جامعة البيان

Academic Program Description

Al-Bayan University

College of Dentistry

2024 - 2025

College of Dentistry

16/9/2024

University	Al-Bayan University
Faculty/Institute	College of Dentistry
Scientific Department	
Academic/Professional Program Name	Academic Program Description of College of Dentistry
Final Certificate Name	Bachelor in Dentistry
Academic System	Annual
Description Preparation Date	2024
File Completion Date	16/9/2024

Head of Department	
Signe	
Name	
Date	

Scientific Associate	
Signe	
Name	Lec. Dr. Alaa Mohammed Shaheed
Date	16/9/2024

This File has been checked by Quality Assurance and University Performance Director of Quality Assurance and University Performance Department

Head of Quality Assurance Section	
Signe	
Name	Lec. Dr Alaa Mohammed Shaheed
Date	16/9/2024

Assis Prof Dr. Mudher Mohammed Baqir

Approval of the Dean

1. Program Vision

Leadership in education and scientific research at the national and global levels, keeping up with modern technologies, artificial intelligence, and ensuring quality oral and dental health care.

2. Program Mission

The College of Dentistry believes that oral health is an integral part of general health and strives to improve the quality of life in the community through its advanced educational programs and by harnessing artificial intelligence skills. It aims to graduate a new generation of inspiring dentists who uphold high professional ethics.

3. Program Objectives

1. Provide distinguished educational programs that ensure the development of students with high skills and professional ethics.
2. Support scientific research and innovation to develop treatments and techniques used in the field of dentistry and provide specialized, high-quality health care to patients.
3. Enhance the effectiveness of the educational process by using modern technology, represented by artificial intelligence and software for diagnosis and treatment, while achieving sustainable development concepts.
4. Promote communication and understanding between students and community members from diverse cultures and backgrounds, and commit to the values of justice and social equality.

4. The Program Accreditation

N/A

5. Other External Influences

N/A

6. Program Structure

Course Structure	Number of Courses	Credit Units	(%)	Reviews
Institutional Requirements	*5*	*12*	*5.6%*	*primary*

College Requirements	*43*	*201*	*94.4%*	*Primary*
Department Requirements				
Summer Training	*14*	*78.5*	*36.8%*	*primary*
Other				

7. Program Description

Year / Level	Course Code	Course Name	Credit Hours	
			Theoretical	Practical
1st	050101	Dental Anatomy	2	2
	050102	Biology	2	2
	050103	Medical physics	2	2
	050104	Medical chemistry	2	2
	050105	General human anatomy	1	2
	050106	Computer	1	2
	050107	Arabic language	1	0
	050108	English language	1	0
	050109	Human rights	1	0
	050110	Baath party crimes	1	0
2nd	050201	Prosthetic dentistry	1	4
	050202	Dental materials	1	2
	050203	Oral histology and embryology	2	2
	050204	General histology	2	2
	050205	General physiology	2	2
	050206	General human anatomy	1	2
	050207	Biochemistry	2	2
3ed	050301	Prosthetic dentistry	1	2
	050303	Pre-clinical conservative dentistry	1	2
	050304	Pre-clinical fixed prosthodontics	1	2
	050305	Oral surgery	2	2
	050306	Community dentistry	2	2
	050307	Pharmacology	2	2
	050308	General pathology	1	2
	050309	Microbiology	1	2
	050310	Radiology	1	2
	050311	Dental ethics	1	0
4th	050401	Prosthetic dentistry	1	3

	050402	Operative and esthetic dentistry & endodontics	1	6
	050403	Oral surgery	1	4
	050404	Periodontics	1	3
	050405	Orthodontics	1	5
	050406	Oral pathology	2	3
	050407	General medicine	2	2
	050408	General surgery	1	2.5
	050409	Pediatric dentistry	2	0
5th	050501	Prosthodontics	1	6
	050502	Oral medicine	1	2.5
	050503	Oral surgery	1	6
	050504	Orthodontics	1	4
	050505	Pediatric dentistry	1	1.25
	050506	Preventive dentistry	1	1.25
	050507	Periodontics	1	2.5
	050508	Clinical endodontics & clinical fixed prosthesis	1	6
	050509	Research project	1	0

8. Expected learning outcomes of the program

Knowledge

Learning Outcome 1: A1- Formulating information in a way that enables students to understand and comprehend.

Learning Outcome 2: A2- Increasing students' knowledge of oral and dental examination and treatment methods.

Learning Outcome 3: A3- Enabling students to identify and diagnose cases associated with complete removable and fixed dentures, and to clinically treat them.

Learning Outcome 4: A4- Enabling students to treat patients of all age groups, including children and the elderly.

Skills

Learning Outcome 1: B1- Gaining the knowledge and experience that helps in diagnosing diseases and identifying their causes.

Learning Outcome 2: B2- Enabling students to acquire the skills to make appropriate decisions for medical cases.

Learning Outcome 3: B3- Methods for examining and treating dental caries and endodontic treatments for children and adults.

Learning Outcome 4: B4- Enabling students to create fixed and removable dental prostheses.

Values

Learning Outcome 1: C1- Educating students on humanitarian and professional work.

Learning Outcome 2: C2- Enhancing and instilling professional and ethical values in students for practicing dentistry.

Learning Outcome 3: C3- Developing a sense of responsibility in students during their studies and in the workplace.

Learning Outcome 4: C4- Supporting and promoting medical awareness among students and community members.

9. Teaching and Learning Strategies

A- Knowledge and Understanding:

1. Empowering students to acquire and comprehend the fundamental principles of anatomy, oral surgery, and gum diseases.
2. Equipping students with the ability to document patients' general medical history.
3. Enabling students to possess self-learning skills to acquire new information and expertise within the field.
4. Empowering students to act in response to any patient-related incidents during work.

B- Subject-specific Skills:

1. Presenting brainstorming questions that enable students to link study materials together and relate them to medical and health reality.
2. Developing skills in conducting motivational interviews to encourage patients to adopt preventive measures, adhere to treatment, and follow post-operative instructions.

C- Thinking Skills:

1. Encouraging students through expressive communication, thinking speed, and responsiveness.
2. Prompting students to problem-solving and fostering distinctive thinking.
3. Engaging lectures through student interaction and brainstorming.
4. Discussing medical cases and how to handle them.

D- General and Transferable Skills (Other skills related to employability and personal development):

1. Professional preparation and urging students toward positive behavior in their personal lives.
2. Scientific preparation and encouraging students to communicate in other scientific fields.
3. Cultural preparation and refining students' personalities.
4. Employing acquired skills to enable students to become dentists capable of performing various minor surgeries.

E- Teaching and Learning Methods:

1. Lectures using data show and PowerPoint presentations.

2. Educational films.
3. Display screens.
4. E-learning.
5. Whiteboards.
6. Student group discussions.
7. Patient reception and treatment in clinics.

10. Evaluation Methods

1. Daily quizzes for theoretical subjects.
2. Oral questions.
3. Midterm examination.
4. Final examination.

11. Faculty Faculty Members	Specialization	Special Requirements/Skills	Numbers	
Titles	**General**	**Special**	**Staff**	**lecturer**
Prof.	Bachelor in oral surgery and medicine	Preventive dentistry	1	
	Bachelor in veterinary medicine	Cell physiology	1	
Ass. Prof.	Bachelor in oral surgery and medicine	Oral and maxillofacial surgery	1	
	Bachelor in oral surgery and medicine	Conservative dentistry		1
	Bachelor in oral surgery and medicine	Prosthodontics		1
	Bachelor in oral surgery and medicine	periodontics		1
Lecturer	Bachelor in oral surgery and medicine	Oral medicine		1
	Bachelor in oral surgery and medicine	Conservative dentistry		1
	Bachelor in oral surgery and medicine	Oral and maxillofacial surgery	2	
	Bachelor in oral surgery and medicine	Oral medicine	1	
	Bachelor in oral surgery and medicine	Prosthodontics	2	1

Lecturer doctor	Bachelor in oral surgery and medicine	Conservative dentistry	1	
	Biotechnology	Biotechnology	1	
	Biology	Microbiology	1	
	General surgery and medicine	General surgery	1	
	General surgery and medicine	Family medicine	1	
	General surgery and medicine	Histology		1
Ass. lecturer	Bachelor in oral surgery and medicine	Prosthodontics	2	3
	Bachelor in oral surgery and medicine	Orthodontics	2	
	Bachelor in oral surgery and medicine	Radiology	1	2
	Bachelor in oral surgery and medicine	Conservative dentistry	3	1
	Bachelor in oral surgery and medicine	Periodontics	1	
	Bachelor in oral surgery and medicine	Preventive dentistry	1	
	Bachelor in oral surgery and medicine	Oral surgery	1	
	Bachelor in oral surgery and medicine	Oral pathology	1	
	Biology	Microbiology/histology	3	
	Chemistry	Biochemistry	2	
	Medical physics	Medical physics/x-ray	1	
	Bachelor in pharmacy	pharmacology	1	
	Law	International law		1
	Arabic language	Arabic language	1	
	English language	English language		1
	Engineering	Materials engineering technology		1

Professional Development

Mentoring New Faculty Members

- Providing technical and technological support for new members to help them adapt to the tools and technologies used in teaching and research.
- Offering academic guidance by more experienced faculty members to assist in setting research and teaching goals and directing efforts toward achieving them.
- Regularly monitoring the progress of new members and evaluating their experiences at the college to ensure they meet their goals and improve their performance.

Professional Development for Faculty Members

- Organizing training courses and workshops for faculty members to update their knowledge in their specialties and learn new and effective teaching methods. These programs should include training on the effective use of technology in education and research.

- Providing mechanisms for regularly evaluating the performance of faculty members and offering constructive feedback to help them improve their performance and achieve their personal and professional goals.
- Faculty members should be encouraged to participate in local and international scientific conferences, present their research, and share their experiences with colleagues in the field.

12. Acceptance Criteria

Admission is based on the student's grade average after completing the sixth preparatory ministerial exam, with selection being made by the Ministry of Higher Education and other channels approved by the ministry.

13. The most important Sources of Information about the Program

Adopting programs from reputable international universities in the same field, as well as approved sources from textbooks published by reputable publishers and high-ranking academic journals.

14. Program Development Plan

- Providing academic mentoring programs for faculty members to help them set their research and teaching goals and develop their career plans.
- Organizing academic exchange programs with other universities or prestigious medical institutions to enhance collaboration and knowledge sharing.
- Offering training courses to develop leadership and management skills for faculty members, enabling them to apply these skills in managing academic and research programs and developing university policies.
- Providing financial and technical support for faculty members to conduct advanced scientific research and publish their findings in peer-reviewed scientific journals. Additionally, workshops on scientific writing and data analysis can be organized.

Program Skills																	
				Learning Outcomes Required from the Program													
Year/Level	Course Code	Course Title	Primary or Optional	Knowledge							Skills					Values	
				A 1	A 2	A 3	A 4	B 1	B 2	B 3	B 4	C 1	C2	C3	C4		
1st	050101	Dental anatomy	primary	X				X							X		
2nd	050201	prosthodontics	primary			X					X			X			
	050202	Dental material	primary	X								X					
	050203	Oral histology and embryology	primary	X								X					
3rd	050301	prosthodontics	primary			X	X	X				X	X				
	050303	Preclinical conservative dentistry	primary				X	X				X	X				
	050304	Preclinical fixed prosthesis	primary		X	X			X			X	X				
	050306	Community	primary				X	X				X	X				
	050310	Radiology	primary				X	X					X				
4th	050401	Prosthodontics		X	X	X	X		X	X							

	050402	Operative and esthetic dentistry & endodontics			X		X		X		X						X	X
	050405	Orthodontics			X		X						X		X			
	050409	Pediatric dentistry					X		X				X		X			
5th	050501	Prosthodontics			X								X		X			
	050502	Oral medicine		X											X		X	
	050504	Orthodontics													X		X	
	050505	Pediatric dentistry		X			X		X			X	X		X			
	050506	Preventive dentistry					XX			X			X		X			
	050508	Clinical endodontics & clinical fixed prosthesis																

Program Skills															
				Learning Outcomes Required from the Program											
Year/Level	Course Code	Course Title	Primary or Optional	Knowledge				Skills						Values	
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1st	050105	General human anatomy	primary	X				X					X		
2nd	050206	General human anatomy	primary		X			X					X		
3rd	050303	Oral surgery	primary			X			X				X		
4th	050403	Oral surgery	primary				X				X	X	X		
	050408	General surgery	primary				X						X		
	050404	Periodontics	primary							X		X	X		
	050406	Oral pathology	primary	X						X			X		
5th	050503	Oral surgery	primary		X						X	X	X		
	050507	Periodontics	primary		X					X		X	X		

Program Skills

Year/Level	Course Code	Course Title	Primary or Optional	Learning Outcomes Required from the Program											
				Knowledge						Skills					Values
				A 1	A 2	A 3	A 4	B 1	B 2	B 3	B4	C 1	C2	C 3	C4
1st	050102	Biology	primary	X				X					X		
	050103	Medical physics	primary	X						X	X		X		
	050104	Medical chemistry	primary	X						X	X		X		
	050106	computer	primary		X					X	X		X		
	050107	Arabic language	primary							X	X		X		
	050108	English language	primary							X	X		X		
	050109	Human rights	primary										X		
	050110	Baath party crimes	primary										X		
2nd	050204	General histology	primary			X			X				X		
	050205	General physiology	primary			X			X				X		

	050207	Biochemistry	primary	X		X		X
3rd	050307	pharmacology	primary		X		X	X
	050308	General pathology	primary		X		X	X
	050309	Microbiology	primary		X		X	X
4th	050407	General medicine	primary		X		X	X
5th	050509	Research project	primary		X		X	X

جامعة البيان

Course Description (1)

1. Course Title	**General human anatomy \S 2**
2. Course Code	**050206**
3. Semester/Year	**Annuual**
4. Description Preparation Date	**2024/2025**
5. Available Attendance Form	**Lectures & Labs**
6. No. of Hours (Total)	**30 hours of Theoretical + 60 hours of practical**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Besma Kamal Ahmed**
9. E-mail	**besma.kamal@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**Enable students to learn about human anatomy, especially the head and neck,**
	A2	**focus on knowing the locations of vital structures (nerves and blood vessels)**
	A3	**their direct relationship in the oral and maxillofacial area and his specialization as a dentist**
	A4	**Depending on the practical side, means of illustration and explanatory videos, a encouraging the student to connect human anatomy with his work as a dentist.**
Skills	**B1**	**Asking orally questions to students through which the student connect the anatomy material with each other and connect it to student specialty as a dentist.**
	B2	**Acquirement full knowledge of the organs of the human body and focus on the he and neck area.**
	B3	**Motivating the student through thinking and speed of response in understanding to facilitate memorizing the material.**
	B4	**Depending on the practical side, means of illustration and explanatory videos, and encouraging the student to connect human anatomy with his work as a dentist.**

Values	C1	Preparing students practically in terms of developing the knowledge gained in human anatomy in his work as a dentist.
	C2	Thinking about solving problems and how to avoid them. Teaching professional ethi
	C3	Developing the acquired skills of the student to become a dentist capable of treat patients and solving problems related to the knowledge of oral and maxillofa anatomy to avoid their occurrence.
	C4	Developing the student's ability to deal with multiple means of learning.

11. Teaching and Learning Strategies

1.	Theoretical lectures using slides on screens.	4.	Practical lessons on anatomical models
2.	Educational films and brief explanatory videos.	5.	
3.	Student discussion groups.	6.	

12. The Structure of the Course

Week	Hours	Topic/Subject Name	RLOs	Learning method	Evaluation method
1+2	2	Scalp	• Layers of the scalp • Muscles of the scalp • Sensory Nerve Supply of the Scalp • Arterial Supply of the Scalp • Venous Drainage of the Scalp • Lymph Drainage of the Scalp • Clinical Notes	Theoretical lecture using Data Show	Daily Theory Quiz
3+4	2	The orbital region	• Eyelids • Movements of the Eyelids • Lacrimal Apparatus • Openings into the Orbital Cavity • Nerves of the Orbit • Blood and Lymph Vessels of the Orbit • Structure of the Eye • Clinical Notes	Theoretical lecture using Data Show	Daily Theory Quiz
5	1	The Nasal region	• The Nose • External Nose • Nerve Supply of the External Nose • Blood Supply and Venous Drainage of the External Nose	Theoretical lecture using Data Show	Daily Theory Quiz

			• Nasal Cavity • Mucous Membrane of the Nasal Cavity • Nerve Supply of the Nasal Cavity • Blood Supply to the Nasal Cavity • Venous Drainage of the Nasal Cavity • Lymph Drainage of the Nasal Cavity • The Paranasal Sinuses • Drainage of Mucus and Functions of Paranasal Sinuses • Clinical Notes		
6	1	Mandibular nerve	• Introduction • Branches of the Mandibular Nerve • Otic Ganglion • Clinical Notes	Theoretical lecture using Data Show	Daily Theory Quiz
7+8	2	Face	• Skin of the Face • Muscles of the Face (Muscles of Facial Expression) • Sensory Nerves of the Face • Arterial Supply of the Face • venous driange of the Face • venous driange of the Face • Lymphatic driange of the face • Facial nerve	Theoretical lecture using Data Show	Daily Theory Quiz
9+10	2	Oral cavity	• The Lips • The oral Cavity vestibule and Proper Sensory innervation of the Mouth Hard Palate & Soft palate	Theoretical lecture using Data Show	Daily Theory Quiz

			• Muscles of the Soft Palate Palatoglossal Arch & Palatopharyngeal Arch		
11	1	Tongue	• Mucous Membrane of the Tongue • Muscles of the Tongue • Movements of the Tongue	Theoretical lecture using Data Show	Daily Theory Quiz
12	1	Temporal region	• The temporal fossa anatomy • The infratemporal fossa • Communications • Muscles of mastication	Theoretical lecture using Data Show	Daily Theory Quiz
13+14	2	Parotid gland	• Parotid Region (Boundaries) • Parotid Gland • Parotid Duct • Innervation of Parotid Gland and Related Structures • Arterial Supply • Venous Drainage • Lymph Drainage • The Buccal Pad of Fat • Clinical Notes	Theoretical lecture using Data Show	Daily Theory Quiz
15	1	The Pterygopalatine fossa	• Boundaries, Communications and openings • Maxillary nerve • Branches from the pterygopalatine ganglion • THE PTERYGOPALATINE GANGLION • THE VEINS OF THE PTERYGOPALATINE FOSSA	Theoretical lecture using Data Show	Daily Theory Quiz

16+17	2	Temporomandibular joint	• Introduction • The Articular Disk • Retrodiscal Tissue • Capsule • Synovial Membrane • Ligaments • Nerve Supply • Vascular Supply • Movements • Important Relations of the Temporomandibular Joint • Clinical Notes	Theoretical lecture using Data Show	Daily Theory Quiz

18+19	2	The neck	• Overview • Skin of the Neck • Fasciae of the Neck • Superficial Cervical Fascia • Deep Cervical Fascia • Cervical Ligaments • Muscles of the Neck • Cervical Plexus • Bones of Neck • Blood Supply • Key Neck Muscles	Theoretical lecture using Data Show	Daily Theory Quiz
20+21	2	Triangles of the neck	• ANTERIOR TRIANGLE • SUBMENTAL TRIANGLE • SUBMANDIBULAR TRIANGLE • CAROTID TRIANGLE • MUSCULAR TRIANGLE	Theoretical lecture using Data Show	Daily Theory Quiz

			• Posterior Triangle • Thyroid Gland • blood supply & venous drainage • nerve supply		
22	1	Submandibular region	• MUSCLES OF THE SUBMANDIBULAR REGION • The submandibular gland • Sublingual Gland	Theoretical lecture using Data Show	Daily Theory Quiz
23+24	2	Root of the neck	• Muscles of the Root of the Neck • The Thoracic Duct • Main Nerves of the Neck • Cervical Plexus & Brachial Plexus • Lymph Drainage of the Head and Neck • Veins of the Head and Neck	Theoretical lecture using Data Show	Daily Theory Quiz
25+26	2	Arteries of the neck	• Common Carotid Artery • Carotid Sinus • Carotid Body • External Carotid Artery • Internal Carotid Artery • Subclavian Arteries (3 parts) • Circle of Willis	Theoretical lecture using Data Show	Daily Theory Quiz
27	1	Brain	• Nervous System • Gross Anatomy of the Brain • Parts of the Brain • Ventricular System of the Brain • The Venous Blood Sinuses (Dural Sinuses) • Blood Supply of the Brain • Cranial Meninges	Theoretical lecture using Data Show	Daily Theory Quiz

			• Dural Nerve Supply • Dural Arterial Supply Dural Venous Drainage Clinical Focus		
28	1	Cranial nerves	• Introduction • Functional Components • Summary of cranial nerves	Theoretical lecture using Data Show	Daily Theory Quiz
29	1	Pharynx	• Muscles of the Pharynx • Pharynx divisions • Palatine Tonsils • Waldeyer's Ring of Lymphoid Tissue	Theoretical lecture using Data Show	Daily Theory Quiz
30	1	Larynx	• Cartilages of the Larynx • Membranes and Ligaments of the Larynx • Inlet of the Larynx • Laryngeal Folds • Muscles of the Larynx • Nerve & blood Supply of the Larynx	Theoretical lecture using Data Show	Daily Theory Quiz

جامعة البيان

1. Course Evaluation
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ **Daily quiz for theoretical subject** -1 **Oral questions** -2 **Degree of attendance** -3 **Mid-year exam** -4 **Final Exam** -5

2. Learning & Teaching Resources

Required textbooks. (curricular if any)	Snell's clinical anatomy 10th edition Netter's head and neck anatomy 3rd edition
Main References (sources)	Snell's clinical anatomy 10th edition Netter's head and neck anatomy 3rd edition Gray's anatomy for students 4th edition Atlas of clinical cross anatomy 2nd edition
Recommended Books & References (Scientific Journals, Reports …)	Read recent research in academic publishing journals
Websites or Electronic References	Google scholar, research gates.

جامعة البيان

Course Description (1)

1. Course Title	General surgery\ S4
2. Course Code	050408
3. Semester/Year	year
4. Description Preparation Date	2024 -2025
5. Available Attendance Form	Theory and clinical
6. No. of Hours (Total)	30 hours Theoretical / 75 hours practical lectures
7. No. of Credits (Total)	4.5
8. Course Administrator Name	Ahmed Saed Hamed
9. E-mail	Ahmed.sae@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	The student is at an advanced level in the field of general surgery, including recognizing general surgical cases
	A2	methods of diagnosis and treatment, and their relationship with their specific field as a dentist.
	A3	They should be familiar with surgical emergencies and how to handle them.
	A4	fundamentals of general surgery.
Skills	**B1**	Acquiring knowledge about general surgical cases, their diagnosis, and treatment
	B2	Essential diagnostic methods
	B3	emergency case management
	B4	, surgical complications management

Values	C1	specific skills related to the topic,
	C2	including specialized diagnostic techniques,
	C3	types of laboratory tests, and radiology relevant to surgical cases.
	C4	Qualifying students to examine, diagnose and treat patientst

11. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	E-learning
2.	Educational films	5.	Blackboards
3.	Display screens	6.	.Student discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1+2	2	Metabolic response to injury	• Metabolic response to injury • BASIC CONCEPTS IN HOMEOSTASIS • MEDIATORS OF THE METABOLIC RESPONSE TO INJURY • Physiological response to injury ((THE 'EBB AND FLOW' MODEL)) • Insulin resistance • AVOIDABLE FACTORS THAT COMPOUND THE RESPONSE TO INJURY • Systemic inflammation and tissue response	Data show &whiteboard	**Quiz**
3+4	2	Wound healing	• Introduction • Classification of wound Healing Normal sequence of wound Healing • Factors affecting healing (local & systemic) Complications of wound healing	Data show &whiteboard	**Quiz**

5+6	2	Surgical wound and infections	• Surgical wound infections Surgical sepsis • Types of wounds • Infecting organisms (Exogenous organisms, Endogenous organisms) • Prevention of wound Infections Clinical features of wound Sepsis Diagnosis of wound sepsis Treatment	Data show &whiteboard	**Oral quiz**
7+8	2	Hemorrhage	• Introduction Pathophysiology • Definitions (*Revealed and concealed hemorrhage, Primary, reactionary and secondary hemorrhage Surgical and non- surgical hemorrhage)* • Degree and classification • Management (*Identify hemorrhage, Immediate resuscitative maneuvers, Identify the site of hemorrhage, Hemorrhage control)* Damage control surgery	Data show &whiteboard	**Quiz**
9+10	2	Shock	• Introduction Pathophysiology	Data show &whiteboard	**Quiz**

			• *Ischemia–reperfusion syndrome* Classification of shock Consequences • *Unresuscitatable shock Multiple organ failure* RESUSCITATION • Fluid therapy • Monitoring • End points of resuscitation		
11+12	2	Blood transfusion	• Introduction • Blood and blood products Indications for blood transfusion Blood groups and cross-matching Transfusion reactions • Cross-matching • Complications of blood transfusion Management of coagulopathy	Data show &whiteboard	**Home work**
13+14	2	Parenteral feeding	• Introduction Route of delivery Peripheral • central venous access • Complications of parenteral nutrition Refeeding syndrome	Data show &whiteboard	**Home work**
15+16	2	Fluid	• Fluid balance • Abnormalities of body water Fluid overload and oedema Abnormalities of	Data show &whiteboard	**Quiz**

			electrolytes Fluid replacement • Acid-base balance • Abnormalities of acid-base balance		
17+18	2	Fluid and electrolytes balance	• Electrolytes balance Introduction • Principles of electrolyte balance Normal homeostasis • Barriers between compartments, osmolality and electrolyte concentrations • Homeostatic mechanisms	Data show &whiteboard	**Report**
19+20	2	Head injury	• Introduction • Cerebral blood flow • Initial evaluation and management Mechanism • Neurological progression Examination: primary survey Glasgow Coma Score secondary survey • CLASSIFICATION OF SEVERITY TYPE OF HEAD INJURY	Data show &whiteboard	**Quiz**
21	1	Preoperative preparation (History Taking)	• Introduction to the Patient • History of the presenting Complaint • Relevant medical history	Data show &whiteboard	**Quiz**

			• Family history Drug therapy Social history Allergies • Common surgical symptoms • Terms used in General Surgery and History Taking		
22	1	Anasthesia and pain	• HISTORY • GENERAL ANAESTHESIA • Management of airway during Anesthesia Complications of intubation • Ventilation during anesthesia Monitoring and care during anesthesia Chronic pain management • Chronic pain control in benign disease Pain control in malignant disease	Data show short movie	**Discussion group**
23+24	2	Perioperative care	• Introduction • Factors that predispose patients to a high risk of morbidity and mortality • Patient factors Surgical factors • Optimize medical management of coexisting diseases and intraoperative considerations	Data show short movie	**Discussion group**

			• Ischemic heart disease Respiratory failure SPECIFIC Strategies		
25	1	Postoperative care	• SYSTEM-SPECIFIC POSTOPERATIVE COMPLICATIONS • Respiratory complications Cardiovascular complications Renal and urinary complications • COMPLICATIONS RELATED TO SPECIFIC SURGICAL SPECIALTIES • *Paralytic ileus Compartment syndrome* Neck surgery Neurosurgery	Data show short movie	**Discussion group**
26+27	2	GENERAL POSTOPERATIVE PROBLEMS AND MANAGEMENT	• Nausea and vomiting Bleeding • Deep vein thrombosis Hypothermia and shivering Fever • Pressure sores Drains • Wound care Wound dehiscence • DISCHARGE OF PATIENTS	Data show short movie	**Discussion group**
28	1	Day case surgery	• Definition • SELECTION CRITERIA PREOPERATIVE ASSESSMENT SURGERY	Data show short movie	**Discussion group**

			• DISCHARGE		
29	1	Surgical ethics and law	• INTRODUCTION INFORMED CONSENT • MATTERS OF LIFE AND DEATH CONFIDENTIALITY • RESEARCH	Data show short movie	Discussion group
30	1	Patient safety	• INTRODUCTION • THE PREVALENCE OF ADVERSE HEALTHCARE EVENTS COMMON CAUSES OF ADVERSE HEALTHCARE EVENTS PATIENT SAFETY AND THE SURGEON • CARING FOR THE SECOND VICTIM	Data show short movie	Discussion group

جامعة البيان

13. Course Evaluation

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

1st and 2nd semester 25%	Theoretical 10% Clinical 15%
Mid year exam	Theoretical 15%
Final exam	Theoretical 40% Clinical 20%
100%	**Theoretical 65%** **Clinical 35%**

14. Learning & Teaching Resources

Required textbooks (curricular if any)	1.Baily and Love's short practice of surgery 25th edition 2008. 2.Schwarz principles of surgery.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	New articles from journals
Websites or Electronic References	Articles from goggle scholar and pupmed

جامعة البيان

Course Description (1)

1. Course Title	periodontics/ S5
2. Course Code	050507
3. Semester/Year	2024-2025
4. Description Preparation Date	28/4/2024
5. Available Attendance Form	lectures, clinics
6. No. of Hours (Total)	30 hrs theoretical, 90 hrs clinical 4.5 units
7. No. of Credits (Total)	4.5
8. Course Administrator Name	Manar Ibrahim Ahmed
9. E-mail	manar.i@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	- Gaining experience and information that will help him identify the disease and know its causes
	A2	Developing motivational interviewing skills to encourage patients to take .preventive measures
	A3	Increasing the student's knowledge of methods for examining teeth and detecting ca and gingivitis, based on factors such as oral hygiene and habits
	A4	,Learn how to assess patients' risks of dental diseases, including dietary diseases tobacco use, and chronic diseases
Skills	**B1**	Motivating the student through the style of expression,thinking, and speed of communication and response
	B2	Urging the student to solve problems and possess distinctive thinking
	B3	The lecture depends on student interaction and brainstorming

	B4	Qualifying students to examine, diagnose and treat patients
Values	**C1**	Acquiring skills in conducting clinical examinations for early detection of periodontal diseases
	C2	Developing motivational interviewing skills to encourage patients to take .preventive measures
	C3	I dentify the indicators and techniques for applying gum disease treatments and the .correct methods for using chemical and mechanical prevention methods
	C4	Qualifying students to examine, diagnose and treat patientst

11. Teaching and Learning Strategies

1.	Lectures using data show and power point	**4.**	E-learning
2.	Educational films	**5.**	Blackboards
3.	Display screens	**6.**	.Student discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1	1	Periodontal examination and diagnosis	- Overall appraisal of the patient - Medical history - Dental history: o Chief complaint - Photographic documentation - Clinical Examination: o Extraoral examination o Intraoral examination o Examination of the periodontium o Visual examination of biofilm and calculus o Visual examination of the gingiva - Probing force and angulation - Periodontal examination: o Suppuration o Probing depth o Probing around implants o Bleeding on probing	Data show &whiteboard	**Quiz**
2	1	Bone loss and patterns of bone destruction	- Bone destruction caused by the extension of gingival inflammation: o Histopathology o Rate of bone loss	Data show &whiteboard	**Quiz**

			○ Mechanisms of bone destruction - Bone destruction caused by trauma from occlusion - Bone destruction caused by systemic disorders - Factors determining bone morphology in periodontal disease: ○ Normal variation in alveolar bone ○ Exostoses ○ Trauma from occlusion ○ Buttressing bone formation ○ Food impaction - Bone destruction patterns in periodontal disease: ○ Horizontal bone loss ○ Vertical or angular defects ○ Osseous craters ○ Bulbous bone contours ○ Reversed architecture ○ Ledges ○ Furcation involvement		
3	1	Radiographic aids in the diagnosis of periodontal disease	- Normal interdental bone - Radiographic techniques - Bone Loss: ○ Amount ○ Distribution - Radiographic appearance of periodontal disease ○ Periodontitis	Data show &whiteboard	**Oral quiz**

			○ Interdental craters ○ Furcation involvement ○ Periodontal abscess ○ Clinical probing ○ Trauma from occlusion - Digital intraoral radiography		
4	1	Learn about the new and advanced methods of diagnosis	diagnosis - Objectives of diagnosis - Advances in periodontal probing - Generations of periodontal probes: First-generation (conventional) probes ○ Second-generation (constant-pressure) probes i- Pressure-sensitive probe ii- Electronic pressure-sensitive (Yeaple) probe ○ Third-generation (automated) probes: i- Foster-Miller probe ii- Florida Probe® iii- Toronto Automated probe iv-InterProbe™ ○ Fourth-generation probes: i- Three-dimensional (3D) probes ○ Fifth-generation probes: i- UltraSonographic (US) probe	Data show &whiteboard	**Quiz**

			- Advances in microbiologic/biochemical analyses o Conventional culture techniques o Molecular biology techniques: i- DNA-analysis method ii- Checkboard DNA-DNA hybridization iii- Polymerase Chain Reaction (PCR) o Immunologic-based tests for putative pathogens: i- Immunofluorescent microscopy ii- ELISA iii- Flow cytometry iv- Latex agglutination test v- Microbiologic enzyme assay - Advances in characterizing host response o Assessment of the susceptible host using makers in peripheral blood o Identification of host constituent in GCF o Salivary biomarkers o Subgingival temperature - Advanced Imaging Modalities o Conventional radiograph o Digital radiograph o Subtraction radiography		

			○ Computer-assisted-densitometric-image-analysis (CADIA) ○ Cone Beam Computed Tomography (CBCT) § For each section, mention the limitations for the "conventional" technique to justify using more advanced methods. For the rest of diagnostic modalities, mentioning principle of action/mechanism, advantages, and disadvantage is essential.		
5	1	Learn about the external forces, traumatic occlusion and the outcomes	Periodontal response to external forces - Occlusion - Assessment of occlusion - Adaptive capacity of the periodontium to occlusal forces - Trauma from occlusion: ○ Classification of trauma from occlusion: i- Acute and chronic ii- Primary and secondary - Stages of tissue response to trauma from occlusion: ○ Stage I: Injury ○ Stage II: Repair ○ Stage III: Adaptive remodeling of the periodontium	Data show &whiteboard	**Quiz**

			- Relationship between plaque-induced periodontal diseases and trauma from occlusion - Clinical and radiographic signs of trauma from occlusion - Pathologic tooth migration: o Pathogenesis: i- Weakened periodontal support ii- Changes in the forces exerted on the teeth - Treatment		
6	1	Learn the immune system, parts, reactions with periodontal tissues	Immunology - Innate immunity o Components of innate immunity: i- Saliva: ● Salivary peroxidase system ● Lactoferrin ● Lysozyme ii- Gingival epithelial barrier iii- Gingival crevicular fluid o Pathogen recognition and activation of cellular innate responses: i- Toll like receptors ii- Pro inflammatory cytokines o Cells of innate immunity: i- Neutrophils ii- Macrophages	Data show &whiteboard	**Home work**

7	1	Learn the immune system, parts, reactions with periodontal tissue	Immunology - Adaptive immunity o Characteristics o Cellular elements o Cellular immunity to dental plaque o The humoral response to plaque o Osteo-immunology in periodontal diseases - Therapeutic Strategies	Data show &whiteboard	**Home work**
8	1	Tooth mobility	- Introduction - Types: o Physiologic mobility o Pathologic mobility - Directions of movement: o Horizontal o Vertical - Factors influencing tooth mobility - Classification of tooth mobility - Initial & secondary tooth mobility - Sign & symptoms	Data show &whiteboard	**Quiz**
9	1	Epidemiology of periodontal diseases	- Introduction: The need for epidemiology - Measuring the occurrence of conditions or diseases: o Prevalence o Risk o The odds o Incidence	Data show &whiteboard	**Report**

			- Typical measurement of periodontal disease - True and surrogate measures of the periodontal condition - Epidemiologic study designs: o Randomized controlled trials o Cohort studies o Case–control studies - Suspected modifiable causative factors for periodontal disease: o Tobacco smoking o Nutrition o Dental plaque		
10	1	Determination of prognosis	- Definitions - Types of prognosis - Overall versus individual tooth prognosis - Detrimental factors: o Overall clinical factors: i. Patient age ii. Disease severity iii. Biofilm control iv. Patient compliance	Data show &whiteboard	**Quiz**

			o Systemic and environmental factors: i. Smoking ii. Systemic disease or condition iii. Genetic factors iv. Stress o Local factors i. Biofilm and calculus ii. Subgingival restorations		
11	1	Interrelationships of periodontal disease and therapy with other dental disciplines	Restorative interrelationships - Biologic considerations: o Margin placement and biologic width o Biologic width evaluation o Margin placement guidelines o Marginal fit o Crown contour - Aesthetic tissue management: o Managing interproximal embrasures o Pontic design o Correcting open gingival embrasures Periodontal – orthodontic interaction	Data show &whiteboard	**Quiz**

			- Orthodontic tooth movement in adults with periodontal tissue breakdown - Orthodontic treatment considerations - Periodontal surgery associated with ortho therapy Prosthodontic and Periodontic interaction		
12	1	Periodontal surgery. General principles	- Rationale for periodontal surgery - Indications - Contraindication - Surgical instruments o Excisional and incisional instruments i- Periodontal knives (gingivectomy knives) ii- Interdental knives iii- Surgical blades o Surgical curettes and sickles o Periosteal elevators o Surgical chisels o Tissue forceps	Data show short movie	**Discussion group**

			o Scissors and nippers o Needleholders o Additional instruments - Fundamentals of periodontal surgery: o Incisions: i- Horizontal incisions ii- Vertical incisions - Papilla management - Flap elevation		
13	1	Sonic and ultrasonic instrumentation and irrigation	- Power-driven instruments: overview - Mechanism of action of power scalers - Type of power instruments - Mechanized instruments vs manual instruments - Clinical outcomes of power-driven instruments: o Special considerations o Root surface roughness o Aerosol production o Cardiac pacemakers - Principles of instrumentation - Power-driven devices and COVID-19- associated limitations - Irrigators:	Data show short movie	**Discussion group**

			○ Mechanism of action of irrigation ○ Clinical outcomes of irrigation ○ Individuals with special considerations		
14	1	Gingivectomy and local excision	- Gingivectomy: ○ Indications and contraindication ○ Advantages and disadvantages ○ Surgical procedure - Gingivoplasty - Gingival curettage - Periodontal dressings (Periodontal Packs) ○ Zinc oxide–eugenol dressing ○ Non-eugenol dressing - Postoperative instructions - Management of postoperative pain	Data show short movie	**Discussion group**
15	1	Flap surgery	- Objectives, indication, and contraindications - Flap techniques: § ○ Modified Widman flap ○ Undisplaced flap Apically displaced flap ○ Distal wedge flap ○ Papilla preservation flap - Full and partial thickness flap - Osteoplasty	Data show short movie	**Discussion group**

			- Suturing techniques § For each surgical technique demonstrate advantage, disadvantage, and surgical technique		
16	1	Mucogingival and aesthetic surgery	- Objectives - Techniques to increase attached gingiva: o Gingival augmentation apical to recession: i- Free gingival graft ii- Free connective tissue graft iii- Apically displaced flap § o Gingival augmentation coronal to recession i- Free gingival graft ii- Subepithelial connective tissue graft iii- Pouch and tunnel technique - Techniques to deepen the vestibule - Techniques to remove the frenum: o Frenectomy and frenotomy: i- Procedure	Data show short movie	**Discussion group**

			- Techniques to improve aesthetics: o Root coverage o Papilla reconstruction - Therapy to correct excessive gingival display: o Surgical techniques o Osseous surgery § This technique has been described sufficiently in previous lecture. Brief reminder of the concept and technique is only required		
17	1	Furcation involvement and treatment	- Introduction - Anatomy of furcation area: o Root complex o Root trunk o Root cone o Furcation entrance - Local anatomic factors - Classification of furcation involvement - Diagnosis: o Clinical o Radiographic analysis - Differential diagnosis: o Pulpal pathologies	Data show &whiteboard	Quiz

			o Trauma from occlusion - Treatment: o Objectives Scaling and root planing o Furcation plasty o Tunnel preparation o Root resection/separation, tooth division& hemisection o Tooth extraction o Treatment guidelines according to degree of involvement o Regeneration of Furcation Defects: i- Guided tissue regeneration &Bone grafting o Failures of furcation therapy - Prognosis		
18	1	Laser therapy	- Laser physics and biologic interactions - Laser Types: o Diode Laser o Neodymium:Yttrium-Aluminum-Garnet Laser o Erbium:Yttrium-Aluminum-Garnet Laser	Data show &whiteboard	Quiz

			○ Er,Cr:YSGG Laser ○ CO2 Laser - Laser applications in periodontics: ○ Aesthetic and pre-prosthetic surgeries ○ Nonsurgical periodontal therapy: i- Lasers in the management of periodontitis ii- Lasers in the management of peri-implantitis - Advantages and disadvantages - Complications and risks of laser therapy § Case scenario, questions about decision whether using laser or not should be formulated		
19	1	Locally delivered, controlled-release antimicrobials	- Objectives - Types: ○ Chlorhexidine-based products: i- Chlorhexidine chip ii- PerioCol-CG iii- Chlo-Site ○ Doxycycline-based products: i-Ligosan slow release ii- Doxycycline gel ○ Periodontal Plus AB ○ Minocycline Microspheres - Rationale for local delivery and controlled release - Clinical significance	Data show &whiteboard	Quiz

			- Clinical indications: o Adjunctive therapy o Surgical therapy o Peri-implantitis o Tobacco smoking - Adverse effects		
20	1	Management of medically compromised patients	- Cardiovascular diseases: o Hypertension o Angina pectoris o Myocardial infarction o Previous cerebrovascular accident o Congestive heart failure o Cardiac pacemakers o Infective endocarditis - Renal disease - Chemotherapy	Data show &whiteboard	Quiz
21	1	Management of medically compromised patients	- Endocrine/metabolic disorders: o Diabetes mellitus o Thyroid disorders o Adrenal Insufficiency - Pregnancy - Hemorrhagic disorders - Blood dyscrasias - Liver diseases - Neurologic Disorders: o Epilepsy - Infectious diseases: o COVID-19 o Hepatitis	Data show &whiteboard	Quiz

			○ AIDS ○ Tuberculosis		
22	1	Gingival crevicular fluid (GCF)	- Introduction - Permeability of junctional and sulcular epithelia - Function - Amount: ○ Methods for estimating GCF amount - Composition: ○ Cellular elements ○ Electrolytes ○ Organic compounds - Methods of collection: ○ Absorbing paper strip: i- Intra-crevicular method ii- Extra-crevicular method ○ Crevicular washing ○ Micropipettes or capillary tubes - Cellular and humoral activity in GCF - Clinical significance: ○ Circadian periodicity ○ Sex hormones ○ Mechanical stimulation ○ Smoking Periodontal therapy - Drugs in GCF - GCF as a diagnostic/prognostic tool for periodontal disease	Data show &whiteboard	Quiz

23	1	Dentin hypersensitivity	- Introduction - Epidemiology - Etiology - Theories of dentin hypersensitivity: o Direct innervation o Odontoblast receptor o Fluid movement/hydrodynamic - Diagnosis - Measurement methods - Prevention and management o Classification of desensitizing agents: i- Mode of administration ii- Mechanism of action	Data show &whiteboard	Quiz
24	1	Tissue regeneration	. General principles Periodontal Wound Healing - Wound healing: Outcomes and definitions o Healing patterns in the periodontal tissues o Outcomes of periodontal wound healing: i- Repair ii- Reattachment iii- New attachment iv- Regeneration v- Resorption vi- Ankylosis - Phases of wound healing: o Inflammation phase o Granulation phase	Data show short movie	Quiz

			○ Matrix formation and remodeling (maturation) phase - Factors that affect healing: ○ Local factors ○ Systemic factors - Periodontal wound healing: ○ Healing after nonsurgical treatment ○ Healing after periodontal surgery: i- Gingivectomy ii- Flap operation iii- Grafting procedures ○ Healing after regenerative therapy ○ Healing after implant placement: i- bone tissue interface ii- Mucosal interface		
25	1	Learn about the indication, contraindication, advantages, disadvantages and the principles of tissue regeneration	-Regenerative periodontal therapy - Regenerative capacity of bone cells - Regenerative capacity of gingival connective tissue cells - Regenerative capacity of periodontal ligament cells	Data show short movie	Quiz

			- Role of epithelium in periodontal wound healing - The possible outcomes of periodontal therapy - Regenerative concepts: o Grafting procedures o Root surface biomodification o Guided tissue regeneration - Assessment of periodontal regeneration: o Clinical assessment i- Pocket probing. ii- Attachment level iii- Gingival indices iv- Alveolar bone level o Radiographic methods o Re-entry operations o Histologic methods		

26	1	Reconstructive surgical techniques	o Non- bone graft associated new attachment: i- Principles ii- Procedure Bone Graft associated new attachment or combination of both approaches i- Types of bone graft: ● Autogenous graft ● Allograft ● Xenograft ● Alloplastic (synthetic) materials - Guided tissue regeneration (principle, advantages, disadvantages, and indications)	Data show short movie	Quiz
27	1	Advanced regenerative approaches	- Enamel matrix Derivatives - Acellular dermal matrix allograft - Clinical applications of growth factors	Data show short movie	Quiz

			- Cell therapy for periodontal regeneration - Gene therapeutics for periodontal tissue repair - Factors influencing the success or failure of all regeneration techniques		
28	1	Oral implantology	Peri-implant anatomy and Peri-implant diseases classification - Introduction - Epithelial structure around natural tooth - Epithelial structure around dental implant - Structure of the interface between the tooth and gingivae - Structure of the interface between implant and oral epithelium - Structure of the interface between the implant and connective tissue - Keratinized tissue (attached gingiva) around implant - Clinical Comparison of Teeth and Implants - Peri-implant health - Peri-implant mucositis: Diagnosis o Treatment - Peri-implantitis	Data show &whiteboard	Quiz

			o Diagnosis o Treatment		
29	1	Oral implantology	Implant-related complications and failure - Definitions of implant survival and success - Types and prevalence of implant complications - Surgical complications: o Hemorrhage and hematoma o Neurosensory disturbances o Implant malposition - Biologic Complications: o Inflammation and proliferation o Dehiscence and recession o Peri-implantitis and bone loss o Implant loss or failure - Prosthetic or mechanical complications: o Screw loosening and fracture o Implant fracture o Fracture of restorative materials - Aesthetic and phonetic complications: o Aesthetic complications o Phonetic problems	Data show &whiteboad	Quiz

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

جامعة البيان

13. Course Evaluation

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

1st and 2nd semester 25%	Theoretical 10% Clinical 15%
Mid year exam	Theoretical 15%
Final exam	Theoretical 40% Clinical 20%
100%	Theoretical 65% Clinical 35%

14. Learning & Teaching Resources

Required textbooks (curricular if any)	Carranza's Clinical Periodontology
Main References (sources)	1- lindhe 2015 2-Newman_and Carranza's Clinical_Periodontology
Recommended Books & References (Scientific Journals, Reports …)	Clinical periodontology Periodontal 2000
Websites or Electronic References	Pubmed Google scholar

جامعة البيان

Course Description (1)

1. Course Title	periodontics/ fourth grade
2. Course Code	050404
3. Semester/Year	annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	lectures, clinics
6. No. of Hours (Total)	30 hrs theoretical, 90 hrs clinical 5 units
7. No. of Credits (Total)	5
8. Course Administrator Name	Hayder Sadiq Baker
9. E-mail	Hayder.sadiq@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Preparing dental students to maintain oral and dental health, with a focus on how to examine diagnose periodontal diseases. Through this, dental students can contribute to reducing the bur of gum disease in their future practices and enhancing the overall health of their patients
	A2	• Learning Outcomes A- Knowledge and understanding 1- Gaining experience and information that will help him identify the disease and know its causes Developing motivational interviewing skills to encourage patients to take -2 .preventive measures Increasing the student's knowledge of methods for examining teeth and -3 detecting caries and gingivitis, based on factors such as oral hygiene and habits ,Learn how to assess patients' risks of dental diseases, including dietary diseases -4 tobacco use, and chronic diseases
	A3	
	A4	
Skill	**B1**	B - Subject-specific skills 1- Acquiring skills in conducting clinical examinations for early detection of periodontal diseases

		Developing motivational interviewing skills to encourage patients to take -2 .preventive measures Identify the indicators and techniques for applying gum disease treatments and the correct methods for using chemical and mechanical prevention methods
	B2	• C- Thinking skills Motivating the student through the style of expression,thinking, and speed of-1 communication and response Urging the student to solve problems and possess distinctive thinking -2 The lecture depends on student interaction and brainstorming -3 Qualifying students to examine, diagnose and treat patients -4
	B3	D -General and transferable skills (other skills related to employability and (personal development Professional preparation and urging the student to have positive behavior in his -1 public life Scientific preparation and urging the student to communicate in other fields of -2 science Cultural preparation and refining the student's personality -3 Utilizing the acquired skills so that the student becomes-4 dentist capable of treat patients
	B4	
Values	**C1**	Acquiring skills in conducting clinical examinations for early detection of periodontal diseases
	C2	Developing motivational interviewing skills to encourage patients to take .preventive measures
	C3	I dentify the indicators and techniques for applying gum disease treatments and the .correct methods for using chemical and mechanical prevention methods
	C4	Acquiring skills in conducting clinical examinations for early detection of periodontal diseases

11. Teaching and Learning Strategies

1.	Lectures using data show and power point .	**4.**	E-learning
2.	Educational films	**5.**	Blackboards
3.	Display screens	**6.**	Student discussion groups

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1	1	Terms & definitions frequently used in periodontology	Terms & definitions frequently used in periodontology	Datashow &whiteboard	quiz
2	1	Oral mucosa	-Gingiva o Macroscopic features: i- Marginal gingiva ii- Attached gingiva iii- Interdental papilla o Microscopic features: i- Oral epithelium ii- Sulcular epithelium iii- Junctional epithelium iv- Epithelial connective tissue interface v- Gingival connective tissue (gingival fibers and cellular elements) o Gingival sulcus and gingival crevicular fluid o Blood Supply, Lymphatics, and Nerves o Clinical features of gingiva in health and disease: i- Color • Physiologic pigmentation ii- Size iii- Contour iv- Shape	Datashow &whiteboard	quiz

			v- Consistency vi- Texture vii- Position		
3	1	Anatomy of the periodontium	- Periodontal ligaments (PDL) o Cellular elements o Ground substance o Development of principal fibers of PDL o Functions of periodontal ligaments: i- Physical functions ii- Formative and Remodeling Function iii- Nutritional and sensory functions o Clinical consideration	Datashow &whiteboard	quiz
4	1	Anatomy of the periodontium	-Cementum o Definition o Function of cementum o Classification of cementum: i- Acellular afibrillar cementum ii- Acellular extrinsic fiber cementum iii- Cellular mixed stratified cementum iv- Cellular intrinsic fiber cementum o Development and mineralization of cementum o Cementoenamel junction o Cementodentinal junction o Thickness of Cementum in response to physiologic and pathologic conditions Normal thickness ii- Cemental aplasia	Datashow &whiteboard	quiz

			iii- Hypercementosis iv- Ankylosis v- neoplastic and nonneoplastic sia		
5	1	Anatomy of the periodontium	-Alveolar process o Definition o Function of alveolar process o Parts of the alveolar process i- Alveolar bone proper ii- An external plate of cortical bone iii- Cancellous trabeculae or spongy bone o Basal bone o Anatomic division of the alveolar process i- Interproximal bone ii- Inter radicular bone iii- Radicular bone o Composition of the bone i- Cellular elements ii- Organic components iii- Inorganic components o Haversian system or Osteon o Periosteum and Endosteum o Remodeling of alveolar bone	Datashow &whiteboard	**Discussion groups**
6	1	Classification of periodontal diseases and conditions (2017)	- Reasons for classification - Major changes from previous classification - Periodontal health and gingival diseases and conditions	Datashow &whiteboard	Home work

			Periodontal health and gingival health: o Clinical gingival health on an intact periodontium o Clinical gingival health on a reduced periodontium: i- Stable periodontitis ii- Non-periodontitis patients The classification of dental biofilm induced gingivitis: o Associated with bacterial dental biofilm only o Mediated by systemic or local risk factors i- Systemic conditions ii- Oral factors enhancing plaque accumulation o Drug-influenced gingival enlargements Case definition of gingivitis: o Gingivitis on an intact periodontium o Gingivitis on a reduced periodontium Non-dental biofilm induced gingival disease: o Genetic/developmental disorders o Specific infections o Inflammatory and immune conditions and lesions o Reactive processes o Neoplasms o Endocrine, nutritional, and metabolic diseases		

			o Traumatic lesions o Gingival pigmentation		
7	1	Classification of periodontal diseases and conditions (2017)	-Periodontitis o Periodontitis (Extent, Staging, Grading, Status, Risk factors) o Necrotizing periodontal diseases: i- Necrotizing gingivitis ii- Necrotizing periodontitis iii- Necrotizing Stomatitis) o Periodontitis as a manifestation of systemic disease -Peri-implant disease and conditions: § o Peri- implant health o Peri-implant mucositis o Peri-implantitis o Peri-implant soft and hard tissues deficiency	Datashow &whiteboard	quiz
8	1	Classification of periodontal disea and conditions (2017)	Other conditions affecting the periodontium -Periodontal abscess: o Periodontal abscess in periodontitis patients o Periodontal abscess in non-periodontitis patients -Endodontic periodontal lesions:	Datashow &whiteboard	quiz

			o Endo-periodontal lesions associated with endodontic and periodontal infections o Endo-periodontal lesions associated with trauma and iatrogenic factors -Mucogingival deformity and conditions -Traumatic occlusal force -Tooth and prosthetic related factors		
9	1	Etiology of periodontal disease	-Periodontal disease pathogenesis o Mechanisms of pathogenicity o Histopathology of periodontal disease: i- Clinically healthy gingival tissues ii- Histopathology of gingivitis and periodontitis: • The initial lesion • The early lesion • The established lesion • The advanced lesion o Inflammatory responses in the periodontium: i- Microbial virulence factors: • Lipopolysaccharide • Bacterial enzymes • Microbial invasion • Fimbriae	Datashow &whiteboard	Report

			• Bacterial DNA ii- Host-Derived Inflammatory Mediators: • Cytokines • Prostaglandins • Matrix metalloproteinases		
10	1	Etiology of periodontal disease and risk factors	Dental plaque biofilm and periodontal microbiology - Definitions: o Supragingival plaque o Subgingival plaque - Structure of a mature dental plaque biofilm - Accumulation of a dental plaque biofilm: o Formation of the pellicle o Initial adhesion/attachment of bacteria o Colonization and plaque maturation - Factors affecting supragingival dental plaque formation: o Topography of supragingival plaque o Surface microroughness o Individual variables that influence plaque formation o Variation within the dentition o Impact of gingival inflammation and saliva o Impact of patient's age	Datashow &whiteboard	Home work

			o Spontaneous tooth cleaning - Metabolism of dental plaque bacteria - Communication between biofilm bacteria - Biofilms and antimicrobial resistanc		
11	1	Microbiologic specificity of periodontal diseases	- Traditional nonspecific plaque hypothesis - Specific plaque hypothesis - Updated nonspecific plaque hypothesis - Ecologic plaque hypothesis - Keystone Pathogen Hypothesis	Datashow &whiteboard	quiz
12	1	Dental calculus	- Clinical appearance and distribution (Supragingival and Subgingival Calculus) - Calculus formation: o Theories of calculus formation - Calculus composition: o Inorganic content o Organic content - Attachment to tooth surfaces and implants - Clinical significance	Datashow &whiteboard	report
13	1	Dental stain	- Color and color perception - Classification of tooth discoloration: o Intrinsic discoloration o Extrinsic discoloration	Datashow &whiteboard	Quiz

			o Internalized discoloration - The mechanisms of tooth discoloration - Prevention - Treatment approaches		
14	1	Etiology of periodontal disease	- Risk factors for periodontal diseases: o Definitions of risk factors o Systemic risk factors: i- Modifiable risk factors ii- Non-modifiable risk factors o Local predisposing factors: i-Calculus ii- Iatrogenic factors iii- Margins of restorations iv-Malocclusion v- Associated with orthodontic therapy o Local anatomic risk factors	Datashow &whiteboard	Quiz
15	1	Etiology of periodontal disease	- Molecular biology of host–microbe interactions o Microbe-associated molecular patterns o Toll-like receptors: i- Toll-like receptor-4–lipopolysaccharide recognition ii- Toll-like receptor-2–lipoprotein/lipoteichoic acid/peptidoglycan recognition	Datashow &whiteboard	Quiz

			iii- Role of toll-like receptors in periodontitis o Complement system: i-Classical/Lectin/Alternative pathways ii- Role of complement periodontitis		
16	1	Etiology of periodontal disease and risk factors	- Smoking and Periodontal Disease o Effects of smoking on the prevalence and severity of periodontal diseases: i- Gingivitis ii- Periodontitis o Effects of smoking on the etiology and pathogenesis of periodontal disease: i- Microbiology ii-Immune–inflammatory responses iii- Physiology o Effects of smoking on the response to periodontal therapy: i-Nonsurgical Therapy ii- Surgical Therapy and Implants iii- Maintenance Therapy o Effects of smoking cessation periodontal treatment outcomes	Datashow &whiteboard	Quiz

17	1	Impact of periodontal infection on systemic health	- Focal infection theory revisited - Subgingival environment as a reservoir for bacteria - Periodontal disease, coronary heart disease, and atherosclerosis: o Ischemic heart disease o Atherosclerosis - Periodontal disease and stroke - Periodontal disease and diabetes mellitus: o Periodontal infection associated with glycemic control in diabetes	Datashow &whiteboard	Quiz
18	1	Impact of periodontal infection o systemic health	- Periodontal disease and asthma - Periodontal disease and pregnancy outcome - Periodontal disease and chronic obstructive pulmonary disease - Periodontal disease and acute respiratory infections	Datashow &whiteboard	Quiz
19	1	Periodontal indices o Definition	o Gingival index (Loe and Silness) o Plaque index (Silness and Loe) o Plaque index (O'leary) o Plaque index (Quigely Hein) o Probing pocket depth o Clinical attachment loss	Datashow &whiteboard	Quiz

			o Basic Periodontal Examination (BPE) o Modified Gingival Index o Bleeding on probing o Furcation involvement index o Calculus index o Recession index (Miller) o Recession index (Cairo)		
20	1	The periodontal pocket	- Classification - Clinical features - Pathogenesis - Histopathology: o Bacterial invasion o Microtopography of the gingival wall o Periodontal pockets as healing lesions o Pocket contents o Root surface walls	Datashow &whiteboard	Quiz
21	1	The periodontal pocket	- Periodontal disease activity - Pulp changes associated with periodontal pockets - Relationship of attachment loss and bone loss to pocket depth - Area between base of pocket and alveolar bone - Relationship of pocket to bone - Periodontal abscess - Lateral periodontal cyst	Datashow &whiteboard	Quiz

22	1	Treatment plan guidelines	§ - Phase 1 (behavior change, removal of supragingival dental biofilm and risk factor control): o Self-performed supragingival biofilm control: i- Oral hygiene practices to control gingival inflammation ii- Behavioral change for oral hygiene improvement iii- Motivational interviewing and cognitive behavioral therapy o Adjunctive therapies for gingival inflammation o Professional supragingival dental biofilm control o Risk factor control: i- Local risk factor control ii- Tobacco smoking cessation interventions iii- Promotion of diabetes control interventions	Datashow &whiteboard	Home work
23	1	Treatment plan guidelines	- Phase 2 (cause-related therapy) o Subgingival instrumentation: Scaling Root planing o Removal of plaque-retentive factors o Use of adjunctive systemically administered antibiotics to subgingival instrumentation	Datashow &whiteboard	Oral quis

			o Re-evaluation of the cause-related therapy o Decision to refer for specialist		
24	1	Treatment plan guidelines	- Phase 3 (corrective/surgical phase) o Objectives of surgical therapy o Periodontal access surgery: i- Resective ii- Regenerative o Extraction of hopeless teeth o Periodontal plastic surgery: i- Mucogingival surgery ii- Aesthetic crown lengthening o Pre-prosthetic surgery: i- Crown lengthening ii- Implant site preparation	Datashow &whiteboard	Quiz
25	1	Treatment plan guidelines	- Phase 4 (maintenance therapy) o Clinical recommendations o Self-performed supragingival dental biofilm control o Adjunctive therapies for gingival inflammation o Professional supragingival dental biofilm control o Risk factor control	Datashow &whiteboard	Quiz
26	1	Plaque biofilm control for the periodontal patient	- The toothbrush: o Toothbrush design - Powered toothbrushes - Dentifrices	Datashow &whiteboard	Quiz

			- Toothbrushing methods - Interdental cleaning aids: o Dental floss o Interdental brushes o Other interdental cleaning devices - Oral irrigation: o Supragingival irrigation o Subgingival irrigation - Caries control		
27	1	Plaque biofilm control for the periodontal patient	- Chemical plaque biofilm control with oral rinses o Chlorhexidine digluconate: i- Mode of action ii- Clinical use iii- Side-effects o Nonprescription essential oil rinse o Other products - Disclosing agents - Patient motivation and education: o Motivation for effective plaque biofilm control o Education and scoring systems: i- Plaque biofilm control record (O'Leary Index) ii- Bleeding points index o Instruction and demonstration	Datashow &whiteboard	Quiz
28	1	Periodontal instruments and sharpening	- Types of periodontal instruments: i- Diagnostic instruments	Datashow &whiteboard	Home work

			ii- Scaling, root planing, and curettage instruments • Plastic and Titanium Instruments for Implants iii- Cleansing and polishing instruments iv- Surgical instruments - Instrument stabilization: i- Instrument Grasping ii- Finger Rest - Condition of the instruments a resharpening		
29	1	Breath Malodor (Halitosis	) - Definitions - Epidemiology - Classification - Etiology: o Intraoral Causes: i- Tongue and tongue coating ii- Periodontal infections iii- Dental disorders iv- Dry mouth o Extraoral Causes o Pseudo-halitosis or Halitophobia - Diagnosis of malodor - Prevention and management: o Mechanical reduction of intraoral nutrients and microorganisms o Chemical reduction of oral microbial load: i- Chlorhexidine	Datashow &whiteboard	Quiz

			ii- Essential oils iii- Chlorine dioxide iv- Two-phase oil-water rinse v- Triclosan vi- Hydrogen Peroxide vii- Amine Fluoride or Stannous Fluoride o Conversion of volatile sulfur compounds: i- Metal Salt Solutions o Masking the Malodor		
30	1	Systemic anti-infective therapy periodontal diseases	- Definitions	Datashow &whiteboard	**Discussion group**

جامعة البيان

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Carranza's Clinical Periodontology
Main References (sources)	1- lindhe 2015 2-Newman_and Carranza's Clinical_Periodontology
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	pumbemed Google scholar

جامعة البيان

Course Description (1)

1. Course Title	Oral surgery / S4
2. Course Code	050403
3. Semester/Year	Annually
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Lectures and clinic
6. No. of Hours (Total)	Theories =30h. clinic =120 h
7. No. of Credits (Total)	6
8. Course Administrator Name	Doctor lecturer: Natheer Ayed Jassem
9. E-mail	natheer.ayed@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	**Enable students to obtain knowledge and understanding of oral and maxillofacial surgery**
	A2	**Enabling students to obtain knowledge and understanding of general diseases of human body and their relationship to oral and dental health and their impact on treatment plan.**
	A3	**Enabling the student to perform simple tooth extraction operations**
	A4	**Training the student in simple surgical operations and suturing wounds**
Skills	**B1**	**Enabling students to acquire and understand the basic principles of oral surgery**
	B2	**Enabling students to write down the patient's general medical history.**
	B3	**Enabling students to possess self-learning skills to acquire information, skills, practices related to tooth extraction in general.**
	B4	**Enabling students to possess self-learning skills to acquire information skills, and practices related to tooth extraction in general.**

Values	C1	**Enabling students to possess self–learning skills to acquire information, skills, and practices related to tooth extraction in general.**
	C2	
	C3	
	C4	

11. Teaching and Learning Strategies

1.	Online Authoring systems	4.	Microsoft power point for lecture presentations
2.	Internet access and E-mail	5.	Video and audio media equipment
3.	A data show projector	6.	**Training extraction of teeth in clinic**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1	**1**	**Cardiovascular diseases**	Hypertension Dental management Oral Manifestations Ischemic heart diseases Angina pectoris Myocardial infarction (MI) Dental management Heart failure Dental management Oral manifestations	**Display data show and blackboard**	**quiz**
2	**1**	**Cardiac arrhythmia**	Dental management ➢ Infective endocarditis Dental management ➢ Rheumatic fever and rheumatic heart Disease Dental management ➢ Congenital heart disease Dental management Oral manifestations	**Display data show and blackboard**	**quiz**

3	**1**	**Bleeding disorder**	Dental management of the patient with bleeding disorder: - Hemophilia - Von Willebrand's disease - Thrombocytopenia - Blood dyscrasias - Disorders of the RBCs - Anemia and polycythemia - Dental management - WBCs Disorders - Leukemia, Lymphoma, Burkitt's Lymphoma and Multiple Myloma - Dental management	**Display data show and blackboard**	**quiz**
4	**1**	**Endocrinology**	Thyroid diseases - Dental management of hyper- and hypothyroidism - Oral complications and manifestations ➢ Adrenal insufficiency - Dental management of Adrenocortical insufficiency and adrenal crisis - Dental management of Adrenocortical hyperfunction - Oral complications and manifestations ➢ Diabetes Mellitus	**Display data show** **and blackboard**	**Discussion questior**

			Dental management of the patient with diabetes mellitus		
5	**1**	**Pulmonary diseases**	Chronic obstructive pulmonary diseases (COPD) Dental management Oral complications and manifestations Asthma Dental management Management of asthmatic attack Oral complications and manifestations Tuberculosis Dental management Oral complications and manifestations	**Display data show and blackboard**	**quiz**
6	**1**	**Liver Diseases**	Viral hepatitis Dental management Oral manifestations and complications ➢ Alcoholic liver disease Dental management Oral complications and manifestations	**Display data show and blackboard**	**1st trim exam.**
7	**1**	**Chronic kidney disease and dialysis**	Chronic kidney disease Dental management Patients receiving conservative care	**Data show and blackboard display + explanatory films**	**quiz**

			Dialysis Renal transplant Oral complications and manifestations		
8	**1**	**Neurologic disorders**	Epilepsy Dental management Oral complications and manifestations ➢ Cerebrovascular accidents (stroke) Medical management Dental management	**Data show** **and blackboard display explanatory films**	**quiz**
9	**1**	**Pregnancy**	Dental management Medical considerations Treatment timing Dental radiographs Drugs in pregnancy Oral manifestations and complications	**Data show and blackboard display + explanatory films**	**Discussion questio**
10	**1**	**AIDS and HIV infection**	Oral manifestations Dental managements: ✓ Asymptomatic patient. ✓ Symptomatic patient. ✓ Patient with severe symptoms	**Data show and blackboard display + explanatory films**	**Discussion groups**

11	**1**	**Rheumatologic and connective tissue disorders**	Rheumatoid arthritis ✓ Dental management ✓ Oral manifestations and complications ▯ Dental management of patients with prosthetic joint	**Display data show and blackboard**	**quiz**
12	**1**	**Allergy**	Dental management ▯ Oral complications and manifestations	**Data show and blackboard display + explanatory films**	**quiz**
13	**1**	**Patients on radiotherapy and chemotherapy**	Patients on radiotherapy ✓ Radiation effects on normal tissues in the path of the external beam ✓ Dental Management ▯ Patients on chemotherapy ✓ The effect of chemotherapy on normal tissues ✓ Dental management	**Data show and blackboard display + explanatory films**	**Discussion questior**
14	**1**	**Odontogenic infections and fascial space infections**	Odontogenic Infections ▯ Spread of odontogenic infections ▯ The factors that influence the spread of odontogenic infections	**Display data show and blackboard**	**quiz**
15	**1**	**Fascial space infections**	Fascial space infections ▯ Infection of spaces in relation to the lower jaw ▯ Infections of spaces in relation to the upper jaw ▯ Cavernous sinus thrombosis	**Data show and blackboard display + explanatory films**	**Discussion groups**

16	**1**	**Principles of treatment of odontogenic infections**	Principles of treatment of odontogenic infections Principles for the use of appropriate antibiotics Sinus formation Necrotizing fasciitis	**Display data show and blackboard**	**quiz**
17	**1**	**Principles of Flaps, suturing and management of difficult extraction**	Principles of Flaps, suturing and management of difficult extraction Flaps in oral cavity Incision Flap design Types of Mucoperiosteal Flaps Flap reflection Suturing Suture Materials Needles Needle Holder Tissue Forceps Suture Scissor Principles of suturing Suturing Techniques	**Display data show and blackboard**	**Discussion question**

18	**1**	**Management of difficult extraction**	The main indications for surgical extraction of teeth are - Steps of surgical extraction - Indications for leaving root fragments - Multiple Extractions - Extraction sequencing	**Display data show and blackboard**	**quiz**
19	**1**	**Principles of management of impacted teeth**	Definition and stages of eruption - Impacted lower third molars - Indications for removal of impacted lower third molars - Classification of impacted lower third molars - Clinical examination - Radiographic examination and assessment - Surgical extraction of lower third molar - Complications - Other lines of treatment	**Data show and blackboard display + explanatory films**	**quiz**
20	**1**	**Impacted upper third molars**	Impacted upper third molars - Surgical extraction - Complications - Impacted maxillary canine	**Display data show and blackboard**	**Discussion groups**

			Classification Clinical examination Radiographic examination and assessment Options of treatment 		
21	**1**	**Impacted mandibular canines**	Impacted mandibular canines Impacted lower premolars Impacted maxillary premolars Impacted first and second molars Buried deciduous molars Supernumerary teeth Dilacerated incisors	**Display data show and blackboard**	**quiz**
22	**1**	**Surgical aids to orthodontics**	Corticotomy assisted orthodontic treatment and labial Labial frenectomy. Temporary skeletal anchorage	**Data show and blackboard display + explanatory films**	**Discussion questior**
23	**1**	**Principles of endodontic surgery**	Definition Indications for periapical surgery Contraindications for periapical surgery	**Display data show and blackboard**	**quiz**

			Important considerations in periapical surgery Factors Associated with Success and Failures in Periapical Surgery		
24	**1**	**Surgical procedure of apicectomy**	Surgical procedure To perform biopsy or not Determination of success Microsurgical technique	**Display data show and blackboard**	**quiz**
25	**1**	**Osteomyelitis and osteonecrosis of the jaw**	Osteomyelitis Definition. Classification Etiology and pathogenesis Clinical presentation Diagnostic imaging Microbiology Treatment: surgical, antimicrobial and hyperbaric oxygen Other types of osteomyelitis: infantile, focal and diffuse sclerosing and Garre's sclerosing osteomyelitis	**Display data show and blackboard**	**Discussion question**
26	**1**	**Radiation induced osteomyelitis and osteoradionecrosis**	Definition Etiology Stages Treatment Prevention ➢ Medication related osteonecrosis of the jaw Definition Pathophysiology	**Data show and blackboard display + explanatory films**	**2nd trim exam**

			Clinical presentation and staging Imaging Treatment Prevention		
27	**1**	**Dental Implants: Basic Concepts and Techniques**	Implant Geometry (Macrodesign) Implant Surface Characteristics (Microdesign) Hard Tissue Interface Soft Tissue–Implant Interface Biomechanical Considerations Preoperative Assessment and Treatment Planning (hard tissue evaluation, soft tissue evaluation, radiographic examination)	**Display data show and blackboard**	**quiz**
28	**1**	**Surgical Treatment Planning Considerations of dental implant**	Final Treatment Planning Basic Implant Surgical Procedures One-Stage versus Two-Stage Implant Placement Surgery Implant Stability Complications Implant Components Defining implant outcomes	**Display data show and blackboard**	**Discussion groups**
29		**Biopsy in oral and maxillofacial surgery**	Medical History • History of the lesion • Examination • Differential Diagnosis • Biopsy Principles • Contraindication • Excisional Biopsy • Incisional Biopsy	**Data show and blackboard display + explanatory films**	**quiz**

			• Surgical technique		
30		**Diagnostic imaging in oral and maxillofacial surger**	Classification: Invasive and Non-invasive • Types of non-invasive imaging • Conventional radiography (Plain x-ray) • Ultrasonography (USG): • Computed tomography scanning (CT scan): Spiral CT, Cone Beam CT (CBCT) • Magnetic resonance imaging (MRI) • MRI vs. CT scan • Radionuclide (scintigraphy or skeletal scan) • Positron emission tomography (PET) Scan • PET-CT • Single Photon Emission Computed Tomography (SPECT) scan	**Display data show and blackboard**	**Discussion question**

1. Course Evaluation

No.	Assessment measurement	Score distribution concerning theoretical lectures	Score distribution concerning clinic
1	First semester	5%	7.5%
2	Mid year examination (15%)	15%	
3	Second semester	5%	7.5%
4	Final examination (60%)	40%	20%
Total	100%	65%	35%

2. Learning & Teaching Resources

Required textbooks (curricular if any)	
Main References (sources)	Dental management of medically compromised patient 9th edit. Contemporary Oral and Maxillofacial Surgery 7th edit.
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	Google scholar, research gates

جامعة البيان

Course Description (1)

1. Course Title	Oral surgery\ S3
2. Course Code	050305
3. Semester/Year	Annually
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Theoretical and practical lectures
6. No. of Hours (Total)	90 hours
7. No. of Credits (Total)	4
8. Course Administrator Name	Assist. Prof . Dr. Mudher MB. Al-Sunubli
9. E-mail	mudher.m@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Enable the students to acquire basic knowledge about oral surgery
	A2	Enable the students to Identify the surgical tools used in oral surgery and surgical meth
	A3	Enable the students to acquire basic knowledge about local anesthesia and its metho
	A4	
Skills	**B1**	Knowledge of the basics of oral diagnosis and surgical instruments
	B2	Methods of tooth extraction and oral surgery
	B3	Learn the different methods of local anesthesia
	B4	
Values	**C1**	Preparing the student practically in what is related to oral surgery and local anesthesia
	C2	
	C3	

	C4	

11. Teaching and Learning Strategies

1.	Online Authoring systems	**4.**	Microsoft power point for lecture presentations
2.	Internet access and E-mail	**5.**	Video and audio media equipment
3.	A data show projector	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	Topic/Subject Name	RLOs	Learning Method	Evaluation Method
1	1	**Diagnosis in oral surgery**	➢ History taking • Demographic data • Chief complaint • History of present complaint • Past dental and medical history • Social and family history	Quiz + oral exam	Data show and white board
2	1	**Diagnosis in oral surgery**	➢ Examination • Extra-oral examination • Intra-oral examination ➢ Differential diagnosis ➢ Diagnosis of pain, lump, and ulcer ➢ Consent	Quiz + oral exam	Data show and white board
3	1	**Infection Control in Surgical Practice**	➢ Communicable pathogenic organisms ➢ Aseptic techniques • Terminology • Concepts • Techniques of Instrument Sterilization; Sterilization with Heat; Sterilization with Gas • Techniques of Instrument Disinfection	Quiz + oral exam	Data show and white board
4	1	**Infection Control in Surgical Practice**	• Maintenance of Sterility • Surgical Field Maintenance	Quiz + oral exam	Data show and white board

			• Operatory Disinfection • Surgical Staff Preparation • Postsurgical Asepsis		
5	1	**Extraction of teeth and Contra indications of extraction**	• Extraction of teeth (exodontia). • Definition. • Methods of extraction. • Indications of teeth extraction.	Student discuss groups.	Data show and white board
6	1	**Extraction of teeth and Contra indications of extraction**	• Contra-indications of teeth extraction. ➢ Local contra-indications. ➢ Systemic contra-indications. • Pre-extraction evaluation. ➢ Clinical preoperative evaluation. ✓ General evaluation. ✓ Local evaluation. ➢ Radiological evaluation. ➢ Objectives and benefits	Student discuss groups.	Data show and white board
7	1	**General arrangement for extraction and Dental forceps (types)**	• Light. • Position of the operator. • Position of the patient. • Height of the dental chair. • Parts of dental forceps. • Forceps for the maxillary teeth. ✓ Forceps of upper anterior teeth. ✓ Forceps of upper premolars. ✓ Forceps of upper molars. ✓ Bayonet of upper posterior teeth.	Oral exam	Data show and white board

8	1	**General arrangement for extraction and Dental forceps (types)**	• Forceps for the mandibular teeth. ✓ Forceps of lower anterior teeth. ✓ Forceps of lower premolars. ✓ Forceps of lower molars. ✓ Bayonet of lower posterior teeth. • Mechanical principle of forceps (traditional) extraction	Oral exam	Data show and white board
9	1	**Techniques of forceps extraction and post-operative instructions**	• Soft tissue retraction. • Handling of the forceps. • Cheek retraction and support (the use of the non-working hand). • The application of the forceps blades to the tooth (tooth grasp). • The displacement of the tooth from its socket. • Post-operative care to the extraction socket. • Instruction to the patient.	Quiz	Data show and white board
10	1	**Elevators**	• Line of withdrawal. • Point of application. • Parts of dental elevators. • Mechanical principles of using dental elevators. • Wheel and axil. • Fulcrum. • Wedging.	Quiz	Data show and white board

			• Combination of mechanical principles.		
11	1	**Elevators**	• Clinical uses of elevators. • Straight elevators. • Coupland's chisel. • Cryer's elevator. • Winter's elevator. • Apexo elevator. • Warwick-James elevator. • Guiding principles for using dental elevators. • Complications of using dental elevators.	Student discuss groups.	Data show and white board
12	1	**Complications of dental extraction**	• Failure to secure anesthesia. • Failure to remove the tooth with either forceps or elevator. • Fracture (#) of crowns and roots, alveolar bone, maxillary tuberosity, adjacent or opposing tooth, mandible. • Dislocation of the tempro-mandibular joint (T.M.J.). • Displacement of a root into the soft tissue and tissue spaces and the maxillary antrum.	Oral exam	Data show and white board

13	1	**Complications of dental extracti**	• Excessive bleeding after extraction. • Damage to the surrounding soft tissues. • Post -operative pain. • Post-operative swelling. • Creation of an oro-anrtal communication. • Trismus.	Quiz	Data show and white board
14	1	**Basic surgical instruments**	• Instruments of basic oral surgery. • Instruments to incise tissues. • Instruments for elevating mucoperiosteum. • Instruments for controlling hemorrhage. ✓ Hemostat (artery forceps). • Instruments to grasp tissues. ✓ Toothed-tissue forceps. ✓ Allis tissue forceps. • Instruments for removing bone. ✓ Rounger forceps (bone cutter and bone nibbler). ✓ Chisel and mallet. ✓ Bone file. ✓ Surgical burs and handpiece. • Instruments to remove soft tissues from bony defects. ✓ Surgical curette. • Instruments for suturing mucosa. ✓ Needle holder.	Quiz	Data show and white board

			✓ Needles. ✓ Suture materials ✓ Scissors. • Instruments for retraction of soft tissues. ✓ Cheek retractor. ✓ Mucoperiosteal flap retractor. • Instruments for irrigation and for providing suction. • Instrument of draping		
15	1	**Introduction to local anesthesia**	• Neurophysiology • Mode and site of action of local anesthetic • Active forms of local anesthetics	Discussion groups	Data show and white board
16	1	**Pharmacology of local anesthesia**	• Pharmacokinetics of local anesthetics • Metabolism • Systemic actions of local anesthetics	Oral exam	Data show and white board
17	1	**Pharmacology of local anesthesia**	• Vasoconstrictors • Mode of action • Dilutions of vasoconstrictors • Specific agents	Discussion groups	Data show and white board
18	1	**Surgical anatomy in local anesthesia**	• Trigeminal nerve: ✓ Ophthalmic branch ✓ Maxillary branch ✓ Mandibular branch	Oral exam	Data show and white board
19	1	**Instruments of local anesthesia**	• The Syringe • The Needle	Home work	Data show and white board

			• The Cartridge • Additional Armamentarium • Preparation of the Armamentarium		
20	1	**Surgical anatomy in local anesthesia**	• Osteology of the maxilla • Osteology of the mandible	Reports	Data show and white board
21	1	**Techniques of local anesthesia**	• Basic injection techniques • Techniques of maxillary anesthesia ✓ Local infiltration. ✓ Posterior superior alveolar nerve block ✓ Middle superior alveolar nerve block ✓ Anterior superior alveolar nerve block (infraorbital nerve block) ✓ Greater palatine nerve block ✓ Nasopalatine nerve block ✓ Maxillary nerve block	Discussion groups	Data show and white board
22	1	**Techniques of local anesthesia**	• Techniques of local anesthesia ✓ Techniques of mandibular anesthesia ✓ Inferior alveolar nerve block ✓ Buccal nerve block ✓ Mandibular nerve block: The Gow-Gates technique ✓ Vazirani-Akinosi closed-mouth mandibular block ✓ Mental nerve block	Open book exam	Data show and white board

			✓ Incisive nerve block		
23	1	**Techniques of local anesthesia**	• Supplemental injection techniques ✓ Intraosseous injection ✓ Periodontal ligament injection ✓ Intraseptal injection ✓ Intrapulpal injection	Home work	Data show and white board
24	1	**Complications of local anesthesia**	• Local Complications ✓ Needle breakage ✓ Prolonged anesthesia (paresthesia) ✓ Facial nerve paralysis ✓ Ocular complications ✓ Trismus ✓ Soft tissue injury ✓ Hematoma	Discussion groups	Data show and white board
25	1	**Complications of local anesthesia**	✓ Pain on injection ✓ Burning on injection ✓ Infection ✓ Edema ✓ Sloughing of tissues ✓ Postanesthetic intraoral lesions	Reports	Data show and white board
26	1	**Complications of local anesthesia**	• Systemic complications ✓ Overdose ✓ Allergy	Reports	Data show and white board
27	1	**Advances in local anesthesia**	• Computer controlled local anesthetic delivery	Home works	Data show and white board

			• Articaine hydrochloride • Local anesthesia reversal • Buffering of local anesthetic solution • Nasal local anesthetic mist for maxillary nonmolar teeth		
28	1	**Conscious sedation**	• Sedation techniques: Oral, sublingual, transdermal, intranasal, intramuscular, intravenous and inhalational • Nitrous oxide • Complications and medicolegal considerations	Oral exam	Data show and white board
29	1	**Fundamentals of general anesthesia**	• Types of general anesthesia used in dentistry • Advantages • Disadvantages • Indications • Contraindications		
30	1	**Medical emergencies during dental treatment**	• Overview of medical emergencies • Basic measures, equipment and drugs • Common emergencies ✓ Collapse ✓ Anaphylaxis ✓ Cardiac arrest ✓ Diabetic collapse due to hypoglycemia ✓ Fits and convulsions ✓ Adrenal crisis		

			✓ Acute severe asthma ✓ Chest pain		

3. Course Evaluation

No.	Assessment measurement	Score distribution concerning theoretical lectures	Score distribution concerning laboratories
1	First semester	10%	7.5%
2	Mid year examination (15%)	15%	
3	Second semester	10%	7.5%
4	Final examination (60%)	40%	20%
Total	100%	65%	35%

4. Learning & Teaching Resources

Required textbooks (curricular if any)	1. Contemporary oral and maxillofacial surgery 5th edition 2008. 2. Extraction of teeth. 3- Handbook of Local anesthesia 6th edition 2011.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	General human anatomy
2. Course Code	050105
3. Semester/Year	Yearly (first year)
4. Description Preparation Date	2024/2025
5. Available Attendance Form	Lectures & Labs
6. No. of Hours (Total)	30 hours of Theoretical + 60 hours of practical
7. No. of Credits (Total)	4
8. Course Administrator Name	Noora Abdulrazzaq Naji
9. E-mail	noora.ab@albayan.edu.iq

10. Course Objectives

Knowledge	A1	**Enable students to learn about human anatomy, especially the head and neck, and focus on knowing the locations of vital structures (nerves and blood vessels) and their direct relationship in the oral and maxillofacial area and his specialization as a dentist**
	A2	**Preparing students practically in terms of developing the knowledge gained in human anatomy in his work as a dentist.**
	A3	**Acquirement full knowledge of the organs of the human body and focus on the head and neck area.**
	A4	**Developing the student's ability to deal with multiple means of learning.**
Skills	B1	**Asking orally questions to students through which the student connect the Anatomy material with each other and connect it to student specialty as a dentist.**
	B2	**Motivating the student through thinking and speed of response in Understanding to facilitate memorizing the material.**
		Thinking about solving problems and how to avoid them.

	B	
	B4	Teaching professional ethics.
	C1	Developing the acquired skills of the student in order to become a dentist capable of treating patients and solving problems related to the knowledge of oral and maxillofacial anatomy to avoid their occurrence.
Values	C2	The theoretical lecture depends on the students' daily interaction and develops Their ability to discussion.
	C3	Depending the practical side, means of illustration and explanatory videos,
	C4	encouraging the student to connect human anatomy with his work as A dentist

Teaching and Learning Strategies

Practical lessons on anatomical models

1.	Theoretical lectures using slides on screens.		
2.			
3.			

جامعة البيان

11. The Structure of the Course

Week	Hours	Topic/Subject Name	RLOs	Learning Method	Evaluation Method
1	1	Defining Introduction to Human Anatomy Descriptive Anatomic Term	Introduction to Human Anatomy Descriptive Anatomic Terms	Theoretical lecture using Dat Show	Daily Theory Quiz
2	1	Defining Basic Structures: Skin, Fasciae, Muscle, Joints, Ligamen Bursae	Basic Structures: Skin, Fasciae, Muscle, Joints, Ligament, Bursae	Theoretical lecture using Dat Show	Daily Theory Quiz
3+4	2	Defining Basic Structures: Bone, Cartilage, Blood Vessels, Lymphatic System	Basic Structures: Bone, Cartilage, Blood Vessels, Lymphatic System	Theoretical lecture using Dat Show	Daily Theory Quiz
5	1	Defining Basic Structures: Nervous System, Mucous Membranes, Serous Membranes	Basic Structures: Nervous System, Mucous Membranes, Serous Membranes	Theoretical lecture using Dat Show	Daily Theory Quiz
6+7	2	Defining Skeletal system of the body Skull :Cranial Bones	Skeletal system of the body: Skull Cranial Bones	Theoretical lecture using Dat Show	Daily Theory Quiz
8+9	2	Defining Skeletal system of the body Skull : Facial Bones	Skeletal system of the body: Skull : Facial Bones	Theoretical lecture using Dat Show	Daily Theory Quiz
10+11	2	Defining External Views of the Skull	External Views of the Skull	Theoretical lecture using Dat Show	Daily Theory Quiz

جامعة البيان

12+13	2	Defining * The Cranial Cavity *Major Foramina and Fissures locations and structurespass through Neonatal Skull	*The Cranial Cavity *Major Foramina and Fissures locations and structurespass through Neonatal Skull	Theoretical lecture using Dat Show	Daily Theory Quiz
14+15	2	Defining Skeleton of the Orbital Region, Openings into the Orbital Cavity Skeleton of the External Nose, nasal cavity, Paranasal Sinuses *Auditory ossicles Hyoid bone	*Skeleton of the Orbital Region, Openings into the Orbital Cavity *Skeleton of the* External Nose, nasal cavity, Paranasal Sinuses *Auditory ossicles Hyoid bone	Theoretical lecture using Dat Show	Daily Theory Quiz
16+17	2	Defining The Vertebral Column	The Vertebral Column	Theoretical lecture using Dat Show	Daily Theory Quiz
18+19	2	Defining Structure of the Thoracic Wall *Joints of the Chest Wall *Suprapleural Membrane	*Structure of the Thoracic Wall *Joints of the Chest Wall *Suprapleural Membrane *Diaphragm * Surface Anatomy	Theoretical lecture using Dat Show	Daily Theory Quiz

		*Diaphragm *Surface Anatomy			
20+21	2	Defining Thoracic cavity: Mediastinum, Pleurae, Trachea , Bronchi, Lungs	Thoracic cavity: Mediastinum, Pleurae, Trachea, Bronchi, Lungs	Theoretical lecture using Dat Show	Daily Theory Quiz
22+23+24	3	Defining Pericardium, Heart, Large arteries, veins and nerves of thorax	Pericardium, Heart, Large arteries, veins and nerves of thorax	Theoretical lecture using Dat Show	Daily Theory Quiz
25+26	2	Defining *Bones of the Shoulder (Pectoral girdle) girdles *Bones of the Upper extremities	*Bones of the Shoulder (Pectoral girdle) girdles *Bones of the Upper extremities	Theoretical lecture using Dat Show	Daily Theory Quiz
27+28	2	Defining *Bones of the Pelvic girdle *Bones of the Lower extremities	*Bones of the Pelvic girdle *Bones of the Lower extremities	Theoretical lecture using Dat Show	Daily Theory Quiz
29+30	2	Defining Abdominal cavity and organs	Abdominal cavity and organs	Theoretical lecture using Dat Show	Daily Theory Quiz

12. Course Evaluation
First semester + second semester = 25 degrees 7.5 marks (practical, attendance and oral questions) + 5 degrees of theoretical daily exams (per semester) Mid-year exam score = 15 final exam score = 60 (40 theoretical + 20 practical) Grand Total = 100%

13. Learning & Teaching Resources	
Required textbooks (curricular if any)	–
Main References (sources)	**Snell's clinical anatomy 10th edition** **Netter's head and neck anatomy 3rd edition** **Gray's anatomy for students 4th edition** **Atlas of clinical cross anatomy 2nd edition**
Recommended Books & References (Scientific Journals, Reports …)	**Read recent research in academic publishing journals**
Websites or Electronic References	**Google scholar , research gates**

جامعة البيان

Course Description (1)

1. Course Title	Oral pathology\ S4
2. Course Code	050406
3. Semester/Year	Annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Lectures & Labs
6. No. of Hours (Total)	60 hours of Theoretical + 90 hours of practical
7. No. of Credits (Total)	7
8. Course Administrator Name	Basheer Jabbar Sabhan
9. E-mail	basheer.j@albayan.edu.iq

10. Course Objectives :

Knowledge	A1	Enable students to learn about oral diseases
	A2	focus on knowing the management protocols for oral diseases
	A3	their direct relationship in the oral and maxillofacial area and his specialization as a dentist
	A4	Let the student know the scientific of biopsy taking .
Skills	B1	Asking orally questions to students through which the student connect the anatomy material with each other and connect it to student specialty as a dentist.
	B2	Acquirement full knowledge of the oral diseases and their presentation clinical feature
	B3	Motivating the student through thinking and speed of response in understanding to facilitate memorizing the material.
	B4	Depending on the practical side, means of illustration and explanatory videos, and encouraging the student to see as much as possible to be familiar with different oral lesions.
Value	C1	Preparing students practically in terms of developing the knowledge gained in oral pathology in his work as a dentist.
	C2	Thinking about solving problems and how to avoid them. Teaching professional ethics.

	C3	**Developing the acquired skills of the student to become a dentist capable of treating patients and solving problems related to the knowledge of oral and maxillofacial pathology .**
	C4	**Developing the student's ability to deal with multiple means of learning.**

11. Teaching and Learning Strategies

1.	Theoretical lectures using slides on screens.	4.	Practical lessons on anatomical models
2.	Educational films and brief explanatory videos.	5.	
3.	Student discussion groups.	6.	

12. The Structure of the Course

Week	Hours	Topic/Subject Name	RLOs	Learning method	Evaluation method
1	2	Biopsy in oral pathology	Biopsy in oral pathology	Theoretical lecture using Data Show	Daily Theory Quiz
2	2	Healing in oral pathology	Healing in oral pathology	Theoretical lecture using Data Show	Daily Theory Quiz
3	2	**Dental caries**	Dental Caries	Theoretical lecture using Data Show	Daily Theory Quiz
4	2	Pulp pathology	pulpitis	Theoretical lecture using Data Show	Daily Theory Quiz
5	2	Periapical pathology	Periapical lesions	Theoretical lecture using Data Show	Daily Theory Quiz
6	2	Bone infection	osteomylitis	Theoretical lecture using Data Show	Daily Theory Quiz

7	2	Developmental disorder of teeth	Developmental disorder of teeth	Theoretical lecture using Data Show	Daily Theory Quiz
8	2	Developmental disorder of soft and hard tissue	Developmental disorder of soft and hard tissue	Theoretical lecture using Data Show	Daily Theory Quiz
9	2	Non odontogenic cysts	Non odontogenic cysts	Theoretical lecture using Data Show	Daily Theory Quiz
10	2	Odontogenic cysts	Odontogenic cysts	Theoretical lecture using Data Show	Daily Theory Quiz
11	2	Odontogenic tumors 1	Odontogenic tumors 1	Theoretical lecture using Data Show	Daily Theory Quiz
12	2	Odontogenic tumors 2	Odontogenic tumors 2	Theoretical lecture using Data Show	Daily Theory Quiz
13	2	Benign epithelial lesions	leukoplakia	Theoretical lecture using Data Show	Daily Theory Quiz
14	2	Epithelial Hyperplasia, atrophy and dysplasia	Epithelial Hyperplasia, atrophy and dysplasia	Theoretical lecture using Data Show	Daily Theory Quiz

15	2	Squamous cell carcinoma	Squamous cell carcinoma and other malignancies	Theoretical lecture using Data Show	Daily Theory Quiz
16	2	Fibro osseous lesions, metabolic and genetic conditions		Theoretical lecture using data show	Daily Theory Quiz
17	2	Giant cell lesions		Theoretical lecture using Data Show	Daily Theory Quiz
18	2	Benign tumor of the bone		Theoretical lecture using Data Show	Daily Theory Quiz
19	2	Malignant tumor of the bone		Theoretical lecture using Data Show	Daily Theory Quiz
20	2	Viral infection	Introducing the students to the causes and types of developing defects of maxillofacial lesions	Theoretical lecture using Data Show	Daily Theory Quiz
21	2	Bacterial and fungal infections	Bacterial and fungal infections	Theoretical lecture using Data Show	Daily Theory Quiz
22	2	Immune mediated disorders 1	Immune mediated disorders 1	Theoretical lecture using Data Show	Daily Theory Quiz

23	2	Immune mediated disorders 2	Immune mediated disorders 2	Theoretical lecture using Data Show	Daily Theory Quiz
24	2	Connective trisuue lesions	Connective trisuue lesions	Theoretical lecture using Data Show	Daily Theory Quiz
25	2	Connective tissue lesions	Connective tissue lesions	Theoretical lecture using Data Show	Daily Theory Quiz
26	2	Salivary gland disorders	Salivary gland disorders	Theoretical lecture using Data Show	Daily Theory Quiz
27	2	Salivary gland neoplasms	Salivary gland neoplasms	Theoretical lecture using Data Show	Daily Theory Quiz
28	2	Physical and chemical injuries	Physical and chemical injuries	Theoretical lecture using Data Show	Daily Theory Quiz

جامعة البيان

1. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.

For first and second semesters 25 degrees (15 practical + 10 theoretical) and mid-year 15 degrees and final examination 60 degrees (40 theoretical + 20 practical)

2. Learning & Teaching Resources

Required textbooks. (curricular if any)	Oral and maxillofacial pathology. Brad Neville, Douglas Damm Carl Allen and Jerry Bouquot. 4 th edition. 2016, Elsevier..
Main References (sources)	Snell's clinical anatomy 10th edition Netter's head and neck anatomy 3rd edition Gray's anatomy for students 4th edition Atlas of clinical cross anatomy 2nd edition
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

1. Course Title	Oral surgery\S5
2. Course Code	050503
3. Semester/Year	year
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Theory and clinical
6. No. of Hours (Total)	30 hours theoretical +180 hours clinical / year
7. No. of Credits (Total)	8
8. Course Administrator Name	Dr. Omar Bakr Hazm
9. E-mail	Omar.bakr@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Acquisition of experience and information to aid in identifying diseases and understanding their causes.
	A2	Development of communication skills with patients in a scientific manner enhance patient confidence in the student.
	A3	Conducting a comprehensive oral examination to detect any conditions unknown to the patient and directing them towards the risks of certain conditions.
	A4	Graduate students with knowledge about the multiple treatment options and choosing the best for the patient

Skills	B1	Acquiring skills in conducting necessary clinical examinations for early detection of oral cancer.
	B2	Developing communication skills with patients and managing complications resulting from surgical procedures
	B3	Recognizing methods for managing diseases accompanying surgical patients such as hypertension and diabetes.
	B4	Make the graduates able to deal with surgical complications
Values	C1	Encouraging students through expressive and thoughtful expression, quick communication, and response.
	C2	Encouraging problem-solving and cultivating distinctive thinking.
	C3	Engaging students in interactive lectures and brainstorming sessions.
	C4	Equipping students to examine, diagnose, and treat patients.

11. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	E-learning
2.	Educational films	5.	Blackboards
3.	Display screens	6.	Student discussion groups.

جامعة البيان

12. The Structure of the Course

Week	Hours	Topic/Subject Name	RLOs	Learning Method	Evaluation Method
1	1	**Orofacial pain**	• Classification; somatic and neuropathic • Diagnosis • Somatic pain; odontogenic pain, oral mucous membrane disorders, temporomandibular joint disorders, muscle disorders • Neuropathic pain; trigeminal neuralgia, glossopharyngeal neuralgia, atypical odontalgia, postherpetic neuralgia • Vascular pain; giant cell arteritis and migraine.	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
2	1	**Preliminary management of patients with facial fractures**	• Etiology of maxillofacial trauma • Primary survey and advanced trauma life support (ATLS) Secondary survey.	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
3	1	**Fractures of the mandible**	• Classification • Clinical features • Imaging • Treatment; closed treatment, methods of immobilization, period of treatment, open	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			reduction and internal fixation (ORIF) • Teeth in the fracture line • Complications		
4	1	**Fractures of the mandible**	Mandibular fractures that require special consideration: • Pediatric fractures, • Fractures of edentulous mandible • Condylar fractures • Comminuted fractures	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
5	1	**Fractures of the middle third of facial skeleton**	• Classification, clinical presentation imaging and treatment of: ✓ Le Fort fractures ✓ Zygomatic complex fractures	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
6	1	Fractures of the middle third of facial skeleton	□ Classification, clinical presentation imaging and treatment of: □ Orbital floor fractures □ Nasal bone fractures □ Complications of fractures of middle third of facial skeleton	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
7	1	**Dentoalveolar and soft tissue injuries**	• Factors affecting dentoalveolar injuries • Classification	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			• Clinical presentation • Radiographic evaluation • Treatment • Splinting techniques • Complications. • Soft tissue injures; classification, treatment and soft tissue injuries of special significance		
8	1	**Preprosthetic surgery**	• Soft tissue procedures: unsupported hypermobile tissue on the alveolar ridge, inflammatory fibrous hyperplasia (epulis fissuratum), labial frenectomy, lingual frenectomy, ridge extension (vestibuloplasty) • Immediate dentures • Alveolar ridge preservation • Correction of abnormal ridge relationships	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
9	1	**Preprosthetic surgery**	• Soft tissue procedures: unsupported hypermobile tissue on the alveolar ridge, inflammatory fibrous hyperplasia (epulis fissuratum), labial frenectomy, lingual frenectomy, ridge extension (vestibuloplasty) • Immediate dentures • Alveolar ridge preservation	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			• Correction of abnormal ridge relationships		
10	1	**Potentially malignant disorders of the oral mucosa**	• Classification and terminology • Risk factors, • Diagnostic methods and diagnostic aids Potentially malignant disorders: leukoplakia, erythroplakia, palatal changes associated with reverse smoking, oral submucous fibrosis, actinic cheilitis and lichen planus	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
11	1	**Odontogenic diseases of the maxillary sinus**	• Overview of the maxillary sinus • Clinical and radiographic examination • Non-odontogenic infections of the maxillary sinus • Odontogenic infections of the maxillary sinus • Oroantral communications and fistulae • Treatment	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
12	1	**Benign cystic lesions of the oral cavity**	• Definition • Classification of cysts (according to the WHO classification 2017) • Odontogenic cysts of inflammatory origin	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			• Odontogenic and non-odontogenic developmental cysts • Clinical features • Radiographic features • Surgical management of cystic lesions • Enucleation: indications, advantages and disadvantages • Adjunctive treatment ✓ Peripheral ostectomy and curettage ✓ Cryotherapy ✓ Chemical treatment ✓ Topical 5-fluorouracil ✓ Marsupialization		
13	1	**Odontogenic tumors**	• Definition • Classification of Odontogenic Tumors (according to the WHO classification of odontogenic cysts, tumors and maxillofacial bone tumors 2017) ✓ Epithelial odontogenic tumors ✓ Mixed epithelial and mesenchymal odontogenic tumors ✓ Mesenchymal odontogenic tumors. • Clinical features • Radiographic features • Ameloblastoma ✓ Ameloblastoma ✓ Unicystic ameloblastoma	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			✓ Peripheral/extraosseous) • Odontoma ✓ Compound type ✓ Complex type • Surgical treatment of odontogenic tumors • Enucleation and/or curettage, adjunctive treatment • Resection		
14	1		Non-odontogenic tumors and fibro-osseous lesions of the jaw Classification (according to the WHO classification of odontogenic and maxillofacial bone tumors 4th edition 2017) Giant cell lesions Central giant cell granuloma Brown tumor of hyperparathyroidism Cherubism Aneurysmal bone cyst Fibro-osseous lesions Fibrous dysplasia Ossifying fibroma Cemento-osseous dysplasia	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			□ Osteoma □ Osteosarcoma		
15	1	**Oral cancer**	• Natural history of squamous cell carcinoma • Etiology • Site distribution • Clinical presentation • Staging (using the 8th edition of the cancer staging manual) and grading • Radiographic assessment • Surgical treatment, access to the oral cavity	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
16	1	**Oral cancer**	• Management of the neck • Postoperative follow up • Radiotherapy, radiotherapy techniques and fractionation • Chemotherapy, agents and scheduling • Palliative treatment and terminal care	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
17	1	**Implant Treatment: Advanced Concepts**	• Immediate post-extraction implants • Immediate loading versus delayed loading • Bone grafts and graft substitutes • Sinus lift procedure	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

18	1	**Implant Treatment: Advanced Concepts**	• Inferior alveolar nerve lateralization • Narrow and short implants • Image-guided implantology • Computer-Assisted Implant Surgery • Special implants (zygomatic and extra-oral implants)	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
19	1	**Salivary gland diseases**	Overview of major and minor salivary glands Clinical assessment Imaging Classification: Developmental Inflammatory Obstructive and traumatic lesion Functional Autoimmune conditions Neoplastic lesions Inflammatory conditions (sialadenitis): Viral	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			sialadenitis and Bacterial sialadenitis , □ Obstructive conditions□ □ Functional conditions: Xerostomia, Sialorrhea□ □ Conditions of possible traumatic origin: Mucocele, Ranula□		
20	1	**Salivary gland diseases**	• Autoimmune conditions: Sjögren syndrome, Immunoglobulin G4-related salivary gland disease • Other salivary gland conditions: Salivary duct cyst (Mucus retention cyst), Necrotizing sialometaplasia, Sarcoidosis, Sialadenosis (sialosis), Radioactive iodine sialadenitis • Neoplasms: benign and malignant (according to 4th edition of the WHO classification 2017). • Principles and complications of salivary gland surgery	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
21	1	**Temporomandibular joint (TMJ) disorders**	• TMJ anatomy • Evaluation and Radiographic examination of the TMJ • Disorders of the TMJ: • Structural (internal derangement)	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			• Wilkes classification of internal derangement • Functional (myofascial pain) • Management: non-surgical, minimally invasive (arthocentesis and arthroscopy) and surgery		
22	1	**Temporomandibular joint (TMJ) disorders**	• Hypermobility of TMJ • Hypomobility of TMJ: • Classification of TMJ ankyloses • Treatment	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
23	1	**Orthognathic surgery**	• Definition • Treatment objectives • Clinical examination (facial evaluation in frontal and profile views) • Radiographic evaluation (Lateral cephalometric analysis) • Pre-surgical Orthodontic Considerations • Treatment Timing	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
24	1	**Orthognathic surgery**	• Mock surgery and fabrication of splints • Surgical treatment phase (mandibular excess, mandibular deficiency, maxillary excess, Maxillary and Midface Deficiency) • Distraction osteogenesis	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

25	1	**Cleft lip and palate**	□ Epidemiology □ Etiology □ Classification □ Prenatal diagnosis □ Clinical manifestations □ Management; presurgical orthopedics, primary operative management, treatment planning and timing, surgical procedures of cleft lip	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
26	1	**Cleft lip and palate**	• Management; Surgical procedures of cleft palate, complications • Secondary operative management; alveolar bone grafting, goals and timing, procedure, source of bone graft, complications.	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
27	1	**Laser and Cryosurgery in oral and maxillofacial surgery**	• Laser • Classification of laser according to power: low- energy and high-energy • The advantages of laser • Hazards and precautions required when using laser • Cryosurgery • Cryosurgery techniques	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			• Uses of cryosurgery • The advantages of using cryosurgery • The disadvantages of using cryosurgery		
28	1	**Vascular anomalies**	• Classification (according to ISSVA 2018) ➢ Hemangioma • Clinical presentation and staging • Investigations • Treatment ✓ In the proliferative phase ✓ In the involutive phase ✓ Residual lesions ➢ Vascular malformations • Classification according to the vessel type and whether high or low flow • Clinical presentation with emphasis on the intraosseous venous malformation • Investigations • Treatment	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams
29	1	**Principles of reconstructive surgery of defects of the jaws**	□ Goals of reconstruction □ Biologic basis of bone reconstruction □ Types of grafts (autogenous, allogeneic,	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			xenogeneic) □ Osteoinduction, Osteoconduction and Osteogenesis □ Assessment of patient in need for reconstruction □ Goals of mandibular reconstruction □ Defect types and localizations □ Mandibular reconstruction □ Surgical principles of maxillofacial bone grafting procedures		
30	1	**Principles of reconstructive surgery of defects of the jaws**	• Maxillary reconstruction • Goals of maxillary reconstructive surgery • Computer-assisted surgical planning • Flaps for maxillofacial reconstruction • Definition • Classifications • Examples of flaps in maxilla-mandibular reconstruction (palatal flap, tongue flap, buccal fat pad flap, Facial Artery Musculomucosal Flap, Temporalis muscle flap,	Theoretical lecture using PowerPoint	The short, midterm, semester, and final exams

			Submental Flap, Vascularized Iliac Crest Grafts		

13. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.

Theory %10 Clinical %15	1st semester + 2ed semester
Theory %15	Mid year exam
Theory %40 Clinical %20	Final exam
Theory **%65** Clinical **%35**	**100%**

14. Learning & Teaching Resources

Required textbooks (curricular if any)	• Contemporary Oral and Maxillofacial Surgery 7th Edition - September 27, 2018 Authors: James R. Hupp, Myron R. Tucker, Edward Ellis • Misch's Contemporary Implant Dentistry 4th Edition - October 1, 2019 Author: Randolph Resnik
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**General Medicine**
2. Course Code	050407
3. Semester/Year	**Year**
4. Description Preparation Date	**2025/2024**
5. Available Attendance Form	**Theoretical and practical lectures**
6. No. of Hours (Total)	**30 hours theory/30 hours clinic al**
7. No. of Credits (Total)	**4.5**
8. Course Administrator Name	**Dr.Mays maher mustafa**
9. E-mail	**Mays.m@albayan.edu.iq**

10. Course Objectives

1- Provide the students with the basic sciences of the general medicine.
2- Enable the students to understand the most important diseases like Gastroenterology, Cardiology, Oncology, Hematology, Endocrinology, Dermatology, Neurology, Rheumatology and Pulmonology.
3- Recognize the students with the etiology and clinical features of important medical diseases.
4- Provide the students with the Practice in basic theoretical skills, such as history taking and recognition of diseases in general and specifically medical emergencies which might be encountered in the dental clinic.
5- Train the student to improve their attitudes that foster patient centered care and support the firs standards of the medical profession.

Knowledge	**A1**	Demonstrate the anatomical, biological, histological, and physiological princip related to general health, oral health, disease processes, immunity and the der material sciences, their applications and manipulations and the concepts related all branches of dentistry.
	A2	Determine the principles of health promotion, disease prevention, the curr infection control procedures and their scientific basis and show the knowledge a understanding of the organization and provision of health care in the commun and in hospital.
	A3	Recognize the etiology, clinical features, diagnostic approaches, complicatio treatment, prevention, and management of common medical diseases.
	A4	
Skills	**B1**	Diagnose and analyze the clinical problems of the oral cavity and parac structures and create a proper treatment plan.
	B2	Collect and integrate information from number of resources to gain a coher understanding of theory and practice and interpret the evidence to understa

		practice of clinical dentistry.
	B3	Integrate the results of history, physical examination, laboratory tests, imag investigations and provide a plan for the management and discharge of patie with common medical disorders.
	B4	
Values	**C1**	Practice the practical and clinical skills in all branches of dentistry, working saf in clinical environment that reflect skilled competent, safe, evaluative clini dentistry practice.
	C2	Manage the patient effectively and safely with continual analysis and evaluation outcomes and appropriate modification of intervention.
	C3	Manage the patient correctly during dental procedure and make consultation w specialists when required with continual analysis and evaluation of patient hea status.
	C4	

11. Teaching and Learning Strategies

1.	**Lectures**	**4.**	**Dialogue and discussion**
2.	**Problem based learning**	**5.**	**Brain storming**
3.	**Self-learning**	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	Introduction, etiolo pathogenesis,	Diabetes Mellitus 1	Data show and whi board	Homework and quiz
2	1	clinical manifestatio management.	Diabetes Mellitus 2	Data show and wl board	Homework and quiz
3	1	Introduction, etiolo pathogenesis,	White Blood Cells Disorders 1	Data show and wl board	Homework and quiz
4	1	clinical manifestatio management	White Blood Cells Disorders 2	Data show and white boarc	Homework and quiz
5	1	Introduction, etiolo pathogenesis,	Hemostasis and Bleeding Disorders 1,	Data show and wl board	Homework and quiz
6	1	clinical manifestatio management	Hemostasis and Bleeding Disorders 2	Data show and wl board	Homework and quiz
7	1	Introduction, etiolo pathogenesis,	Adrenal Gland Disorders 1	Data show and wl board	Homework and quiz
8	1	clinical manifestatio management	Adrenal Gland Disorders 2	Data show and wl board	Homework and quiz
9	1	Introduction, etiology,	Gastrointestinal Diseases	Data show and wl board	Homework and quiz
10	1	pathogenesis,	Peptic Ulcer Disease 1	Data show and wl board	Homework and quiz
11	1	clinical manifestatio management	Peptic Ulcer Disease 2	Data show and wl board	Homework and quiz
12	1	Introduction,	Intestine	Data show and wl board	Homework and quiz
13	1	etiology, pathogenesis,	Inflammatory Bowel Disease 1	Data show and wl board	Homework and quiz
14	1	clinical manifestatio	Inflammatory Bowel Disease 2	Data show and wl	Homework and quiz

		management		board	
15	1	Introduction, etiolo pathogenesis, clini manifestations, management	Pseudomembranous Colitis	Data show and wl board	Homework and quiz
16	1	Introduction, etiolo pathogenesis, clini manifestations, management	Hypertension	Data show and wl board	Homework and quiz
17	1	Introduction, etiolo pathogenesis, clini manifestations, management	Infective Endocarditis	Data show and wl board	Homework and quiz
18	1	Introduction, etiolo pathogenesis, clini manifestations, management	Ischemic Heart Disease	Data show and wl board	Homework and quiz
19	1	Introduction, etiolo pathogenesis, clini manifestations, management	Heart Failure	Data show and wl board	Homework and quiz
20	1	Introduction, etiolo pathogenesis, clini manifestations, management	Cardiac Arrhythmias	Data show and wl board	Homework and quiz
21	1	Introduction, etiolo pathogenesis, clini manifestations, management	Thyroid Diseases	Data show and wl board	Homework and quiz
22	1	Introduction, etiolo pathogenesis, clini manifestations, management	Kidney Diseases	Data show and wl board	Homework and quiz
23	1	Introduction, etiolo pathogenesis, clini manifestations, management	Immunologic Diseases	Data show and wl board	Homework and quiz
24	1	Introduction, etiolo pathogenesis, clini manifestations, management	Liver Diseases	Data show and wl board	Homework and quiz
25	1	Introduction, etiolo pathogenesis, clini	Pulmonary Diseases	Data show and wl board	Homework and quiz

		manifestations, management			
26	1	Introduction, etiolo pathogenesis, clini manifestations, management	Red Blood Cells Disorders	Data show and wl board	Homework and quiz
27	1	Introduction, etiolo pathogenesis, clini manifestations, management	Drug and Alcohol Abuse	Data show and wl board	Homework and quiz
28	1	Introduction, etiolo pathogenesis, clini manifestations, management	Psychiatric Disorders	Data show and wl board	Homework and quiz
29	1	Introduction, etiolo pathogenesis, clini manifestations, management	Anxiety and Eating Disorders	Data show and wl board	Homework and quiz
30	1	Introduction, etiolo pathogenesis, clini manifestations, management	Neurologic Disorders	Data show and wl board	Homework and quiz
		Assessment Curriculum			

13. Course Evaluation

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

14. Learning & Teaching Resources

Required textbooks (curricular if any)	**Davidsons principles and practice of medicine**
Main References (sources)	**Cecil's essentials of medicine**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**Biochemistry**
2. Course Code	**050207**
3. Semester/Year	**2024-2025**
4. Description Preparation Date	
5. Available Attendance Form	**Lectures and laboratories**
6. No. of Hours (Total)	**60 hours lectures** **60 hours labs**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Aya mohammed saadoun**
9. E-mail	**aya.m@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**Preparing dental students to be fully aware of the importance of biochemistry and connection with dentistry.**
	A2	**studying the percentage of essential minerals in visceral and structural structures,**
	A3	**And studying some chemical reactions within the body of a living organism in or for its outputs to fit the needs of the labor market and keep pace with scientific a technological developments in the field of laboratory techniques.**
	A4	**And medical devices that our contemporary world is witnessing, with the aim bringing the graduate to the required level to contribute to advancing the wheel development and playing his role in achieving comprehensive renaissance in all fie of work.**
Skills	**B1**	**Knowledge and understanding**
	B2	**Gaining experience, information and developing skills**
	B3	**Increasing students' knowledge of biochemical sciences and their connection w dentistry**
	B4	**Learn how to assess the risks of patients contracting chronic diseases or infections and study them while conducting the necessary laboratory analyzes**
Values	**C1**	Daily and quarterly exams for theoretical subjects
	C2	Mid-year exam
	C3	final exam
	C4	Throwing seminars

11. Teaching and Learning Strategies

1.	**Lectures using data show and power point**	**4.**	**E-learning Educational laboratories**
2.	**Educational films**	**5.**	**Smart boards**
3.	**Display screens**	**6.**	**Homework assignments and preparing seminars**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Learning method**	**Evaluation Method**	**Topic/Subject Name**	**RLOs**
1	2				
2	2	**Quiz**	**Data show and white board**	**Enzymes:**	**Enzymes: Definition, Terminology, and Classification**
3	2	**Quiz**	**Data show and white board**	**Mechanism of of enzym**	**Mechanism of enzyme action Role of enzyme Enzyme catalyzed reaction**
4	2	**Quiz**	**Data show and white board**	**Clinical significance of enzyme assays**	**advance enzyme assay enzyme analysis for metabolic disorder methods used for predetermined mutation**
5	2	**Quiz**	**Data show and white board**	**Vitamins,**	**Vitamins, definition, classification Function**
6	2	**Quiz**	**Data show and white board**	**Digestion and absorptio of carbohydrates, lipids and proteins**	**Pyruvate metabolisim disorder Pancreatic enzyme replacement thereby**
7	2	**Quiz**	**Data show and white board**	**Chemistry of carbohydrates**	**Definition, Terminology, and Classification**
8	2	**Quiz**	**Data show and white board**	**Chemistry of carbohydrates**	**Functions Structure of glucose Ketose aldose isomer**

9	2	**Quiz**	**Data show and white board**	**Metabolism of Carbohydrates :part 2**	**Metabolism definition Digestion and absorpti Krebs sycle**
10	2	**Quiz**	**Data show and white board**	**Carbohydrates metabolism regulation**	**Glycogenesis (glycogen synthesis) Regulation of blood gluc**
11	2	Quiz	**Data show and white board**	**Chemistry of Proteins a amino acids**	**definition Structure classification**
12	2	**Quiz**	**Data show and white board**	**Metabolism of Proteins and amino acids**	**Protein synthesis Protein breakdown Amino acid metabolism Urea cycle**
13	2	**Quiz**	**Data show and white board**	**Metabolism of Protein a amino acid regulation**	**Regulation by small molecule Protein phosphorylation**
14	2	**Quiz**	**Data show and white board**	**Metabolism of Protein a amino acid inherited disorder**	**Liver, renal disorder Acidosis**
15	2	**Quiz**	**Data show and white board**		**Exam**
16	2	**Quiz**	**Data show and white board**	**Lipid**	**definition classification**
17	2	**Quiz**	**Data show and white board**	**Metabolism of Lipid:**	**oxidation of Fatty Acids**
18	2	**Quiz**	**Data show and white board**	**Biosynthesis of Fatty Acids**	**Membrane lipid biosynthesis Fatty acid biosynthesis**
19	2	**quiz**	**Data show and white board**	**Integration of metaboli of carbohydrates, lipid, and Proteins**	**Hydrolysis to simpler units Preparatory**

جامعة البيان

					Oxidative-aerobic final
20	2	quiz	Data show and white board	Metabolism of Purines and pyrimidines	Biosynthesis Regulation Catabolism
21	2	quiz	Data show and white board	Metabolism of Purines and pyrimidines disorde	Nucleotide to base Uric acid Goat and hyperuricemi
22	2	quiz	Data show and white board	Nucleic Acids Definition and Protein synthesis	Definition Composition Sequences classification
23	2	quiz	Data show and white board	Hormone	Definition Classification functions
24	2	quiz	Data show and white board	Hormone disorder	metabolism Hormone imbalance Symptoms and causes
25	2	quiz	Data show and white board	Acid-base balance	Acid base concept Lewis acid and base
26	2	quiz	Data show and white board	Trace elements disorder	Element deficiency Coronary disease
27	2	quiz	Data show and white board	Salivary secretion(saliva Pancreatic juice	Salivary gland disorder Symptoms
28	2	quiz	Data show and white board	Electrolytes	Types Purpose Normal levels
29	2	quiz	Data show and white board	Liver Function Test	Functions Disease Symptoms
30	2	quiz	Data show and white board	Study Kidney Function Test	Functions Disease symptoms

		quiz	**Data show and white board**	**Exam**	**Exam**

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Lippincott, basic of organic chemistry, stereochemistry of organic compounds,**
Main References (sources)	**Lippincott's Illustrated Reviews: Biochemistry "Denise R. Ferrier**
Recommended Books & References (Scientific Journals, Reports …)	**Marks' Basic Medical Biochemistry: A Clinical Approach" Michael A. Lieberman و Alisa Peet**
Websites or Electronic References	**"Biochemistry for Dental Students "D. C. Smith N. A. Smith و A. Duncan Reid**

جامعة البيان

Course Description (1)

1. Course Title	**Medical chemistry**
2. Course Code	**050104**
3. Semester/Year	**Year**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures and laboratories**
6. No. of Hours (Total)	**60 hours lectures** **60 hours labs**
7. No. of Credits (Total)	6
8. Course Administrator Name	**Aya mohammed saadoun**
9. E-mail	**Aya.m@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**Preparing dental students to be fully aware of the importance of medical chemis and its connection with dentistry**
	A2	**studying the percentage of essential minerals in visceral and structural structures**
	A3	**studying some chemical reactions within the body of a living organism in order for outputs to fit the needs of the labor market and keep pace with scientific a technological developments in the field of laboratory techniques**
	A4	**medical devices that our contemporary world is witnessing, with the aim of bring the graduate to the required level to contribute to advancing the wheel of developm and playing his role in achieving comprehensive renaissance in all fields of work**
Skills	**B1**	**Motivating the student through the style of expression and thinking and the speed of communication and response**
	B2	**Urging the student to solve problems and possess distinctive thinking**
	B3	**The lecture depends on student interaction and brainstorming**
	B4	**Conducting home tests**
Values	**C1**	**Daily and quarterly exams for theoretical subjects**
	C2	**Mid-year exam**
	C3	**Final exam**
	C4	**Delivering seminars**

11. Teaching and Learning Strategies

1.	**Lectures using data show and power point**	**4.**	**E-learning**
2.	**Educational films**	**5.**	**Smart boards**
3.	**Display screens**	**6.**	**Educational laboratories**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1	2	**Acid, Base and Salt**	**Acid base concept** **Lewis acid and base**	Data show presentation and white board	quiz
2	2	**salts, preparation of salts**	**How to prepare salts** **Strong acid weak base** **Strong base weak acid**	Data sh presentation a white board	Quiz
3	2	**Fluid and electrolyte**	**Study the electrolyte solutions** **Solubility of solution**	Data sh presentation a white board	Quiz
4	2	**Buffer-pH and Acid-B Balance**	**PH scale** **PH in digestive system** **Respiratory mechanism of PH contr**	Data show presentation a white board	Quiz
5	2	**acid-base balance and bl pH**	**Acidosis alkalosis & PH of blood** **Type of PH control mechanism** **Study the buffer solutions**	Data sh presentation a white board	Quiz
6	2	**Colloids**	**Colloids and colloidal dispersions**	Data sh presentation a white board	Quiz
7	2	**Chirality**	**Chirality atom and its importance biological**	Data sh presentation a white board	Quiz
8	2	**concentration**	**type of solutions** **molarity** **weight, volume, weight to volume rat**	Data sh presentation a white board	Quiz

9	2	**Pollution**	**Ecological pollution** **The nature of the pollution** **Concentration of pollution** **Effect of environmental pollution**	Data sh presentation a white board	Quiz
10	2	**Radiochemistry**	**Study the radioactive materials** **Natural & artificial radio chemistry**	Data sh presentation a white board	Quiz
11	2	**Alkanes and Cycloalkanes**	**Knowledge the aliphatic& cy** **compound and preparation** **Isomers** **Alkyl group**	Data sh presentation a white board	Quiz
12	2	**Alkenes and Alkynes**	**Study the structure& preparation and reactions of them** **Cis-trans isomers** **Electrophilic addition** **Polymers**	Data sh presentation a white board	Quiz
13	2	**Aromatic compounds**	**Naming of aromatic compound** **Benzene ring preparation** **Electrophilic aromatic substitution**	Data sh presentation a white board	Quiz
14	2	**Aromatic compounds Nature**	**Study the reactions of aroma compound** **sulfonation** **Nitration** **Reduction, oxidation**	Data sh presentation a white board	Quiz
15	2	**Stereoisomers of Carbon**	**Conformational isomer** **Knowledge the chiratily carbon**	Data sh presentation a white board	Quiz
16	2	**Stereoisomers chemistry**	**Diastereomers** **Conformational isomer**	Data sh presentation a white board	Quiz

17	2	**Alcohols, Phenols, Ethers a Thiols (preparation, reactio**	**properteis of alcohols and phenols preparation Reactions**	Data presentation white board	sh a	Quiz
18	2	**Carboxylic Acids And Th Derivatives , part 1**	**Study t Study the derive of carboxy acid (1)**	Data presentation white board	sh a	Quiz
19	2	**Carboxylic Acids And Th Derivatives , part 2**	**Study the derive of carboxylic acid (2)**	Data presentation white board	sh a	Quiz
20	2	**Aldehydes and ketones**	**Naming of aldehydes, ketones Preparation reaction**	Data presentation white board	sh a	Quiz
21	2	**Carbohydrates**	**classification of carbohydrate cyclic structure reactions**	Data presentation white board	sh a	Quiz
22	2	**Monosaccharide's**	**composition**	Data presentation white board	sh a	Quiz
23	2	**Disaccharides Carbohydra and oral health**	**composition the Disaccharides the effective of mouth**	Data presentation white board	sh a	Quiz
24	2	**Lipids**	**Classified of lipid metabolisim of lipids phospholipid**	Data presentation white board	sh a	Quiz
25	2	**Derived lipids**	**The role of lipids in teeth diseases Type of surfactant**	Data presentation white board	sh a	Quiz

26	2	**Proteins**	**Structure of proteins** **Organization and structure cell**	Data presentation sh a white board	Quiz
27	2	**Amino acids**	**Amino acid structure** **Amino acid behavior** **Synthesis of amino acid** **Effects of protein on oral health**	Data presentation sh a white board	Quiz
28	2	**Nucleic Acids**	**Structure of nucleic acid** **Biosynthesis and degradation**	Data presentation sh a white board	quiz
29	2	**Nucleosides, Nucleotides**	**Study the composition** **Nuclease** **Sequence determination**	Data presentation sh a white board	quiz
30	2	**Dioxy and ribo Nucliec acids**	**DNA RNA chemical structure** **Type of RNA** **Ribozyme** **DNA polymerase**	Data presentation sh a white board	quiz

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Lippincott, basic of organic chemistry, stereochemistry of organic compounds,**
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**Pharmacology**
2. Course Code	**050307**
3. Semester/Year	**Year**
4. Description Preparation Date	**2025-2024**
5. Available Attendance Form	**Lectures and Laboratory**
6. No. of Hours (Total)	**60 hours theory , 60 hours practical**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Huda abd Al-baqi Rasheed**
9. E-mail	huda.ab@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	**Pharmacokinetics** **Concepts of absorption, distribution, metabolism, and excretion (ADME)**
	A2	**Pharmacodynamics** **□ Mechanisms of drug action** **□ Dose-response relationships**
	A3	**Pathophysiology** **□ Basic understanding of disease processes** **□ Common conditions and their pharmacological treatments**
	A4	**Drug Classifications** **□ Knowledge of major drug classes and their uses**
	A5	**Drug Interactions** **□ Understanding of how drugs can affect each other**
	A6	**Clinical Applications** **□ Familiarity with therapeutic uses of drugs** **□ Side effects and contraindications**
	A7	**Research Methods** **□ Basic principles of clinical research and study design** **□ Ability to evaluate scientific literature**
	A8	**Ethics in Pharmacology** **□ Understanding ethical considerations in drug development and use**
Skills	**B1**	**Critical Thinking** **Analyzing and evaluating drug information and research studies.**
	B2	**Clinical Application** **Applying pharmacological principles to patient care and treatment plans.**
	B3	**Problem-Solving**

		Addressing medication-related issues and optimizing therapeutic outcomes
	B4	**Communication** **Effectively conveying complex pharmacological concepts to healthcare professionals and patients.**
	B5	**Research Skills** **Conducting literature reviews and interpreting scientific studies related to pharmacology.**
Values	**C1**	**Ethical and Scientific Values** **Scientific Integrity: Commitment to ethical research practices.** **Critical Thinking: Ability to analyze drug data and clinical evidence.** **Regulatory Awareness: Understanding drug safety and regulations.**
	C2	**Ethical and Scientific Values** **Scientific Integrity: Commitment to ethical research practices.** **Critical Thinking: Ability to analyze drug data and clinical evidence.** **Regulatory Awareness: Understanding drug safety and regulations.**
	C3	**Collaborative and Lifelong Values** **Interprofessional Collaboration: Working within healthcare teams for optimal outcomes.** **Lifelong Learning: Commitment to staying updated on pharmacological advancements.** **Problem-Solving: Addressing medication-related challenges effectively**

10. Teaching and Learning Strategies

1.	**Lectures using Data show and power point.**	**4.**	**Educational films**
2.	**Homework**	**5.**	
3.	**Laboratories and preparing reports**	**6.**	

جامعة البيان

11. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	Definition and scope of pharmacology Key pharmacological principles Drug absorption, distribution, metabolism, and excretion (ADME) Dose-response relationships Therapeutic index and safety Drug classification and mechanisms of action	**Pharmacology: General Concepts**	**Data show presentation and white board**	**Short quiz ,Oral examination**
2	2	Pharmacokinetics Absorption: factors affecting drug absorption. Distribution: volume of distribution and protein binding. Metabolism: hepatic metabolism and drug interactions Excretion: renal clearance and half-life Pharmacodynamics Mechanisms of drug action Receptors and signaling pathways Agonists vs. antagonists	**Pharmacokinetics and Pharmacodynamics**	**Data show presentation and white board**	**Short quiz ,Oral examination**
3	2	Overview of the autonomic nervous system Cholinergic Agonists Mechanism of action Clinical uses and side effects Cholinergic Antagonists Mechanism of action Clinical uses and side effects	**Autonomic Nervous System from a Pharmacological Perspective**	**Data show presentation and white board**	**Short quiz ,Oral examination**
4	2	Classification of adrenergic agonists (α, β-agonists) Mechanism of action Clinical applications and adverse effects	**Adrenergic Agonists**	**Data show presentation and white board**	**Short quiz ,Oral examination**

5	2	Classification (α, β-antagonists) Mechanism of action Clinical applications and side effects	**Adrenergic Antagonists**	**Data show presentation and white board**	**Short quiz ,Oral examination**
6	2	Overview of hypertension Classes of antihypertensive agents Diuretics ACE inhibitors Calcium channel blockers Beta-blocker Mechanisms and clinical use	**Antihypertensive Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
7	2	Pathophysiology of angina Classes of drugs used in angina management Heart failure: types and pharmacological management Importance of lifestyle modifications	**Management of Angina and Heart Failure**	**Data show presentation and white board**	**Short quiz ,Oral examination**
8	2	Overview of cardiac arrhythmias Classifications of antiarrhythmic drugs Mechanisms of action and clinical uses	**Management of Arrhythmia**	**Data show presentation and white board**	**Short quiz ,Oral examination**
9	2	Mechanisms of action Clinical indications and monitoring Risks and side effects	**Anticoagulants, Antiplatelet, and Anti-Hyperlipidemic Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
10	2	Overview of CNS drug classifications Sedatives and Hypnotics Mechanisms and clinical uses Antiseizure Drugs Mechanisms and types	**Introduction to Pharmacology of CNS Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
11	2	Types of antipsychotics and their mechanisms Classes of antidepressants and their clinical applications	**Antipsychotic and Antidepressant Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
12	2	Mechanism of action of local anesthetics Overview of general anesthetics and their use in surgery	**Local and General Anesthetics**	**Data show presentation and white board**	**Short quiz ,Oral examination**
13	2	Mechanisms of action of opioids Clinical uses and risks of abuse	**Drugs of Abuse and Opioid Analgesics**	**Data show presentation and white board**	**Short quiz ,Oral examination**

14	2	Overview of diabetes types Classes of antidiabetic medications Mechanisms of action and monitoring	**Management of Diabetes Mellitus**	**Data show presentation and white board**	**Short quiz ,Oral examination**
15	2	Overview of gastrointestinal pharmacolo Types of drugs (antacids, laxatives, antiemetics)	**Drugs Affecting GIT**	**Data show presentation and white board**	**Short quiz ,Oral examination**
16	2	Antihistamines Mechanism and clinical applications Corticosteroids Mechanism and uses in respiratory disea	**Drugs Acting on Respiratory System**	**Data show presentation and white board**	**Short quiz ,Oral examination**
17	2	Mechanisms of action Clinical uses and side effects	**Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) Part 1**	**Data show presentation and white board**	**Short quiz ,Oral examination**
18	2	Comparison with steroids Specific NSAIDs used in dental practice	**Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) Part 2 and Steroids in Dentistry**	**Data show presentation and white board**	**Short quiz ,Oral examination**
19	2	Overview of antimicrobial therapy Mechanisms of action of various antimicrobials	**Chemotherapeutic Drugs: Principles of Antimicrobial Therapy**	**Data show presentation and white board**	**Short quiz ,Oral examination**
20	2	Mechanisms and examples (e.g., penicillin)	**Cell Wall Inhibitors (Part 1)**	**Data show presentation and white board**	**Short quiz ,Oral examination**
21	2	Continued discussion and examples (e.g., cephalosporins)	**Cell Wall Inhibitors (Part 2)**	**Data show presentation and white board**	**Short quiz ,Oral examination**
22	2	Classes and mechanisms (e.g., macrolides, tetracyclines)	**Protein Synthesis Inhibitors**	**Data show presentation and white board**	**Short quiz ,Oral examination**
23	2	Mechanisms and clinical applications	**Quinolones, Folic Acid Antagonists, and Antimycobacterial Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
24	2	Mechanisms and clinical use of each class	**Antifungal, Antiviral, and Antiprotozoal Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
25	2	Mechanisms of action and clinical applications	**Sex Hormones and Contraceptive**	**Data show presentation and white board**	**Short quiz ,Oral examination**

26	2	Mechanisms and therapeutic uses	**Thyroid Hormones and Anti-Thyroid Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
27	2	Overview of cancer pharmacotherapy Classes of anticancer drugs and mechanisms	**Anticancer Drugs**	**Data show presentation and white board**	**Short quiz ,Oral examination**
28	2	Overview of pharmacological agents used in dentistry Specific drugs and their applications	**Dental Pharmacology: Drugs and Chemicals Used in Dental Clinic**	**Data show presentation and white board**	**Short quiz ,Oral examination**
29	2	Mechanisms and clinical use of anticaries agents	**Anticaries and Drugs Used in Prevention of Dental Plaque**	**Data show presentation and white board**	**Short quiz ,Oral examination**
30	2	Overview of emergency situations Key drugs and their uses in emergencies	**Essential Emergency Drugs in Dental Clinic**	**Data show presentation and white board**	**Short quiz ,Oral examination**

12. Course Evaluation	
The first + the second semester %25	Theoretical 10% Practical 15%
Midyear exam 15%	Theoretical 15%
Final exam 60%	Theoretical 40% Practical 20%

13. Learning & Teaching Resources	
Required textbooks (Curricular if any)	**Lippincott pharmacology^{8th} edition**
Main References (sources)	**1 -Clinical Pharmacology, 11th Ed (2012)- Bennett, Brown.** **2 -Basic and clinical pharmacology by katzung 16th edition**
Recommended Books & References (Scientific Journals, Reports …)	**PubMed**
Websites or Electronic References	**Google scholar and research gate**

جامعة البيان

Course Description (1)

1. Course Title	**General histology**
2. Course Code	**050204**
3. Semester/Year	**Year**
4. Description Preparation Date	**2025-2024**
5. Available Attendance Form	**Theoretical and practical lectures**
6. No. of Hours (Total)	**60 hours theory , 60 hours practical**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Hadeel talal ayash**
9. E-mail	**hadeel.t@albayan.edu.iq**

10. Course Objectives :

Learning outputs

The objectives of the course can be summarized as enabling Second-year students of the Dentistry College is Explaining the process of preparing tissue sections for different sections of the body and using optical microscopes to examine and distinguish different tissues and organs of the body.

Knowledge	**A1**	To teach students the practical and theoretical applications of the various general body tissues and all organs of the body, the General Tissue Laboratory looks forward to explaining the structures of the various tissues and organs of the body in several sections and directions, preparing tissue sections for different sections of the body and using light microscopes to examine and distinguish the various tissues and organs of the body.
	A2	
	A3	
	A4	
Skills	**B1**	1. Acquiring skills and information's that help the student in diagnosing and how to examine different histological slide sections.
	B2	Motivating the student through the expression style, thinking, and quick communicat and response.
	B3	Encouraging the student to solve problems and possess distinctive thinking.
	B4	Relying on student interaction and brainstorming in the lecture.
Values	**C1**	Professional preparation and promotion of positive behavior in public life
	C2	Scientific preparation and encouragement of students to communicate in other fields science.

	C3	Cultural preparation and refining of the student's personality.
	C4	Employing acquired skills for the student to become a dentist capable of Examin histological sections.

11. Teaching and Learning Strategies

1.	Lectures using Data show and power point.	**4.**	Electronic education
2.	Educational films	**5.**	Practical Examination of histological slides
3.	Monitors	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	**2**	• **Introduction to Cells** • Structure of the cell • Cell organelles and their functions • Cell membrane and transport mechanisms • **Basic Tissue Types** • Overview of the four basic tissue types: epithelial, connective, muscle, and nervous tissue	**Cells, Basic Tissue**	**Data show presentation and white board**	**Short quiz**
2	**2**	• **Types of Epithelial Tissue** ○ Simple vs. stratified epithelium ○ Squamous, cuboidal, and columnar shapes • **Functions of Epithelial Tissue** ○ Protection, absorption, secretion, and sensation • **Locations and Examples** ○ Skin, lining of organs, glands	**Epithelial Tissue**	**Data show presentation and white board**	**Oral examination**
3	**2**	• **Types of Connective Tissue** ○ Loose connective tissue ○ Dense connective tissue ○ Specialized connective tissues (adipose, cartilage, bone, blood) • **Functions of Connective Tissue** ○ Support, protection,	**Connective Tissue**	**Data show presentation and white board**	**Oral examination**

		insulation, transportation • **Components of Connective Tissue** ○ Extracellular matrix, fibers, and cells			

4	**2**	• **Anatomy of the Conducting Portion**
		  ○ Nose, nasal cavity, pharynx, larynx, trachea, bronchi
		• **Functions**
		  ○ Air passage, filtration, humidification, and warming
		• **Histology of Conducting Structures**
		  ○ Mucosa, submucosa, and adventitia layers
			Respiratory System: conducting portion	**Data show presentation and white board**	**Oral examination**

5	**2**	• **Anatomy of the Respiratory Portion**
		  ○ Bronchioles, alveolar ducts, alveoli
		• **Gas Exchange Mechanism**
		  ○ Structure of alveoli and pulmonary capillaries
		• **Respiratory Membrane**
		  ○ Composition and function
			Respiratory System: respiratory portion	**Data show presentation and white board**	**1st term examination**

6	**2**	• **Structure of the Kidney**
		  ○ Anatomy of the nephron (glomerulus, tubules)
		• **Nephron Functions**
		  ○ Filtration, reabsorption, secretion
			Urinary System: kidney nephrons, collecting tubules and	**Data show presentation and white board**	**Oral examination**

		• **Collecting System** ○ Role of collecting tubules and ducts in urine formation	**ducts**		

7	**2**	• **Anatomy of the Ureters**
		  ○ Structure and function
		• **Urinary Bladder**
		  ○ Layers of the bladder wall and function
		• **Urethra Differences**
		  ○ Male vs. female urethra anatomy and function
			Urinary System: ureter, urinary bladder, and male and female urethra	**Data show presentation and white board**	**Oral examination**

8	**2**	• **Layers of the Skin**
		  ○ Epidermis: cell types, keratinization
		  ○ Dermis: papillary and reticular layers
		• **Skin Functions**
		  ○ Protection, temperature regulation, sensation
			Integumentary System: Skin: epidermis, dermis	**Data show presentation and white board**	**Oral examination**

9	**2**	• **Skin Glands**
		  ○ Sebaceous glands, sweat glands, and their functions
		• **Hair Structure and Function**
		  ○ Follicles, growth cycle
		• **Nails**
		  ○ Structure, growth, and function
			Integumentary System: skin glands, hair, and nails	**Data show presentation and white board**	**Oral examination**

10	**2**	• **Bone Marrow Structure** ○ Red vs. yellow marrow	**Hemopoiesis: bone**	**Data show presentation and white board**	**Oral examination**

		• **Hemopoiesis Process** ○ Stem cells and differentiation into blood cells	**marrow**		

11	**2**	• **Types of Blood Cells**
		  ○ Erythrocytes, leukocytes, thrombocytes
		• **Functions of Blood Cells**
		  ○ Oxygen transport, immune response, clotting
			Hemopoiesis : blood cells	**Data show presentation and white board**	**Oral examination**

12	**2**	• **Components of the Circulatory System**
		  ○ Heart, blood vessels, blood
		• **Heart Anatomy and Function**
		  ○ Chambers, valves, and conduction system
			Circulatory System	**Data show presentation and white board**	**Oral examination**

13	**2**	• **Blood Vessels**
		  ○ Arteries, veins, capillaries
		• **Blood Flow Pathway**
		  ○ Systemic vs. pulmonary circulation
			Circulatory System	**Data show presentation and white board**	**Oral examination**

14	**2**	• **Overview of the Lymphatic System**
		  ○ Components: lymph nodes, lymph vessels, spleen, thymus
		• **Functions of the Lymphatic System**
		  ○ Fluid balance, immune response
			Lymphoid System	**Data show presentation and white board**	**Oral examination**

15	**2**	• **Lymphatic Organs** ○ Structure and function of	**Lymphoid System**	**Data show presentation and white board**	**Mid term examination**

		lymph nodes, spleen, and thymus • **Lymphocyte Development** ○ Role of bone marrow and thymus			

16	**2**	• **Overview of the Nervous System**
		  ○ Central vs. peripheral nervous system
		• **Neurons and Glial Cells**
		  ○ Structure and function of neurons
		  ○ Types and roles of glial cells
			Nervous System	**Data show presentation and white board**	**Oral examination**

17	**2**	• **Brain Anatomy and Function**
		  ○ Major regions (cerebrum, cerebellum, brainstem)
		• **Spinal Cord Structure**
		  ○ Segments and function
			Nervous System	**Data show presentation and white board**	**Oral examination**

18	**2**	• **Overview of the Endocrine System**
		  ○ Major glands: pituitary, thyroid, adrenal
		• **Hormones and Their Functions**
		  ○ Mechanisms of hormone action
			Endocrine System	**Data show presentation and white board**	**Oral examination**

19	**2**	• **Regulation of Hormonal Activity**
		  ○ Feedback mechanisms (negative and positive)
		• **Disorders of the Endocrine System**
		  ○ Common endocrine disorders
			Endocrine System	**Data show presentation and white board**	**Oral examination**

20	**2**	• **Interactions with Other Systems**
		  ○ Nervous and endocrine system interplay
		• **Clinical Applications**
		  ○ Hormone replacement therapies and treatments
			Endocrine System	**Data show presentation and white board**	**Oral examination**

21	**2**	• **Overview of the Digestive System**
		  ○ Anatomy: mouth, esophagus, stomach
		• **Digestive Processes**
		  ○ Mechanical and chemical digestion
			Digestive System	**Data show presentation and white board**	**Oral examination**

22	**2**	• **Small Intestine Anatomy and Function**
		  ○ Duodenum, jejunum, ileum
		• **Absorption Mechanisms**
		  ○ Nutrient absorption processes
			Digestive System	**Data show presentation and white board**	**Oral examination**

23	**2**	• **Large Intestine Anatomy and Function**
		  ○ Structure and role in water absorption
		• **Gut Microbiota**
		  ○ Importance in digestion and health
			Digestive System	**Data show presentation and white board**	**Oral examination**

24	**2**	• **Accessory Organs**
		  ○ Liver, pancreas, gallbladder
		• **Digestive Enzymes and Bile**
		  ○ Functions and roles in
			Digestive System	**Data show presentation and white board**	**Oral examination**

		digestion			

25	**2**	• **Anatomy of Male Reproductive Organs**
		  ○ Testes, epididymis, vas deferens
		• **Spermatogenesis**
		  ○ Process of sperm production
			Male Reproductive System	**Data show presentation and white board**	**Oral examination**

26	**2**	• **Accessory Glands**
		  ○ Seminal vesicles, prostate gland, bulbourethral glands
		• **Hormonal Regulation**
		  ○ Role of testosterone and its effects
			Male Reproductive System	**Data show presentation and white board**	**Oral examination**

27	**2**	• **Anatomy of Female Reproductive Organs**
		  ○ Ovaries, fallopian tubes, uterus, vagina
		• **Oogenesis**
		  ○ Process of egg formation
			Female Reproductive System	**Data show presentation and white board**	**Oral examination**

28	**2**	• **Menstrual Cycle Phases**
		  ○ Follicular, ovulatory, luteal phases
		• **Hormonal Regulation**
		  ○ Role of estrogen and progesterone
			Female Reproductive System	**Data show presentation and white board**	**2nd term examination**

29	**2**	• **Anatomy of the Eye** ○ Structure of the eyeball (cornea, lens, retina)	**Special Sense Organs: eye**	**Data show presentation and white board**	**Oral examination**

		• **Visual Pathway** ○ How light is processed and transmitted to the brain			

30	**2**	• **Anatomy of the Ear**
		  ○ Outer, middle, and inner ear structures
		• **Hearing Mechanism**
		  ○ Sound transmission and processing
			Special Sense Organs: ear	**Data show presentation and white board**	**Final examination**

13. Course Evaluation

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

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records

Includes:

1. **Daily and term exams**
2. **Mid term exam**

Final exam (theory and practical)

Distribution degree	Method of evaluation
Theory 10 % practical 15%	1st + 2nd term 25%
15%	Mid term theory
20% practical + 40% theory	Final exam 60%
65 % theory 35 % practical	Total 100%

14. Learning & Teaching Resources

Required textbooks (curricular if any)	**1. unqueira's Basic Histology TEXT & ATLAS llustrated Dental ,Histology ,Embryology and Anatomy .** **Author: Anthony L MESCHER .Margaret J Fehrenbach and Tracy Popowics**
Main References (sources)	**1. Atlas of human histology** **Handbook of basic general histology (author:datis kalali)**
Recommended Books & References (Scientific Journals, Reports …)	**HISTOLOGY FULL-TEXT** **William A Beresford MA, D Phil©** **Professor of Anatomy** **Anatomy Department, West Virginia University, Morgantown, USA**

Websites or Electronic References	1. **Pubmed** 2. **Scopas**

جامعة البيان

Course Description (1)

1. Course Title	**General pathology**
2. Course Code	**050308**
3. Semester/Year	**Year**
4. Description Preparation Date	**2025 / 2024**
5. Available Attendance Form	**Theoretical and practical lectures**
6. No. of Hours (Total)	**Theoretical and practical lectures**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Lect. Dr. Susan Fawzi Khadhem Al-Sudani**
9. E-mail	**susan.falbayan.edu.iq**

10. Course Objectives

Preparing dentists who are able to know the important causes of various general diseases and study the diagnosis of various diseases and methods of using different dyes to know these diseases and their causes

Knowledge	**A1**	The ability to distinguish between different diseases
	A2	How to use dyes
	A3	Learning about tissue sectioning
	A4	
Skills	**B1**	The ability to distinguish between different diseases
	B2	How to use dyes
	B3	Learning to cut tissue
	B4	
Thinking skills		Identifying diseases and methods of diagnosing them microscopically using electron microscope, stains, and tissue sectioning
		Teaching and learning methods
		Theoretical lectures
		Scientific discussions and seminars

		Use of screens (LCD)
		Using clarification methods such as x-ray films and videos
Evaluation methods		Weekly exams
		Mid-year and end-of-year exams
		Evaluation of seminars prepared by the student
		Evaluation of the practical product
Evaluation methods		Weekly exams
		Mid-year and end-of-year exams
		Evaluation of seminars prepared by the student
		Evaluation of the practical product
Methods of evaluation	1	Theoretical daily and semester examinations
	2	Practical daily and semester examinations
	3	Mid-year examination
	4	Practical and theoretical final examination

11.Teaching and Learning Strategies

1.	**Theoretical lectures**	4.	**Using clarification methods such as x-ray films and videos**
2.	**Scientific discussions and seminars**	5.	
3.	**Use of screens (LCD)**	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	Introduction pathology Clinical pathology Molecular pathology Cell damage reversible cell injury	Introduction	Data show presentation and white board	Oral examination
2	3	Irreversible cell injury Deposit and pigmentation External and internal pigmentation	Cell damage	Data show presentation and white board	Oral examination
3	4	Acute inflammation Chronic pathology	Inflammation	Data show presentation and white board	Oral examination
4	2	Healing of skin wound Healing of bone	Healing and repair	Data show presentation and white board	Oral examination

5	1	Hemodynamic Disorders Thromboembolic Disease Shock	Deposits and pigmentation	Data show presentation and white board	Oral examination
6	5	Describe all Disease related the genetic history	Infections	Data show presentation and white board	Oral examination
7	4	Hypersensitivity Autoimmune diseases Transplantation	Immunopathology	Data show presentation and white board	Oral examination
8	3	Neoplasia bengin and malignant tumors molecular bas of tumors	Disorders of cell growth and development	Data show presentation and white board	Oral examination
9	5	All disease relate with it	Neoplasia	Data show presentation and white board	Oral examination
10	4	All disease relate with it	Genetics	Data show presentation and white board	Oral examination
11	4	All disease relate with it	Disturbances in body fluids and blood flow	Data show presentation and white board	Oral examination

12	4	All disease relate with it	Diseases of the cardiovascular system	Data show presentation and white board	Oral examination
13	2	All disease relate with it	Diseases of respiratory system	Data show presentation and white board	Oral examination
14	6	All disease relate with it	Hematological diseases	Data show presentation and white board	Oral examination
15	4	All disease relate with it	Diseases of G.I.T	Data show presentation and white board	Oral examination
16	3	All disease relate with it	Diseases of liver, pancreas and gall bladder	Data show presentation and white board	Oral examination
17	2	All disease relate with it	Bone diseases	Data show presentation and white board	Oral examination
18	3	All disease relate with it	Joints , Muscle and C.T. diseases	Data show presentation and white board	Oral examination
	60	**Total**			
Assessment Curriculum					
Robin,s Basic Pathology					

13. Course Evaluation

- The first + the second semester 25 %
  - Theoretical 10%
  - Practical 15%
- Midyear exam 15%
- Theoretical 15%
- Final exam 60% Theoretical 40% Practical 20

100% (Theoretical 65% & Practical 35%)

14. Learning & Teaching Resources

Required textbooks (curricular if any)	Robin,s Basic Pathology
Main References (sources)	Robin,s Basic Pathology
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

number	*Laboratory sessions*	Hours
1	Introduction to general pathology	**2**
2	Power points slides	**2**
3	Power points and histopathological slides demonstrating fatty changes in liver and cloudy swelling in kidney	**2**
4	Power points and histopathological slides of coagulative necrosis in heart muscles and caseous necrosis in lung	**2**
5	Power points and histopathological slides of anthracosis of lung and hemosiderosis in liver	**2**

6	Power points and histopathological slides of amyloidosis in kidney, H&E. and congo-red stain	**2**
7	Power points and histopathological slides of acute appendicitis (appendix),acute ossteomylitis and lobar pneumonia (lung,)	**2**
8	Power points and histopathological slides of chronic cholecystits in gall bladder and chronic osteomylitis in bone	**2**
9	Power points and histopathological slides of keloid in skin and granulation tissue	**2**
10	Power points and histopathological slides of TB in lung and actinomycosis	**2**
11	Power points and histopathological slides of Sarcoidosis	**2**
12	Power points slides of CVC in lung and liver	**2**
13	Power points slides of blood vessels thrombosis	**2**
14	Power points and histopathological slides of lipoma, S.C papilloma of skin	**2**
15	Power points and histopathological slides of osteoma of the bone	**2**
16	Power points and histopathological slides of S.C. carcinoma and adeno carcinoma of the colon	**2**
17	Power points and histopathological slides of thyrotoxicosis of thyroid and hashimotisis thyroiditis in thyroid	**2**
18	Data show slides	**2**
19	Data show slides	**2**
02	Power points and histopathological slides of myocardial	**2**

	infarction of heart and atherosclerosis in blood vessels	
21	Power points and histopathological slides of chronic gastritis in stomach and peptic ulcer	**2**
22	Power points and histopathological slides of liver cirrhosis and hepatocellular carcinoma	**2**
23	Power points and histopathological slides of emphysema in lung and chronic bronchitis in bronchus	**2**
24	Data show	**2**
25	Data show	**2**
26	Data show	**2**
27	Data show	**2**
28	Data show	**2**
29	Power points slides	**2**
30	Power points slides	**2**
Total		**60**

جامعة البيان

Course Description (1)

1. Course Title	**Medical Physics**
2. Course Code	**050103**
3. Semester/Year	**Year**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures and Laboratory**
6. No. of Hours (Total)	**60 hours theory , 60 hours practical**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**MSC. ALI AQEEL MAHMOOD**
9. E-mail	**ali.aq@albayan.edu.iq**

10. Course Objective: The objectives of the course are summarized in the College of Dentistry/ The first stage aims to provide all that the student needs, including solid theoretical curricula and practical applications, and to bring the graduate to the level required to contribute to advancing the wheel of development and to play his role in achieving comprehensive renaissance in all areas of work. Applications in medical physics contribute to all aspects of our daily lives, including the medical field, diagnostic devices, radiological imaging, physical therapy, audio and optics, the development of modern devices, and the study of physics and its effect on the human body and the physical functions of the human body's organs.

Knowledge	**A1**	**The teaching method changes according to the student's perception and interaction w the lecture. It may be the discussion method, the interrogation method, or the deduc and deduction method... and it may be all methods at the same time, in addition to the of laboratories to increase the student's understanding and awareness.**
	A2	
	A3	
	A4	
Skills	**B1**	**Motivating the student through expression, thinking and response**
	B2	**The lecture relies on student interaction, brainstorming, and intellectual questions**
	B3	**Giving the student the necessary space to express their scientific opinions**
	B4	**Urging the student to solve problems and possess distinctive thinking**
Values	**C1**	**Professional preparation and encouraging the student to have positive behavior in public life**
	C2	**Cultural preparation and refining the student's personality**
	C3	**Utilizing the acquired skills so that the student becomes a dentist capable understanding the physical functions of the organs of the human body.**
	C4	

11. Teaching and Learning Strategies			
1.	**Lectures using Data show and power point.**	**4.**	**Educational films**
2.	**Homework**	**5.**	
3.	**Laboratories and preparing reports**	**6.**	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	2	**Medical Physics, physical medicine, Physical therapy, Health Physics.**	**Terminology**	**Data show presentation and white board**	**Short quiz ,Oral examination**
2	2	**Radiological Physics, clinical physics. Modeling, Accuracy, Precision, False Positive, False Negative**	**Terminology**	**Data show presentation and white board**	**Short quiz ,Oral examination**
3	2	Static forces :(type of levers with medical examples).	**Force on &in body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
4	2	Dynamic forces (Centrifuge	**Force on &in body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
5	2	Bones:(Function of bones, Composition of bone, bone remodeling, compact and trabecular bone).	**Physics of the skeleton**	**Data show presentation and white board**	**Short quiz ,Oral examination**
6	2	Stress-strain curve :(compressive and tensile stress, young modulus). Bone joints :(Synovial fluid, coefficient of a joint).	**Physics of the skeleton**	**Data show presentation and white board**	**Short quiz ,Oral examination**
7	2	Physical basis of heat and temperature, Temperature scales, Converting Temperatures, Temperature in Dentistry, Thermal	**Heat and cold in medicine:**	**Data show presentation and white board**	**Short quiz ,Oral examination**

8	2	expansion, (Linear, Area, Volume Thermal Expansion), Thermometry, Heat therapy, Thermography, Cold in medicine and cryosurgery. Thermal conductivity.	**Heat and cold in medicine:**	**Data show presentation and white board**	**Short quiz ,Oral examination**
9	2	First law of thermodynamic. Energy change in the body (Met, Basal metabolic rate (BMR).	**Energy, work and power of the body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
10	2	Work and power. Efficiency heat losses from the body. Anaerobic phase and aerobic phase. Hypothalamus (body's thermostat).Heat lost by (radiation, convection, evaporation of sweat and respiration).	**Energy, work and power of the body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
11	2	Definition, absolute pressure, gauge pressure, negative pressure, unit of pressure. Measurement of pressure in the body (Manometer). Pressure inside the skull.	**Pressure**	**Data show presentation and white board**	**Short quiz ,Oral examination**
12	2	Eye pressure. Pressure in the skeleton. Pressure in the urinary bladder. Boyle's law: (pressure diving). HOT (hyperbaric while oxygen therapy).	**Pressure**	**Data show presentation and white board**	**Short quiz ,Oral examination**

13	2	Electrical potential of nerves (resting potential, action potential in myelinated and unmyelinated nerves). Electromyogram	**Electricity within the body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
14	2	(EMG). Electrical potential in the heart (electrocardiogram ECG). Electroencephalogram (EEG).	**Electricity within the body**	**Data show presentation and white board**	**Short quiz ,Oral examination**
15	2	Properties of sound.	**Sound in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
16	2	Stethoscope (including heart soun mechanism of hearing.	**Sound in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
17	2	(A-scan, B-scan, M-scan and Doppler effect).	**Ultrasound**	**Data show presentation and white board**	**Short quiz ,Oral examination**
18	2	Physiological effect of ultrasound in therapy	**Ultrasound**	**Data show presentation and white board**	**Short quiz ,Oral examination**
19	2	Light nature, Planck Equation, (Reflection, Refraction and Absorption of Light, Properties of light)**.**	**Light in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
20	2	Diffuse reflection, Specular reflection, Phototherapy, Application of ultraviolet and infrared light in medicine, Tanning and Skin Cancer.	**Light in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
21	2	What is laser? Application of laser in medicine Atomic Transitions, Population inversion, Laser Typical	**Laser in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
22	2	Characteristics, General Applications of Laser, Laser Dental Applications, Reshape	**Laser in medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**

		gum tissue, Laser aided teeth whitening, Laser Drill			
23	2	Focusing element of the eye (cornea, lens). Element of the eye (pupil, aqueous humor, vitreous humor sclera).	**Physics of eye and vision**	**Data show presentation and white board**	**Short quiz ,Oral examination**
24	2	Visual acuity, Snellen chart, optical density.	**Physics of eye and vision**	**Data show presentation and white board**	**Short quiz ,Oral examination**
25	2	Properties of X-ray, production of X-ray. Absorption of X-ray, contrast media-ray image	**Physics of diagnostic X-ray**	**Data show presentation and white board**	**Short quiz ,Oral examination**
26	2	penumbra, grid, and intensifying screens). Radiation to patients from X-ray (filters).	**Physics of diagnostic X-ray**	**Data show presentation and white board**	**Short quiz ,Oral examination**
27	2	Radioactivity decay, half-life, units. Basic instrumentation and its medical application (GM-(tube, Photomultiplier tube	**Physics of nuclear medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
28	2	detector, solid state Scintillation detector). Therapy with radioactivity. Radiation doses in nuclear medicine.	**Physics of nuclear medicine**	**Data show presentation and white board**	**Short quiz ,Oral examination**
29	2	The dose units (Rad and Gray). Principles of radiation therapy	**Physics of radiation therapy**	**Data show presentation and white board**	**Short quiz ,Oral examination**
30	2	Brach therapy, quality factor (QF).	**Physics of radiation therapy**	**Data show presentation and white board**	**Short quiz ,Oral examination**

جامعة البيان

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	**Medical Physics (John Cameron)**
Main References (sources)	**Physics of of the human body(Irving Herman)**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**PHYSIOLOGY**
2. Course Code	**050205**
3. Semester/Year	**Year**
4. Description Preparation Date	**2025 / 2024**
5. Available Attendance Form	**Theoretical and practical lectures**
6. No. of Hours (Total)	**60 hours theory , 60 hours practical**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Prof. Dr. Sahib M. H. Mohammadbakir**
9. E-mail	**sahib.mohammad@albayan.edu.iq**

10. Course Objectives

The course in human physiology, highlight about the study of the function and regulation of the human body and the complexities and interactions of cells, tissues, major organs and systems. Lectures covering membrane transport mechanisms; intracellular and electrical signaling; the physiology of excitable tissues; the physiology of blood; the cardiovascular system, gastrointestinal tract; the respiratory system; the renal system; endocrinology; and the reproductive system.
Practical part of physiology: Students will study most the experiments that have relationship with the blood picture.

Knowledge	**A1**	Urging students to identify the normal functions of the human body and compare that with abnormal imbalances.
	A2	Gaining experience and information that will help him identify the disease and know its causes.
	A3	Increasing students' knowledge of methods for examining and helping to identify some of conditions associated with blood changes through practical lectures in the laboratory
	A4	
Skills	**B1**	Acquiring skills in conducting some blood-related tests
	B2	Motivating the student through the expression style, thinking, and quick communication response.
	B3	Encouraging the student to solve problems and possess distinctive thinking
	B4	Relying on student interaction and brainstorming in the lecture
Valu	**C1**	Professional preparation and promotion of positive behavior in public life
	C2	Scientific preparation and encouragement of students to communicate in other fields of science

	C3	Cultural preparation and refining of the student's personality
	C4	Employing acquired skills for the student to become a dentist capable of Examining histological sections.

10. Teaching and Learning Strategies

1.	Lectures using Data show and power point.	**4.**	Electronic education
2.	Educational films	**5.**	Practical Examination of physiology experiments
3.	Monitors	**6.**	

جامعة البيان

11. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	(Function organization of the human body, Cell physiology, Cell membrane, Cell components, Cell Junction)	**Introduction**	**Data show presentation and white board**	**Short quiz**
3	2	(Diffusion passive), Carrier-mediated transport (passive or active), Vesicular transport). Body fluid (Type of body fluids, Intracellular and extracellular, Daily intake of water, Daily loss of body water, Constituents of extracellular and intracellular fluids, Major factors contribute to the movement of fluid, Specialized Fluids of the Body) Edema (Types of Edema, Causes of edema, Dehydration, Types of dehydratio Classification, Causes, Signs and Symptoms of Dehydrations)	**Homeostasis and Transport across cell membrane**	**Data show presentation and white board**	**Short quiz**
4	2	(Functions of Mouth, Salivary Glands (Structure, Development, Major glands, Minor glands, Clinical correlations, Regulation of Salivary Secretion, Factors Influencing Salivary Flow and Compositio (Mastication, Deglutition, Bolus Formatior for Swallowing, Digestion), (speech: Definition, Mechanism, Nervous Control, Applied Physiology)	**ORAL CAVITY and Salivary Glands**	**Data show presentation and white board**	**Short quiz**
5	2	(Composition of Saliva, Saliva Components, Properties of Saliva, Functions of Saliva, Effect of Drugs and	**Salivary function and Salivary Secretion**	**Data show presentation and white board**	**Short quiz**

		Chemicals on Salivary Secretion, Maintenance of Tooth Integrity, The Diagnostic. Applications of Saliva and forensic uses of saliva, Disadvantages/Limitations of Saliva)			
6	2	(Composition of blood, Hematocrit, Plasma, Functions of blood), Red blood cells (Genesis of R.B.C, polycythemia, Anemia, Destruction of R.B.C.s)	**Blood**	**Data show presentation and white board**	**Short quiz**
7	2	(Types of W.B.C., Genesis of the leukocytes, Life span of the W.B.C, Phagocytosis, Inflammation, Leukemia's, Leukopenia)	**White Blood Cells**	**Data show presentation and white board**	**Short quiz**
8	2	(Formation of Hemoglobin. Iron Metabolism. Hb Compounds. Destruction of Hb. The common causes of jaundice)	**Hemoglobin**	**Data show presentation and white board**	**Short quiz**
9	2	(Agglutination, Agglutinins, The Rh Group Formation of Anti-Rh, agglutinins, Erythroblastosis Fetalis, Effect of the Mother's Antibodies on the Fetus, Transfusion Reactions resulting from mismatched Blood Types , Nature of Antibodies)	**Blood Groups**	**Data show presentation and white board**	**Short quiz**
10	2	(Vascular Spasm, Formation of a Platelet Plug, Mechanism of the Plate Plug, Mechanism of Blood Coagulation, Prevention of Clotting in the Normal Vascular System, Prevention of Blood Coagulation outside the Body, Blood Disease)	**Hemostasis and blood coagulation**	**Data show presentation and white board**	**Short quiz**
11	2	(Heart: Layers, Valves, Actions of	**Cardiovascular system:**	**Data show presentation**	**Short quiz**

		heart, Blood Vessels, Division of circulation, Properties of Cardiac Muscle, Action Potential and Ionic Basis, Conductive system of Human Heart)	**Blood vessels**	**and white board**	
12	2	(Cardiac Cycle, Heart Sounds, Cardiac Output, Heart Rate and Regulation, Arterial Blood Pressure and Regulation of ABP Venous Pressure and Capillary Pressure, Arterial Pulse and Venous Pulse, Regional Circulation)	**Cardiovascular system: Blood pressure**	**Data show presentation and white board**	**Short quiz**
13	2	(Electrocardiogram, Hemorrhage, Circulatory Shock and Heart Failure, Cardiovascular Adjustments during Exercise)	**Cardiovascular system (**Electrocardiogram)	**Data show presentation and white board**	**Short quiz**
14	2	(Types of Respiration, Stages of Respiration, Respiratory tract, non-respiratory functions of respiratory tract, Mechanics of Pulmonary Ventilation, Types of Respiratory pressures, Factors causing and preventing collapsing tender of lungs)	**Respiratory system**	**Data show presentation and white board**	**Short quiz**
15	2	(Compliance, Variation in Compliance, The resistance and the work of breathing, Dead space, Lung volume and Lung capacity, Ventilation, Respiratory Protecti Reflexes, Pulmonary function tests, Regulation of Respiration, The relationshi between oral health and respiratory disease)	**Respiratory system: Lung volumes and capacities**	**Data show presentation and white board**	**Short quiz**
16	2	(Structure of Eye, Visual Process and	**Special sensation: Vision Hearing, taste & smell**	**Data show presentation and white board**	**Short quiz**

		Field of Vision, Visual Pathway Pupillary Reflexes, Color Vision, and Errors of Refraction. Structure of Ear and Auditory Pathway, Mechanism of Hearing and Auditory Defects, Sensation of Taste and Smell)			
17	2	**Examination**	**Examination**	**Data show presentation and white board**	**Short quiz**
18	2	(Normal body Temperatures, Physiological Variations of body temperature, Heat Balance, Heat gain or heat production in the body, Heat loss fro the body, Insulator System of the Body, Blood flow to the skin from the body core provides heat transfer, Regulation of bod temperature, Mechanisms to decrease or increase body temperature, Sympathetic "Chemical" Excitation of heat production)	**Temperature of the Body**	**Data show presentation and white board**	**Short quiz**
19	2	(Parts of Renal system, The Kidney, Functions of kidneys, Components of kidney, Parenchyma of kidney, Nephron and Juxtaglomerular Apparatus, Renal corpuscle, Structure of renal corpuscle, Tubular portion of nephron, Collecting duct)	Urinary system	**Data show presentation and white board**	**Short quiz**
20	2	(Mechanism of urine formation, Glomerul Filtration, Pressure determining filtration, Tubular Reabsorption, Tubular secretion. Micturition, Nerve supply to urinary bladder and sphincters, Renal Function Tests, Relation between renal disease & oral health)	Urinary system: Urine formation	**Data show presentation and white board**	**Short quiz**

21	2	(Introduction, Endocrine glands, Hormone Nature of Hormones, Classification of hormones, Hormone Secretors, Hormona action. Hormone receptors, Synthesis and storage of hormones, Mechanism of hormonal function, Measurement of Hormone Concentrations in the Blood)	**Endocrine system**	**Data show presentation and white board**	**Short quiz**
22	2	(Oral manifestations of endocrine dysfunction, Control Systems Involving Hypothalamus and Pituitary glands, The pituitary gland, Thyroid gland, Pancreas gland, Adrenal glands)	Major Endocrine Glan	**Data show presentation and white board**	**Short quiz**
23	2	(The Functions of the digestive, Structura layers of digestive, Stomach, Secretions the Stomach. Regulation of Stomach Secretion, Mixing of Stomach Contents, Stomach Emptying	Digestive system	**Data show presentation and white board**	**Short quiz**
24	2	(Small intestine, Secretions of the Small Intestine, Movement in the Small Intestine Liver, Functions of the Liver, Pancreatic Secretions, Regulation of Pancreatic Secretion, Large Intestine, Movement in the Large Intestine Digestion, Absorption and Transport)	Digestive system	**Data show presentation and white board**	**Short quiz**
25	2	(Types, Structure, Microscopic Structure, Muscle Physiology, Properties, Contractic and contractile elements, Tone, Electrical and Molecular Changes during Muscular Contraction)	Muscular system: Muscle structure	**Data show presentation and white board**	**Short quiz**
26	2	(Molecular Changes During Muscular Contraction, Neuromuscular Junction- Neuromuscular Transmission and Blocke	Muscular system: Tone, contraction	**Data show presentation and white board**	**Short quiz**

		Nutrition and Metabolism (Energy Requirements)			
27	2	(Nervous System Division, Cranial nerves Neuron and Neuroglia, Receptors, Nerve impulse, Synapse and Neurotransmitters	Nervous System: Nerve impulse, synapses	**Data show presentation and white board**	**Short quiz**
28	2	(Reflex Activity, Somatosensory System and Somatomotor System, Physiology of Pain)	Nervous System	**Data show presentation and white board**	**Short quiz**
29	2	(Male Reproductive System Female Reproductive System, Meiosis, Aging and Reproductive system.	Reproductive system: Aging & reproductive system	**Data show presentation and white board**	**Short quiz**
30		(Body Response in high altitudes, physiological Changes in the Sea deep). Nutrition and metabolism (daily energy requirement, obesity and fitness)	Aviation and Deep physiology		

جامعة البيان

12. Course Evaluation

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

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records

Includes:

1. **Daily and term exams**
2. **Mid-term exam**

Final exam (theory and practical)

No	Evaluation methods	Grading Distribution
1	%25The first + the second semester	Theoretical 10% Practical 15%
2	Midyear exam 15%	Theoretical 15%
3	Final exam 60%	Theoretical 40% Practical 20%
4	100%	Theoretical 65% Practical 35%

13. Learning & Teaching Resources

Required textbooks (curricular if any)	Essentials of physiology for Dental Students. K Sembulingam A TEXTBOOK OF PRACTICAL PHYSIOLOGY. CL Ghai
Main References (sources)	Essentials of Medical Physiology. K Sembulingam and Prema Sembulingam.
Recommended Books & References (Scientific Journals, Reports …)	Guyton and Hall Textbook of Medical Physiology. John E. Hall. Ganong's Review of Medical Physiology
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	**Computer Science**
2. Course Code	**050106**
3. Semester/Year	**1st and 2nd semesters/ 1st Year**
4. Description Preparation Date	**2025-2024**
5. Available Attendance Form	**Weekly attendance**
6. No. of Hours (Total)	**90 hours annually (30 hr theoretical + 60 hr practical)**
7. No. of Credits (Total)	**4 Units**
8. Course Administrator Name	**Riyadh Baqer Mohammed, L. A.**
9. E-mail	riyadh6249@gmail.com

10. Course Objectives

Knowledge	**A1**	Introduction to computers as indispensable tools in the modern civilization, types and applications of computers in various activities of civilized people. Basic knowledge about hardware, software and data processing.
	A2	Importance of acquisition, organization, analysis, exchanging, storage and recalling of information quickly and easily, taking into account that more quantity and better quality of information is the base of good knowledge.
	A3	Introduction to the technology of interconnecting people via networks using modern computers, including internet and world-wide web.
	A4	Computer applications in medical field, particularly in dentistry.
Skills	**B1**	Basic skills of computer driving and using of Windows operating system
	B2	Practicing Office package applications, especially text editing and word processing, presentation, and to format, organize and calculate data in a spreadsheet.
	B3	
	B4	
Values	**C1**	Efficient use of computers and information
	C2	Decent use of information in compliance with legal and moral values
	C3	Self-responsibility and collective cooperation relating to personal and institutional security information.
	C4	

11. Teaching and Learning Strategies

1.	**Lecture Notes using data show and white board**	**4.**	**Practical exercises on computers in computer lab**

2.	**Demonstration using data show**	**5.**	
3.	**Brainstorming**	**6.**	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	3	What is a Computer – An Introduction	Basics of computers	Classroom lecture and lab	Quiz and lab exercise
2	3	Computer structure and performance	Basics of computers	Classroom lecture and lab	Quiz and lab exercise
3	3	Computer Input and Out Put Devices	Basics of computers	Classroom lecture and lab	Quiz and lab exercise
4	3	The Windows 10 Interface Desktop layout such as icons, shortcuts, taskbar and other tools	Operating systems, Windows 10	Classroom lecture and lab	Quiz and lab exercise
5	3	Auto-Hide Task Bar - Task bar controlling - Opening and searching for Programs	Windows 10	Classroom lecture and lab	Quiz and lab exercise
6	3	What is a window Opening a window, maximizing, restoring, minimizing and closing a window	Windows 10	Classroom lecture and lab	Quiz and lab exercise
7	3	Dialogue box, check box and radio button	Windows 10	Classroom lecture and lab	Quiz and lab exercise
8	3	Files & folders management Folder creating, naming, saving, copying, moving and deleting	Windows 10	Classroom lecture and lab	Quiz and lab exercise
9	3	Types of files, filename, address and extension	Windows 10	Classroom lecture and lab	Quiz and lab exercise
10	3	Microsoft Office 2019 Introduction, Word 2019, PowerPoint 2019, Excel 2019, Access 2019, etc.	Microsoft Office 2019	Classroom lecture and lab	Quiz and lab exercise
11	3	Word 2019 - Introduction	Microsoft Office 2019 Word 2019	Classroom lecture and lab	Quiz and lab exercise
12	3	PowerPoint 2019 - Introduction	Microsoft Office 2019 PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
13	3	Windows 10 libraries and control panel	Windows 10	Classroom lecture and lab	Quiz and lab exercise
14	3	Printing and presenting files	Windows 10	Classroom lecture and lab	Quiz and lab exercise

		Types of printers Data show			
15	3	How does the computer think and work? Arithmetic & Logical operations	Basics of computers	Classroom lecture and lab	Mid exam (theoretical)
16	3	Starting Word 2019 Components of Word 2019 Ribbon, Tabs, Groups and Commands	Word 2019	Classroom lecture and lab	Quiz and lab exercise
17	3	The main tabs are in Word File, Home, Insert, Design, Page Layout, References, Mailings, Review, View, and Help.	Word 2019	Classroom lecture and lab	Quiz and lab exercise
18	3	Adding and editing texts, tables, shapes and other objects in English	Word 2019	Classroom lecture and lab	Quiz and lab exercise
19	3	Adding and editing texts, tables, shapes and other objects in Arabic	Word 2019	Classroom lecture and lab	Quiz and lab exercise
20	3	Inserting Greek, mathematical and special characters	Word 2019	Classroom lecture and lab	Quiz and lab exercise
21	3	Starting PowerPoint 2019 Components of PowerPoint 2019	PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
22	3	Importing text to create slides Manually creating slides Removing blank slides Changing blank slides	PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
23	3	Starting and closing the master slide Adding new slides	PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
24	3	Adding text to individual slides, Adding bullet points, images, clip art and images from your computer to individual slides	PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
25	3	Adding presenter notes Adding animation effects to slide objects Showing evidence of animation effects Adding slide transitions	PowerPoint 2019	Classroom lecture and lab	Quiz and lab exercise
26	3	Starting Excel	Excel 2019	Classroom lecture and lab	Quiz and lab exercise

		Using the Shortcut on the Desktop, Taskbar, Start and Search			
27	3	Excel elements, Interface Elements, Worksheet Elements, The Ribbon Tabs, Mini Toolbar and Shortcut Menu	Excel 2019	Classroom lecture and lab	Quiz and lab exercise
28	3	Opening and Viewing Workbooks Opening an Existing Workbook Opening a Recent Workbook Opening Multiple Workbooks	Excel 2019	Classroom lecture and lab	Quiz and lab exercise
29	3	Selecting Cells, Single Cell, Selecting a Cell Range, Selecting a Row or Column, Selecting a Range of Rows or Columns, Selecting a Range of Adjacent Data, Selecting Noncontiguous Ranges Selecting an Entire Worksheet Deselecting Cells	Excel 2019	Classroom lecture and lab	Quiz and lab exercise
30	3	Creating and saving a Workbook Creating a Formula, Creating a Function Formula, AutoSum Formatting a Worksheet	Excel 2019	Classroom lecture and lab	Final exam (theoretical and practical)

جامعة البيان

13. Course Evaluation

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

1. **Total score of both semesters 1st & 2nd: 25 (10 for written & 15 for practical)**
2. **Mid exam (written): 15**
3. **Year endeavor: 40 (Sum of 1. & 2. above)**
4. **Final exam: 60 (35 for written exam & 25 for final practical exam)**

Total score: 100

14. Learning & Teaching Resources

Required textbooks (curricular if any)	• **Lecture Notes "Computer Basics Part 1"** • **Lecture Notes "Arithmetic and Logical Operations"** • **Lecture Notes "Computer Basics Part 2"**
Main References (sources)	• **CSCA0101 Computing Basics** • **Microsoft® Computer Basics Student Edition Complete 2003** • **Microsoft Windows 10 step by step, Joan Lambert** • **Learn Microsoft Office 2019, Linda Foulkes**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

1. Course Title	Arabic
2. Course Code	050107
3. Semester/Year	Seasonal / season1 and Season 2
4. Description Preparation Date	**2025/2024**
5. Available Attendance Form	Daily attendance according to the lecture schedule
6. No. of Hours (Total)	60 Hours
7. No. of Credits (Total)	**2**
8. Course Administrator Name	M.M. Khansa Saad Fajr
9. E-mail	Khansaa.s@albayan.edu.Iq

10. Course Objectives

The student should be familiar with the principles and rules of the Arabic languag

Knowledge	**A1**	The program aims to raise the student's ability to the level of understanding In the field of language
	A2	. Enabling students to obtain knowledge in the origins of speech and sentences.
	A3	Enabling students to obtain knowledge in ancient and modern poetry and prose and their types
	A4	
Skills	**B1**	Teaching the student how to become able to use eloquent linguistic methods
	B2	. Teaching the student to analyze understand, deduce, and employ the prescribed curriculum vocabulary,
	B3	: Students acquire the skill of writing sentences correctly
	B4	Students gain the ability to pronounce letters correctly

Values	C1	The skill of reading, criticizing and judging texts
	C2	The skill of verbal and written communication with others
	C3	The skill of researching linguistic and literary sources
	C4	Promoting scientific research in the field of the Arabic language and its sciences and preparing linguistic and literary studies and research

11. Teaching and Learning Strategies

1.	ELECTRONIC LECTures	4.	Theoretical lectures in the form of recitation
2.	Asking questions and opening the door to dialogue	5.	Summarizing lectures with emphasis on vocabulary
3.	Assigning the student to reports	6.	The mission

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	Introduction to the Arabic language	auction marks	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	A quick session with the students at the end of the lecture
2	1	The student should be able to formulate behavioral goals and formulate a question that achieves the goal	How to write hamza	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
3	1	Know and understand	Sections of speech	Explanation of theoretical lectures from the teaching	Question within the lecture

				subject using modern teaching and presentation methods	
4	1	Identifying linguistic and literary problems among students	Original and subsidiary grammatical .signs	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Question within the lecture
5	1	Know and understand	Free poetry	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
6	1	It expiains the conditions of thepast tense verb and the conditions of theimperative verb	The Inflected and Inflected form of verbs	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
7	1	Know and understand	The built and the Arabized are nouns	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
8	1	Know and understand	The adjective	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
9	1	Know and understand	Sections of the nominal and verbal sentence	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
10	1	Know and understand	Interrogative	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing

11	1	Know and understand	Passive verb	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
12	1	Know and understand	Active verb	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
13	1	Know and understand	Teacher	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
14	1	Identifying the role of motivation in the learning process, contemporary reading of linguistic and literary texts	Negation	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Asking questions and answering them from the student
15	1	Know and understand	Nazik al-Malaika	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
16	1	Know and understand	Jeweler	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
17	1	Know ing the signs of jazm	Ahmad Shawqi	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing

18	1	Know and understand	Present tense verb	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
19	1	Know ing the signs of the accusative	Badr Shaker Sayyab	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
20	1	To differentiate	Accusative present tense verb	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
21	1	Know and understand	'The bound ta' and the open ta	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
22	1	Analyzing and explaining texts	Pendants	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
23	1	Know and understand	Literary texts	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
24	1	Know and understand	Correct and incorrect verbs	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
25	1	Know and understand	Modern poetic schools	Explanation of theoretical lectures from the teaching	Daily testing

				subject using modern teaching and presentation methods	
26	1	Knowledge and understanding of meanings rhetoric and aesthetics	Emphasis	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
27	1	Know and understand	The art of eloquence	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
28	1	Knowing the language interference ortransfer of the mother tongues phonetic habits	Ancient poetic arts	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
29	1	To differentiate	Dhaad and Dhaa	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing
30	1	Know and understand	Characteristics of literature	Explanation of theoretical lectures from the teaching subject using modern teaching and presentation methods	Daily testing

13. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student, such as daily preparation, daily, oral, monthly and written exams, reports, etc. Attendance and participation 5% Daily 5% Monthly exam 20% Final exam %70 Final grade 100%

14. Learning & Teaching Resources

Required textbooks (curricular if any)	Methodical books/help books
Main References (sources)	Basic texts prepared by the subject teacher
Recommended Books & References (Scientific Journals, Reports …)	Reports/periodicals and scientific journals
Websites or Electronic References	International Information Network (Internet)

جامعة البيان

Course Description (1)

1. Course Title	**Biology**
2. Course Code	**050102**
3. Semester/Year	**Year**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures+ Labs**
6. No. of Hours (Total)	**60 hours Lectures** **60 hours labs**
7. No. of Credits (Total)	**6**
8. Course Administrator Name	**Name: A.L Amna Kahtan Khalaf**
9. E-mail	**amna.k@albayan.edu.iq**

10. Course Objectives

Knowledge	A1	The first stage aims to provide all that the student needs of solid theoretical curric and practical applications
	A2	outputs to be compatible with the needs of the labor market
	A3	keep pace with scientific and technological developments in the field of laborat techniques and medical devices that our contemporary world is witnessing
	A4	the aim of bringing the graduate to the required level to contribute to advanc development and playing his role in achieving comprehensive renaissance in all ar of work.
Skills	B1	Applications contribute to medical Biology in all aspects of our daily lives
	B2	including the medical field, diagnostic devices.
	B3	Study the structure, function and formation of this field in human body system
	B4	The diseases related to human body systems including their treatments
Values	C1	the development of modern devices,
	C2	the study of Biological devices and its effect on the human body and the physi functions of the human body's organs.
	C3	
	C4	

11. Teaching and Learning Strategies

جامعة البيان

1.	**A- Knowledge and understanding** **The teaching method changes according to the student's perception and interaction with the lecture. It may be the discussion method, the interrogation method, or the deduction and deduction method... and it may be all methods at the same time, in addition to the use of laboratories to increase the student's understanding and awareness.**	4.	**General and transferable skills (other skills related to employability and personal development).** **1- Professional preparation and encouraging the student to have positive behavior in his public life** **2- Scientific preparation and urging the student to communicate in other fields of science** **3- Cultural preparation and refining the student's personality.** **Utilizing the acquired skills so that the student becomes a dentist capable of understanding the physical functions of the organs of the human body.**
2.	**Subject-specific skills** **1- - Lectures and discussion to consolidate ideas** **2- Experiments, laboratories, and preparing bottles** **Performing seminars to consolidate information and strengthen the student's educational and intellectual potential.**	5.	**Teaching and learning methods** **1- Lectures using data show and power point** **1- Educational films** **2- Display screens** **3- E-learning** **4- Laboratories and preparing reports** **5- Homework**
3.	**C- Thinking skills** **1- Motivating the student through the method of expression, thinking and response** **2- Urging the student to solve problems and possess distinctive thinking** **3- The lecture relies on student interaction, brainstorming, and intellectual questions** **4- Giving the student the necessary space to express their scientific opinions** **5- Laboratory reports** **Homeworks**	6.	**Evaluation methods** **1- Daily and quarterly exams for theoretical subjects** **2- Seminars** **3- Daily evaluation** **4- Preparing and submitting laboratory reports** **5- Mid-year exam** **6- A final practical and theoretical exam**

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	Introduction to Medical and oral Biology	Introduction to Medical and oral Biology	Data Show and white boar	Oral Quiz
2	2	Prokaryotes and Eukaryotes	Prokaryotes and Eukaryotes	Data Show and white boar	Oral Quiz
3	2	General and oral Immunity	General and oral Immunity	Data Show and white boar	Oral Quiz
4	2	Bacteria and oral disease	Bacteria and oral disease	Data Show and white boar	Oral Quiz
5	2	Genetics and its role oral disease	Genetics and its role oral disease	Data Show and white boar	Oral Quiz
6	2	Simple Epithelial tissue (Tongue)	Simple Epithelial tissue (Tongue)	Data Show and white boar	Oral Quiz
7	2	Stratified epithelial tissue	Stratified epithelial tissue	Data Show and white boar	Oral Quiz
8	2	Glandular epithelial tissue (salivary gland)	Glandular epithelial tissue (salivary gland)	Data Show and white boar	Oral Quiz
9	2	General connective tissue (blood)	General connective tissue (blood)	Data Show and white boar	Oral Quiz
10	2	Muscular tissue	Muscular tissue	Data Show and white boar	Oral Quiz
11	2	Nerve tissue	Nerve tissue	Data Show and white boar	Oral Quiz
12	2	Cell structure (oral mucus membrane)	Cell structure (oral mucus membrane)	Data Show and white boar	Oral Quiz
13	2	Plasma membrane structure	Plasma membrane structure	Data Show and white boar	Oral Quiz

14	2	Passage of Materials across C Membrane	Passage of Materials across C Membrane	Data Show and white boarc	Oral Quiz
15	2	Cell cycle	Cell cycle	Data Show and white boarc	Oral Quiz
16	2	Mitosis and Meiosis	Mitosis and Meiosis	Data Show and white boarc	Oral Quiz
17	2	Cell energy	Cell energy	Data Show and white boarc	Oral Quiz
18	2	Nucleic acid, DNA and RNA	Nucleic acid, DNA and RNA	Data Show and white boarc	Oral Quiz
19	2	Introduction to parasitology	Introduction to parasitology	Data Show and white boarc	Oral Quiz
20	2	Types of parasites and host	Types of parasites and host	Data Show and white boarc	Oral Quiz
21	2	General and oral protozoa	General and oral protozoa	Data Show and white boarc	Oral Quiz
22	2	Human *amoebas,E. histolyti E.coli, E.gingivali*	Human *amoebas,E. histolytica, E.c E.gingivali*	Data Show and white boarc	Oral Quiz
23	2	Flagellates, *Giardia lamblia, Trichomonas tenax, T.hominas, T.vaginalis*	Flagellates, *Giardia lamblia, Trichomonas tenax, T.hominas, T.vaginalis*	Data Show and white boarc	Oral Quiz
24	2	*Leishmania* , cutaneous and vesira	*Leishmania* , cutaneous and vesiral	Data Show and white boarc	Oral Quiz
25	2	Sporozoa, *Plasmodium spp.*	Sporozoa, *Plasmodium spp.*	Data Show and white boarc	Oral Quiz
26	2	*Toxoplasma gondii*	*Toxoplasma gondii*	Data Show and white boarc	Oral Quiz
27	2	Nemathelminthes,*Ascaris lumbricoides*	Nemathelminthes,*Ascaris lumbricoi*	Data Show and white boarc	Oral Quiz
28	2	*Ancylostoma duodenale, Entrob vermicularis*	*Ancylostoma duodenale, Entrob vermicularis*	Data Show and white boarc	Oral Quiz
29	2	Platyhelminthes, *Fasciola hepatica*	Platyhelminthes, *Fasciola hepatica*	Data Show and white boarc	Oral Quiz
30	2	*Schistosoma spp.*	*Schistosoma spp.*	Data Show and white boarc	Oral Quiz

13. Course Evaluation	
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	Principles of Biology – An Introduction to Biological Concepts has been modified from several OpenStax textbooks including Concepts of Biology, Biology 2E, Microbiology and Anatomy and Physiology. These textbooks have been cited and attributed below
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	**https://dept.clcillinois.edu/biodv/PrinciplesOfBiology.pdf**

Course Description (1)

1. Course Title	**Dental Ethics\ S3**
2. Course Code	**0503**011
3. Semester/Year	**Annual**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures**
6. No. of Hours (Total)	**30 hours theoretical**
7. No. of Credits (Total)	**2**
8. Course Administrator Name	**Basheer Jabbar Sabhan**
9. E-mail	**basheer.j@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	**course focuses on the ethical principles and professional standards that guide dental practice.**
	A2	**The course explores moral dilemmas and decision-making in dentistry, aiming to prepare students to handle complex situations with integrity and professionalism.**
	A3	**Topics covered may include patient autonomy, informed consent, confidentiality, the dentist-patient relationship, legal responsibilities, and ethical issues in patient care, treatment planning, and public health.**
Skills	**B1**	**Dental Ethics Course Objectives typically aim to equip students with the knowledge, skills, and attitudes necessary to navigate ethical challenges in dental practice.**
	B2	
	B3	**Employing the acquired skills in order for the student to become a dentist capable of treating patients**
	B4	**Learn how to assess patients' risk of dental disease based on ethical approach**
Values	**C1**	**Core ethical principles: autonomy, beneficence, non-maleficence, and justice.**
	C2	**Professional conduct: understanding ethical codes from dental associations.**
	C3	**Legal aspects: malpractice, negligence, and consent.**
	C4	

10. Teaching and Learning Strategies

1.	Theoretical lectures using slides on screens.	4.	E–learning

2.	Educational films and brief explanatory videos.	5.	Blackboards
3.	Student discussion groups.		

جامعة البيان

11. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	• What is meant by ethics? • Why are ethics important? • Evolution and philosophy of ethics • The terms moral and ethical • Obligation and principle	Professional Ethics Review	Data Show and Blackboard Show	Daily exam Oral questions and discussions
2	1	• Dental ethics, professionalism, human rights and law • What is a profession? • What is a professional? • What is professionalism? • Dentistry as a profession • Dentistry: the commercial picture • Dentistry: the normative picture • The content of professional obligations	Professional Ethics Review	Data Show and Blackboard Show	Daily exam Oral questions and discussions

3	1	• What is meant by best interests of our patients? • What is paternalism? • Is good risk management good ethics? • What about compromising quality?	Professional Ethics Review	Data Show showblack board and demonstration films	Daily exam Oral questions and discussions
4	1	• What are codes of ethics? • Should I care more about being legal or being ethical? • Do we really have obligations to patients? • Can dentistry be both a business and a profession?	Professional Ethics Review	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions
5	1	• What's special about Dentistry? • What's special about dental ethics? • Who decides what is ethical? • Does dental ethics change? • Does dental ethics differ from one country to another?	Principal features of dental ethics	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions

6	1	• The role of the FDI • How does the FDI decide what is ethical? • How do individuals decide what is ethical? • How do individuals decide what is ethical?	Principal features of dental ethics	Data Show and Blackboard Show	Daily exam Oral questions and discussions
7	1	• History and basic ethical theory • History of medical ethics Hammurabi's code of law • Hippocratic oath • Basic grounding of Ethics Humanities (universal standards) • Religious& nonreligious: Political& dogmatic strategies of the state	Ethical Law and Ethical Theories	Data Show and Blackboard Explanatory Films	Daily exam Oral questions and discussions
8	1	• Other groundings of ethics (theories of ethics): 1- Action theory: 2- Consequentiality theory: 3- Value theory (why theory): Ethics and the law • Sources of Ethical Views and Convictions	Ethical Law and Ethical Theories	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

9	1	1- Patient autonomy 2- Non-maleficence 3- Beneficence 4- Justice 5- Veracity	Fundamental Principles of dental ethics	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
10	1	Patient autonomy 2- Non-maleficence 3- Beneficence 4- Justice 5- Veracity	Fundamental Principles of dental ethics	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
11	1	• Duties and obligation of dentists in general	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
12	1	• Duties and obligation of dentists in general	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
13	1	• The Ideal Relationship between Dentist and Patient • Duties and obligation of dentists Toward their patients • The dentist-patient relationship	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
14	1	• Four models of the dentist-patient relationship • The Guild Model • The Agent Model	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

		• The Commercial Model • The Interactive Model			
15	1	• Duties and obligation of dentists Toward the public and the paramedical profession • The Relationship between • Dentistry and the Larger Community	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
16	1	• Duties of dental surgeons and specialists in consultations	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
17	1	• Responsibilities of dental surgeons to one another • Ideal Relationships between Co- professionals	Duties and obligation of dentists	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
18	1	• Ethical Issues in Dental Practice • Ethical Questions and Legal Questions • Choosing to Re Ethical Published Codes of Conduct and Ethics Committees 7- Child abuse	Ethical issues and challenges in dental practice	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

19	1	• Examples of ethical issues and Challenges 1- Access to dental care 2- Abuse of prescriptions by patients 3- Advertising 4- Emergency care 5- Financial arrangements 6- Disclosure and misrepresentation	Ethical issues and challenges in dental practice	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
20	1	8- Competence and judgment 9- Confidentiality 10- Dating patients 11- Delegation of duties 12- Digital communication and social media 13- Harassment 14- Consent	Ethical issues and challenges in dental practice	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
21	1	• Patients with Compromised Capacity • Treatment Decisions for Patients with Compromised Capacity • The Role of Parents and Legal Guardians	Ethical issues and challenges in dental practice	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

		• The Capacity for Autonomous Decision Making • Dealing with Patients with Partially			
22	1	• Conflict of interest • Personal interest versus patient interest • Public versus patient interest • Third-party interests • Professional versus business ethics	The impact of business on dentistry	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
23	1	• Importance of Dental Research • Research in Dental Practice	Ethics and dental research	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
24	1	• Ethical Requirements • Ethics Review Committee Approval	Ethics and dental research	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
25	1	• Scientific Merit • Social Value • Risks and Benefits	Ethics and dental research	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
26	1	• Informed Consent • Confidentiality • Conflict of Roles • Honest Reporting of Results	Ethics and dental research	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

27	1	• Who determines how a dentist should behave? • A local or a global standard of care? • Transparency of care, guidelines, and protocols. • Shared decision-making, evidence informed decision-making, and evidence-guided decision-making. • Individualization and the standard of care based on a long-term goal for dental treatment	The standard of care	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
28	1	• Difficult Professional-Ethical Judgments • A Model of Professional-Ethical Decision Making • Conflicting Professional Obligations Conflicts Between Professional and Other Obligations • Conscientious Disobedience of Professional Obligations	Ethical decision making and conflicting obligations	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

29	1	• The Central Values of Dental Practice • The Patient's Life and General Health • The Patient's Oral Health • The Patient's Autonomy • The Dentist's Preferred Patterns of Practice Aesthetic Values • Efficiency in the Use of Resources Ranking Dentistry's Central Values Thinking about the Case	studying a profession’s central values	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
30	1	• Does the duty to treat depend on a prior relationship between dentist and patient? • The duty to treat: Patients of record versus prior unknown patients. • Requested treatment and the duty to treat • Duty to treat and the characteristics of the patient who seeks help	The duty to treat	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions

		• Is a dentist obliged to accept a patient as a patient of record? • Terminating the relationship with a patient of record			

12. Course Evaluation

Distribution of the score out of 100 according to:

1st and 2nd semester	**15%**
Mid year exam	**15%**
Final exam	**60%**
TOTAL	**100%**

13. Learning & Teaching Resources

Required textbooks (curricular if any)	
Main References (sources)	**Ethics handbook for dentist, Dental ethics manual**
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	**Google scholar, Research gates, ORCID**

جامعة البيان

1. Course Title	**Clinical Endodontics & Clinical Fixed Prosthodontics**
2. Course Code	050508
3. Semester/Year	annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	weekly
6. No. of Hours (Total)	30 theoretical hours180 work hour
7. No. of Credits (Total)	8
8. Course Administrator Name	Assistant prof Mohammed Munther Abdulrazaq
9. E-mail	mohammad_monther@aliraqia.edu.iq

10. Course Objectives

Knowledge	**A1**	Training the student on how to examine and diagnose medical conditions
	A2	Giving important information and treatment steps
	A3	Giving instructions and following up on root filling operations
	A4	Giving instructions and following up on bridge and crown operations
Skills	**B1**	Description of the tools used to prepare canals for root fillings
	B2	Description of the tools used for steps to prepare teeth for crowns and bridges
	B3	Teaching the student how to use it and following up on it while working
	B4	
Values	**C1**	Solve problems
	C2	Able to drive
	C3	
	C4	

11. Teaching and Learning Strategies

1.	**Data show**	**4.**	**educational movies**
2.	**lecture**	**5.**	**occasional cameras**

3.	LCD	6.	

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	Introduction to Endodontic Diagnosis II. Patient History III. Clinical Examination IV. Diagnostic Tests V. Differential Diagnosis VI. Final Diagnosis VII. Treatment Planning VIII. Follow-Up and Re-evaluation	Endodontic diagnosis	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
2	1	Introduction to Pain Control in Endodontics II. Types of Pain in Endodontic Procedures III. Preoperative Pain Management IV. Local Anesthesia	Pain control in endodontics	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
3	1	introduction to Endodontic Radiography II. Importance of Radiography in Endodontics III. Types of Radiographic Techniques	Endodontic radiography	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
4	1		Working Length Determination	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
5	1	Introduction to Microbiology in Endodontics II. Role of Microorganisms in Dental Diseases	Microbiology	Theoretical lecture using the program power point	Short, semester, mid-year and final exams

		A. Pulpal infections B. Periapical infections III. Types of Microorganisms A. Bacteria 1. Anaerobic bacteria 2. Aerobic bacteria B. Fungi C. Viruses			
6	1	Introduction to Microbiology in Endodontics IV. Pathogenic Mechanisms A. Biofilm formation B. Virulence factors C. Host response to infection V. Diagnostic Techniques A. Culture methods B. Molecular techniques (e.g., PCR) C. Microscopy VI. Treatment Implications A. Antibiotic use B. Endodontic disinfection protocols C. Role of irrigation solutions	Microbiology	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
7	1	I. Introduction to Intracanal Instruments II. Types of Intracanal Instruments	Intracanal instruments (1)	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
8	1	I. Introduction to Rotary Endodontics II. Advantages of Rotary Endodontics III. Types of Rotary Instruments IV. Rotary Instrumentation Techniques	Intracanal instruments (2)	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
9	1	I. Introduction to Obturation A. Definition and purpose of obturation B. Importance in endodontic treatment success II. Objectives of Obturation A. Sealing the canal system B. Preventing reinfection C.	Obturation of Root Canal System (1)	Theoretical lecture using the program power point	Short, semester, mid-year and final exams

		Maintaining the integrity of the tooth structure III. Materials Used for Obturation			
10	1	IV. Obturation Techniques	Obturation of Root Canal System (2)	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
11	1	I. Introduction to Endodontic Emergencies A. Definition and significance B. Common types of endodontic emergencies II. Types of Endodontic Emergencies III. Pain Management	Endodontic Emergency treatment	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
12	1	I. Introduction to Restoration of Endodontically Treated Teeth II. Importance of Restoration III. Types of Restorative Options IV. Factors Influencing Restoration Choice V. Preparation for Restoration	Restoration of Endodontically Treated Teeth	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
13	1	I. Introduction to Endo-Periodontal Relations II. Anatomy and Physiology III. Pathological Interactions IV. Diagnosis of Endo-Periodontal Issues V. Treatment Considerations	Endodontic-Periodontal Relations	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
14	1	I. Introduction to Tooth Discoloration II. Causes of Tooth Discoloration	Tooth discoloration and bleaching	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
15	1	III. Types of Tooth Discoloration IV. Assessment of Tooth Discoloration V. Tooth Bleaching Methods	Tooth discoloration and bleaching.	Theoretical lecture using the program power point	Short, semester, mid-year and final exams

16	1	definition of fixed partial denture, Effect of Tooth Loss, Comparison with R.P.D	Terminology	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
17	1		Types of Fixed Bridge including Basic Bridge Design	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
18	1	Retainers.	Components of Fixed Bridge	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
19	1	Pontics Connectors.	Components of Fixed Bridge	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
20	1	Abutment Tooth(evaluation and selection) _Crown/Root Ratio. _Splinting of teeth. _Patient Occlusal Status. _General Factors.	Clinical Consideration for Bridge Construction.	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
21	1	(Post. Tilted Abutments, Span Length, Pier Abut., Arch curvature)	Clinical Situations affecting Bridge Design		
22	1		Resin bonded bridge		
23	1	a. Intra-oral Examination. b. X-Rays Examination. c. Diagnostic Cast Examination	Diagnosis And Treatment Plan.		
24	1		Gingival retraction and impression(techniques)and impression disinfection		
25	1		provisional Restoration , Occlusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
26	1		provisional Restoration, Occlusion and Aesthetics (Principles of occlusion occlusal plane, Anterior guidance) Bite Registration, and Articulation	Theoretical lecture using the program power point	Short, semester, mid-year and final exams

27	1		Try-in and Shade Selection (Colour dimensions Hue, Chroma, and Value).	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
28	1		Final Cementation of F.P.Ds. (Techniques)	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
29	1		Failure in Fixed Prosthodontics.	Theoretical lecture using the program power point	Short, semester, mid-year and final exams
30	1		Porcelain in Fixed Prosthodontics (Current Ceramic).	Theoretical lecture using the program power point	Short, semester, mid-year and final exams

13. 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.	
14. Learning & Teaching Resources	
Required textbooks (curricular if any)	• Cohens pathways of the pulp • Contemporary Fixed Prosthodontics • Rosentetiel.Land.Fugimoto
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	Electronic references, Internet sites

Clinical Requirements

Minimum Requirement	Hours
The students are required to complete the following restorations:- Amalgam Restorations .a Class I, Class II, Compound and complex restorations. Composite (tooth colored) Restorations .b Class I, Class II, Class III, Class IV, and Class V. Fixed prosthesis including crown and bridge work. .c Endodontic treatment for anterior teeth and premolars. .d Seminars .e	6h/wk
Total	**180 h/year**

جامعة البيان

Course Description (1)

15. Course Title	**Operative and esthetic dentistry & endodontics**
16. Course Code	**050402**
17. Semester/Year	annual
18. Description Preparation Date	2024-2025
19. Available Attendance Form	Lectures and Laboratory
20. No. of Hours (Total)	Theory: 30 hours Practical: 150 hours
21. No. of Credits (Total)	8
22. Course Administrator Name	Lecturer Hashim Mueen Hussein
23. E-mail	

24. Course Objectives

Knowledge		Preparing dental students scientifically and practically and qualifying them to deal with preparing the tooth and making fillings Simple and moderate under local anesthesia and training them on medical diagnosis and taking the patient's medical history and being accurate in doing so to protect themselves and their patients and teaching them to deal with emergency cases within their specialty. Fillings and root canal fillings
Skills		C- Thinking skills 1. Motivating the student through the method of expression, thinking, speed of communication and response 2. Urging the student to solve problems and possess distinctive thinking 3. The lecture depends on student interaction and brainstorming 4. Qualifying students to examine, diagnose and treat patients D- Other skills related to employability and personal development (general and transferable skills)
Values		1. Professional preparation and urging the student to have positive behavior in his public life 2. Teamwork 3. Planning and organization 4. Skill in identifying dental prosthetic devices

جامعة البيان

1. Course structure					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required educational outcomes**	**hours**	**the week**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Biologic Considerations	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	**1**	**1**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Biologic Considerations	Biologic Considerations of Enamel structure and its Clinical Significance in Practice of Operative Dentistry.	**1**	**2**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Biologic Considerations	Biologic Considerations of Dentin structure & its Clinical Significance in Operative Dentistry	**1**	**3**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Biologic Considerations	Biologic Considerations of Dentin structure & its Clinical Significance in Operative Dentistry	**1**	**4**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Patient Evaluation	Patient Evaluation, Diagnosis & Treatment Planning	**1**	**5**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Caries Management	Caries Management (Diagnosis & treatment strategies)	**1**	**6**
Daily examinations and evaluations	**Data show White board**	Cervical Lesions	Cervical Lesions(carious and non-carious lesions)	**1**	**7**

on treatment of patients					
Daily examinations and evaluations on treatment of patients	**Data show White board**	Restorative Dentistry and Pulpal Health	Restorative Dentistry and Pulpal Health	**1**	**8**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Management of Deep Seated Caries	Management of Deep Seated Caries	**1**	**9**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Inflammatory Conditions of the Pulp	Inflammatory Conditions of the Pulp	**1**	**10**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Treatment of Deep Seated Caries	Treatment of Deep Seated CariesSimplified anatomical modeling.	**1**	**11**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Fluoride – Releasing Materials	Fluoride – Releasing Materials	**1**	**12**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Indirect aesthetic adhesive restorations	Indirect aesthetic adhesive restorations Inlays and Onlays (materials, techniques) CAD/CAM Technology.	**1**	**13**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Direct tooth-colored restorations	Direct tooth-colored restorations (Composite)	**1**	**14**
Daily examinations	**Data show**	Dental Laser	Dental Laser	**1**	**15**

and evaluations on treatment of patients	**White board**				
Daily examinations and evaluations on treatment of patients	**Data show White board**	Application of Laser in Conservative Dentistry.	Application of Laser in Conservative Dentistry.	**1**	**16**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Application of Laser in Conservative Dentistry.	Application of Laser in Conservative Dentistry.	**1**	**17**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Indirect tooth-colored restorations	Indirect tooth-colored restorations	**1**	**18**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Techniques of posterior composite	Techniques of posterior composite Inlay/Onlay restoration system Laboratory-processed composite inlays and onlays.	**1**	**19**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Ceramic veneers	Ceramic veneers, inlays and onlays, clinical procedures.	**1**	**20**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Ceramic veneers	Ceramic veneers, inlays and onlays, clinical procedures.	**1**	**21**
Daily examinations and evaluations on treatment of patients	**Data show White board**	CAD/CAM techniques	CAD/CAM techniques	**1**	**22**

جامعة البيان

Endodontics					
Daily examinations and evaluations on treatment of patients	**Data show White board**	Topics Covered	Topics Covered	**1**	**23**
Daily examinations and evaluations on treatment of patients	**Data show White board**	1-Objective of endodontic treatment	1-Objective of endodontic treatment	**1**	**24**
Daily examinations and evaluations on treatment of patients	**Data show White board**	2- Basic Phases of Treatment	2- Basic Phases of Treatment	**1**	**25**
Daily examinations and evaluations on treatment of patients	**Data show White board**	3- Pulp pathologies	3- Pulp pathologies	**1**	**26**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Classification of periapical diseases	Classification of periapical diseases	**1**	**27**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Access Opening Preparation	Access Opening Preparation	**1**	**28**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Endodontic Instruments	Endodontic Instruments	**1**	**29**
Daily examinations	**Data show**	Roentgenography in Endodontics	Roentgenography in Endodontics and Root canal preparation	**1**	**30**

and evaluations on treatment of patients	**White board**				

2. 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.

Number	**Assessment measurement**	**Scoredistribution Operative**	**Score distribution Preclinical Endodontics**
1	Clinical Requirements 25%	19%	6%
2	Mid year examination (25%)	15%	10%
3	Final examination (50%) 5% theory 25% clinical	30%	20%
Total	**100%**	64%	36%

3. Learning and teaching resources

Art and science of operative dentistry	**Required textbooks (methodology, if any)**
Pathway of the pulp	**Main references (sources)**
View recent research	**Recommended supporting books and references (scientific journals, reports....)**
Google scholar, research gate	**Electronic references, Internet sites**

جامعة البيان

Course Description (1)

25. Course Title	**Preclinical Operative dentistry**
26. Course Code	050303
27. Semester/Year	Annual
28. Description Preparation Date	2024/2025
29. Available Attendance Form	Lectures + laboratories
30. No. of Hours (Total)	30 hours (theoretical) + 60 hours (practical)
31. No. of Credits (Total)	4
32. Course Administrator Name	zainab tariq abdulkadhim
33. E-mail	zainab.tariq@albayan.edu.iq

34. Course Objectives: Developing the manual skills of primary studies students in the third stage for the period before they enter clinical work in clinics on solid scientific foundations, acquiring more skills, knowledge and learning, and making them capable of dealing with complex clinical cases of dental fillings and treating them with the latest scientific methods

Knowledge	A1	Gaining experience and information that will help him identify the disea and know its causes
	A2	Developing motivational interviewing skills to encourage patients to ta preventive measures.
	A3	Increasing students' knowledge of methods for examining teeth a detecting caries and gingivitis
	A4	Learn how to assess patients' risks of dental disease based on factors su as oral hygiene, dietary habits, tobacco use, and chronic diseases.

Skills	B1	Acquire skills in conducting clinical dental examinations for early detecti of tooth decay.
	B2	Developing motivational interviewing skills to encourage patients to ta preventive measures .
	B3	Identify the indications and techniques for applying fluoride treatments strengthen tooth enamel and prevent caries
	B4	
Values	C1	Professional preparation and encouraging the student to have posit behavior in his public life
	C2	Scientific preparation and urging the student to communicate in other fie of science
	C3	Cultural preparation and refining the student's personality
	C4	Utilizing the acquired skills so that the student becomes a dentist capable treating patients

35. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	E-learning
2.	Educational films	5.	Smart boards
3.	Display screens	6.	

جامعة البيان

36. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	- Indication of operative procedure. - Definition of tooth preparation. - Objectives of tooth preparation. - Caries terminology. - Abbreviated descriptions of tooth preparations. - Tooth preparation walls and angles.	**Definition of operative dentistry**	A theoretical lecture using Power Point	Short, semester, mid-yea and final exams
2	1	- Classification of tooth preparations. - Cavity preparation according to G.V. Black principles.	**Definition of operative dentistry**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
3	1	- Hand instruments. - Cutting instruments. - Instrument formula given by G.V. Black. - Examples of the cutting instruments.	**Instruments and general instrumentation of cavity preparation**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

4	1	- Hand instrument grasping. - Non cutting instruments. - Diagnostic instruments. - Plastic instruments. - Amalgam instruments. - Rotary instruments and burs.	**Instruments and general instrumentation of cavity preparation**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
5	1	- Disinfection and antisepsis. - Accepted Methods of sterilizations. - New methods of sterilizations.	**Sterilization of operational instruments**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
6	1	- Liquid sterilants. - Vaccines for dental health care workers. - Use and care of sharp instruments and needles. - Cleaning and disinfection of dental unit and environmental surfaces. - Disposal of waste materials.	**Sterilization of operational instruments**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
7	1	- Outline form. - Retention. - Resistance.	**Amalgam cavity preparation for class I**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		- Class I cavity of buccal pit of lower 1st molars.			
8	1	- Class I cavity of palatal pit of upper incisors. - Class I cavity of upper molars. - Class I cavity of lower 1st premolar.	**Amalgam cavity preparation for class I**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
9	1	- Outline form and initial depth. - Resistance form. - Factors prevent fracture of the tooth.	**Amalgam cavity preparation for class II**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
10	1	- Preventing fracture of restoration. - Retention form. - Convenience form.	**Amalgam cavity preparation for class II**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
11	1	- Occlusal outline form.	**Amalgam cavity preparation for class II (MOD)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
12	1	- Proximal outline form. - Proximal depth preparation.	**Amalgam cavity preparation for class II (MOD)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
13	1	- Indication and contra indication for cl III preparation.	**Amalgam cavity preparation for class III and class V**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		- Advantages and disadvantages for cl III preparation. - Tooth preparation for cl III cavity preparations.			
14	1	- Indication for cl V preparations. - Isolation. - Retention and resistance. - Position of retentive means.	**Amalgam cavity preparation for class III and class V**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
15	1	- Liners and bases definitions. - Reasons for use of base and lining materials. - The ideal lining material properties. - Function of liners. - Function of bases. - Types of cement materials. - Zinc phosphate cement.	**Cavity liners and cement bas (part 1)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
16	1	- Zinc oxide-eugenol cement. - Zinc polycarboxylate cement.	**Cavity liners and cement bas (part 1)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
17	1	- Glass ionomer cement. - Classification of GIC cemrnts.	**Cavity liners and cement bas (part 2)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		- Resin cements.			
18	1	- Cavity liners \ types. - General clinical consideration. - Classification of the cavities according to their proximity from the pulp.	**Cavity liners and cement bas (part 2)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
19	1	- Composition of conventional amalgam alloy. - Classification of the types of amalgam. - Setting reaction (amalgamation process). - Advantages and disadvantages of amalgam. - Amalgam mixing.	**Dental amalgam alloy (material)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
20	1	- Amalgam condensation. - Amalgam carving. - Matrix for amalgam cavities. - Wedge. - Finishing and polishing of amalgam fillings.	**Dental amalgam alloy (material)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

21	1	- Indication and contraindications. - Resistance and retention form. - Secondary retention means. - Pin retained amalgam restorations. - Types of pins. - Factors affecting the retention of pin in dentin and amalgam. - Pin placement techniques.	**Complex amalgam restorati**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
22	1	- Pinhole preparation. - Pin design. - Possible problems with pins.	**Complex amalgam restorati**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
23	1	- Secondary caries. - Isthmus fractures or marginal ridge fracture of restoration.	**Failures in amalgam restorations**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
24	1	- Tooth fracture. - Improper marginal adaptation and marginal fracture. - Other reasons.	**Failures in amalgam restorations**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
25	1	- Indications and contraindications.	**Tooth colored restorations (composite)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		- Advantages and disadvantages. - Composition.			
26	1	- Classification of composite. - Conventional. - Micro-filled. - Hybrid. - Nano-fill. - Reinforced. - Classification of composite according to the method of activation.	**Tooth colored restorations (composite)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
27	1	- Cl III tooth preparation for composite restoration. - Conventional cl III. - Beveled conventional cl III. - Modified cl III.	**Cavity preparation for anter restorations**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
28	1	- Class IV tooth preparation for composite. - Cl V tooth preparation for composite. - Beveled conventional and modified cl V. - Restorative techniques.	**Cavity preparation for anter restorations**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

29	1	- Polymerization of resin composite. - Factors affecting polymerization shrinkage stress. - Acid etch. - Enamel etching. - Dentin etching. - Adhesion to dentin.	**Resin material**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
30	1	- Current strategies for Adhesion of Resin to Dentin. - Adhesive strategies – principles and generations.	**Resin material**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

37. Course Evaluation

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

Grade distribution	Evaluation methods
theoretical 3% Clinical 22%	First semester + second semester 25%
Theoretical 15%	half year 15%
%40 Theoretical Clinical 20%	Final exam 60%
Theoretical %50 Clinical 50%	**100%**

38. Learning & Teaching Resources

Required textbooks (curricular if any)	**Walmsleyetal , fundamental in operative dentistry**
Main References (sources)	1. Summitt's fundamentals of operative dentistry: A contemporary approach. 4th edition . 2.Art and science of operative dentistry 7th edition
Recommended Books & References (Scientific Journals, Reports …)	Working on ghost laboratory heads
Websites or Electronic References	**Google scholar**

جامعة البيان

Course Description (1)

1. Course Title	**Preclinical fixed prosthodontics**
2. Course Code	050304
3. Semester/Year	Annual
4. Description Preparation Date	2024/2025
5. Available Attendance Form	Lectures + laboratories
6. No. of Hours (Total)	30 hours (theoretical) + 60 hours (practical)
7. No. of Credits (Total)	4
8. Course Administrator Name	Shatha saadallah alani
9. E-mail	Shatha.s@albayan.edu.iq

10. Course Objectives: Developing the manual skills of primary studies students in the third stage for the period before they enter clinical work in clinics on solid scientific foundations, acquiring more skills, knowledge and learning, and making them capable of dealing with complex clinical cases of crown and bridge and treating them with the latest scientific methods

Knowledge	A1	Gaining experience and information that will help him identify the disea and know its causes
	A2	Developing motivational interviewing skills to encourage patients to ta preventive measures.
	A3	Increasing students' knowledge of methods for examining teeth a detecting caries and gingivitis
	A4	Learn how to assess patients' risks of dental disease based on factors su as oral hygiene, dietary habits, tobacco use, and chronic diseases.
Skills	B1	Acquire skills in conducting clinical dental examinations for crown a bridge.
	B2	Developing motivational interviewing skills to encourage patients to ta preventive measures .

	B3	
	B4	
Values	C1	Professional preparation and encouraging the student to have posit behavior in his public life
	C2	Scientific preparation and urging the student to communicate in other fie of science
	C3	Cultural preparation and refining the student's personality
	C4	Utilizing the acquired skills so that the student becomes a dentist capable treating patients

11. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	E-learning
2.	Educational films	5.	Smart boards
3.	Display screens	6.	

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	-Introduction to Fixed Prosthodontics.	**Crown and Bridge Definitions:**	A theoretical lecture using Power Point	Short, semester, mid-year and final exams
2	1	Types of crowns Purposes of crown construction.	**Crown and Bridge Definitions: (continued)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
3	1	-Steps in crown construction. -Components of bridge**.**	**Crown and Bridge Definitions: (continued)**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
4	1	*Preservation of sound tooth *Retention and *resistance form	**Biomechanical principles of tooth preparation:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
5	1	. *Marginal integrity.	**Biomechanical principles of tooth preparation:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
6	1	*Structural durability	**Biomechanical principles of tooth preparation:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
7	1	Indications, contra - indications, advantages, disadvantages,	**Full metal crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

8	1	steps of preparation	**Full metal crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
9	1	Indications, contra - indications, advantages, disadvantages,	**Porcelain fused to metal crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
10	1	steps of preparation	**Porcelain fused to metal crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
11	1	Indications, contra - indications, advantages, disadvantages,	**Complete ceramic crown (Porcelain Jacket Crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
12	1	steps of preparation	**Complete ceramic crown (Porcelain Jacket Crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
13	1	Indications, contra - indications, advantages, disadvantages,	**Partial veneer crown (thr -quarter crown):**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
14	1	steps of preparation	**Partial veneer crown (thr -quarter crown):**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
15	1	Indications, contra - indications	**Post crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
16	1	factors to be considered in the assessment of tooth for post	**Post crown:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
17	1	Definition Requirements of an acceptable impression Requirements of an impression material-	**Impression for crown and bridge work:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		Classification of impression material Non-elastic impression materials Elastic impression materials			
18	1	Final impression Advantages of the study cast Advantages of the special tray	**Impression for crown and bridge work:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
19	1	Gingival retraction	**Impression for crown and bridge work:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
20	1	Definition, objectives, types(prefabricated, custom -made, and laboratory -made	**Provisional restoration:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
21	1	Definition Requirements of good working cast Inter-occlusal Record (Bite Registration)	**Working cast and dies:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
22	1	Die Definition - Requirements of the die	**Working cast and dies:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
23	1	Waxing and Spruing Requirements of good inlay casting wax Steps in waxing procedure Sprue -Dimensions and location of the sprue Crucible Former	**Waxing.**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
24	1	Investment Definition Investment materials	**Investing.**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
25	1	Burnout & Casting	**Casting.**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
26	1	Cleaning of the cast restoration Sandblast Sandblast Advantage Clinical Try in Types of Marginal Defects	**Finishing of the casting Clinical try -in.**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

		- polishing			
27	1	Types of cements used for cementation of crown restoration	**Cementation:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
28	1	Techniques of cementation	**Cementation:**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
29	1	- Introduction	**CAD /CAM Technology for crown construction**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams
30	1	- Technique	**CAD /CAM Technology fo crown construction**	A theoretical lecture using Power Point	Short, semester, mid-y and final exams

13. Course Evaluation

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

Grade distribution	Evaluation methods
theoretical 3% Clinical 22%	First semester + second semester 25%
Theoretical 15%	half year 15%
%40 Theoretical Clinical 20%	Final exam 60%
Theoretical %50 Clinical 50%	**100%**

14. Learning & Teaching Resources

Required textbooks (curricular if any)	Fundamentals of fixed prosthodontic, 2012.
Main References (sources)	Contemporary fixed prosthodontic, 2016.
Recommended Books & References (Scientific Journals, Reports …)	Working on ghost laboratory heads
Websites or Electronic References	**Google scholar**

جامعة البيان

Course Description (1)

1. Course Title	**Preventive Dentistry**
2. Course Code	**050506**
3. Semester/Year	**year**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures and Clinic**
6. No. of Hours (Total)	**30 hours lectures,37.5 clinical**
7. No. of Credits (Total)	**3.25**
8. Course Administrator Name	**Prof. Dr. Athraa Mustafa Salih**
9. E-mail	**Athraa.mu@albayan.edu.iq**

10. Course Objectives

Knowledge	**A1**	Gaining experience and information that will help him identify the disease and know causes
	A2	Develop motivational interviewing skills to encourage patients to take preven measures.
	A3	Increasing students' knowledge of methods for examining teeth and detecting caries a gingivitis
	A4	Learn how to assess patients' risks of dental disease based on factors such as c hygiene, dietary habits, tobacco use, and chronic diseases.
Skills	**B1**	Acquire skills in conducting clinical dental examinations for early detection of to decay.
	B2	Develop motivational interviewing skills to encourage patients to take prevent measures.
	B3	Identify the indications and techniques for applying fluoride treatments to strengthen tooth enamel and prevent tooth decay thinking skills
	B4	Qualifying students to examine, diagnose and treat patients, including children a the elderly

Values	C1	Motivating the student through the style of expression and thinking and the spe of communication and response
	C2	Urging the student to solve problems and possess distinctive thinking
	C3	The lecture depends on student interaction and brainstorming
	C4	The student will be able to create a preventive program for patients

11. Teaching and Learning Strategies

1.	Lectures using Data show and power point.	4.	Electronic education
2.	Educational films	5.	Smart probes
3.	Monitors	6.	Practical application in the clinic

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**Topic/Subject Name**	**RLOs**	**Learning Method**	**Evaluation Method**
1	**1**	Preventive dentistry (introduction)	Introduction to preventive Dentis and its level of prevention	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
2	**1**	Dental Caries development	Caries initiation ,appearance dental tissues	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
3	**1**	Fluoride in Dentistry	Fluoride in environment,fluor metabolism	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
4	**1**	Systemic fluoridation (history)	Types of systemic fluoride , ,milk a salt fluoridation	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
5	**1**	Communal water fluoridation	Natural fluoridation and fluorc index	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
6	**1**	Fluoride supplements	Fluoride tablets	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
7	**1**	Topical fluoridation	mechanisms of topical fluoridatic ,application	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
8	**1**	Self applied fluoride	Self care ,fluorida toothpaste,mouth wash	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
9	**1**	Professionally applied fluoride	Types of topical fluoridation, ,in oral appliances	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
10	**1**	Toxicity of fluoride	Chronic toxicity,Acute toxicity a managements of acute toxicity	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
11	**1**	Microbiology of caries	Oral bacteriology plaque formatic	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
12	**1**	Cariogenic potential of bacteria	Streptococcus mutans , lactobacill	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
13	**1**	Fissure sealants	History of fissure sealants,types a application ,and fellow up	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam

14	1	New approach in restorative dentis	Minimal invasive Dentistry,Icon	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
15	1	Diet and dental caries	Definition of diet a nutrition,carbohydrates types a effect on dental caries,Stephan cu	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
16	1	Non- sugar sweeteners	Bulk sweeteners and types sweeteners	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
17	1	Dietary counseling in dental practi	Types and objectives	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
18	1	Nutrition and oral health	Effect of vitamins ,proteins a nutrition on teeth development a eruption	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
19	1	Nutrition, diet & periodontal disea	Vit C and vit D effect on gingivitis a periodontitis	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
20	1	Saliva and dental caries	Salivary function ,Buffering Capac ,flow rate and pH	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
21	1	Oral immune system	Passive immunity ,cellular immur and vaccination	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
22	1	Oral hygiene measures(Mechanica	Brushing techniques ,Dental floss and other dental care auxiliary	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
23	1	Oral hygiene measures (Chemical)	Therapeutic toothpaste, Mouth wash indication ,C Triclosan	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
24	1	Diagnosis of caries	Methods of diagnosis, visual tac ,radiography	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
25	1	Identification of high risk group	Objectives, age grou ,socioeconomic risk factors	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
26	1	Dental health of disabled and medically compromised patier	Types of physical disable, syster diseases, preventive programs	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
27	1	Geriatric dentistry	Definition ,effect of aging on der hard and soft tissues ,prevent programs	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam

28	**1**	Health education and motivation	Objectives Dental health education programs	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
29	**1**	Uses of LASER in dentistry	Mechanism of Laser ,Types of las effect on dental hard and soft tiss	Theoretical lectures using power point	Quizzes ,Monthly exam ,r and final exam
30	**1**	Prevention of peri-implantitis	Types of implants , prevent methods	Theoretical lectures using power point	

13. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.

Theoretical 10 clinical 15%	First Semester + Second Semester 25%
Theoretical 15%	Half Year 15%
Theoretical 40% Clinical 20%	Final Exam 60%
Theoretical 65% %Clinical 35	**100%**

14. Learning & Teaching Resources

Required textbooks (curricular if any)	-Primary Preventive Dentistry by Harris NO Garcia-GodoyF-NatheCN 8th Ed 2014 .
Main References (sources)	-Comprehensive preventive dentistry (2012) Edited by Hardy Limeback -Caries Management—Science and Clinical Practic Hendrik Meyer-Lueckel,Sebastian Paris,Kim R. Ekstrand, 2013 Georg Thieme Verlag KG Stuttgart,Germany
Recommended Books & References (Scientific Journals, Reports …)	-Textbook of geriatric dentistry, Third editionEdite byPoul Holm-Pedersen, Angus W. G. Walls, Jonath A. Ship, 2015 by JohnWiley & Sons Ltd. -Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

39. Course Title	**Pediatric Dentistry**
40. Course Code	**050505**
41. Semester/Year	**Annual**
42. Description Preparation Date	**2024-2025**
43. Available Attendance Form	**Lectures & Clinics**
44. No. of Hours (Total)	**30 hours theoretical + 37.5 hours practical**
45. No. of Credits (Total)	**3.25**
46. Course Administrator Name	**Mafaz Mahdi Mohsin**
47. E-mail	**mafaz.mahdi@albayan.edu.iq**

48. Course Objectives

Knowledge	A1	Preparing dental students to keep children's oral and dental health.
	A2	Focus on the treatment and prevention of milk and permanent teeth decay in children.
	A3	Maintain the distance and arrangement of teeth in the jaw.
	A4	Preparing dental students to keep children's oral and dental health.
Skills	B1	Gain experience and information that help him identify the disease and find out its causes
	B2	Develop motivational interviewing skills to encourage patients to take preventive measures.
	B3	Increasing students' knowledge of dental examination methods and detecting caries and gingivitis
	B4	Learn how to assess patients' risk of dental disease based on factors such as oral hygiene, dietary habits and chronic diseases.
Values	C1	Acquire skills in conducting clinical and periodic dental examinations for the early detection of dental problems.
	C2	Develop motivational interviewing skills to encourage patients and their families to take the necessary measures to treat their children's teeth and prevent the exacerbation of existing problems.
	C3	Acquire skills in conducting clinical and periodic dental examinations for the early detection of dental problems.

	C4	**Develop motivational interviewing skills to encourage patients and their families to take the necessary measures to treat their children's teeth and prevent the exacerbation of existing problems.**

49. Teaching and Learning Strategies

1.	Preparing a professional and urging the student to positive behavior in his public life	4.	Employing the acquired skills in order for the student to become a dentist capable of treating patients
2.	Preparing scientific and urging the student to communicate in other fields of science	5.	Employing the acquired skills in order for the student to become a dentist capable of treating patients
3.	Cultural preparation and refinement of the student's personality	6.	Develop motivational interviewing skills to encourage patients and their families to take the necessary measures to treat their children's teeth and prevent the exacerbation of existing problems.

جامعة البيان

50. The Structure of the Course					
Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	• Diagnosis and treatment planning	**Diagnosis and examination**	Data Show and Blackboard Show	Daily exam Oral questions and discussions
2	1	• Preliminary medical and dental History. • Clinical examination • Art and science of behavior management	**Diagnose and examination**	Data Show and Blackboard Show	Daily exam Oral questions and discussions
3	1	• Child development. • Major area of development. • Variables influencing children's dental behaviors • classification of children's behavior	**Non pharmalogical behavior management**	Data Show showblack board and demonstration films	Daily exam Oral questions and discussions
4	1	• Non pharmacologic management of patient behavior • Purpose • Classifying children	**Non pharmalogical behavior management**	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions

		• communication methods			
5	1	• management of traumatic injuries to the teeth and supporting tissues of children. • Trauma to the face.	**traumatic injuries**	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions
6	1	• classification of injuries to the anterior teeth of children methods of clinical examination	**traumatic injuries**	Data Show and Blackboard Show	Daily exam Oral questions and discussions
7	1	• Traumatic injuries of the primary teeth and its effect on permanent teeth	**Traumatic injuries**	Data Show and Blackboard Explanatory Films	Daily exam Oral questions and discussions
8	1	• Treatment of injury of permanent teeth, emergency treatment, temporary restoration of fractured teeth	**Traumatic injuries**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

9	1	• Management of space problems. • planning for space maintenance. • loss of primary incisors	**Space maintainer**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
10	1	• Space Maintenance for the First and Second Primary Molar and the Primary Canine Area. • premature loss of second primary molar	**Space maintainer**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
11	1	• Loss of the Second Primary Molar Before Eruption of the First Permanent Molar. • Areas of Multiple Primary Molar Loss	**Space maintainer**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
12	1	• Development of dental arch and occlusion; deciduous phase, mixed dentition phase.	**Space maintainer**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
13	1	• Arch length analysis; Nance analysis.	**Empowering students how permanent teeth emerge in the right places**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

		• Moyers mixed dentition analysis. • Tanaka and Johnston analysis • Bolton analysis.			
14	1	• Enable students to know how to control pain and use anesthesia during treatment • Local anesthesia and pain control for children	**local anesthesia**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
15	1	• Anesthetizing mandibular and maxillary teeth and soft tissue	**local anesthesia**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
16	1	• Complications after a local anesthetic	**local anesthesia**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
17	1	• Oral surgery for children, Extraction of primary teeth	**E xtracting milk teeth early**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

18	1	• Infection manifestation and management	**Infection control**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
19	1	• Introduction simple gingivitis • eruption gingivitis • acute gingival disease • herpes simplex viral infection.	**Gingivitis and periodontal disease in children**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
20	1	• Acute candidacies (thrush) • Acute bacterial infection • chronic nonspecific gingivitis • gingival diseases modified by systemic factors.	**Gingivitis and periodontal disease in children**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
21	1	• Gingival lesions of genetic origin • ascorbic acid deficiency gingivitis.	**Gingivitis and periodontal disease in children**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
22	1	• Papillon – Lefevere syndrome • gingival recession	**Gingivitis and periodontal disease in children**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

		• extrinsic stains and deposits on teeth			
23	1	• Dental problems of the disabled child • first dental visit • Radiographic examination • Preventive dentistry • Management of a child with special care needs during dental treatment	**Dental Problems of Children with Special Health Care Needs**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
24	1	• Treatment immobilization • Intellectual disability • Down syndrome • Learning disability	**Dental Problems of Children with Special Health Care Needs.**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
25	1	• Fragile X syndrome • Cerebral palsy • autism,	**Dental Problems of Children with Special Health Care Needs**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
26	1	• Respiratory diseases • hearing loss • visual impairment • epilepsy	**Dental Problems of Children with Special Health Care Needs**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

27	1	• Heart disease • Hemophilia • sickle cell anemia • viral hepatitis • AIDS • systemic diseases	**Dental Problems of Children with Special Health Care Needs**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
28	1	• Dental problems of the disabled child • first dental visit • Radiographic examination • Preventive dentistry • Management of a child with special care needs during dental treatment.	**Dental Problems of Children with Special Health Care Needs**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions
29	1	• Definition of Pharmacologic management of patient behavior • Degree of sedation • Indications for pharmaclogical behavior management technique	**Pharmacologic management of patient behavior**	Data Show and + Blackboard Explanatory Films	Daily exam Oral questions and discussions

		• Pretreatment documentation and assessment • Sedation in pediatric dentistry			
30	1	• Conscious sedation • Routes of drug administration: Enteral sedation, Rectal route, Intra muscular route, Intravenous route, Inhalation. • Drugs and agents used for sedation • nitrous oxide general anesthesia.	**Pharmacologic management of patient behavior**	,Data Show show blackboard and demonstration films	Daily exam Oral questions and discussions

51. Course Evaluation
Distribution of the score out of 100 according to: • Daily and quarterly exams for theoretical subject • Treatment of pediatric patients • Mid-Year Exam • Final exam

52. Learning & Teaching Resources	
Required textbooks (curricular if any)	McDONALD AND AVERY'S DENTISTRY for CHILD and ADOLESCENT 2022 by ElsevierText book of pediatric dentistry Nikhil Marwa 2nd ed. 2019 New Delh
Main References (sources)	McDONALD AND AVERY'S DENTISTRY for CHILD and ADOLESCENT 2022 by ElsevierText book of pediatric dentistry Nikhil Marwa 2nd ed. 2019 New Delh
Recommended Books & References (Scientific Journals, Reports …)	Read recent research in global journals
Websites or Electronic References	Google scholar, Research gates, ORCID

جامعة البيان

Course Description (1)

53. Course Title	**Pediatric Dentistry**
54. Course Code	**050409**
55. Semester/Year	annual
56. Description Preparation Date	2024-2025
57. Available Attendance Form	Lectures
58. No. of Hours (Total)	Theory: 30 hours
59. No. of Credits (Total)	2
60. Course Administrator Name	Assistant lecturer serar nassir mahmood
61. E-mail	Serar.n@albayan.edu.iq

62. Course Objectives

Knowledge		**Understand and assimilate theoretical and practical methods for treating all cases of infection of children's teeth and learn about scientific methods and methods supported using explanations to know how to determine brown and permanent teeth and the problems related to them.**
Skills		**Learning Outcomes:** **A- Knowledge and understanding** **1- Enabling students to acquire and understand the subject of pharmacology.** **2- Enabling students to dispense medications in the correct scientific manner for various diseases and conditions after they are diagnosed.** **3- Enabling students to possess self-learning skills to acquire information, skills, and practices related to medicines.** **4- Enabling students to know drug interactions and side effects of drugs.** **B - Subject-specific skills** **1 - Asking brainstorming questions through which the student can link the study materials together and link them to the medical and health reality.** **2- Developing motivational interviewing skills to encourage patients to take preventive measures and adhere to treatment and its instructions.** **C- Thinking skills**

		1- Motivating the student through the style of expression and thinking and the speed of communication and response **2- Urging the student to solve problems and possess distinctive thinking** **3- The lecture depends on student interaction and brainstorming** **3- Discussing various medical conditions and finding appropriate treatments for them.** **D - General and transferable skills (other skills related to employability and personal development)** **1- Professional preparation and encouraging the student to have positive behavior in his public life** **2- Scientific preparation and urging the student to communicate in other fields of science** **3- Cultural preparation and refining the student's personality** **4- Utilizing the acquired skills so that the student becomes a dentist capable of treating patients** **Teaching and learning methods** **1. Lectures using data showing and PowerPoint** **2. Educational films** **3. Display screens** **4. E-learning** **5. Blackboards** **6. Student discussion groups.** **1. Lectures using data showing and PowerPoint** **2. Educational films** **3. Display screens** **4. E-learning** **5. Blackboards** • **6. Student discussion groups.**

جامعة البيان

63. Course structure					
Week	Hours	Subject name	The outcomes of learning	Learning method (hours)	Week
Daily exam	Data show White board	Eruption of teeth, normal eruption process	Recognizing tooth eruption, a natural eruption process	1	1
Daily exam	Data show White board	Teething & difficult eruption	Identifying teething and its difficulties in children	1	2
Oral exam + discussion sessions	Data show White board	Eruption haematoma, sequestrum ,ectopic eruption	Hematoma eruption, entrapment, external eruption	1	3
Daily oral exam	Data show White board	Epstein pearls, Bohn nodules, Dental lamina cysts, Shedding of the primary teeth, Mechanism of resorption, and shedding Factors cause differences in time of eruption	Epstein pearls, Bohn's nodules, lamina cysts, loss of primary teeth, resorption mechanism, and shedding factors cause differences in eruption time.	1	4
oral test	Data show White board	Systemic (disease) factors that cause late eruption deciduous dentition period, ugly duckling stage	Systemic factors (disease) that cause the appearance of late baby teeth, the ugly duckling stage	1	5
oral test	Data show White board	Morphology of the primary teeth	Morphology of primary teeth	1	6
oral test	Data show White board	Normal morphology of all primary teeth and their clinical consideration	Recognize the normal morphology of all primary teeth and their clinical considerations	1	7
Discussion panels	Data show White board	Morphological differences	Recognize the morphological	1	8

		between primary and permanent teeth	differences between primary and permanent teeth		
Daily exam	Data show White board	Functions of primary teeth	Identify the functions of baby teeth	1	9
Daily exam	Data show White board	Dental caries; Definition and Classification	Definition of tooth decay; Definition and classification	1	10
Daily exam	Data show White board	Rampant dental caries, Early childhood caries	Identifying rampant tooth decay and early tooth decay in children	1	11
Daily exam	Data show White board	Restorative dentistry for children Isolation & maintenance of dry field and application of the rubber Dam	Learn about pediatric restorative dentistry Dry field isolation and maintenance and rubber dam application	1	12
Daily exam	Data show White board	Morphological consideration, cavity preparation, and instrumentation	Learn about morphological consideration, cavity preparation, and the tools used	1	13
Daily exam	Data show White board	Restorative materials used on pediatric dentistry	Restorative materials used in pediatric dentistry	1	14
Daily exam	Data show White board	Matrices & retainers	Arrays and folders	1	15
a report	Data show White board	Chrome steel crowns, ART	Chrome steel crowns, ART	1	16
Homework	Data show White board	Treatment of deep caries	Learn how to treat deep caries	1	17
Daily exam	Data show White board	Indirect pulp treatment	Learn how to treat indirect pulp	1	18
Daily exam	Data show Whiteboard	Vital pulp therapy pulpotomy	Vital pulp therapy	1	19

oral test	Data show White board	Non-vital pulp therapy technique	Learn how to treat non-vital pulp	1	20
Discussion groups	Data show White board	Reaction of pulp to various capping materials	Interaction of the pulp with various sealing materials	1	21
Daily exam	Data show White board	Local anesthesia and pain control for children	Local anesthesia and pain control in children	1	22
oral test	Data show White board	Anesthetizing mandibular and maxillary teeth and soft tissue	Anesthesia of the mandibular and maxillary teeth and soft tissues		
oral test	Data show White board	complications after a local anesthetic	Complications after local anesthesia	1	23
Discussion panels	Data show White board	supplemental injection techniques	Supplemental injection techniques	1	24
Homework	Data show White board	Oral surgery for children, indication and contraindications for extraction of primary teeth	Oral surgery for children, indications and contraindications for primary tooth extraction	1	25
Homework	Data show White board	technique for extraction of primary teeth	Extraction technique for complications of primary tooth extraction	1	26
a report	Data show White board	extraction complications	Primary tooth extraction technique	1	27
oral test	Data show White board	postoperative extraction complications, radiographic survey of teeth extracted	Postoperative extraction complications, radiographic scanning of extracted teeth	1	28
Oral exam + discussion groups	Data show White board	Infections manifestation and management	Manifestations of infection and their management	1	29
1. Assessment Curriculum					

1. Course evaluation **1. Daily exams for theoretical subjects** **2.Oral questions** **4. Mid-year exam** **5. Final exam**	
First semester + second semester	**15%**
Mid-year examination Theoretical	**15%**
Final exam Theoretical	**60%**
Total	**100%**
2. Learning and teaching resources	
Required textbooks, methodology if present	**McDonald AND AVERY'S DENTISTRY for CHILD and ADOLESCENT 2022 by Elsevier**
Main references (Resources)	**Handbook of pediatric dentistry (Cameron) Mosby**
Supporting books and references recommended by scientific journals and reports	**View recent research**
Electronic References, Internet Sites	**Google Scholar, research gate**

جامعة البيان

Course Description (1)

1. Course Title	Orthodontics
2. Course Code	050504
3. Semester/Year	Annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Lectures and clinics
6. No. of Hours (Total)	30 hours theory and 120 hours clinical
7. No. of Credits (Total)	6
8. Course Administrator Name	Assisst.Lect. Sally Saad Ali
9. E-mail	G-mail: sally.saad@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	**Acquire knowledge of methods of diagnosis and treatment of cases of malocclusion.**
	A2	**How to use the different types of removable and functional orthodontic devices**
Skills	**B1**	**Acquire skills in conducting special diagnostic methods**
	B2	**Knowing the types of orthodontic devices related to each case.**
	B3	**Motivating the student through the style of expression, thinking, speed of communicat and response**
	B4	**Qualifying students to examine, diagnose and treat patients**
Values	**C1**	**Preparing a professional and urging the student to positive behavior in his public life**
	C2	**Preparing scientific and urging the student to communicate in other fields of science**
	C3	**Cultural preparation and refinement of the student's personality**
	C4	**Employing the acquired skills in order for the student to become a dentist capable treating patients**

11. Teaching and Learning Strategies			
1.	Lectures using Data show and power point.	4.	Electronic education
2.	Educational films	5.	Smart probes
3.	Monitors	6.	Practical training in the clinic

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	a- Personal data b- Consent form c- Clinical examination i. General body stature	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
2	1	ii. Face examination in 3 dimensions iii. Skeletal examination iv. Soft tissue examination	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
3	1	v. Occlusion	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
4	1	vi. Dentition vii. Temporomandibular joint	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
5	1	d- Diagnostic aids i. Cephalometrics	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
6	1	ii. Orthopantomograph iii. Other views	Diagnostic aids	Theoretical lecture	Quizzes, monthly, mid-year and final examinations

				using Power Point	
7	1	iv. Study models	Diagnostic aids	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
8	1	v. Photography vi. 3D imaging	Diagnostic aids	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
9	1	e- Treatment planning	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
10	1	f- Treatment of Medically compromised patients	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
11	1	g- Orthodontic indices	Orthodontic diagnosis and treatment planning	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
12	1	a-Mixed Dentition Analysis b- Permanent Dentition Analysis	Space analysis, Bolton's ratio	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
13	1	a. Selection Of Teeth To Be Extracted B. Types Of Extraction Procedures	Teeth extraction in orthodontics	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
14	1	Procedures of serial extraction	Serial extraction	Theoretical lecture	Quizzes, monthly, mid-year and final examinations

				using Power Point	
15	1	a. Deep bite	Vertical and transverse problems	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
16	1	b. Open bite	Vertical and transverse problems	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
17	1	c. Crossbite and scissors bite	Vertical and transverse problems	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
18	1	a. supernumerary and hypodontia b. Early loss of decideous c. Retained teeth, delayed eruption, impaction, ankylosis d. Abnormal eruptive behavior e. Large frenum iduous teeth	Treatment of common local factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
19	1	f. Bad oral habits	Treatment of common local factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
20	1	a. Management Of Buccal Displacement. B. Management Of Palatal Displacement	Treatment of aberrant position of canines	Theoretical lecture using	Quizzes, monthly, mid-year and final examinations

				Power Point	
21	1	a. Class I treatment (crowding, spacing, biprotrusion	Treatment of general factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
22	1	Continue class I treatment (method of space creation)	Treatment of general factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
23	1	b. Class II div. 1 treatment	Treatment of general factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
24	1	c. Class II div. 2 treatment	Treatment of general factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
25	1	d. Class III treatment problems	Treatment of general factors	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
26	1	a- Periodontal problems	Treatment of adults	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
27	1	b- Orthognathic surgery	Treatment of adults	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
28	11	Presurgical orthopaedics	Cleft lip and palate	Theoretical lecture using	Quizzes, monthly, mid-year and final examinations

				Power Point	
29	1	Surgical repair of cleft lip and palate	Continue cleft lip and palate	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
30	1	digital approach in orthodontic (diagnosis and treatment)	Digital orthodontics	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

Course Structure (Practical)

The minimum requirements that allow the students to enter the final examination include: Treatment of at least one patient: 1- Diagnosis :(Mandatory) a- Case sheet filling & presentation b- Upper and lower impression. c-Study models preparation d- Extra & intra oral photographs e- Cephalometric tracing 2-Treatment plan:(Mandatory) 3- Insertion(Optional) 4- Adjustment or Activation(Optional) **The student should receive at least one orthodontic case to enter the final exam**

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

14. Learning & Teaching Resources	
Required textbooks (curricular if any)	1. An Introduction to Orthodontics 5th Edition Simon J. Littlewood and Laura Mitchell 2019. 2. Orthodontics: Principles and Practice: Principles and Practice 2nd Edition 2017
Main References (sources)	1. An Introduction to Orthodontics 5th Edition Simon J. Littlewood and Laura Mitchell 2019. 2. Orthodontics: Principles and Practice: Principles and Practice 2nd Edition 2017
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

64. Course Title	Oral Medicine
65. Course Code	050502
66. Semester/Year	Annual
67. Description Preparation Date	2024-2025
68. Available Attendance Form	Weekly
69. No. of Hours (Total)	30 hours theory and 75 hours practical
70. No. of Credits (Total)	4.5
71. Course Administrator Name	Alaa Mohammed Shaheed
72. E-mail	alaa.mohammed@albayan.edu.iq

73. Course Objectives

Knowledge	**A1**	Develop student information on patient interviews and take the patients history illness and medical history.
	A2	To acquire experience and information that will help him to identify the disease a find out its causes.
	A3	Increase students knowledge of different oral tissue screening methods a identification of injury areas.
	A4	Learn how to assess the risks of oral illness for patients based on factors such as c hygiene, dietary habits, tobacco use and chronic diseases.
Skills	**B1**	Acquiring skills in oral clinical examinations for diagnosis and treatment of vari oral diseases
	B2	Identification of signs and symptoms of TMJ disorders, saliva glands and lymph no diseases for diagnosis and treatment.
	B3	Development of early detection skills for certain diseases with oral symptoms.
	B4	Development of early detection of oral cancer.
Values	**C1**	Professional preparation and promotion of positive behavior in public life
	C2	Scientific preparation and encouragement of students to communicate in other fie of science.
	C3	Cultural preparation and refining of the student's personality.
	C4	Employing acquired skills for the student to become a dentist capable of treat patients.

74. Teaching and Learning Strategies			
1.	Lectures using Data show and power point.	4.	Electronic education
2.	Educational films	5.	Smart probes
3.	Monitors	6.	Practical application in the clinic

جامعة البيان

75. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	• Overview of the field • Role of oral medicine in dentistry • Importance of patient history and examination	The principles of oral diagnosis Clinical examinations	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
2	1	• Extra oral examination • Intra oral examination	The principles of oral diagnosis Clinical examinations	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
3	1	• Tests for the diabetes mellitus • Tests for the thyroid gland • Tests for hepatitis	Laboratory investigations in dentis	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
4	1	• The Hematological investigation • Evaluation of red and white blood cells • Evaluation of platelets	Laboratory investigations in dentis	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
5	1	• Types of facial pain • Types of headaches	Orofacial pain	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
6	1	• Differential diagnosis of facial pain and • Management strategies	Orofacial pain	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
7	1	• Anatomy review • Etiological factors of the TMJ disorder	T.M.J	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations

8	1	• Signs and symptoms • Types of TMJ disorders • Diagnosis, management, and treatment	T.M.J	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
9	1	• Terms description • Principal Causes of oral mucosal ulceration • Classification of ulcerative, vesicular and bullouse lesions	Oral ulceration and Vesiculobullou lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
10	1	• Etiology and Pathogenesis • Oral Manifestations (Oral Findings)	Oral ulceration and Vesiculobullou lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
11	1	• Laboratory Findings (Diagnosis) • Differential diagnosis • Management and Treatment	Oral ulceration and Vesiculobullou lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
12	1	• Classification • Characteristics and clinical significance	White & red lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
13	1	• Differential diagnosis • Management and Treatment	White & red lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
14	1	• Importance of early diagnosis • Screening techniques	Early detection of oral cancer	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations

15	1	• Continued focus on patient education and management	Early detection of oral cancer	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
16	1	• Types and clinical presentations • Diagnosis and treatment	Pigmented oral lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
17	1	• Case studies and management strategies	Pigmented oral lesions	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
18	1	• Classification and clinical features • Etiology and Risk Factors	Benign, Premalignant and maligna lesions of the oral cavity	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
19	1	• Pathogenesis • Adjunctive diagnostic aids and screening tools	Benign, Premalignant and maligna lesions of the oral cavity	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
20	1	• Integration of knowledge through clinical cases • Staging and grading	Benign, Premalignant and maligna lesions of the oral cavity	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
21	1	• Management strategies ar treatment options	Benign, Premalignant and maligna lesions of the oral cavity	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
22	1	• classification • Case studies and interdisciplinary approaches	Neuromuscular disorder	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
23	1	• Understanding oral manifestations • Diagnosis and management	Neuromuscular disorder	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
24	1	• Anatomy and histology review	Salivary gland diseases	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations

		• Diseases affecting salivary glands			
25	1	• Tumors affecting salivary glands • Differential diagnosis and management	Salivary gland diseases	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
26	1	• The immune system of the mouth • Classification of autoimmune diseases	Autoimmune diseases	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
27	1	• Oral manifestations of autoimmune disorders	Autoimmune diseases	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
28	11	• Diagnosis and management	Autoimmune diseases	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
29	1	• Types of allergic reactions and their oral implications	Oral manifestation of allergic reacti	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations
30	1	• Management strategies and patient education	Oral manifestation of allergic reacti	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and f examinations

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

77. Learning & Teaching Resources	
Required textbooks (curricular if any)	1. Burket's oral medicine. Michael Glick, Martin Greenberg, Peter Lockhart and Dtephen Challacombe. 13th edition.2021, Wiley Black well. 2. Bumann, A., & Lotzmann, U. TMJ disorders and orofacial pain. The role of dentistry in a multidisciplinary approach. 2011, Thieme. 3. Little, James W., Craig Miller, and Nelson L. Rhodus. Dental management of the medically compromised patient. 2017, Elsevier Health Sciences.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

1. Course Title	Community Dentistry
2. Course Code	050304
3. Semester/Year	Annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Weekly
6. No. of Hours (Total)	30 hours theory and 60 hours practical
7. No. of Credits (Total)	4
8. Course Administrator Name	Ghufran Adil Hasan
9. E-mail	Ghufran.adil@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Preparing dental students to be maintainers of community oral and dental health.
	A2	Students know how to protect society from tooth decay and gum disease and maintain oral health
	A3	Knowing the methods for conducting statistics on tooth decay, common oral and gum diseases, and the conditions and areas of their spread.
	A4	
Skills	**B1**	Acquire skills in conducting clinical dental examinations for early detection of tooth decay.
	B2	Identify the indicators and application techniques for preventing tooth decay and common oral and gum diseases
	B3	Students are assigned to groups to undertake a comprehensive educational program for community dentistry
	B4	
Values	**C1**	Urging the student to have positive behavior in his public life
	C2	Urging the student to communicate in other fields of science
	C3	Cultural preparation and refining the student's personality
	C4	Urging the student to employ the acquired skills in order to become a dentist capable of treating patients

11. Teaching and Learning Strategies

1.	Gaining experience and information that will help him identify tooth decay and gum disease and find out their causes	**4.**	

2.	Increase students' awareness and sense of responsibility towards community oral health and dental public health principles and activities.	**5.**	
3.	Applications of epidemiology and biostatistics in dental public health	**6.**	

12.Curriculum structure

Week	Hours	Subject name	The outcomes of learning	Learning method (hours)	Assessment Method
1	**1**	Dental public health	- Dental public health -Public health definition. - Dental Public health definition. - Community Dentistry. - Dental public health practitioners. - Public health impact of dental disease. – Tools of dental public health. 1-Epidemiology. 2-Biostatistics. 3-Social sciences. 4-Principles of administration. 5-Preventive dentistry	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
2	**1**	Dental public care	-Dental public care - Steps in planning dental care for the patient - Steps in planning dental care for the community - Similarities between personal and community health care: - Differences between private dental practice and public health dentistry	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
3	**1**	epidemiology	- Objectives of epidemiology. - Components of epidemiological study. - Essential steps in an epidemiological study. - Hypothesis. - Population at risk - Morbidity - Measurements of disease frequency. - Epidemiological approach. - Measurement tools in epidemiology.	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

4	**1**	Epidemiological studies	Types of Epidemiological studies: 1-Observational studies Types of observational studies - Descriptive studies. - Analytical studies. Case control studies Cohort studies Ecological studies	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
5	**1**	Experimental studies	-Intervention Types of experimental studies	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
6	**1**	Epidemiology of dental caries	- Definition of dental caries - Epidemiology -Etiological factors of dental caries -Types of dental caries according to their anatomical	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
7	**1**	Epidemiology of Periodontal Disease	-Periodontal Diseases definition -Structure of the periodontal tissues -Epidemiology -Etiology of periodontal disease	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
8	**1**	Epidemiology of Oral Cancer	- Types of cancers - Etiology of oral cancer - Constituents of tobacco smoke - Potentially malignant lesions - Levels of prevention for oral cancer - Rehabilitation after Oral Cancer	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
9	**1**	Dental indices	- Index - Uses of dental index - Classification of indices	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
10	**1**	Indices used for assessment of dental caries	-DMF index -Principles in recording DMF index - Calculation of DMFT/DMFS - Dental caries severity index - dmf index	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
11	**1**	Indices used for assessment of periodontal disease	- Oral Hygiene Indices: - Gingival inflammation indices - Periodontal indices	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
12	**1**	Dental fluorosis	Indices for assessment of dental fluorosis	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
13	**1**	Biostatistics	- Data - Types of data - Methods of Data Collection	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

			-Sampling Technique -Types of sample design		
14	**1**	Data presentation	- Methods of data presentation -The tabulation of data -The graphical representation of data	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
15	**1**	Measures of central tendency & dispersion	-Measures of central tendency -Measures of dispersion.	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
16	**1**	Fluoridation as a public health measure	- History: - Sources of Fluoride -Water fluoridation -Types of fluoride	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
17	**1**	Fluoridation Mechanism and Effects	Mechanism of action -Anti-caries effects of fluoride. - Metabolism of fluoride. -Dental Fluorosis -Side effects of fluoride	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
18	**1**	Occupational hazards in dentistry	- Major occupational hazard s -Biological health hazards. -Physical hazards -Chemical hazards -Musculoskeletal disorders and diseases of the peripheral nervous system -Hearing loss -Radiation exposure -Stress -Legal hazards -Other risks	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
19	**1**	Environment and health	- Environment -Physical environment -Biological environment -Psychological environment - Environmental indicators	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
20	**1**	Effects of air pollution on health	-Prevention and control of air pollution - Effects of radiation -Noise pollution	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
21	**1**	School Dental Health Program	- Purpose of School Health Program - Guidelines for an ideal school dental program - School dental survey - phases in school oral health program	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
22	**1**	Treatment need and demand -	Need - categories of need - Demand - Factors affecting dental demands	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
23	**1**	Dental manpower	- Manpower definition - Dental health manpower planning	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

			-Steps in dental health manpower planning		
24	**1**	Ethics in dentistry	-Definition of ethics - Dentistry as a profession - Ethical principles	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
25	**1**	Oral health care for special populations	- Elderly people: -The main oral effects of aging - Pregnant women - Special Care Dentistry - Patients with special health care needs	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
26	**1**	Forensic dentistry - Introduction	-Application of forensic dentistry. -Bit marks -Person identification. -Dental identification	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
27	**1**	Dental auxiliary personal	-Introduction. - Dental auxiliary classification. *Non operatory auxiliary. * Operatory auxiliary -Four handed relationship.	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
28	**1**	Primary health care	- Introduction. -Elements (components) of Primary health care. -Principles of Primary health care. - Primary dental health care. -Community dental health services	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
29	**1**	Infection control	- Introduction. -Concept of disease transmission . -The acquisition means of pathogens. -Transmission of infectious diseases. -Control of infectious diseases. -Personal barrier techniques. -Instrument processing(sterilization)	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
30	**1**	Dental health education	- Introduction. -Aims of health education. -Objective of health education. - Objective of dental health education. -Principle of health education. -Planning a health education programs.	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

Clinical requirements Lab number	Study unit title	Hours	**Practical Course**
1	Community dentistry	2	
2	Patient's setting and examination	2	
3	Clinical examination	2	
4	Basic tooth numbering	2	
5	Clinical examination	2	
6	Indices	2	
7	Dental caries	2	
8	Theories of caries formation	2	
9	Dental caries indices	2	
10	Clinical examination	2	
11	Clinical examination	2	
12	Deciduous teeth	2	
13	Clinical examination	2	
14	Clinical examination	2	
15	Prevention of dental caries	2	
16	Fluoride	2	
17	Periodontal diseases	2	
18	Indices for plaque assessment	2	
19	Clinical examination	2	
20	Clinical examination	2	
21	Indices for calculus assessment	2	
22	Clinical examination	2	
23	Clinical examination	2	
24	Gingival disease indices	2	
25	Clinical examination	2	
26	Clinical examination	2	
27	Periodontal diseases prevention	2	
28	Tooth brushing/mechanical plaque control	2	
29	Clinic……assistant	2	
30	Clinic……assistant	2	
Total		60	

12. Course Evaluation

1-Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.
2-For first and second semesters 25 degrees (15 practical + 10 theoretical) and mid-year 15 degrees and final examination 60 degrees (40 theoretical + 20 practical)

13. Learning & Teaching Resources

Required textbooks (curricular if any)	1- Dentistry, Dental Practice, and the Community - E-Book (2005) by Brian A. Burt, Steven A. Eklund 2- Comprehensive preventive dentistry (2012) Edited by Hardy Limeback
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

1. Course Title	**DENTAL MATERIAL**
2. Course Code	050202
3. Semester/Year	**Annual**
4. Description Preparation Date	**2024-2025**
5. Available Attendance Form	**Lectures and Labs**
6. No. of Hours (Total)	**30 h theory and 60 h laboratory**
7. No. of Credits (Total)	**4**
8. Course Administrator Name	**Areej Talal Ayash**
9. E-mail	Areej.t@albayan.edu.iq

10. Course Objectives

The objectives of the course are to enable students of the Grade 2 at the college of dentistry to have a proper academic approach to all dental materials that are used in dentistry field (which includes the sufficient knowledge about the properties of these materials and their manipulation and their advantages and disadvantages if present.

Knowledge	A1	Develop student information on dental materials specifications and properties.
	A2	To acquire experience and information that will help him to identify the dental materia
	A3	Increase students knowledge of different types of every dental material.
	A4	Learn how to assess the risks of improper use of the dental materials.
Skills	B1	Acquiring skills in determining the dental materials and their proper selction and use.
	B2	Identification of correct implementation of the dental materials that lead to present proper service for the patient.
	B3	Professional preparation and promotion of positive behavior in public life
	B4	Scientific preparation and encouragement of students to communicate in other fields science.
Values	C1	Theoretical and laboratory daily and semester examinations
	C2	Mid-year examination
	C3	Laboratory and theoretical final examination
	C4	

11. Teaching and Learning Strategies			
1.	Lectures using Data show and power point.	**4.**	Electronic education
2.	Educational films	**5.**	Smart probes
3.	Monitors	**6.**	Practical application in the lab

جامعة البيان

12. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	**Introduction to dental material** **Physical, chemical and biological properties of dental materials**	**Introduction and physi properties of dental material**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
2	1	**Mechanical properties**	**Mechanical properties**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
3	1	**Definition, requirement, types,** **gypsum bonded investment** **phosphate bonded investment** **ethyl silicate bonded**	**Gypsum materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
4	1		**Gypsum materials**	Theoretical lecture u Power Point	Quizzes, monthly, mid- and final examinations
5	1	**Definition** **Ideal properties of impression materials** **Classification of impression materials** **Non elastic impression materials** **Impression plaster** **Impression compound**	**Impression materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

		Zinc oxide-eugenol **Elastomeric impression material**			
6	1		**Impression materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
7	1		**Impression materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
8	1		**Impression materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
9	1		**Impression materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
10	1	**Definition,** **Requirements,** **classification of wax according to origin & melting point,** **classification of wax according to uses, properties of dental waxes.**	**Waxes**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
11	1		**Waxes**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
12	1	**Polymers and polymerization** **Definition of polymer, co -polymer, cross -link polymer and Degree of polymerization** **Factors which control structure and properties of polymer**	**Polymers**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

		□ Types of polymerization □ Hea activated acrylic □ Composition Properties □ Chemically activate resin □ Composition □ Propertie □ Light activated resin □ Composition □ Properties □ Chemically activated resin compared to heat activated resins □ Polymers used in dentistry □ Processing errors			
13	1		**Polymers**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
14	1	**□ factors affecting setting time, setting expansion, strength, storage and manipulation of gypsum products, and hygroscopic expansion**	**Investment materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
15	1	**□ Classification of dental cements □ Definition □ Requirements**	**Cement materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
16	1	**□ Definition □ indication □ Types □ Requirements**	**Temporary filling**	Theoretical lec using Power Poin	
17	1	**□ Metallic denture base materials □ Types of metal and metal alloys □ Definition of alloy □ Requirement of casting alloy**	**Metal and metal alloy**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

		□ Application of dental alloy □ classification of metal □ classification of dental alloy □ gold foil (advantage, disadvantages(□ gold alloys □ Composition Properties			
18	1		**Metal and metal alloy**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
19	1	**□ Alternative of gold alloys □ Metal ceramic alloys □ Requirement □ Types □ Remova denture base alloys □ Requirements □ Types □ Co -Cr alloy □ Application □ Composition properties, □ Advantages Disadvantages**	**Metal and metal alloy**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
20	1	**□ Titanium and Titanium alloys □ Applications □ Properties □ Ni/Cr alloys □ Composition □ Indications □ Wrought stainless steel alloy**	**Metal and metal alloy**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
21	1	**□ Direct filling material □ Definition □ Factors causing loss tooth substance □ Requirement of an ideal filling material. □ Classification of**	**Filling materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

		filling material **□ Anterior filling materials** **Disadvantages** **Composite filling materials** **composition and structure** **Types of composite** **□ Posterior filling materials** **Dental amalgam** **□ Classification of amalgam alloys** **□ Properties ofset amalgam** **□ Shaping and finishing** **□ Mercury toxicity**			
22	1		**Filling materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
23	1		**Filling materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
24	1		**Filling materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
25	1	**Preventive materials**	**Preventive materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
26	1	**Root canal filling materi (obturating materials)**	**Root canal filling materi (obturating materials)**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
27	1	**Finishing and polishing material**	**Finishing and polishing material**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
28	1	**□ Definition** **□ Types** **□ Requirements**	**Relining material**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

		Indication **Soft liners** **Types** **Requirements** **Indication** **Properties**			
29	1	**Implant materials**	**Implant materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations
30	1	**Maxillofacial material**	**Maxillofacial materials**	Theoretical lec using Power Poin	Quizzes, monthly, mid- and final examinations

13. Course Evaluation

Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.

For first and second semesters 25 degrees (15 practical + 10 theoretical) and mid-year 15 degrees and final examination 60 degrees (40 theoretical + 20 practical)

14. Learning & Teaching Resources

Required textbooks (curricular if any)	**Craig's Restorative Dental Materials.** Sakaguchi, R., & Powers, J. (2019). Elsevier Inc. https://doi.org/10.1016/C2010-0-65754-3 **Phillips' science of dental materials** Authors:Kenneth J. Anusavice, Ralph W. Phillips, Chiayi Shen, H. Ralph Rawls Publisher Print Book, English, ©2013 Edition:12th ed formats and editions Publisher: Elsevier/Saunders, St. Louis, Mo., ©2013
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description

1. Course Title	Dental anatomy
2. Course Code	050101
3. Semester/Year	annual
4. Description Preparation Date	2024-2025
5. Available Attendance Form	Lectures and Laboratories
6. No. of Hours (Total)	60 of theory and 60 hours of practical
7. No. of Credits (Total)	6
8. Course Administrator Name	Ali Ahmed Abdel Mutlak
9. E-mail	ali.abm@albayan.edu.iq

10. Course Objectives

Knowledge	**A1**	Enable students to know the external anatomy of teeth
	A2	Enabling students to number teeth according to different numbering systen
	A3	Enable students to sculpt teeth on wax molds
	A4	
Skills	**B1**	Asking brainstorming questions through which the student can link the stu materials together and link them to the medical and health reality.
	B2	developing skills Sculpture and drawing related to dental anatomy
	B3	Motivating the student through the style of expression and thinking a the speed of communication and response
	B4	Urging the student to solve problems and possess distinctive thinking
Values	**C1**	Professional preparation and encouraging the student to have posit behavior in his public life
	C2	Scientific preparation and urging the student to communicate in other fie of science
	C3	Cultural preparation and refining the student's personality
	C4	Utilizing the acquired skills so that the student becomes a dentist capable treating patients

11. Teaching and Learning Strategies

1.	Lectures using the program data show and power point	**4.**	E-learning
2.	Educational films	**5.**	Blackboards
3.	Display screens	**6.**	Student discussion groups.

جامعة البيان

12. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
Theoretical					
1	2	Introduction About dental anatomy	introduction	Display data show and blackboard	Daily exam
2	2	Introduction About dental anatomy	introduction	Display data show and blackboard	Daily exam
3	2	Knowing the method of number baby and permanent teeth	Numbering systems	Display data show and blackboard	Daily exam
4	2	Knowing the method of number baby and permanent teeth	Numbering systems	Display data show and blackboard	Daily exam
5	2	Knowing the anatomical features teeth, their names and shapes	Anatomical landmarks	Display data show and blackboard	Daily exam
6	2	Knowing the anatomical features teeth, their names and shapes	Anatomical landmarks	Data show and blackboard display + explanatory films	Daily exam
7	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Central Inciso	Data show and blackboard display + explanatory films	Daily exam
8	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Central Inciso	Data show and blackboard display + explanatory films	Daily exam
9	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Lateral Inciso	Data show and blackboard display + explanatory films	Daily exam
10	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Lateral Inciso	Data show and blackboard display + explanatory films	Daily exam

11	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular Incisors	Data show and blackboard display + explanatory films	Daily exam
12	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular Incisors	Data show and blackboard display + explanatory films	Daily exam
13	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular Incisors	Data show and blackboard display + explanatory films	Daily exam
14	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Canines	Data show and blackboard display + explanatory films	Daily exam
15	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Canines	Data show and blackboard display + explanatory films	Daily exam
16	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Premolars	Data show and blackboard display + explanatory films	Daily exam
17	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary Premolars	Data show and blackboard display + explanatory films	Daily exam
18	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular First Premol	Data show and blackboard display + explanatory films	Daily exam
19	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular First Premol	Data show and blackboard display + explanatory films	Daily exam
20	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular Sec Premolar	Data show and blackboard display + explanatory films	Daily exam
21	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary First Molar Permanent maximum second and th molars	Data show and blackboard display + explanatory films	Daily exam

22	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Maxillary First Molar Permanent maximum second and th molars	Data show and blackboard display + explanatory films	Daily exam
23	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular First Molar	Data show and blackboard display + explanatory films	Daily exam
24	2	Identify the external appearance the tooth by studying each surface the tooth	Permanent Mandibular Second third molars	Data show and blackboard display + explanatory films	Daily exam
25	2	Identify the stages of tooth grov and the time of their eruption	Tooth development	Data show and blackboard display + explanatory films	Daily exam
26	2	Identify the stages of tooth grov and the time of their eruption	Tooth development	Data show and blackboard display + explanatory films	Daily exam
27	2	Learn about the parts of the to nerve and their names	Pulp Cavities	Data show and blackboard display + explanatory films	Daily exam
28	2	Learn about the parts of the to nerve and their names	Pulp Cavities	Data show and blackboard display + explanatory films	Daily exam
29	2	Learn about the mechanism of der occlusion and the function of teeth the anatomy of teeth and gums	Occlusion and physiologic form teeth and periodontium	Data show and blackboard display + explanatory films	Daily exam
30	2	Learn about the mechanism of der occlusion and the function of teeth the anatomy of teeth and gums	Occlusion and physiologic form teeth and periodontium	Display data show and blackboard	Daily exam
Practical					
1	**2**	Introduction About dental anatomy	Introduction to dental anatomy sculpting tools	Display data show and blackboard	Evaluation method
2	**2**	Knowing the method of number baby and permanent teeth	Numbering systems.	Display data show and blackboard	Daily exam
3	**2**	Know how to sculpt a cube	Practical demonstration of cube sculpting (1cm*1cm*1cm)	Data display, blackboard a practical sculpture	Daily exam
4	**2**	Knowledge of the anatomical parts teeth	-Introduction to anatomical landmarks on dental models.	Display data show and blackboard	Homework

			-Cube sculpting.		
5	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the verbal asp ofP.Max. Right central incisor.	Data display, blackboard a practical sculpture	Daily exam
6	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the medial aspect ofP.Max. Right central incisor.	Data show and blackboard display + explanatory films and practical sculpture	Homework
7	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the cutting side of Permanent Max. Right central incis	Data show and blackboard display + explanatory films and practical sculpture	Homework
8	2	Developing students' ability to d and sculpt teeth	Hands-on carvingP.Max. Central right The incisor	practical training	Homework
9	2	Assessing students' ability to scu and draw teeth	Practical exam. From sculptureP. Max. Central right The incisor	practical training	Homework
10	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and model the oral and genital aspects ofP. the above. Right dogs.	Data show and blackboard display + explanatory films and practical sculpture	An in-person practical exam
11	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the cutting side ofP the above. Right dogs	Data show and blackboard display + explanatory films and practical sculpture	Homework
12	2	Developing students' ability to d and sculpt teeth	Hands-on carvingP.Max. Right dog	practical training	Homework
13	2	Assessing students' ability to scu and draw teeth	Practical exam. SculptureP. Max. Ri dogs.	practical training	Homework
14	2	Assessing students' ability to scu and draw teeth	Mid-year practical exam for de carving.	practical training	An in-person practical exam
15	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the buccal and mesial aspects B Max. Right first premolar.	Data show and blackboard display + explanatory films and practical sculpture	Practical exam
16	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the occlusal side B Max. Right first premolar	Data show and blackboard display + explanatory films and practical sculpture	Homework

17	2	Developing students' ability to dr and sculpt teeth	Hands-on carving P.Max. Right f premolar	practical training	Homework
18	2	Assessing students' ability to scu and draw teeth	Practical exam. From sculptureP. M Right first premolar	practical training	Homework
19	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the buccal and mesial aspects B. Mand. Right first premolar.	Data show and blackboard display + explanatory films and practical sculpture	An in-person practical exam
20	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the occlusal side B. Mand. Right first premolar.	Data show, blackboard and practical sculpture + explanatory films	Homework
21	2	Developing students' ability to dr and sculpt teeth	Practical training for carvingP.Mand. First right Premolars	practical training	Homework
22	2	Assessing students' ability to scu and draw teeth	Practical exam. SculptureP. Ma Right first premolar	practical training	Homework
23	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the buccal mesial aspects of the right first mola	Data show and blackboard display + explanatory films and practical sculpture	An in-person practical exam
24	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the occlusal side From P. Max. Right first molar.	Data show and blackboard display + explanatory films and practical sculpture	Homework
25	2	Developing students' ability to dr and sculpt teeth	Hands-on carving P.Max. Right f molar.	practical training	Homework
26	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the buccal and mesial aspects B. Mand. Right first molar	Data show and blackboard display + explanatory films and practical sculpture	Practical exam
27	2	Knowledge of anatomy and how draw and dissect the tooth	Description, carving and finishing of the occlusal side P. Mand first molar/hands-on sculpt p. Mand first molar.	Data show and blackboard display + explanatory films and practical sculpture	Homework
28	2	Knowledge of anatomy and how draw and dissect the tooth	Describe and sculpt the buccal and mesial aspects B. Mand. Right first molar	Data show and blackboard display + explanatory films and practical sculpture	Daily exam

29	**2**	Assessing students' ability to scu and draw teeth	Practical examination of carving Mand. First right P. Molly	practical training	Homework
30	**2**	Assessing students' ability to scu and draw teeth	Final oral and practical examinatior dental carving	practical training	Practical exam

13. Course Evaluation

	1.Daily exams for theoretical subjects 2. Practical exam in the laboratory 3.Oral questions 4. Mid-year exam 5. Final exam
theoretical 10% practical 15%	First semester + second semester 25%
Theoretical 15%	Half year 25%
Theoretical 35% Practical 25%	Final exam 50%
Theoretical 60% practical 40%	**100%**

14. Learning & Teaching Resources

Required textbooks (curricular if any)	**WHEELER'S DENTAL ANATOMY, PHYSIOLOGY, AND OCCLUSION,9th edition,2010**
Main References (sources)	**dental anatomy and morphology**
Recommended Books & References (Scientific Journals, Reports …)	**Make a drawing of teeth and their external anatomy and view drawings of dental anatomy in the Dental Anatomy Atlas**
Websites or Electronic References	**Google scholar, research gates**

جامعة البيان

Course Description (1)

78. Course Title	**Dental radiology**
79. Course Code	**050310**
80. Semester/Year	annual
81. Description Preparation Date	2024-2025
82. Available Attendance Form	Lectures and Laboratory
83. No. of Hours (Total)	Theory: 30 hours Practical: 60 hours
84. No. of Credits (Total)	4
85. Course Administrator Name	Assistant lecturer hamsa jamal mahdi Assistant lecturer Amal Raaof
86. E-mail	Hamsa.jamal@albayan.edu.iq

87. Course Objectives

Knowledge		Gaining experience and information related to X-rays, radiographs, and all types of radiography equipment Developing the student's skills in the field of dealing with radiographic films, digital sensors, and means of displaying them Increasing students' knowledge of techniques for taking radiographs using films and digital sensors and Learn how to evaluate the type of photos taken, possible errors, and ways to avoid them
Skills		• Enabling the student to use x-ray machines correctly • Explain the importance of radiation protection and its risks • Enabling the student to read and diagnose radiographs of various types • Providing sufficient information about the latest types of devices and diagnostic methods in the field of oral and maxillofacial radiology • Reading radiographs • Use of devices

		• Possibility of protection from radiation risks • Acquiring skills in taking radiographs with their various techniques while taking preventive measures for the doctor, workers, and patients • Developing the skills of reading and interpreting apparent cases to reach the correct diagnosis

جامعة البيان

88. Course structure					
Evaluation method	**Learning method**	**Name of the unit or topic**	**Required educational outcomes**	**hours**	**the week**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Physics of radiation	introduction and definitions of nature of radiation, type of radiation	**1**	**1**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Production of radiation	x-ray machine, interaction of x-ray with matter composition of matter	**1**	**2**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Film imaging	types of x-ray films, processing cycle, dark room, intensifying screen	**1**	**3**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Factors controlling x-ray beam	dosimetry and invers square low	**1**	**4**
Daily examinations	**Data show**	Projection geometry	(sharpness, distortion, image	**1**	**5**

and evaluations on treatment of patients	**White board**		characterstic and artifacts)		
Daily examinations and evaluations on treatment of patients	**Data show White board**	Biological effects of radiation	direct & indirect effects, determistic and stochastic effect	**1**	**6**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Safety and Protection	source of exposure , dose limits , exposure and risk and reducing dental exposure	**1**	**7**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Intraoral projection	periapical, bitewing, and occlusal radiography	**1**	**8**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Digital radiography	strength , limitations , comparing with conventional radiography and indications	**1**	**9**
Daily examinations and evaluations	**Data show White board**	Patient's management	management of pt. Child, contrast media & localization technique	**1**	**10**

on treatment of patients					
Daily examinations and evaluations on treatment of patients	**Data show White board**	Cephalometric imaging	technique, indications, evaluation of the image	**1**	**11**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Panoramic radiography	principels, technique, positin and interpretation	**1**	**12**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Craniofacial imaging	types, indication and interpretation	**1**	**13**
Daily examinations and evaluations on treatment of patients	**Data show White board**	CBCT	principles, components, strength and limitations	**1**	**14**
Daily examinations and evaluations on treatment of patients	**Data show White board**	CBCT	clinical applications in maxillofacial region, anatomy and interpretations	**1**	**15**

Daily examinations and evaluations on treatment of patients	**Data show White board**	Radiographic anatomy part1	teeth, supporting dentoalveolar structures, maxilla and mid facial bones	**1**	**16**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Radiographic anatomy part 2	teeth, supporting dentoalv structures, maxilla and mid facial bones	**1**	**17**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Advanced imaging modalities	CT, MRI AND ULTRASOUND	**1**	**18**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Radiography &Implantology	modalities, indications	**1**	**19**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Infection control	infection control in radiography clinic, protection of pt., protection of workers	**1**	**20**
Daily examinations and	**Data show White board**	Prescribing diagnostic imaging	radiologic examination and	**1**	**21**

evaluations on treatment of patients			guide lines for ordering imaging		
Daily examinations and evaluations on treatment of patients	**Data show White board**	Radiographical interpretations of common diseases	interpretation of dental caries, and periodontal disease	**1**	**22**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Cysts of the jaw	odontogenic and non-odontogenic cysts	**1**	**23**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Dental anomalies	acquired and developmental	**1**	**24**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Inflammatory conditions of the jaws	periapical inf disease, osteomyelitis, pericoronitis	**1**	**25**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Trauma	dento alveolar trauma , dental fractures and bone fractures	**1**	**26**

Daily examinations and evaluations on treatment of patients	**Data show White board**	TMJ abnormalities	anatomy of TMJ, application	**1**	**27**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Salivary gland disease	imaging modalities, interpretation	**1**	**28**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Craniofacial anomalies	Cleft lip and palate	**1**	**29**
Daily examinations and evaluations on treatment of patients	**Data show White board**	Computed tomography	indications, strength, limitations	**1**	**30**

89. 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.

Number	**Assessment measurement**	

1	1st and 2nd semester 25%	theory 10% clinical 15%	
2	Mid-year examination 15%	Theory 15%	
3	Final examination (60%)	40% theory 20% clinical	
Total		**100%**	

90. Learning and teaching resources	
Required textbooks, methodology if present	**White and Pharoah's Oral radiology principles and interpretation. Sanjay Mallya and Ernest Lam. 8 th edition. 2019, Elsevier**
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities	(include for example, guest Lectures , internship , field studies)
Electronic References, Internet Sites	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

91. Course Evaluation		
1	First + second semester 25%	Theory 10% Practical 15%
2	Midyear examination 15%	Theory 15%
3	Final examination	Theory 40% Practical 20%
Total		**100%**

92. Learning & Teaching Resources	
Required textbooks, methodology if present	**White and Pharoah's Oral radiology principles and interpretation. Sanjay Mallya and Ernest Lam. 8 th edition. 2019, Elsevier**
Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities	(include for example, guest Lectures , internship , field studies)
Electronic References, Internet Sites	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

93. Course Title	**Oral histology and Embryology**
94. Course Code	050203
95. Semester/Year	Annual for third grade
96. Description Preparation Date	2024-2025
97. Available Attendance Form	Weekly
98. No. of Hours (Total)	60 hours theory and 60 hours practical
99. No. of Credits (Total)	6
100. Course Administrator Name	Lecturer Nawar Bahjat Kamel
101. E-mail	nawar.bahjat@codental.uobaghdad.edu.iq

102. Course Objectives

Knowledge	**A1**	**Conveying a general idea about the process of fertilization and embr formation.**
	A2	**Students' understanding of the stages of tooth formation and methods of dental tissue development.**
	A3	**Increasing students' knowledge of the histological anatomy of the tooth.**
	A4	**For the student to understand the differences in composition between different tissues of the tooth.**
Skills	**B1**	**Identify the stages of embryonic formation.**
	B2	**Acquiring skills in classifying the different tissues of the tooth.**
	B3	**Identify the fetal causes of dental disease.**
	B4	
Values	**C1**	**Preparing the student and urging him to use various references to understand the curriculum decisions.**
	C2	**Scientific preparation and urging the student to use modern technologies to understand the curriculum decisions.**
	C3	**Scientific and practical preparation to understand the genetic causes of dental diseases.**

	C4	**Utilizing the acquired skills so that the student can work in groups and use scientific terminology within the limits of the course.**

103. Teaching and Learning Strategies

1.	**lectures using power point.**	**4.**	**discuss topics with students.**
2.	**Practical lessons.**	**5.**	
3.	**Preparing research papers.**	**6.**	

جامعة البيان

104. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	2	• Ovulation: Hormonal control, ovarian cycle • Fertilization: Process, capacitation, acrosomal reaction • Implantation: Blastocyst formation, attachment to uterine wall	Embryogenesis: first wee ovulation, fertilization an implantation	**Theoretical lecture**	**Quiz**
2	2	• Formation of Bilaminar Disc: Epiblast and hypoblast • Amniotic Cavity and Yolk Sac • Extraembryonic Mesoderm	2nd week, Bilaminar ger layer	**Theoretical lecture**	**Quiz**
3	2	• Gastrulation: Formation of three germ layers (ectoderm, mesoderm, endoderm) • Neurulation: Formation of the neural tube • Notochord and Neural Crest	3rd week trilaminar germ layer: gastrulation and neurulation	**Theoretical lecture**	**Quiz**
4	2	• Pharyngeal Arches: Structure and function • Pharyngeal Pouches and Clefts: Derivatives • Developmental Anomalies	Development of head and neck (pharyngeal arch, pouch & cleft)	**Theoretical lecture**	**Quiz**
5	2	• Facial Processes: Maxillary and mandibular prominence • Facial Anomalies: Cleft lip, cleft palate	Development of face and anomalies	**Theoretical lecture**	**Quiz**
6	2	• Tongue Formation: Pharyngeal arches involvement • Innervation of Tongue • Tongue Anomalies: Ankyloglossia, bifid tongue	Development of tongue a anomalies	**Theoretical lecture**	**Quiz**
7	2	• Primary and Secondary Palate • Fusion of Palatal Shelves • Palatal Anomalies	Development of palate ar anomalies	**Theoretical lecture**	**Quiz**

8	2	• Histological Techniques • Staining Methods • Tissue Sectioning	Slide preparation	**Theoretical lecture**	**Quiz**
9	2	• Stages of Tooth Development: Bud, cap, bell stages • Developmental Disturbances: Hypodontia, supernumerary teeth	Tooth development and developmental disturban of teeth	**Theoretical lecture**	**Quiz**
10	2	• Formation of Dentin • Odontoblast Role • Dentin Types: Primary, secondary, tertiary dentin	Dentinogenesis and denti structure	**Theoretical lecture**	**Quiz**
11	2	• Formation of Enamel • Enamel Organ and Ameloblasts • Enamel Defects: Amelogenesis imperfecta	Amelogenesis,Enamel structures	**Theoretical lecture**	**Quiz**
12	2	• Dentin Sensitivity • Enamel Erosion and Hypoplasia	Clinical consideration fo dentin and enamel	**Theoretical lecture**	**Quiz**
13	2	• Pulp Anatomy • Cellular Composition • Pulp histology	Dental Pulp	**Theoretical lecture**	**Quiz**
14	2	• Types of Cementum • Cementogenesis • Cementum Anomalies	Cementum and clinical consideration	**Theoretical lecture**	**Quiz**
15	2	• Hertwig's Epithelial Root Sheath • Root Morphology and Development	Root formation& Cementogenesis	**Theoretical lecture**	**Quiz**
16	2	• PDL Structure and Function • PDL Fibers Types • PDL Remodeling	Periodontal ligaments	**Theoretical lecture**	**Quiz**
17	2	• Sharpey's Fibers • Gingival Fiber Groups	Principles fiber of pdl an gingival fibers	**Theoretical lecture**	**Quiz**
18	2	• Alveolar Process Development • Alveolar Bone histology • Alveolar Bone Remodeling	Alveolar bone	**Theoretical lecture**	**Quiz**

19	2	• Osteoblast and Osteoclast Role • Bone Turnover	Bone formation and resorbtion	**Theoretical lecture**	**Quiz**
20	2	• Bone Proteins: Collagen, osteocalcin • Dentin Proteins: Dentin phosphoprotein	Proteins involve in mineralization of bone ar dentin	**Theoretical lecture**	**Quiz**
21	2	• Keratinized and Non-Keratinized Mucosa • Histological Differences	Oral mucosa and their ty	**Theoretical lecture**	**Quiz**
22	2	• Gingival Structure • Dentogingival Attachment	Gingiva and dentogingiv junction	**Theoretical lecture**	**Quiz**
23	2	• Stages of Tooth Eruption • Factors Influencing Eruption	Eruption of teeth	**Theoretical lecture**	**Quiz**
24	2	• Process of Deciduous Tooth Shedding • Timing of Exfoliation	Shedding of teeth	**Theoretical lecture**	**Quiz**
25	2	• Major and Minor Glands • Saliva Secretion and Composition	Salivary gland	**Theoretical lecture**	**Quiz**
26	2	• Types of Salivary Proteins: Amylase, mucins • Role in Oral Health	Salivary proteins	**Theoretical lecture**	**Quiz**
27	2	• Anatomy of TMJ • TMJ Movements • TMJ histology	TMJ	**Theoretical lecture**	**Quiz**
28	2	• Development of Maxillary Sinus • Sinus mucosa histology	Maxillary sinus	**Theoretical lecture**	**Quiz**
29	2	• Tissue Staining Methods • Enzyme Histochemistry	Histochemistry	**Theoretical lecture**	**Quiz**
30	2	• Aging of Oral Tissues • Clinical Considerations in Older Adults	Age changes of soft and hard tissues	**Theoretical lecture**	**Quiz**

جامعة البيان

105. Course Evaluation
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ **For first and second semester 25 degree (10 theoretical +15 practical)** **For mid-year (15 degree theoretical)** **For final exam (60 degree theoretical + 40 practical)**

106.Learning & Teaching Resources	
Required textbooks (curricular if any)	1.Ten cate's oral histology development, structures and function. Antonio Nanci. 9th edition. 2017, Elsevier. 2. Orban's oral histology and embryology. Kumar. 14th edition. 2015, Elsevier.
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	1. Electronic references and websites 2. Scientific and practical journals and reports
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar

Course Description (1)

107. Course Title	**Prosthodontics**
108. Course Code	050301
109. Semester/Year	Yearly
110. Description Preparation Date	2024-2025
111. Available Attendance Form	Lectures and laboratory
112. No. of Hours (Total)	Theory : 30 Clinical: 60
113. No. of Credits (Total)	4
114. Course Administrator Name	Lec. Mustafa Samir Mahmood
115. E-mail	mustafa.sa@albayan.edu.iq

116. Course Objectives

Knowledge	A1	Acquiring experience and information to help identify the patient needs and reasons
	A2	Development of motivational interviewing skills to encourage patients to take remedial measures
	A3	Increased knowledge of students to determine the patients need for a partial set of teeth
	A4	Increased knowledge of students about constructing a partial set of teeth
Skills	B1	Acquiring skills in clinical dental examinations and partially identifying der compensation
	B2	Development of motivational interviewing skills to encourage patients to maint their partial dental set
	B3	Identification of indicators and techniques for application of partial denture s treatments
	B4	Acquiring skills in treatment planning for partially edentulous patients
Value	C1	Catalyze students through expression, reflection, speed of communication and response

	C2	Inducing students to solve problems and to have special thinking
	C3	Reliance of the lecture on student interaction and mental storm
	C4	Preparing the student to be a dentist capable of treating patients

117. Teaching and Learning Strategies

1.	Lectures using Data show and power point.	4.	Electronic education
2.	Educational films	5.	Smart probes
3.	Monitors	6.	Practical application in the clinic

جامعة البيان

118. The Structure of the Course

Week	Hours	RLOs	Topic/Subject Name	Learning Method	Evaluation Method
1	1	• Partial dentures • Removable partial denture (RPD) • Objectives for RPD construction • Causes of teeth loss • Indications of removable partial dentures • Fixed partial denture • Indications for fixed partial denture • Dental implant therapy • Contraindications for dental implant therapy • Terminology and re- finishing	Introduction to Removable Partial Denture	Prosthodontics	Theoretical lecture using Power P
2	1	• Need for classification. • Requirements of an acceptable method of classification • Removable partial dentures may be classified according to the type of support • Removable partial dentures may be classifiedaccording to the type of material • Removable partial dentures may be classified according to the type of treatment • Classification based on arch configuration • Kennedy – Applegate –Fiset classification system.	Partially Edentulous Classification of Arches	Prosthodontics	Theoretical lecture using Power P

		• Applegate's rules governing the application of the Kennedy classification method			
3	1	• The ideal requirements for successful removable partial denture • Purposes (Objective) of Surveying the Diagnostic Cast • Advantages of single path of placement (insertion) • Guiding planes • Dental surveyor • Types of dental surveyors • Parts of dental surveyor (Ney type surveyor)	Surveying	Prosthodontics	Theoretical lecture using Power P
4	1	• Principles of surveying • Types of undercuts established by surveying • Factors that determine and affect the path of placement (insertion) and removal of the RPD • Rules of surveying	Surveying (continue)	Prosthodontics	Theoretical lecture using Power P
5	1	• Main components of RPD • Major connectors • Requirements of major connectors • Guidelines for design and location of major connectors • Characteristics of major Connectors	Component Parts of a Removable Partial Denture	Prosthodontics	Theoretical lecture using Power P
6	1	• Special Structural Requirements for Maxillary Major Connectors • Types of Maxillary Major Connector • Single palatal bar • Single palatal strap	Maxillary Major Connectors	Prosthodontics	Theoretical lecture using Power P

		• Anterior-posterior palatal bars • Combination anterior and posterior palatal strap– type connector • Palatal plate-type connector • U-shaped palatal connector			
7	1	• Special structural requirements • Types of mandibular major connectors ○ Lingual bar ¬ Methods that may be used to determine the relative height of the floor of the mouth ○ Lingual plate (linguoplate) ¬ The indications for the use of linguoplate ○ Double lingual bar (lingual bar with cingulum bar) ¬ Indications for use of double lingual bar ○ Labial bar ¬ Indications for use of labial bar ¬ Characteristics and location	Mandibular Major Connectors	Prosthodontics	Theoretical lecture using Power P
8	1	• Definition • Functions • Form & location • Basic types of minor connectors • Tissue stops • Finishing lines • Reaction of Tissue to Metallic Coverage	Minor Connectors	Prosthodontics	Theoretical lecture using Power P

9	1	• The purposes of the rest in general • Occlusal Rest • Extended Occlusal Rest • Interproximal Occlusal Rest • Internal Occlusal Rests • Occlusal Rest Seat Preparation • Occlusal Rests on Amalgam Restorations • Occlusal Rest on Crowns • Lingual Rests (Cingulum Rest) • Incisal Rests and Rest Seats • Implants as a Rest	Rests and Rest Seats	Prosthodontics	Theoretical lecture using Power P
10	1	• Direct retainers • Indirect retainers • The extra coronal retainer (Clasp type) • Component parts, Function, and position of clasp assembly parts • Factors affecting the magnitude of retention • The basic principles of clasp design	Retention and Removable Partial Denture Retainers	Prosthodontics	Theoretical lecture using Power P
11	1	• Clasps designed without movement accommodation. • Circumferential (Circle or Akers) clasp • Ring-type clasp • Embrasure (double Akers) clasp • Back action clasp • Multiple clasps • Half-and-half Clasp	Extra Coronal Direct Retainers (Types of clasp assemblies)	Prosthodontics	Theoretical lecture using Power P

		• Reverse-action clasp (Hairpin) • Disadvantages of circumferential clasps in summary • Clasps designed to accommodate distal extension functional movement • RPI clasp • Bar-type clasp assembly • RPA clasp; Akers clasp • Infra-bulge clasp • Combination clasp			

12	1	• Internal attachments
		• Precision Attachments
		  ○ Some indications for precision attachments
		  ○ Some of the contraindications for precision attachments
		  ○ The main types of precision attachments
		• Selection of an Attachment for a Removable Partial Denture
			Intracoronal Direct Retainers (Internal Attachments, Precision Attachments	Prosthodontics	Theoretical lecture using Power P

13	1	• Stress-Breakers • Types of Stress-Breakers	Stress-Breakers (Stress Equalizers)	Prosthodontics	Theoretical lecture using Power P
14	1	• The main factors influencing the effectiveness of an indirect retainer • The auxiliary functions of indirect retainers • Forms of Indirect Retainers	Indirect Retainers	Prosthodontics	Theoretical lecture using Power P
15	1	• Auxiliary occlusal rest • Lingual rest • Incisal rest • Canine extensions from occlusal rests • Cingulum bars (continuous bars) and linguo-plates • Modification areas	Indirect Retainers (continue)	Prosthodontics	Theoretical lecture using Power P

		• Rugae support			

16	1	• Blockout and relief
		• Cast preparation
		• Types of blockout of master cast
		  ○ Parallel blockout
		  ○ Shaped blockout
		  ○ Arbitrary blockout
		• Relieving the master cast
		• Purpose of relief
		• Sites
		• Tissue Stops
			Laboratory procedures in RPD construction: Blockout and Relief	Prosthodontics	Theoretical lecture using Power P

17	1	• Duplicating a stone cast • Duplicating material and flask • Impression • Refractory cast	Laboratory procedures in RPD construction: Duplication and Refractory Cast Construction	Prosthodontics	Theoretical lecture using Power P
18	1	• Waxing the framework • Spruing • General rules for spruing • Investing the sprued pattern • Purpose of investment • Burnout	Laboratory procedures in RPD construction: Wax Pattern	Prosthodontics	Theoretical lecture using Power P
19	1	• Casting the RPD Framework • Casting Process • Finishing the Framework • Sprue removal	Laboratory procedures in RPD construction: Casting and Finishing	Prosthodontics	Theoretical lecture using Power P
20	1	• The primary function of denture base • Types of denture base according to support • Types of the denture base according to materials • Advantages of metal denture base • Disadvantages of metal denture base • Design consideration of denture base	Denture Base in RPD	Prosthodontics	Theoretical lecture using Power P

		• Periodontal consideration of denture base design • Types of artificial teeth			
21	1	• Record bases • Types of record bases according to materials constructed from it • Occlusion rims • Occlusion rims for static jaw relation records • Occlusion rims for recording functional or dynamic jaw relationship record • Mounting casts on the articulator • Arrangement of artificial teeth to the opposing cast • Principles that should be taken during arrangement of artificial teeth • Laboratory procedure of arrangement teeth (Example)	Record Bases, Occlusion Rims, Mounting and Arrangement of Teeth	Prosthodontics	Theoretical lecture using Power P
22	1	• Biomechanical considerations • Possible movements of partial dentures • Tooth-tissue–supported prosthesis	Biomechanics of Removable Partial Dentures	Prosthodontics	Theoretical lecture using Power P
23	1	• Tooth-supported partial denture • Occlusal Rest Seat Preparation and Denture Movement • Impact of Implants on Movements of Partial Dentures	Biomechanics of Removable Partial Dentu (continue)	Prosthodontics	Theoretical lecture using Power P
24	1	• Difference in Prosthesis Support and Influence on Design	Principles of Removable Partial Denture Design	Prosthodontics	Theoretical lecture using Power P

		• Differentiation Between Two Main Types of Removable Partial Dentures			
25	1	• Components of Partial Denture Design • Implant Considerations in Design	Principles of Removable Partial Denture Design (continue)	Prosthodontics	Theoretical lecture using Power P
26	1	• 1st Phase: Education of patient • 2nd Phase: Diagnosis, Treatment Planning, Design, Treatment Sequencing, and Mouth Preparation • 3rd Phase: Support for Distal Extension Denture Bases • 4th Phase: Establishment and Verification of Occlusal Relations and Tooth Arrangements • 5th Phase: Initial Placement Procedures • 6th phase: Periodic Recall	Clinical Phases of Removable Partial Dent Construction.	Prosthodontics	Theoretical lecture using Power P
27	1	• Acrylic removable partial dentures • Appearance • Maintenance of space • Reestablishment of occlusal relationships • Conditioning of teeth and residual ridges • Interim restoration during treatment • Conditioning the patient for wearing a prosthesis • Clinical procedure for placement	Acrylic Removable Partial Dentures	Prosthodontics	Theoretical lecture using Power P
28	1	• Flexible removable partial dentures	Flexible Removable Partial Dentures	Prosthodontics	Theoretical lecture using Power P

		• Type of material used for the flexible denture • Support • Retention			
29	1	• Broken clasp arms • Several reasons for breakage of clasp arms • Fractured occlusal rests • Distortion or breakage of other components – major and minor connectors • Addition of a new artificial tooth to a RPD • Repair by soldering	Repairs and Additions to Removable Partia Dentures	Prosthodontics	Theoretical lecture using Power P
30	1	• Components of CAD/CAM system • Types of Digital Scanner • Digital RPD Framework Design (step by step) • Digital Fabrication Process	Digitally Designed & Fabrication Process RPD Framework Using CAD/CAM Syste	Prosthodontics	Theoretical lecture using Power P

جامعة البيان

119. Course Evaluation	
توزيع الدرجة من 100 على وفق المهام المكلف بها الطالب مثل التحضير اليومي والامتحانات اليومية والشفوية والشهرية والتحريرية والتقارير .... الخ	
120.Learning & Teaching Resources	
Required textbooks (curricular if any)	McCracken's Removable Partial Prosthodontics13th Edition - November 3, 2015 ▪ Robert, W. L. (2018) Removable Partial Denture Manual. Dalhousie University
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

121. Course Title		Prosthodontics
122. Course Code		050201
123. Semester/Year		Yearly
124. Description Preparation Date		2024-2025
125. Available Attendance Form		Lectures and Laboratory
126. No. of Hours (Total)		Theory: 30 hours Practical: 120 hours
127. No. of Credits (Total)		6
128. Course Administrator Name		Lect. Dr. Zainab Sabah Abdulhasan
129. E-mail		zainab.s@albayan.edu.iq
130. Course Objectives		
Knowledge	**A1**	1. The student must have seen with his own eyes and become familiar with dental devices a tools
	A2	2. The student gets to know different types of laboratory materials and how to use them
	A3	3. The student must have learned to use laboratory equipment
	A4	4. Learn how to evaluate the mistakes that dental technicians may make
Skills	**B1**	1. Teaching the student methods of laboratory and environmental cleanliness
	B2	2. Teach the student to wear lab coat, masks, and gloves while working
	B3	3. Description of tools, devices, and materials related to the subject of manufactur removable denture
	B4	
Values	**C1**	Professional preparation and encouraging the student to have positive behavior in his public life
	C2	Teamwork
	C3	Planning and organization
	C4	Skill in identifying dental prosthetic devices

131. Teaching and Learning Strategies			
1.	Lectures using data show and power point	**4.**	Educational films
2.	Display screens	**5.**	Smart boards
3.	E-learning	**6.**	Practical application in the laboratory

جامعة البيان

132. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	• Complete denture • Objective of complete denture • General consideration in complete denture construction • Complete denture component parts	**Introduction**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
2	1	• Anatomical landmarks • Maxillary arch anatomical landmarks • Supporting structures • Limiting structures • Relief areas	**Anatomical landmarks**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
3	1	• Anatomical landmarks • Mandibular arch anatomical landmark • Supporting structures • Limiting structures • Relief areas	**Anatomical landmarks**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
4	1	• Impression tray - Definition • Parts of the impression tray • Types of trays • Stock tray - Definition • Types of stock trays • Factors effect in selection of stock tray	**Complete Denture Impression**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

5	1	• Special tray • Advantages of special tray • Materials used for construction of special tray • Types of special tray • Techniques or methods for construction of special tray Criteria for special tray constructio	**Complete Denture Impression**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
6	1	• Dental impression - Definition • Complete denture impression - Definition • Objective of impression making • Primary impression – Definition • Materials used for making primary impression • Primary cast - Definition • Production of study cast • Secondary impression - Definition • Master cast Definition • Materials used for final impression • Technique used for making final impression • Common fault in impression making	**Complete Denture Impression**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

7	1	• Record base - Definition • Requirements of record base • Types of materials used in construction of record base	**Record Base**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
8	1	• Occlusion rims - Definition • Requirements of occlusion rim • Materials used in construction of occlusion rim • Measurements of maxillary occlusion rim • Measurements of mandibular occlusion rim • Uses of occlusion rim • Occlusal plane	**Occlusion Rims**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
9	1	• Temporomandibular joint (TMJ) – Definition • Ligaments • Muscles	**Anatomy And Physiology of Temporomandibular Joint**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
10	1	• Mandibular axes and mandibular movements • Knowledge of mandibular movements Mandibular movements	**Anatomy And Physiology of Temporomandibular Joint**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
11	1	• Types of jaw relation • Vertical jaw relation • Rest position • Inter – occlusal distance • Importance of vertical dimension	**Maxillomandibular relation**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

		• Increased vertical dimension • Decreased vertical dimension			
12	1	• Method of recording rest vertical dimension • Method of recording occlusal vertical dimension • Pre – extraction records • Methods without pre – extraction record	**Methods of Recording Vertical Relation**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
13	1	• Centric jaw relation • Importance of centric jaw relation • Methods of recording jaw relation • Factors that complicate centric jaw relation • Methods of recording eccentric jaw relation	**Horizontal Jaw Relation**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
14	1	• Dental articulator • Definition • Functions of articulator • Requirements of articulator • Types of articulators	**Dental Articulators**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
15	1	• Face -bow • Definition • Parts of face -bow • Types of face -bow • Important of the face -bow	**Face – Bow**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

16	1	• Mounting • Definition • Preparation of articulator • Preparation of the casts and mounting the upper cast on CL II articulator • Mounting the lower cast • Errors occurred during mounting	**Mounting**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
17	1	• Selection of anterior teeth • The factors of shade selection • Size selection a. Length b. Width • Form selection • Materials of anterior teeth • Difference between acrylic and porcelain teeth	**Selection of Artificial Teeth**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
18	1	• Shade • Occluso -gingival height • Occlusal form • Advantages of casp form teeth • Advantages of non - cusp form teeth	**Selection of Posterior Teeth**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
19	1	• Guideline of artificial teeth arrangement • Arrangement of anterior teeth • Arrangement of upper anterior teeth	**Arrangement of Artificial Teeth**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

20	1	• Curve of Spee • Compensatory curves • Arrangement of lower posterior teeth • Arrangement of upper posterior teeth • Common errors in arrangement of teeth	**Arrangement of Posterior Teeth**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
21	1	• Waxing • Definition • Requirements of waxing the polish surfaces • Establishing the posterior palatal seal area • Procedure for carving of posterior palatal seal area • Advantages of posterior palatal seal • Esthetic consideration in complete denture	**Waxing And Carving**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations
22	1	• Occlusion • Occlusion of complete denture • Centric occlusion • Centric relation	**Complete Denture Occlusion**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
23	1	• Eccentric occlusion • Concepts of complete denture occlusion • Try -in appointment	**Complete Denture Occlusion**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
24	1	• Flasking of the denture • Flasking techniques	**rocessing of the Denture (Flaskir**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations

25	1	• Causes of errors in occlusion • Selective grinding • Correction of occlusal errors • Disadvantages of intra – oral correction • Advantages of extra – oral correction • Rules for selective grinding	**nishing and Polishing of Compl Denture**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
26	1	• Procedure of finishing • Grinding and cutting instruments • Polishing of complete denture • Principles of polishing • Procedures of polishing	**Occlusal Correction**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
27	1	• Types of material used in repair • Causes of denture fracture • Types of repairs Laboratory procedure for repairing fractured denture base	**Repair of Complete Denture**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
28	1	• Replacement of broken or missing tooth • Replacement of missing or lost part • Requirement of repair	**Repair of Complete Denture**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations
29	1	• Indication for relining or rebasing • Relining • Contraindications of relining and rebasing	**Relining and Rebasing**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and fi examinations

		• The impression techniques for relining and rebasing			
30	1	• Laboratory procedures for relining • Rebasing • The chair – side reline technic	**Relining and Rebasing**	Theoretical lecture using Power Point	Quizzes, monthly, mid-year and final examinations

133. Course Evaluation		
1	First + second semester 25%	Theory 10% Practical 15%
2	Midyear examination 15%	Theory 15%
3	Final examination	Theory 40% Practical 20%
Total		**100%**

134.Learning & Teaching Resources	
Required textbooks (curricular if any)	1. Dental laboratory technology for removable prosthodontics 2. Textbook of complete denture
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	Make periodic reports and read recent research in reputable journals
Websites or Electronic References	PubMed, Scopus, Elsevier, Google Scholar, Research Gates

جامعة البيان

Course Description (1)

135. Course Title	**Prosthodontics**
136. Course Code	**050501**
137. Semester/Year	annual
138. Description Preparation Date	2024-2025
139. Available Attendance Form	Lectures and Clinics
140. No. of Hours (Total)	Theory: 30 hours Practical: 180 hours
141. No. of Credits (Total)	8
142. Course Administrator Name	Assistant lecturer Yaseen Hasan
143. E-mail	Yassen.h@albayan.edu.iq

144. Course Objectives

Kno		Preparing dental students scientifically and practically and qualifying them to make and deal with comple dentures and flexible dentures.
Skills		**A- Special skills:** 1- Gain skills for patient diagnosis 2- Gain skills to make motivational introduction to the patient. **B- Thinking skills** Motivate students to solve problems. **C- General skills:** 1- Motivate students for positive thinking. **2-** Motivate students for other science.

جامعة البيان

145. Course structure					
Week	**Hours**	**Subject name**	**The outcomes of learning**	**Learning method (hours)**	**Evaluation**
1	1	Occlusion in Complete Denture	□ Occlusion □ Articulation □ Centric relation □ Centric occlusion □ Occlusal balance □ Occlusal harmony □ Occlusal interference □ Maximum intercuspation • Requirements of ideal complete denture occlusion • Objectives of occlusion in complete denture □ Requirement of complete denture occlusion □ Types of occlusion	Data show presentation	Daily examinations and evaluations on treatment of patients
2	1	Occlusion in Complete Denture (Continue)	□ Balance occlusion • Advantages of balance occlusion □ Factors affecting the balanced occlusion (laws of articulation) • Condylar guidance • Incisal guidance • Plane of occlusion • The compensating curve • Cuspal angulations □ Interaction of the five factor □ Lingualized occlusion □ Monoplane or occlusion (neutrocentric)	Data show presentation	Daily examinations and evaluations on treatment of patients

			□ Types of occlusal scheme • retention, stability and support of complete denture		
3	1	Retention, Stability And Support	□ Retention □ Factors affect in the retention of CD • Mechanical factors • Muscular factor □ Denture surface • Occlusalsurface • Polished surface • Impression surface □ Stability • Various factors that affecting the stability	Data show presentation	Daily examinations and evaluations on treatment of patients
4	1	Retention, Stability And Support (Continue)	□ Support □ Nature of the Supporting tissue □ Mandibular anatomical consideration □ Mandibular residual ridge □ Maxillary anatomic consideration □ Factors that influence the form and size of the supporting bone	Data show presentation	Daily examinations and evaluations on treatment of patients
5	1	Post Insertion Problems	□ Classification of Post-Insertion Denture problems • Complaints about comfort of the denture • Complaints about function of the denture • Complaints about esthetics • Complaints about phonetics □ Complaints about comfort of the denture • Sore spot • Burning sensation • Redness • Pain in TMJ • Tongue and cheek biting • Swallowing & sore throat	Data show presentation	Daily examinations and evaluations on treatment of patients

			• Nausea and gagging • Clicking of teeth • Fatigue of the muscles of mastication		
6	1	Post Insertion Problems (Continue)	Complaints about function of the denture • Loose denture (poor retention) • Unstable denture Complaints about esthetics Complaints about phonetics Oral mucosal Lesions induced by removable dentures Causes of Mucosal Irritation Types of these lesions • Denture stomatitis • Angular Cheilitis • Flabby ridge • Denture irritation hyperplasia • Traumatic ulcer • Burning Mouth Syndrome • Hypersensitivity	Data show presentation	Daily examinations and evaluations on treatment of patients
7	1	Complications Of Complete Denture	Changes occurred required Long term recall appointments Some Clinical Problems and Solutions associated with complete denture • Problems of reduced salivary flow • Aetiology of reduced salivary flow • Management of dry mouth	Data show presentation	Daily examinations and evaluations on treatment of patients
8	1	Complications Of Complete Denture (Continue)	Hard and soft materials for modifying the impression surface of dentures Other complications • Flabby ridge • Denture breakages • Debonding of teeth	Data show presentation	Daily examinations and evaluations on treatment of patients

			• Gagging reflex (retching) • Burning mouth syndrome • Disturbance of speech		
9	1	Immediate Denture	□ Introduction, Definition, Indications , Contraindications, Advantages ,Disadvantages □ Types of immediate dentures □ Explanation to the Patient Concerning Immediate Dentures	Data show presentation	Daily examinations and evaluations on treatment of patients
10	1	Immediate Denture (Continue)	□ Diagnostic steps, Impression techniques, Jaw relations record ,Try-in, Cast trimming, Waxing and flasking, Surgical splints, Setting of teeth, Processing and finishing ,Insertion □ Post-operative care and instructions	Data show presentation	Daily examinations and evaluations on treatment of patients
11	1	Classification system for completely edentulous patients	□ Development of the classification system □ Diagnostic Criteria □ Integration of Diagnostic Findings □ Diagnostic Classification of Complete Edentulism □ Reasonsfor a Classification System □ Features govern classes differentiation from each other □ Guidelinesfor Use of the Complete Edentulism Classification System □ Bone height-mandible only □ Residual ridge morphology-maxilla only	Data show presentation	Daily examinations and evaluations on treatment of patients
12	1	Classification system for completely edentulous patients (Continue)	□ Muscle Attachments: Mandible only □ Maxillomandibular Relationship □ Integration of Diagnostic Findings □ Arrangement of artificial teeth in abnormal jaw relations □ Arrangement of anterior teeth in maxillary protrusion □ Arrangement of artificial teeth in abnormal jaw relations	Data show presentation	Daily examinations and evaluations on treatment of patients

			□ Arrangement of anterior teeth in mandibular protrusion		
13	1	Posterior palatal seal area	□ Posterior palatal seal area □ Anatomical and Physiological Considerations for Posterior Palatal Seal □ Methods of location of anterior vibrating line (AVL) □ Classification of soft palate □ Designs of the posterior palatal seal □ Methods or techniques of recording posterior palatal Seal area □ Error in recording of posterior palatal seal	Data show presentation	Daily examinations and evaluations on treatment of patients
14	1	Single CD	□ Maxillary complete denture opposing by complete mandibular dentition □ Techniques used to determine occlusal modifications prior to denture construction □ Upper complete denture opposing by mandibular partial denture	Data show presentation	Daily examinations and evaluations on treatment of patients
15	1	Single CD (Continue)	□ Complications of single CD • Combination Syndrome and Associated Changes (Kelly's Syndrome) • Setting of teeth and occlusal concept • fracture of Denture • Wear of Teeth □ Mandibular single denture □ Stepsfor Single Denture construction	Data show presentation	Daily examinations and evaluations on treatment of patients
16	1	Geriatric dentistry	□ Definitions □ Factorsinfluencing Aging □ Goal of Geriatric dentistry □ Objectives of Geriatric dentistry □ Psychological disorders of elderly patients generally seen by prosthodontist □ Factorsthat influence the patient's response □ Seven basic personality traits will be considered in the light of their influence on success in dentistry	Data show presentation	Daily examinations and evaluations on treatment of patients

			□ Systemic Diseases and its dental relation □ Geriatric dentistry related to prosthetic part 2		
17	1	Maxillofacial Prosthesis	□ Objectives of maxillofacial prosthesis □ Maxillofacial Classification □ Extra Oral Appliances	Data show presentation	Daily examinations and evaluations on treatment of patients
18	1	Maxillofacial Prosthesis (Continue)	□ Intra Oral Appliances □ Retentive Aids in Maxillofacial Prosthodontics □ Steps of maxillofacial prostheses construction	Data show presentation	Daily examinations and evaluations on treatment of patients
19	1	Residual Ridge resorption	□ Structural characteristics of alveolar bone □ Pathology of RRR □ Pathogenesis of RRR □ Direction of bone resorption □ Patterns of bone resorption □ Consequences of RRR □ Etiology of RRR	Data show presentation	Daily examinations and evaluations on treatment of patients
20	1	Residual Ridge resorption (Continue)	□ RRR is a multi-factorial, biomechanical disease • Metabolic factors • Dietary Factors □ Osteoporosis and residual ridge modeling □ Prosthetic factors □ Treatment and Prevention of RRR	Data show presentation	Daily examinations and evaluations on treatment of patients
21	1	Dental implantology	□ implant classification □Classification of endosseous implants according to their design □Classification of endosseous implants according to their material □Classification of endosseous implants according to surface characteristics	Data show presentation	Daily examinations and evaluations on treatment of patients

			Classification of endosseous implants according to the insertion technique Classification of endosseous implants according to surgical stages 6.classification of endosseous implants according to the time of installation 7.classification of endosseous implants according to time of prosthetic loading Factors affecting healing Surgical technique Premature loading Surgical fit Bone quality and quantity Physical condition of the patient		
22	1	Dental implantology (Continue)	○ Components of branemark implant system ○ Prosthetic options in implant dentistry ○ Overdenture (implant supported overdenture) ○ Basic sequence of procedures in implants treatment ○ Radiographic stent ○ Implantsuccess and survival ○ Indications of implant denture ○ Contradictions of implant denture ○ Characteristics of the osseointegrated implant ○ Basic guiding factors of osseointegration ○ Occlusion in implant-supported prostheses ○ Occlusal form and scheme	Data show presentation	Daily examinations and evaluations on treatment of patients
23	1	Esthetics in CD	○ Definition ○ Factors Influencing the Appearance of Dentures ○ Steps in achieving esthetic complete denture	Data show presentation	Daily examinations and evaluations on treatment of patients

			○ Additional clinical and technical considerations in anterior tooth selection patient preferences ○ Gingival Contour ○ Denture base factors ○ Characterization ○ Final Decision for Esthetics		
24	1	Characteristics Of Ideal Materials For Dental Implant	□ osseointegration □ Biomaterials □ Selection of Biomedical Materials □ Classification of implant materials □ Types of surface modification: □ Surface design □ Ceramic coating □ Super structure □ GuidedBone Regeneration	Data show presentation	Daily examinations and evaluations on treatment of patients
25	1	Copy denture	□ Definition □ Aims □ Indication □ Technique for denture duplication □ Laboratory procedure for denture duplication □ Denture duplication technique □ The silicon putty □ The agar- Agar □ Modification/ Further application □ Problem Areas in Fabrication and Solutions	Data show presentation	Daily examinations and evaluations on treatment of patients
26	1	Over Denture	□ The important goals of overdenture □ Indications of Overdenture. □ Contraindications of Overdenture □ Advantages of overdenture prosthesis □ Disadvantage of overdenture □ Overdenture Classification	Data show presentation	Daily examinations and evaluations on treatment of patients

			□ Sequence of Treatment of Patient Who Need an Overdenture □ Impressions of the Abutment Teeth □ Denture Base designing □ Implantsupported overdenture □ Type of implant overdenture		
27	1	Over Denture (Continue)	□ Indication of Implant supported overdenture □ Contraindication □ Advantages of implant supported over denture □ Disadvantages of implant supported over denture	Data show presentation	Daily examinations and evaluations on treatment of patients
28	1	Neutral zone in CD	□ Definitions □ Neutral Zone Concept □ Objectives of Neutral zone Techniques □ Indications of Neutral zone Techniques □ Recording neutral zone in final impression stage □ Recording neutral zone in jaw relation visit □ Recording neutral zone in try in stage □ Recording neutral zone in finished denture □ Limitation for the success of neutral zone impression technique	Data show presentation	Daily examinations and evaluations on treatment of patients
29	1	Attachments in over denture	□ Function of attachment □ Factors affecting attachment selection □ Retentive Mechanism	Data show presentation	Daily examinations and evaluations on treatment of patients
30	1	Attachments in over denture (Continue)	□ Classification of Attachments □ Types of attachments □ Overdenture care	Data show presentation	Daily examinations and evaluations on treatment of patients

146. Course Evaluation		
1	First + second semester 25%	Theory 10% Practical 15%
2	Midyear examination 15%	Theory 15%
3	Final examination	Theory 40% Practical 20%
Total		**100%**

147.Learning & Teaching Resources	
Required textbooks, methodology if present	Zarb, Hobkirk, Eckert, Jacob et al. Prosthodontic treatment for edentulous patients: Complete dentures and implant-supported prostheses.13th edition 2013 by Mosby, Elsevier Inc.
Main references (Resources)	Golden and Driscoll. Treating the complete denture patient. 1st edition 2020 John Wiley & Sons, Inc.
Supporting books and references recommended by scientific journals and reports	Prosthodontics Articles
Electronic References, Internet Sites	Google scholar and research gate

جامعة البيان

Course Description (1)

148. Course Title	Prosthodontics
149. Course Code	050401
150. Semester/Year	Annual
151. Description Preparation Date	2025-2024
152. Available Attendance Form	weekly
153. No. of Hours (Total)	Theoretical 30 hours + clinical 90 h (120 hours)
154. No. of Credits (Total)	5
155. Course Administrator Name	Usama Abdulrasool Hamoodi
156. E-mail	

157. Course Objectives

Knowledge	**A1**	Training the student on how to examine and diagnose medical conditions.
	A2	Giving important information and treatment steps
	A3	Giving instructions and following up on the process of making partial dentures
	A4	
Skills	**B1**	Describe the tools used to treat patients in need of partial dentures
	B2	Practical training on the steps followed to treat patients who need a partial denture
	B3	Follow up the student while working with oral questions for each step to encourage student to make connections between theoretical lectures and the practical aspect
	B4	
Values	**C1**	Solving problems
	C2	Creating a spirit of scientific competition among students by asking questions related various new cases

	C3	Encouraging the student to develop themselves through continuous reading and trainin
	C4	

158. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	E-learning
2.	Educational films	5.	Smart boards
3.	Display screens	6.	Practical application in the laboratory

جامعة البيان

159. The Structure of the Course					
Week	**Hours**	**RLOs**	**Topic/Subject Name**	**Learning Method**	**Evaluation Method**
1	1	• 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 stress- bearing areas • Areas requiring relief in impression • The pattern of bone resorption	Anatomy and physiology as related to dental prosthesis (Osteology)	Theoretical lecture using Power Point	Quizzes & semester exam
2	1	• Muscles of facial expression • Functions of muscles of facial expression • Muscles of mastication • Muscles of the soft palate • Tongue • Muscle physiology	Anatomy and physiology as related to dental prosthesis (Myology)	Theoretical lecture using Power Point	Quizzes & semester exam

		• Oral mucous membrane • Salivary gland and saliva □ Physiologic factors affect salivation □ Function of saliva			
3	1	• Patient interview • The objectives of prosthodontic treatment • Oral examination • Sequences of oral examination	Diagnosis and treatment plan for RPD	Theoretical lecture using Power Point	Quizzes & semester exam
4	1	• Interpretation of Examination Data • Root morphology • Periodontal considerations • Needs for extraction • Indication of RPD • The Recommended Infection Control Practices for Dental Treatment	To be continued Diagnosis and treatment	Theoretical lecture using Power Point	Quizzes & semester exam
5	1	• Interpretation of Examination Data • Root morphology • Periodontal considerations • Needs for extraction • Indication of RPD • The Recommended Infection Control	Preparation of the mouth to receive an RPD	Theoretical lecture using Power Point	Quizzes & semester exam

		Practices for Dental Treatment			
6	1	- 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).	Theoretical lecture using Power Point	Quizzes & semester exam
7	1	•Impression material - Differences between reversible and irreversible hydrocolloid - Important Precautions to Be Observed in the Handling of Hydrocolloid Impressions. • Steps in impression making - The step-by-step procedure and important points to observe in the	Classification of impression technique	Theoretical lecture using Power Point	Quizzes & semester exam

		making of a hydrocolloid impression			
8	1	• Step-by-Step Procedure for Making a Stone Cast from a Hydrocolloid 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	Classification of impression technique (To be continue)	Theoretical lecture using Power Point	Quizzes & semester exam
9	1	• 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	Theoretical lecture using Power Point	Quizzes & semester exam
10	1	• Initial inspection	Fitting the removable partial denture framework	Theoretical lecture using Power Point	Quizzes & semester exam

		• Methods and procedures for fitting the framework • Laboratory inspection • Clinical procedures • Occlusal evaluation • Clinical procedures after fitting the framework			
11	1	• 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	Theoretical lecture using Power Point	Quizzes & semester exam
12	1	•Methods for establishing occlusal relationship • Interocclusal records • Excellent occlusal recording materials	Jaw relation in RPD	Theoretical lecture using Power Point	Quizzes & semester exam
13	1	• 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	Theoretical lecture using Power Point	Quizzes & semester exam

14	1	• Final inspection of the prosthesis before insertion • Verifying the removable partial denture (RPD) framework fit • Assessment of acrylic resin denture base adaptation • 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	Initial placement and adjustment of RPD	Theoretical lecture using Power Point	Quizzes & semester exam
15	1	• Surgical Guides (Templates) • Commonly Used Pre-prosthetic Procedures • Ridge Alveoloplasty with Extraction • Intra-septal Alveoloplasty • Edentulous Ridge Alveoloplasty Buccal Exostosis	Pre- prosthetic surgery	Theoretical lecture using Power Point	Quizzes & semester exam

		• Maxillary Tuberosity Reductions - Mandibular Tori - Maxillary Tori - Mylohyoid Ridge Reduction - Genial Tubercle Reduction			
16	1	• Soft Tissue Procedures - Maxillary Soft Tissue Tuberosity Reduction - Maxillary Labial Frenectomy - Excision of Redundant/Hyper mobile Tissue Overlying the Tuberosities - Excision of inflammatory Fibrous Hyperplasia (Epulis Fissuratum) - Inflammatory Papillary Hyperplasia of the Palate	Pre-prosthetic Surgical Considerations (Continued).	Theoretical lecture using Power Point	Quizzes & semester exam
17	1	• Mental Attitude (Psychological factor) - House classification - Social information. - Systemic (medical) status Week 18: To be continued diagnosis and treatment	Diagnosis and treatment plan CD	Theoretical lecture using Power Point	Quizzes & semester exam
18	1	• Past dental history - Local factors	To be continued diagnosis and treatment plan for CD	Theoretical lecture using Power Point	Quizzes & semester exam

		Intraoral examination (mucosa, ridge, hard palate, soft palate, tongue and post mylohyoid space) Radiographic examination Diagnostic cast-advantages • Treatment planning • Prognosis • Patient education			
19	1	• Definition • Objective of complete denture impression • Biologic considerations for mandibular impressions • Theories of 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	Impression in CD	Theoretical lecture using Power Point	Quizzes & semester exam

		Making final impression utilizing digital intraoral scanner			
20	1	• 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	TMJ and mandibular movement.	Theoretical lecture using Power Point	Quizzes & semester exam
21	1	• Digital partial dentures and rapid prototyping procedure • Difference between conventional and digital RPD Procedure • Advantages highlight the benefits of the digital over the conventional method	Digital RPD	Theoretical lecture using Power Point	Quizzes & semester exam
22	1	• Definition	Vertical jaw relation	Theoretical lecture using Power Point	Quizzes & semester exam

		• 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			
23	1	• Centric relation ▯ Methods must be used to position the jaw in centric relation	Horizontal jaw relation (Centric occlusion)	Theoretical lecture using Power Point	Quizzes & semester exam
24	1	• Definition • Importance of trial denture • Objective of trail denture • Extra oral examination of trail denture • Trail denture assessment in the mouth • Incorporation of posterior palatal seal	Try in stage in CD	Theoretical lecture using Power Point	Quizzes & semester exam

		• Patient role in trail denture • Technician role in trail denture			
25	1	• Complete denture insertion procedure • Denture base adjustment • Adjustment of denture border • Dentist evaluation • Patient evaluation • Friend's evaluation	Insertion of CD	Theoretical lecture using Power Point	Quizzes & semester exam
26	1	• Errors in occlusion • Intra oral occlusal correction • Extra oral selective grinding (centric and eccentric correction) • Appearance with new denture • Mastication with new denture • Speaking with new denture • Oral hygiene with dentures	Adjustments of CD	Theoretical lecture using Power Point	Quizzes & semester exam
27	1	• Freeway space problem • Pain in the sulcus • Pain on crest of the alveolar ridge	Post insertion complications in CD	Theoretical lecture using Power Point	Quizzes & semester exam

		• Looseness of one or both dentures • Speech problems • Chewing problems			
28	1	• Factors influencing the decision to reline an existing denture • Impression Technique for relining and rebasing	relining and rebasing of CD	Theoretical lecture using Power Point	Quizzes & semester exam
29	1	• Repair of fractured denture teeth • Complex fracture repairs	Repair of fractured RPD	Theoretical lecture using Power Point	Quizzes & semester exam
30	1	• Denture base material • Clasp material • Types of clasps	Esthetic denture materials	Theoretical lecture using Power Point	Quizzes & semester exam

جامعة البيان

160. Course Evaluation	
Distribution of the score out of 100 according to the tasks assigned to the student, such as daily preparation, daily exams, oral, monthly, written and records.	
161.Learning & Teaching Resources	
Required textbooks (curricular if any)	➢ Zarb, Hobkirk, Eckert, Jacob et al. Prosthodontic treatment for edentulous patients ➢ Complete dentures and implant-supported Mosby, prostheses.13th edition 2013 Elsevier Inc. ➢ McCracken's removable partial prosthodontics, 13th edition 2016 by Elsevier, Inc
Main References (sources)	
Recommended Books & References (Scientific Journals, Reports …)	
Websites or Electronic References	

جامعة البيان

Course Description (1)

162. Course Title	**Orthodontics**
163. Course Code	**050405**
164. Semester/Year	**annual**
165. Description Preparation Date	**2024-2025**
166. Available Attendance Form	**Lectures and laboratory work**
167. No. of Hours (Total)	**30 hr. theoretical and 120 hr. practical**
168. No. of Credits (Total)	**7**
169. Course Administrator Name	**Assistant lecturer Ghassan Bahir Abdulkareem**
170. E-mail	**Ghassan.bahir@albayan.edu.iq**

171. Course Objectives

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the program specification

11 · Learning Outcomes, Teaching, Learning and Assessment Methods

A. Knowledge	**A1.**	**Acquire the knowledge about the causes of malocclusion**
	A2.	**Knowing the methods of diagnosis and treatment of these problems**
	A3.	**Knowing different types of orthodontic appliances**
B. Subject-specific skills	**B1.**	**Learning how to construct a removable orthodontic appliance**
	B2.	**Learning how to adjust and activate the appliance**
C. Thinking Skills	**C1.**	**Solutions the problems of malocclusion**
	C2.	**Learning how to design a removable appliance**

D. General and Transferal Skills	D1.	**Prepare the students practically to construct a removable appliance**
	D2.	**Prepare the students practically how to design a removable appliance.**
	D3.	**Manage the removable orthodontic appliance**

12. Teaching and Learning Strategies

1.	Lectures using data show and power point	4.	Educational films
2.	Display screens	5.	Smart boards
3.	E-learning	6.	Practical application in the laboratory

13. Course Structure (Theoretical)

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Methods	Assessment Method
1	1	- Definition of orthodontics - Definition of occlusion, normal, ideal and malocclusion	**Introduction**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
2	1	- Six keys of normal occlusion - Aims of orthodontic treatment	**Introduction**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
3	1	- Important orthodontic definitions - Classification of malocclusion	**Introduction**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
4	1	- Definitions of growth, development and maturity - Stages of development (ovum till birth)	**Growth and development**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
5	1	- Theories of bone growth - Definitions of growth site, growth center, displacement, and drift	**Growth and development**	Theoretical lecture using power	Quizzes, semester, mid-year and

				point presentation	final year exams
6	1	- Growth curve and maximum growth spurt - Prenatal and postnatal growth and development of hard tissues	**Growth and development**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
7	1	- Prenatal and postnatal growth and development of soft tissues - Developmental anomalies	**Growth and development**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
8	1	- Jaw rotation - Compensation and adaptation	**Growth and development**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
9	1	a-Stages of tooth development: (Formation, calcification and root completion)	**Deciduous and permanent dentition**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
10	1	b-Tooth eruption (stages and theories), Sequences and timing of eruption	**Deciduous and permanent dentition**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
11	1	a. new born oral cavity. b. Deciduous dentition stage - Dental changes till 6 years of age.	**Development of occlusion**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
12	1	c. Early mixed dentition stage - eruption of first molars and incisors. d. Late mixed dentition stage - eruption of canines and premolars e. Permanent dentition - eruption second and third molars.	**Development of occlusion**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
13	1	-Genetic and inherited etiological factors of malocclusion	**Etiology of malocclusion :**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

14	1	-Classification of etiological factors a. General factors i. Skeletal factors	**Etiology of malocclusion :**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
15	1	ii. Soft tissue factors	**Etiology of malocclusion :**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
16	1	iii. dental factors	**Etiology of malocclusion :**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
17	1	b. Local factors (definitions without treatment)	**Etiology of malocclusion :**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
18	1	a. Tissue changes associated with tooth movement: i. Histology of periodontium ii. Theories of tooth movement b. Accelerated tooth movement.	**Tooth movement**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
19	1	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.	**Tooth movement**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
20	1	d. iatrogenic effect of orthodontic treatment (pain, mobility, pulp effect, root resorption, white spot lesions).	**Tooth movement**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
21	1	**Biomechanics**	**Biomechanics**	Theoretical lecture using power	Quizzes, semester, mid-year and

				point presentation	final year exams
22	1	(definition, indications, types)	**Anchorage**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
23	1	a. Overview: i. passive 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, lingual orthodontics)	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
24	1	b. Removable Orthodontic Appliance: i. Properties of various components (SS wire, acrylic) ii. Components: 1) active components (springs, screws and elastics) 2) retentive components (clasps) 3) acrylic base plate and bite planes 4) anchorage	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
25	1	iii. Design of a removable orthodontic appliance iv. Construction of a removable orthodontic appliance v. Soldering and welding vi. Post-insertion instructions and guidelines	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
26	1	c. Fixed orthodontic appliance: Types, components, advantages, limitation, biomechanics, banding vs. bonding	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
27	1	d. Orthopedic and Myofunctional appliance:	**Orthodontic appliances**	Theoretical lecture using power	Quizzes, semester, mid-year and

		Types, components, advantages, limitation, mode of action		point presentation	final year exams
28	1	*continue* Orthopedic and Myofunctional appliance: Types, components, advantages, limitation, mode of action	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
29	1	f. Retention and retainers -Retention (definition, reason, time) -Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams
30	1	*Continue* retention and retainers	**Orthodontic appliances**	Theoretical lecture using power point presentation	Quizzes, semester, mid-year and final year exams

14. Course Structure (Practical)

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Methods	Assessment Method
1	4	Seminar 1 (Introduction to orthodontics, Orthodontic Pliers)	Orthodontics	Practical demonstration	Practical evaluation, Quizzes, semester, mid-year and final year exams
2	4	Seminar 2 (Types of orthodontic appliances) (Introduction to removable appliance)	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
3	4	Seminar 4 (Stainless steel alloy properties)	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
4	4	Seminar 5 (Principles of wire bending)	Orthodontics	Practical demonstration	Practical evaluation, Quizzes

5	4	Wire bending training	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
6	4	*Continue* wire bending training	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
7	4	Z-Spring	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
8	4	Recurved Z-Spring	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
9	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
10	4	Simple Finger Spring	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
11	4	Modified Finger Spring	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
12	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
13	4	Buccal Canine Retractor	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
14	4	Modified Buccal Canine Retractor	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
15	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
16	4	Quarterly Exam	Orthodontics	Practical demonstration	Practical evaluation
17	4	Adams' Clasps on Upper Right 1st Molar	Orthodontics	Practical demonstration	Practical evaluation, Quizzes, semester,
18	4	Adams' Clasps on Upper Left 1st Molar	Orthodontics	Practical demonstration	Practical evaluation, Quizzes,
19	4	Adams' Clasps on Upper Right 1st Premolar	Orthodontics	Practical demonstration	Practical evaluation, 20Quizzes,

20	4	Double Adams' Clasps on Upper Right 2nd premolar &1st molar	Orthodontics	Practical demonstration	Pr21actical evaluation, Quizzes, semester, mid
21	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes,
22	4	Fitted Labial Arch	Orthodontics	Practical demonstration	Practical evaluation, Quizzes, semester, mid
23	4	Hawley Arch	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
24	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes,
25	4	Robert's Retractor	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
26	4	Acrylic baseplate	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
27	4	Soldering and Welding	Orthodontics	Practical demonstration	Practical evaluation, Quizzes,
28	4	Review	Orthodontics	Practical demonstration	Practical evaluation, Quizzes
29	4	Quarterly Exam	Orthodontics	Practical demonstration	Practical evaluation,
30	4	Final Exam	Orthodontics	Practical demonstration	Practical evaluation,

Every laboratory work includes the following:
Presentation of figures.
Demonstration done by teaching staff.
Wire bending done by the student.
Assessment of the figure.

15. Assessment Curriculum	
First semester + second semester	25%
Mid-year examination Theoretical	15%
Final exam Theoretical	60%
Total	100%
16. Learning and teaching resources	
Required textbooks, methodology if present	1. Singh G. Textbook of orthodontics. 3rd ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd.; 2015.
	2. Littlewood SJ, Mitchell L. An introduction to orthodontics. 5th ed. Oxford: Oxford university press; 2019.
	3. Nakajima E. Manual of wire bending technique. 1st ed. Chicago: Quintessence Publishing Co., Inc; 2010.
	4. Proffit WR, Fields Jr HW, Larson BE, Sarver DM. Contemporary orthodontics. 6th ed. Philadelphia: Elsevier; 2019.
	5. Graber LW, Vanarsdall RL, Vig KWL, Huang GJ. Orthodontics: current principles and techniques. 6th ed. St. Louis: Elsevier, Inc.; 2017.
Special requirements (include for example workshops, periodicals, IT software, websites)	The students are guided to perform seminars and reports and invite them to the continuous education programs
Electronic References, Internet Sites	Google Scholar, research gate