, such as oral hygiene and proper nutrition. • Develop clinical oral examination skills and use the necessary tools and techniques to provide preventive care to patients. • Enhance clinical skills in applying prevention techniques such as fluoride application, dental sealing, and periodic dental cleaning.
9. Teaching and Learning Strategies	
Strategy	<p>1- Active Learning: Encouraging students to participate in interactive learning activities such as group discussions, solving clinical cases, and conducting practical experiments. This can enhance their understanding and application of preventive concepts in clinical work contexts</p> <p>2- Cooperative Learning: Encouraging teamwork and cooperation among students, where knowledge and experiences are shared and problems are solved together. This approach can help build students' social and technical skills.</p> <p>3- Project Learning: Engaging students in practical projects related to oral health prevention, such as designing health</p>

awareness campaigns in the community, or conducting scientific research on specific topics in preventive dentistry.

4- Problem-based learning: Presenting real-world scenarios and problems that students must solve using the knowledge and skills they have acquired. This promotes critical thinking and practical application.

Clinical Simulation: Using simulation of clinical operations and hands-on prevention and treatment skills, giving students the opportunity to apply theoretical concepts in an environment similar to real work.

5-Using technology in learning: Using applications interactive computer programs, multimedia, and virtual simulations to enhance learning and training processes in preventive dentistry.

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	preventive dentistry	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
2	1	Dental caries development	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
3	1	Diagnosis of dental caries	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
4	1	Fluorides in Dentistry	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
5	1	Fluoride in prevention and controlling dental caries	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
6	1	Topical Fluorides / profession	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams

		al			
7	1	Topical Fluoride Self-Applied Fluoride	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
8	1	Fluoride Toxicity	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
9	1	Pit and fissure sealants	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
10	1	New approach in restorative dentistry	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
11	1	Oral microbial	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
12	1	Saliva and host defense mechanism	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
13	1	Caries risk assessment	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
14	1	Infections control	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
15	1	Oral hygiene measures (mechanical plaque control)	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
16	1	Chemical plaque control agents	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
17	1	Diet and dental caries	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
18	1	Non Cariogenic Sugar Substitutes	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
19	1	Dietary	Preventive dentistry	A theoretical lecture	Short, semester, and

		counseling in dental practice		using Power Point	final exams
20	1	Nutrition and dental health	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
21	1	Prevention of periodontal disease and oral cancer by nutrition	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
22	1	Probiotics and dental health	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
23	1	Diagnosis and prevention of dental erosion	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
24	1	Prevention of malocclusion	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
25	1	Preventive measure for population with developmental disabilities	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
26	1	Geriatric dentistry	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
27	1	prevention of peri-implant diseases	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
28	1	Ozone in the preventive of dental disease	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
29	1	preventive treatment strategies	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams

		for medically compromised			
30	1	protection of the dentition	Preventive dentistry	A theoretical lecture using Power Point	Short, semester, and final exams
31					

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly, written exams, reports, etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Comprehensive preventive dentistry (2012) (book).
Main references (source)	• Primary preventive dentistry (2014) (book).
Recommended books and references (scientific journals, reports...)	Dental caries, principles and management (2016) (book)• Textbook of clinical cariology (1996) (book).
Electronic references, websites.	

Course Description

1. Course Name:					
Oral Pathology					
2. Course Code:					
DNT303					
3. Semester / Year:					
Forth Stage					
4. Description Preparation Date:					
20/4/2024					
5. Available Attendance Forms:					
Weekly					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>60 Hours theory/ 60 Hours practical</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Assistant Lecture Ahlam Thabet Bdaiwi</i> <i>Email: ahlam.th87@uoanbar.edu.iq</i>					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> • Qualifying dentists capable of identifying the important causes of various oral diseases. • Studying the diagnosis of various diseases processes. • Studying methods of using different dyes to identify these diseases and their causes. 			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> ❖ <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ <i>The ability to distinguish between different diseases</i> ○ <i>How to use dyes</i> ○ <i>Learning to cut tissue</i> 			
10. Course Structure					
Week	Hours	Required Learning	Unit or subject name	Learning method	Evaluation method

		Outcomes			
1	2	Knowing diagnosis and pathogenesis of the diseases	Introduction & Principles of biopsy techniques	Lectures	Exam+Seminar
2	2	Knowing diagnosis and pathogenesis of the diseases	Healing in oral pathology	Lectures	Exam + Seminar
3	2	Knowing diagnosis and pathogenesis of the diseases	Dental caries	Lectures	Exam + Seminar
4	2	Knowing diagnosis and pathogenesis of the diseases	Pulp pathology	Lectures	Exam + Seminar
5	2	Knowing diagnosis and pathogenesis of the diseases	Periapical pathology	Lectures	Exam + Seminar
6	2	Knowing diagnosis and pathogenesis of the diseases	Inflammatory diseases of bone	Lectures	Exam + Seminar
7	2	Knowing diagnosis and pathogenesis of the diseases	Fibro-osseous lesion of bones	Lectures	Exam + Seminar
8	2	Knowing diagnosis and pathogenesis of the diseases	Genetic and metabolic disease of bone	Lectures	Exam + Seminar
9	2	Knowing diagnosis and pathogenesis of the diseases	Giant cell lesions of bone	Lectures	Exam + Seminar
10 11	4	Knowing diagnosis and pathogenesis of the diseases	Developmental disturbances	Lectures	Exam + Seminar
12 13	4	Knowing diagnosis and pathogenesis of the diseases	Cysts of the jaws	Lectures	Exam + Seminar
14 15	4	Knowing diagnosis and pathogenesis of the diseases	Odontogenic tumors	Lectures	Exam + Seminar
16 17	4	Knowing diagnosis and pathogenesis of the diseases	Bone neoplasia	Lectures	Exam + Seminar
18 19	4	Knowing diagnosis and pathogenesis of the diseases	Benign Epithelial lesion	Lectures	Exam + Seminar
20	2	Knowing diagnosis and pathogenesis of the diseases	Malignant epithelial tumors	Lectures	Exam + Seminar
21	2	Knowing diagnosis and pathogenesis of the diseases	Oral mucosa	Lectures	Exam + Seminar

22	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Infections	<i>Lectures</i>	<i>Exam + Seminar</i>
23 24	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Immune mediated diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
25 26	4	<i>Knowing diagnosis and pathogenesis of the oral diseases</i>	Connective tissue diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
27	2	<i>Knowing diagnosis and pathogenesis of the oral diseases</i>	Salivary gland diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
28	2	<i>Knowing diagnosis and pathogenesis of the oral disease</i>	Salivary gland tumors	<i>Lectures</i>	<i>Exam + Seminar</i>
29	2	<i>Knowing diagnosis and pathogenesis of the oral diseases</i>	Physical and chemical injureis	<i>lectures</i>	<i>Exam +seminar</i>
30	2	<i>Knowing diagnosis and pathogenesis of the oral diseases</i>	Forensic dentistry	<i>lectures</i>	<i>Exam +seminar</i>

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (source)	<i>Neville oral and maxillofacial pathology</i>
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

Course Description

1. Course Name:					
General Pathology					
2. Course Code:					
DNT303					
3. Semester / Year:					
Third Stage					
4. Description Preparation Date:					
20/4/2024					
5. Available Attendance Forms:					
Weekly					
6. Number of Credit Hours (Total) / Number of Units (Total)					
<i>60 Hours theory/ 60 Hours practical</i>					
7. Course administrator's name (mention all, if more than one name)					
<i>Name: Assis. Prof. Dr. Afrah Adnan Aldelaimi</i> <i>Email: den.afrah.aldelaimi@uoanbar.edu.iq</i>					
8. Course Objectives					
Course Objectives		<ul style="list-style-type: none"> • Qualifying dentists capable of identifying the important causes of various general diseases. • Studying the diagnosis of various diseases processes. • Studying methods of using different dyes to identify these diseases and their causes. 			
9. Teaching and Learning Strategies					
Strategy		<ul style="list-style-type: none"> ❖ <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ <i>The ability to distinguish between different diseases</i> ○ <i>How to use dyes</i> ○ <i>Learning to cut tissue</i> 			
10. Course Structure					
Week	Hours	Required Learning	Unit or subject name	Learning method	Evaluation method

		Outcomes			
1	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Introduction to pathology Clinical pathology Molecular pathology Cell damage reversible cell injury	<i>Lectures</i>	<i>Exam+Seminar</i>
2	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Irreversible cell injury Deposits and pigmentation External and internal pigmentation	<i>Lectures</i>	<i>Exam + Seminar</i>
3	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Inflammation Acute inflammation Chronic pathology Chemical mediators	<i>Lectures</i>	<i>Exam + Seminar</i>
4	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Healing and repair Healing of skin wound Healing of bone	<i>Lectures</i>	<i>Exam + Seminar</i>
5	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Hemodynamic Disorders, Thromboembolic Disease, and Shock	<i>Lectures</i>	<i>Exam + Seminar</i>
6	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Genetic	<i>Lectures</i>	<i>Exam + Seminar</i>
7	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of the Immune System Hypersensitivity Autoimmune diseases Transplantation	<i>Lectures</i>	<i>Exam + Seminar</i>
8	6	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Neoplasia benign and malignant tumors molecular basis of tumors	<i>Lectures</i>	<i>Exam + Seminar</i>
9	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Infections Bacterial and viral infection	<i>Lectures</i>	<i>Exam + Seminar</i>
10	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Environmental and Nutritional Diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
11	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Blood Vessels	<i>Lectures</i>	<i>Exam + Seminar</i>
12	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	The Heart diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
13	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Red Blood Cell and Bleeding Disorders	<i>Lectures</i>	<i>Exam + Seminar</i>
14	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of White Blood Cells	<i>Lectures</i>	<i>Exam + Seminar</i>

15	4	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of G.I.T	<i>Lectures</i>	<i>Exam + Seminar</i>
16	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of liver, pancreas and gall bladder	<i>Lectures</i>	<i>Exam + Seminar</i>
17	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of endocrine systems	<i>Lectures</i>	<i>Exam + Seminar</i>
18	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Diseases of respiratory system	<i>Lectures</i>	<i>Exam + Seminar</i>
19	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Bone diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
20	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Kidney Diseases	<i>Lectures</i>	<i>Exam + Seminar</i>
21	2	<i>Knowing diagnosis and pathogenesis of the diseases</i>	Urinary system	<i>Lectures</i>	<i>Exam + Seminar</i>

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<i>Robin`s Basic Pathology</i>
Main references (source)	<i>Harsh General Pathology</i>
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

1. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					

course evaluation

*Quizzes and short exams, questions and discussions in the lecture, absences, the final exam.
Practical: class exam, activity, practical exams, clinical training exams.*

11. Learning and Teaching Resources

Required textbooks (curricular books, if any)	1. Oral & maxilla facial surgery 2. AN OUTLINE OF ORAL SURGERY..PART
Main references (source)	1. Oral & maxilla facial surgery 2. AN OUTLINE OF ORAL SURGERY..PART
Recommended books and references (scientific journals, reports...)	1. Oral & maxilla facial surgery 2. AN OUTLINE OF ORAL SURGERY..PART
Electronic references, websites.	1. Oral & maxilla facial surgery 2. AN OUTLINE OF ORAL SURGERY..PART

Course Description

1. Course Name:
Pedodontic
2. Course Code:
DNT504
3. Semester / Year:
2023-2024
4. Description Preparation Date:
26/4/2024
5. Available Attendance Forms:
Attendance and clinical practice
6. Number of Credit Hours (Total) / Number of Units (Total)
30h: Theory -75h clinical

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

Assisit.prof.lamia Ebrahem
den.lamia.ibrahem@uoanbar.edu.iq

8. Course Objectives

Course Objectives

- - Teaching and training students on how to deal with children
- Complete diagnostic work plan using modern methods
- Health survey, current visits and educational lectures

9. Teaching and Learning Strategies

Strategy

- Weekly lectures to teach students how to deal with healthy children and disable child, where students are taught and taught ways to confront and solve problems in educational clinics designated for that, with illustrative methods.
- . - self education
- Educational clinics
- Electronic classes

1. Course

Assessment Method

Teaching Method

Unit/Module or Topic Title

ILOs

hour

week

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Advantages of treatment planning, The diagnostic methods, Components of oral examination and diagnosis

Diagnosis and treatment planning

1

1

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Clinical examination , Radio graphic examination

Preliminary medical and dental history

1

2

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Child development, Major area of development, Variables influencing children's dental behaviors ,classification of children's behavior

Art and science of behavior management

1

3

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

, Purpose, Classifying children, s cooperative behavior

Non pharmacologic management of patient behavior

4

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Degree of sedation, Indications for pharmacological behavior management technique, Pre- treatment documentation and assessment,

Pharmacologic management of patient behavior

1

5

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Conscious sedation, Routes of drug administration, Enteral sedation ,Rectal route, Intra muscular route, Intravenous route, Inhalation, Drugs and agents used for sedation, General anesthesia

Sedation in pediatric dentistry

6

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

management of traumatic injuries to the teeth and supporting tissues of children,

1

7

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

classification of injuries to the anterior teeth of children classification methods of clinical examination

1

8

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Traumatic injuries of the primary teeth and its effect on permanent teeth

1

9

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Treatment of injury of permanent teeth, emergency treatment, temporary restoration 1 152 of fractured teeth

1

10

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Advances in Pediatric Dentistry: Advances in diagnostic aids, Advances in cavity preparation methods

1

11

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Advances in endodontics, Advances in local anesthesia

1

12

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Advances in restorative materials, Advances in surgical procedures, miscellaneous

1

13

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

:

Acquired disturbances of oral structures

1

14

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Developmental disturbances of oral structures

1

15

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Gingivitis and periodontal disease in children

1

16

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Acute candidacies (thrush), acute bacterial infection, chronic nonspecific gingivitis, gingival diseases modified by systemic factors.

1

17

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Gingival lesions of genetic origin, ascorbic acid deficiency gingivitis.

1

18

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Periodontal diseases in children, early onset periodontitis, prepubertal periodontitis, localized juvenile periodontitis.

1

19

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Papillon – Lefevre syndrome, gingival recession, extrinsic stains and deposits on teeth

1

20

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Management of space problems, planning for space maintenance, loss of primary incisors

1

21

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Space Maintenance for the First and Second Primary Molar and the Primary Canine Area, premature loss of second primary molar

1

22

Daily, semester, and final exams = weekly evaluation in the clinic
Lectures + clinic

Loss of the Second Primary Molar Before Eruption of the First Permanent Molar, Areas of Multiple Primary Molar Loss

1

23

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

deciduous phase, mixed dentition

Development of dental arch occlusion;

1

24

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Nance analysis, Moyers mixed dentition analysis, Tanaka and Johnston analysis, Bolton analysis.

Arch length analysis;

1

25

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

first dental visit, Radiographic examination, Preventive dentistry, Management of a child with special care needs during dental treatment , immobilization,

Dental problems of the disabled child

1

26

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Mental disability, Down syndrome, Intellectual disability, Learning disability

1

27

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Fragile X syndrome, cerebral palsy, autism,

1

28

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

Respiratory diseases, hearing loss, visual impairment,

1

29

Daily, semester, and final exams = weekly evaluation in the clinic

Lectures + clinic

, epilepsy. Heart disease, hemophilia, ,sickle cell anemia, viral hepatitis, AIDS, children with systemic diseases

1

30

طرق التقييم

طرق التقييم				
			Learning and Teaching Resources	12
1	The first theoretical exam	12	Required textbooks (curricular books, if any)	
2	McDonald and Avery's Dentistry for the Child and Adolescent			
3	second theoretical exam	12		
4	The second practical exam	8		
5	Textbook of Pediatric Dentistry 3rd Edition	60	Main references (source)	
			Recommended books and references (scientific journals, reports...)	
	Using the Internet to learn everything new in the field of behavior management and		.Electronic references, websites	

Course Description

1. Course Name:	
Conservative	
2. Course Code:	
DNT405	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
28/4/2024	
5. Available Attendance Forms:	
Attendance and clinical practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
8:Units	
7. Course administrator's name (mention all, if more than one name)	
Hanaa Abduljabar Saleh Othman Husham Abdul Hameed	
8. Course Objectives	
Course Objectives	Teach students the diagnosis and treatment planning for patient Give complete information about dental materials used in conservative dentistry. Give a n information about endodontic treatment.
9. Teaching and Learning Strategies	
Strategy	Theoretical lectures inside the classroom. <ul style="list-style-type: none"> ● Student groups ● Clinic activities ● use of the Internet

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	*Enamel Structure *Properties of Enamel <ol style="list-style-type: none"> 1. Hardness 2. Brittleness 3. Solubility to acids 4. Color 5. Permeability Clinical appearance and defects 1. Color changes associated with demineralization <ol style="list-style-type: none"> 2. Cavitation 3. Wear 4. Faults and fissures 	Biological consideration of enamel structure and its clinical significance in practice of operative dentistry	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		5.Cracks *Functions Dentin can be distinguished from enamel (during tooth preparation), by: 1.Color: 2.Reflectance: 3.Hardness: 4.Sound: There are two main types of dentin which are: 1.Intertubular dentin: 2.Peritubular dentin: Permeability of Dentin Sensitivity of Dentin Dentinoenamel junction: Theories of thermal sensitivity 1.Theory of thermal shock: 2.A hydrodynamic theory: Physiologic and Tertiary Dentin Physiologic dentin Carious dentin Sclerotic dentin Reparative dentin (tertiary dentin)			
2	2		Biological consideration of dentine structure and its clinical significance in practice of operative dentistry	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
3	2	Infection Control Patient Assessment Medical History Chief Complaint Dental History Clinical Examination 1.EVALUATION OF THE DENTITION A.Assessment of caries risk and plaque: B.Detection of caries lesions: C.Assessment of the pulp: 1. The application of cold and hot 2. Electric pulp tester 3. A test cavity: Percussion test: Palpation:	Patient evaluation, diagnosis and treatment planning	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
2					

		<p>D.Evaluation of existing restorations</p> <ol style="list-style-type: none"> 1.Structural integrity: 2.Marginal opening: 3.Caries: 4.Restoration-related periodontal health: 5.Occlusal and interproximal contacts: 6.Esthetics: <p>E.Evaluation of Occlusion and Occlusal Wear</p> <p>Attrition: Evaluation of tooth integrity and fractures</p> <p>F.Esthetic Evaluation</p> <ol style="list-style-type: none"> 1.EVALUATION OF THE PERIODONTIUM 2.EVALUATION OF RADIOGRAPH 3.EVALUATION OF DIAGNOSTIC CASTS Treatment Plan Treatment Sequence 			
4	2	<ol style="list-style-type: none"> 1-Host Factors <ul style="list-style-type: none"> A-Teeth Morphology of teeth: Composition of teeth: B-Saliva: C-Subject: D-Social & demographic factors: F-Fluoride: 2-Dental plaque: 3- Diet: <p>CLASSIFICATION OF DENTAL CARIES</p> <p>In addition, caries could be classified according to the type and severity of the lesion into:</p> <ol style="list-style-type: none"> 1 <p>PROGRESSION OF CARIES CLINICAL CHARACTERISTIC</p>	<p>Caries management (diagnosis and treatment strategies)</p>	<p>Lectures</p>	<p>Daily, semester, and final exams = weekly evaluation in the clinic</p>
<hr/> <p>3</p> <hr/>					

		<p>OF ENAMEL CARIES CLINICAL CHARACTERISTIC OF DENTINAL CARIES CARIES DETECTION AND DIAGNOSIS Visual examination *</p> <p>New Caries Detection Devices</p> <p>1.Electronic caries monitors 2.Direct digital radiographs</p> <p>3.Intra-Oral camera for caries detection and for patient motivation. 4.Magnification using Loupes, and Dental Microscope.</p> <p>5.Infrared Laser Fluorescence (DIAGNOdent)</p> <p>6.Fiber-optic transillumination 7.Caries detector dyes</p> <p>Caries Prevention and Treatment</p> <p>New Technologies for Caries Removal and Cavity Preparation (Minimal Invasive Dentistry)</p> <p>1. Air abrasion: 2. Chemo mechanical method: 3. Laser devices: 4. Smart bur (Smartprep) 5. Ozone treatment</p>			
5	2	<p>*Caries Lesions * Diagnosis * Restorative Treatment * Noncarious Cervical Lesions NCCL(s) Etiology * Toothbrush abrasion</p>	Cervical lesions (carious and noncarious)	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		<ul style="list-style-type: none"> * Erosion * Abrasion * Abfraction * Treatment approaches 			
6	2	<p>A-Effect of Local Anesthetic on the Pulp</p> <p>B-Effect during cavity and crown preparation (cutting procedures)</p> <p>1-Thermal injury (frictional heat)</p> <p>Basic factors in rotary instrumentation that cause temperature rise in the pulp:</p> <p>2-Transection of the odontoblastic processes</p> <p>3-Dehydration</p> <p>4-Remaining dentin thickness (RDT)</p> <p>5-Pulpal exposure</p> <p>6-Pin insertion</p> <p>C-Effect of lining materials and procedure</p> <p>D-Effect of filling materials and procedure</p> <p>Composite resins:</p> <p>Acid etching:</p> <p>Dental amalgam:</p> <p>E-Accumulative effect:</p> <p>Heat of polishing:</p>	Restorative dentistry and pulpal health	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
7	2	<p>I-Protective Base:</p> <p>II- Indirect Pulp Capping</p> <p>Material used for IPC</p> <p>Procedure (IPC):</p> <p>III- Direct Pulp Capping</p> <p>Indications</p> <p>Requirements for a successful vital pulp therapy</p> <p>A major disadvantage of calcium hydroxide materials</p> <p>Technique</p> <p>Recall</p> <p>Prognosis</p> <p>IV- Partial pulpotomy</p> <p>Indications</p>	Management of deep seated caries	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>Technique Recall Prognosis V- Full pulpotomy</p> <p>Indications Technique</p> <p>Recall</p>			
8	2	<p>*Dead Tracts *Sclerotic Dentin *Reparative Dentin (Tertiary *Reactionary D.) *Infected Dentin</p> <p>*Affected Dentin</p> <p>*Inflammation of the pulp.</p> <p>Reversible Pulpitis</p> <p>Irreversible Pulpitis 1-Healthy Pulp 2- Hyperemia 3- Acute Pulpitis</p> <p>4- Chronic Partial Pulpitis (without Necrosis)</p> <p>5- Chronic Partial Pulpitis with Partial Necrosis</p> <p>6- Chronic Total Pulpitis with Partial Necrosis</p> <p>7- Total Necrosis of the Pulp</p> <p>8- Acute Pulpitis Superimposed on Chronic Pulpitis</p>	Inflammatory conditions of pulp	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
9	2	<p>CARIOUS DENTIN DIFFERENTIATION EXCAVATION LEVEL ONE- OR TWO-STEP PROCESS INDICATIONS FOR A LINER</p>	Treatment of deep seated caries simplified anatomical modeling	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
10	2	<p>*Flouride Varnishes *Glass Ionomors</p>	Fluoride releasing materials	Lectures	Daily, semester, and final exams = weekly

		<p>*Advantages *Disadvantages *Resin-modified glass-ionomer cement *Resin composites *Compomers (Polyacid-modified resin composites) *Giomers</p>			evaluation in the clinic
11	2	<p>COMPOSITION OF DENTAL COMPOSITES</p> <ol style="list-style-type: none"> 1. Organic Matrix 2. Fillers 3. Coupling Agents: 4. Initiator Agents: 5. Inhibitors: 6. Coloring Agents: 7. Ultraviolet Absorbers: <p>TYPES OF COMPOSITES</p> <ol style="list-style-type: none"> 1. Macrofilled Composite 2. Microfilled Composites Resins 3. Hybrid Composite Resins 4. Microhybrid, Nanohybrid, and Nanofill <p>Microhybrid composites have evolved from traditional hybrid composites. Filler</p> <p>Flowable Composite Resin Condensable (Packable) Composites</p> <p>PROPERTIES OF COMPOSITE</p> <p>Coefficient of Thermal Expansion Wear resistance Polymerization Shrinkage Configuration or C-factor Microleakage</p> <p>TOOTH PREPARATION</p> <p>GENERAL CONCEPTS FOR TOOTH PREPARATION FOR COMPOSITE RESTORATIONS:</p> <p>Designs of Tooth Preparation for Composites</p> <ol style="list-style-type: none"> 1. Conventional 	Direct tooth coloured restorations(composite)	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>preparation</p> <ol style="list-style-type: none"> 2. Beveled conventional tooth preparation 3. Modified (conservative tooth preparation) <p>COMPOSITE PLACEMENT</p> <p>Incremental Layering Technique</p> <p>Bulk Technique</p> <p>Final Contouring, Finishing and Polishing of Composite Restorations</p>			
12	2	<p>Definition</p> <p>Carbon dioxide Laser</p> <p>Neodymium Yttrium Aluminum Garnet Laser</p> <p>Erbium Laser</p> <p>Diode Laser</p> <p>Excimer lasers</p> <p>Mechanism of Laser Action</p> <p>Applications of laser in conservative dentistry</p> <ol style="list-style-type: none"> 1. Aesthetic gingival recontouring and crown lengthening 2. Photochemical effects 3. Cavity preparation, caries, and restorative removal 4. Etching 5. Treatment of dentinal hypersensitivity 6. Diagnostic application 7. Dental Infections 8. Analgesia 9. Nausea and Gagging 	Dental laser and its applications in conservative dentistry	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		10.Endodontics Laser safety			
13	2	<p>*Components of CAD/CAM dental technology</p> <p>* Advantages of CAD/CAM</p> <p>*Disadvantages of CAD/CAM</p> <p>*Setps of CAD/CAM</p> <p>1.Computer surface digitization</p> <p>2. Computer-aided designing (CAD)</p> <p>3.Computer-aided manufacturing (CAM)</p> <p>a. Subtractive technique from a Solid Block:</p> <p>b. Additive technique (by applying Material on Die)</p>	CAD/CAM techniques	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
14	2	<p>-Introduction and Scope of Endodontics.</p> <p>- OBJECTIVE OF ENDODONTIC TREATMENT</p> <p>- INDICATIONS FOR ROOT CANAL TREATMENT</p> <p>- CONTRAINDICATIONS FOR ROOT CANAL TREATMENT</p> <p>- ANATOMY OF DENTAL PULP</p> <p>- ROOT CANAL CONFIGURATION</p> <p>- BASIC PHASES OF TREATMENT</p>	<p>-Introduction and Scope of Endodontics</p> <p>-PULP AND PERI-RADICULAR PATHOLOGY</p>	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
15	2	<p>-Objectives of Access Opening</p> <p>- Shape of access openings for each anterior tooth</p> <p>- Access opening of each</p>	<p>-Access Opening preparation</p> <p>Rubber Dam-</p>	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		<p>posterior tooth</p> <ul style="list-style-type: none"> - Minimal invasive endodontics - Guidelines for access cavity preparation - Procedure of Access opening for Anterior and posterior Teeth - Errors in Access Opening - Rubber Dam Materials - Rubber Dam Frame - Rubber Dam Clamps - Rubber Dam Puncture - Clamp Holder - Methods of Applying the Rubber Dam 			
16	2	<ul style="list-style-type: none"> - General Instruments - Intracanal Instruments - Standardization of Intracanal Instruments - Modes of action of Intracanal Instruments 	Endodontic Instruments	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
17	2	<ul style="list-style-type: none"> - Advantages - Disadvantages - Rotary instruments - Engine – driven files - ProTapers - Path Files - Pathfinde 	Nickel – Titanium endodontic Instrument	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		<ul style="list-style-type: none"> -Ultrasonic Handpieces - Sonic handpieces 			
18	2	<ul style="list-style-type: none"> - Applications of radiographs - Working Length determination of teeth - Objective of the working length - Consequences of over-extended working length - Consequences of working short of actual working - RADIOGRAPHIC METHOD OF WORKING LENGTH DETERMINATION - ELECTRONIC APEX LOCATORS 	Radiography in Endodontics	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
19	2	<ul style="list-style-type: none"> - The Mechanical objectives - The Biological objectives - Aids in Preparation of Root Canal - Manual or Hand Instrumentation Techniques 1-Standardized Technique 2-Step-Back Technique 3-Step-Down Technique 4-Balanced Force Technique 5-Crown-Down (Pressure- 	Shaping and Cleaning of Root Canal	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

		Less) Technique			
20	2	<ul style="list-style-type: none"> -Requirements of ideal irrigant solution - Functions of Irrlgants Irrigant solutions <ul style="list-style-type: none"> - Normal saline - Sodium hypochlorite - Chelating agent - Chlorhexidine - Methods of irrigation -irrigants interaction 	Root Canal Irrigation	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
21	2	<ul style="list-style-type: none"> - Aims of root canal obturation - Timing of obturation - Features of an ideal root canal obturation - Characteristics of an ideal root filling material - Materials used for obturation <ol style="list-style-type: none"> 1. Gutta percha Forms of Gutta percha Properties of gutta percha: <ol style="list-style-type: none"> 2. Silver points 3. Root canal sealers 	part I-Obturation of root canal system	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
22	2	<ul style="list-style-type: none"> - Armamentarium for 	part II-Obturation of root canal	Lectures	Daily, semester, and final exams = weekly

		<p>obturation</p> <ul style="list-style-type: none"> -obturation techniques - Lateral compaction technique - Warm Lateral Compaction - Vertical compaction technique - Continuous Wave Compaction Technique - Thermoplastic Injection Techniques - Single Match Gutta-Percha Cone Method 	system		evaluation in the clinic
23	2	<ul style="list-style-type: none"> - indications of dental veneers - Unfavourable conditions of dental veneers - General Concepts - Preparation Designs -posterior indirect restorations - Evaluation of Remaining Thickness and Adhesive Build-Up - Occlusal tissue reduction depends on four points - Preparation Principles for Indirect Restoration 	Indirect restoration, types and preparation	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic
24	2	<ul style="list-style-type: none"> - Introduction CAD/CAM Ceramics Classifications 	Indirect restoration, materials and techniques	Lectures	Daily, semester, and final exams = weekly evaluation in the clinic

- 1. Glass-Ceramic system
 - A-Feldspathic porcelain
 - B-Leucite-reinforced
- 2. Alumina-Based System
- 3. Zirconia-Based System

11. Course Evaluation

1	The first theoretical exam	12
2	The first practical exam	8
3	The second theoretical exam	12
4	The second practical exam	
5	Final practical and theoretical exam	60

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Summitts fundamentals of operative dentistry: a contemporary approach.4 th edition. Path way of the pulp
Main references (source)	Dental composite materials for direct restorations. Vesna Miletic Springer,ebook,2018
Recommended books and references (scientific journals, reports...)	Sturdivant's Art and Science of operative dentistry 7th edition 2018
Electronic references, websites.	Using the Internet for the purpose of learning everything new in the field of dental materials.

Course Description

1. Course Name:	
General physiology	
2. Course Code:	
DNT207	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
19/4/2024	
5. Available Attendance Forms:	
<i>Attendance and clinical practice</i>	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60/30/5	
7. Course administrator's name (mention all, if more than one name)	
8. Course Objectives	
Course Objectives	
9. Teaching and Learning Strategies	
Strategy	

10. Course Structure					
Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	physiology	Cell physiology	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
2	2	physiology	Nerve and muscle Microanatomy of nerves	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
3	2	physiology	Nerves(types of nerves)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
4	2	physiology	Nerve (Types of muscles)	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
5	2	physiology	Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
6	2	physiology	Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
7		physiology	Nervous System	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

8		physiology	Red blood cells	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
9		physiology	Blood groups	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
10		physiology	Blood coagulation	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
11		physiology	Cardiovascular system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
12		physiology	Cardiovascular system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
13		physiology	Cardiovascular system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
14		physiology	Cardiovascular system	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
15		physiology	RESPIRATORY SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
16		physiology	RESPIRATORY SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
17		physiology	RESPIRATORY SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
18		physiology	RESPIRATORY SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
19		physiology	RENAL SYSTEM AND BODY FLUIDS	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
20		physiology	RENAL SYSTEM AND BODY FLUIDS	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
21		physiology	RENAL SYSTEM AND BODY FLUIDS	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
22		physiology	ENDOCRINE SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
23		physiology	ENDOCRINE SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
24		physiology	ENDOCRINE SYSTEM	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
25		physiology	SPECIAL SENSATION: Vision & Hearing	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
26		physiology	SPECIAL SENSATION: Vision & Hearing	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
27		physiology	ORAL CAVITY	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

28		physiology	GASTROINTESTION A L TRACT	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
29		physiology	GASTROINTESTION A L TRACT	Theoretical lecture using the program power point	Short, quarterly, half-year and final exams
30		physiology		Theoretical lecture using the program power point	Short, quarterly, half-year and final exams

11. Course Evaluation

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Medical Physiology 4 th edition Essentials of physiology for dental student
Main references (source)	
Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	internet site

Course Description

1. *Course Name: oral medicine.*

2. *Course Code: DNT502*

3. *Semester / Year: 2 semesters/fifth stage.*

2023-2024

4. *Description Preparation Date:*

25/4/2024

5. Available Attendance Forms:

weekly

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

30 hr theory/120 hr practical.

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

.Assist.lec.Raida.N.Hamid email: den.rnh.tiba@uoanbar.edu.iq

:Den.shima.h@uoanbar.edu.iq assist.lec.Shasima.H.Mudher. email

:den.rehab.faisal@uoanbar.edu.iq assist.lec.Rehab.F.Ahmed. email

den.widad.jabber@uoanbar.edu.iq.

Email: assist.lec.Widad Hamid

Shakir .M.Ali. email: den.shakir.mahmod@uoanbar.edu.iq

8. Course Objectives

Course Objectives

- Graduating dentists capable of examining and diagnosing patients, especially with regard to non-dental diseases.
- Study of ulcers, pigmentation, and diseases that affect inside and around the mouth.
- Study modern examination and diagnosis methods.

9. Teaching and Learning Strategies

Strategy

- Knowledge and understanding.
- How to use modern methods of diagnosis.

10. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	1	Examination and diagnosis	The principles of oral diagnosis Clinical examinations 2 2	Lecture{power point	Exam & seminar
2	1	Examination and diagnosis	The principles of oral diagnosis Clinical examinations 2 2	Lecture{power point	Exam & seminar
3	1	Examination and diagnosis	Laboratory investigations in dentistry	Lecture{power point	Exam & seminar
4	1	Examination and diagnosis	Laboratory investigations in dentistry	Lecture{power point	Exam & seminar
5	1	Examination and diagnosis	orofacial pain	Lecture{power point	Exam & seminar
6	1	Examination and diagnosis	orofacial pain	Lecture{power point	Exam & seminar
7	1	Examination and diagnosis	T.M.J	Lecture{power point	Exam & seminar
8	1	Examination and diagnosis	T.M.J	Lecture{power point	Exam & seminar
9	1	Examination and diagnosis	Oral ulceration and Vesiculo-bullus lesions	Lecture{power point	Exam & seminar
10	1	Examination and diagnosis	Oral ulceration and Vesiculo-bullus lesions	Lecture{power point	Exam & seminar
11	1	Examination and diagnosis	Oral ulceration and Vesiculo-bullus lesions	Lecture{power point	Exam & seminar
12	1	Examination and diagnosis	White & red lesions	Lecture{power point	Exam & seminar
13	1	Examination and diagnosis	White & red lesions	Lecture{power point	Exam & seminar
14	1	Examination and diagnosis	Early detection of oral cancer	Lecture{power point	Exam & seminar
15	1	Examination and diagnosis	Early detection of oral cancer	Lecture{power point	Exam & seminar
16	1	Examination and diagnosis	Pigmented oral lesions	Lecture{power point	Exam & seminar
17	1	Examination and diagnosis	Pigmented oral lesions	Lecture{power point	Exam & seminar

18	1	Examination and diagnosis	Benign, Premalignant and malignant lesions of the oral cavity	Lecture{power (point	Exam & seminar
19	1	Examination and diagnosis	Benign, Premalignant and malignant lesions of the oral cavity	Lecture{power (point	Exam & seminar
20	1	Examination and diagnosis	Benign, Premalignant and malignant lesions of the oral cavity	Lecture{power (point	Exam & seminar
21	1	Examination and diagnosis	Neuromuscular disorder	Lecture{power (point	Exam & seminar
22	1	Examination and diagnosis	Neuromuscular disorder	Lecture{power (point	Exam & seminar
23	1	Examination and diagnosis	Salivary gland diseases	Lecture{power (point	Exam & seminar
24	1	Examination and diagnosis	Salivary gland diseases	Lecture{power (point	Exam & seminar
25	1	Examination and diagnosis	Autoimmune diseases	Lecture{power (point	Exam & seminar
26	1	Examination and diagnosis	Autoimmune diseases	Lecture{power (point	Exam & seminar
27	1	Examination and diagnosis	Autoimmune diseases	Lecture{power (point	Exam & seminar
28	1	Examination and diagnosis	Oral manifestation of allergic reaction	Lecture{power (point	Exam & seminar
29	1	Examination and diagnosis	Oral manifestation of allergic reaction	Lecture{power (point	Exam & seminar
30			.Exam		Exam & seminar
31					

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports,...etc.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Burket's Oral Medicine 13th Edition 2021
Main references (source)	- <i>TEXTBOOK OF ORAL MEDICINE, 2nd edition, 2010</i>

Recommended books and references (scientific journals, reports...)	
Electronic references, websites.	

وصف المقرر

1. اسم المقرر					
امراض اللثة					
2. رمز المقرر					
DNT507					
3. الفصل / السنة					
فصلين دراسيين / المرحلة الخامسة					
4. تاريخ اعداد هذا الوصف					
25/4/2024					
5. اشكال الحضور المتاحة					
اسبوعي					
6. عدد الساعات الدراسية (الكلي) اعدد الوحدات (الكلي)					
30 نظري / 90 عملي					
7. اسم مسؤول المقرر الدراسي (اذا اكثر من اسم يذكر)					
الاسم : أ.م.د. احمد مكي عبد الرزاق البريد الالكتروني: Den.ahmed.maki@uoanbar.edu.iq					
8. اهداف المقرر					
اهداف المادة الدراسية			• معرفة امراض اللثة وطرق معالجتها		
9. استراتيجيات التعليم والتعلم					
الاستراتيجية			المعرفة والفهم. استخدام العلاجات والتداخل الجراحي لعلاج امراض اللثة.		
10. بنية المقرر					
الاسبوع	الساعات	مخرجات التعلم المطلوبة	اسم الوحدة او الموضوع	طريقة التعلم	طريقة التقييم
1	1	التشخيص والعلاج	مكونات انسجة اللثة وما	محاضرة بور	امتحان+سمنار

	بوينت	حولها			
امتحان+سمنار	محاضرة بور بوينت	مقدمة الى امراض اللثة وما حول الاسنان	التشخيص والعلاج	1	2
امتحان+سمنار	محاضرة بور بوينت	السيطرة على نمو الجراثيم	التشخيص والعلاج	1	3
امتحان+سمنار	محاضرة بور بوينت	علاجات اللثة المتقدمة	التشخيص والعلاج	1	4
امتحان+سمنار	محاضرة بور بوينت	جيوب اللثة ومالتهابات ماحول الاسنان	التشخيص والعلاج	1	5
امتحان+سمنار	محاضرة بور بوينت	التطور المرضي لالتهابات ماحول الاسنان	التشخيص والعلاج	1	6
امتحان+سمنار	محاضرة بور بوينت	حركة الاسنان	التشخيص والعلاج	1	7
امتحان+سمنار	محاضرة بور بوينت	اصابات مكانات التمثصل في الاسنان الخلفية	التشخيص والعلاج	1	8
امتحان+سمنار	محاضرة بور بوينت	معالجة اصابات التمثصل	التشخيص والعلاج	1	9
امتحان+سمنار	محاضرة بور بوينت	علم الاوبئة امراض اللثة	التشخيص والعلاج	1	10
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	11
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	12
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	13
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	14
امتحان+سمنار	محاضرة بور بوينت	امتحان +سمنار	التشخيص والعلاج	1	15
امتحان+سمنار	محاضرة بور بوينت	العلاقة بين التهابات اللثة مع باقي تخصصات الفم	التشخيص والعلاج	1	16
امتحان+سمنار	محاضرة بور بوينت	جراحة اللثة	التشخيص والعلاج	1	17
امتحان+سمنار	محاضرة بور بوينت	طريقة العالم ودمان الاصلية في الجراحة	التشخيص والعلاج	1	18
امتحان+سمنار	محاضرة بور بوينت	الالتصاق النسيجي ودليل اعادة التكون في الانسجة	التشخيص والعلاج	1	19
امتحان+سمنار	محاضرة بور بوينت	مراحل التأم الجروح	التشخيص والعلاج	1	20

امتحان+سمنار	محاضرة بور بوينت	زراعة الاسنان	التشخيص والعلاج	1	21
امتحان+سمنار	محاضرة بور بوينت	السائل اللثوي	التشخيص والعلاج	1	22
امتحان+سمنار	محاضرة بور بوينت	تحسس انسجة العاج	التشخيص والعلاج	1	23
امتحان+سمنار	محاضرة بور بوينت	الاطباق	التشخيص والعلاج	1	24
امتحان+سمنار	محاضرة بور بوينت	استخدام الليزر في علاجات اللثة	التشخيص والعلاج	1	25
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	26
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	27
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	28
امتحان+سمنار	محاضرة بور بوينت	سمنارات	التشخيص والعلاج	1	29
امتحان+سمنار	محاضرة بور بوينت	امتحان +سمنار	التشخيص والعلاج	1	30

11. تقييم المقرر

توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير... الخ

12. مصادر التعلم والتدريس

Textbook of periodontology and implantology	الكتب المقررة المطلوبة (المنهجية ان وجدت)
	المراجع الرئيسية (المصادر)
	الكتب والمراجع الساندة التي يوصى بها (المجلات العلمية، التقارير...)
	المراجع الالكترونية، مواقع الانترنت

Course Description

1. Course Name:	
Conservative dentistry	
2. Course Code:	
DNT305	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
26/4/2024	
5. Available Attendance Forms:	
Attendance lecture weekly and preclinical laboratory practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
180 hours total 60h: Theory -120h preclinical laboratory practice 8:Units	
7. Course administrator's name (mention all, if more than one name)	
Assist. lect. Yahya Adel Abd - den.yahya.dental @uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	Enabling students to obtain knowledge and understanding of the work of fillings and fixed prosthodontics. The student learns the basics of this work. Enabling students to obtain knowledge and how to deal with the patient without causing any harm to the patient. Enabling students to obtain knowledge and understanding of each subject and what is the best method of work through comprehensive knowledge that help place amalgam and esthetic composite filling and crown and fixed bridges without fracture or dislodge outside mouth
9. Teaching and Learning Strategies	
Strategy	Theoretical lectures inside the classroom. <ul style="list-style-type: none"> ● Student groups ● preclinical phantom lab activities ● E-learning on campus (use of the Internet)

1. Course structure

<i>week</i>	<i>hours¹</i>	<i>Theoretical contents</i>	Module or Topic	Teaching Method	<i>Assessment Method</i>
1	1	Definitions: -Introduction to Fixed Prosthodontics. -Types of crowns. -Purposes of crown construction. -Steps in crown construction. -Components of bridge.	Conservative dentistry operative and fixed) (prosthodontics)	Theory lecture using power point	Weekly , semester, and final exams = weekly evaluation in the lab preclinical work on manikin teeth
	1	Definition of operative : dentistry a-Aim of operative dentistry b- General terminology			
2	1	Definitions (continued):	Conservative dentistry operative and fixed) (prosthodontics)	Theory lecture using power point	Weekly , semester, and final exams = weekly evaluation in the lab preclinical work on manikin teeth
	1	Principles of cavity :preparations a- Steps of cavity preparation b- Types of caries			
3	1	Definitions (continued):	Conservative dentistry operative and fixed) (prosthodontics)	Theory lecture using power point	Weekly , semester, and final exams = weekly evaluation in the lab preclinical work on manikin teeth
	1	Hand and rotary instruments and general instrumentation of cavity preparation			
4	1	Biomechanical principles of tooth preparation:*Preservation of sound tooth *Retention and *resistance form. *Marginal integrity. *Structural durability.	Conservative dentistry operative and fixed) (prosthodontics)	Theory lecture using power point	Weekly , semester, and final exams = weekly evaluation in the lab preclinical work on manikin teeth
	1	Sterilization of operative	2		manikin teeth

Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Fundamental Consideration in Fixed Prosthodontics Restorative Dentistry, Fundamental in Operative Dentistry.
Main references (source)	Contemporary fixed prosthodontics, Art & Science of operative dentistry,
Recommended books and references (scientific journals, reports...)	Monthly scientific journals, in addition to reports that work periodically to improve the properties of materials
Electronic references, websites.	Using the Internet for the purpose of learning everything new in the field of dental materials.

Course Description

1. Course Name:	
Dental anatomy	
2. Course Code:	
DN105	
3. Semester / Year:	
2023-2024	
4. Description Preparation Date:	
26/4/2024	
5. Available Attendance Forms:	
Attendance and laboratory practice	
6. Number of Credit Hours (Total) / Number of Units (Total)	
60h theory -30 practical Units: 6	
7. Course administrator's name (mention all, if more than one name)	
Assistant lecturer Sohaib Fadhil Mohammed sohaibfadhil85@uoanbar.edu.iq Assistant lecturer Sura Yaseen Khudhur sura.yaseen@uoanbar.edu.iq	
8. Course Objectives	
Course Objectives	<ul style="list-style-type: none"> -Give a full information for students about dental anatomy of each tooth (permanent and deciduous) from its developments to its emergence and description of its anatomical landmarks with simple information about surrounding tissues. - make the students imagine the proper tooth form when dealing with a patient s in the future. - give the students a proper hand skills through laboratory work.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> -Theoretical lectures inside class room. - data show -lectures with question and answers -using keynote program from presentation. -quizz - working in laboratory - agitation of students minds though their thought about special dental works related to dental anatomy.
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	4	-Crown and roots - surfaces and ridges - division of the crown into thirds	Introduction	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
2	4	-Universal notation system - Palmer notation system - FDI notation system	Numbering Systems	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
3	4		Anatomical Landmarks	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
4	4	- Characteristic features of incisors crown -Principles identifying features of permanent maxillary central incisor -labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect	Permanent Maxillary Central Incisor	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
5	4	-Principles identifying features of permanent maxillary lateral incisor -labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect - Variations from the typical form (Anomalies)	Permanent Maxillary Lateral Incisor	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory

6	4	-Characteristic features of permanent mandibular incisors -Principles identifying features of permanent mandibular central incisors -labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect	Permanent Mandibular Incisors	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
7	4	-Principles identifying features of permanent mandibular lateral incisors -labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect	Permanent Mandibular Incisors	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
8	4	-Principle identifying features of the permanent maxillary canine -labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect	Permanent Canines	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
9	4	-Principle identifying features of the permanent mandibular canine: labial aspect -lingual aspect -mesial aspect -distal aspect -incisal aspect	Permanent Canines	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
10	4	- Some characteristics of posterior teeth -Principle identifying features of maxillary 1 st premolar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Maxillary Premolars	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory

11	4	-Principle identifying features of maxillary 2 nd premolar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Maxillary Premolars	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
12	4	-Characteristic features of permanent mandibular first premolar resemble those of the mandibular canine -Characteristic features of permanent mandibular first premolar that resemble those of the mandibular second premolar -Principle identifying features of mandibular first premolar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Mandibular First Premolars that resemble those of the mandibular second premolar	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
13	4	-Principle identifying features of mandibular second premolar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Mandibular Second Premolar	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
14	4	-Principle identifying features of maxillary 1 st molar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Maxillary First Molar	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
15	4	-Principle identifying features of maxillary 2 nd molar -buccal aspect -lingual aspect	Permanent maxillary second and third molars	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory

		-mesial aspect -distal aspect -occlusal aspect -Principle identifying features of maxillary 3 rd molar			laboratory
16	4	-Principle identifying features mandibular 1 st molar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect	Permanent Mandibular First Molar	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
17	4	-Principle identifying features mandibular 2 nd molar -buccal aspect -lingual aspect -mesial aspect -distal aspect -occlusal aspect -Principle identifying features of mandibular 3 rd molar	Permanent Mandibular Second and third Molars	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
18	4	- Sequential order of deciduous teeth according to eruption times -Deciduous teeth -The importance of the deciduous teeth -Maxillary deciduous teeth -Mandibular deciduous teeth -Principal differences between deciduous and permanent teeth	Tooth Development	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
19	4	-Pulp cavities of the maxillary teeth -Pulp cavities of the mandibular teeth	Pulp Cavities	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory
20	4	-Occlusion deciduous dentition -Occlusion in permanent dentition	in Occlusion and physiologic form of teeth and periodontium	Lectures +laboratory	Daily, semester, and final exams = weekly evaluation in the laboratory

11. Course Evaluation

1	The first theoretical exam	12
----------	-----------------------------------	-----------

2	The first practical exam	8
3	The second theoretical exam	12
4	The second practical exam	8
5	Final practical and theoretical exam	60

12. Learning and Teaching Resources

Required textbooks (curricular books, any)	if	Wheeler's (dental anatomy, physiology, and occlusion)
Main references (source)		dental anatomy and occlusion
Recommended books and references (scientific journals, reports...)		Monthly scientific journals, in addition to reports that work periodically to improve the properties of materials
Electronic references, websites.		The Internet is great world for the purpose of learning everything new in the field of dental anatomy.