



وصف المقرر الدراسي

قسم طب الاسنان

Subjects of the 1st Year Dental College

No.	Subjects
١.	Medical Physics
٢.	Computer
٢.	Medical Chemistry
٤.	Medical Biology
٥.	Dental Anatomy
٦.	Human Rights & Democracy
٧.	English & Dental Terminology
	Total

Subjects of the 2nd Year Dental College

No.	Subjects
١.	Human Anatomy
٢.	Prosthetic Dentistry
٣.	General Histology

Σ.	Medical Physiology
ο.	Biochemistry
Ϛ.	Oral Histology & Embryology
∇.	Dental Materials

Subjects of the 3rd Year Dental College

No.	Subjects
1.	Prosthetic Dentistry
2.	Oral Surgery
3.	Microbiology
Σ.	General Pathology
ο.	Pharmacology
Ϛ.	Operative Dentistry
∇.	General Surgery
Λ.	General Medicine

Subjects of the 4th Year Dental College

No.	Subjects
1.	Periodontics
2.	Community Dentistry
3.	Orthodontics

Σ.	Oral Surgery
ο.	Operative Dentistry
Ϛ.	Oral Pathology
Υ.	Prosthetic Dentistry
Λ.	Dental Radiology

Subjects of the 6th Year Dental College

No.	Subjects
1.	Periodontics
2.	Preventive Dentistry
3.	Oral Surgery
Σ.	Prosthetic Dentistry
ο.	Operative Dentistry
Ϛ.	Orthodontics
Υ.	Paedodontics
Λ.	Oral Medicine

UNIVERSITY COLLEGE

المرحلة الثالثة

Subject: **Prosthetic Dentistry**

(Theory)

Topics
Introduction and Terminology
Classification of partially edentulous arches
Surveying
Rests and rest seats
Clasp
Clasp
Esthetic clasp
Minor connector
Major connector
Major connector
Denture base
امتحان فصل اول
Precision attachment and stress breaker
Indirect retainer
امتحان العملي نصف العام
Design of R.P.D
Design of R.P.D.
Biomechanics of RPD and possible movement
Laboratory procedures
Acrylic partial denture
Impression material and procedures
Preference of R.P.D. on fixed bridge
Diagnosis and treatment plan
The six phases of R.P.D. construction
امتحان فصل ثاني
Reasons of failure of partial denture
امتحان نهائي عملي

Subject: **Prosthetic Dentistry**

(Practical)

Topics
Creating ١٠ different partially edentulous cases on teaching models
Introduction to the surveyor
Practicing the use of the surveyor with its different tools on a

large molar single tooth and on a cast
Practicing the tilting of the cast and its advantages for the path of insertion and removal
Surveying the 10 different pre – made cases
Reference grooves and undercut gauging
Drawing the design on the cast
Master cast preparation ,block and relief
Duplication by Agar-Agar
Investment ,refractory cast
Wax pattern
Casting (demonstration only general production lab)
Acrylic partial denture ,wire bending for clasping
Mounting of the acrylic cast on the articulator
Setting of teeth with proper occlusal relation and carving
Flasking of the acrylic partial denture with special attention to the clasping stability
Clinical demonstration for impression taken to removable partial denture cases
Impression, study model and designing
Occlusal rest preparation in the patient's mouth
Final impression using a special tray

Subject : **Oral Surgery** (Theory)

Topics
Introduction to local anesthesia
Mode of action of local anesthesia
Neurosensory physiology and electrophysiology
Pharmacology of local anesthetic solution
Vasoconstrictor
Other component of local anesthetic solution
Methods o general anesthesia used in oral and maxillofacial surgery
Neuroanatomy of trigeminal nerve
Armamentarium of local anesthesia
Basic steps in an injection technique
Maxillary injection technique/ infiltration techniques
Maxillary injection technique/ Block technique
Mandibular injection technique/ infiltration techniques
Mandibular injection technique/ Block technique
Local complication of local anesthesia
Systemic complication of local anesthesia
Exodontia Introduction; definition and terminology

Case sheet
Mechanical principle of tooth extraction/ forces
Mechanical principle of tooth extraction/ methods
Indication of tooth extraction
Limitation of tooth extraction
Types of forceps and elevator used for tooth extraction
Incisions used in minor oral surgery
Flaps used in minor oral surgery
Sutures used in minor oral surgery
Complications of tooth extraction

Subject : **Oral Surgery** (Preclinical)

Topics
Oral Surgery
Surgical forceps and elevators
Patient's position
Dentist's position
The action of the left hand
Technique of local anesthesia (maxillary)
Technique of local anesthesia (Mandible)
Tooth extraction movement (Maxillary)
Tooth extraction movement (Mandible)

Subject : **Microbiology** (Theory)

Topics
Bacterial Structure and Taxonomy
Bacterial Physiology and Microbial Genetics
Viruses and Prions
Pathogenesis
Antimicrobial Chemotherapy
Diagnostic microbiology and laboratory methods
The immune system
The immune response
Immunity and infection
Streptococci, Staphylococci and micrococci

Lactobacilli, Compylobacteria, Propionibacteria
Actinomycetes
Clostridia
Bacillus
Neisseria, Veillonella, Parvobacteria and Capnocytophaga
Enterobacteriaceae
Vibrio, Compylobacter and Wolinella
Bacteroides, Provetella and Porphyromonas
Spirochaetes
Fusibacteria and Leptotrichia
Mycobacteria and Legionella
Chlamydia, Rickettsia and Mycoplasma
Viruses of relevance to dentistry
Fungi of relevance to dentistry
Viral hepatitis
Human immunodeficiency virus
Normal flora of the oral cavity
Oral ecosystem and Dental plaque
Microbiology of Dental Caries
Principle of infection control dentistry

Subject : **Microbiology** (Theory)

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Subject : **Microbiology** (Practical)

Topics
Sterilization & disinfection (physical)
Chemical sterilization
Bacterial morphology & staining (simple stain)
Differential stain (gram's stain)
Acid fast stain
Special stain (spore stain)
Capsule stain
Bacterial motility
Culture media
Pure culture & culture characteristic
Antimicrobial sensitivity test
Physical properties (IMVIC tests)
Urease-Catalase-coagulase&Oxidase.
TSI & Gelatinase test
Staphylococcus spp.
Streptococcus spp.
Streptococcus pneumonia
Neisseria spp.
Enterobacteriaceae .E.coli & Klebsiella spp.
Proteus –Salmonella & Shigella
Pseudomonas spp.
Lactobacillus spp.
Mycobacterium spp

Corynebacterium spp.
Anaerobic bacteria.
Actinobacillus spp.
Candida spp.
Actinomysis spp.
Normal flora of the mouth
Serology tests

Subject : **General Pathology** (Theory)

Topics
Introduction
Cell damage
Introduction, causes, mechanism of cell injury.
Adaptation, reversible cell injury, fatty changes, pigmentation
Amyloidosis, pathological calcification.
Irreversible cell injury: necrosis & apoptosis.
Inflammation
Acute inflammation : definition, mechanism, gross & microscopic
Fate, effect
Chronic inflammation
Mediators of inflammation
Infection
Factors influence infection, spread, signs & result of infection.
Bacterial infection : T.B
Actinomycosis, Syphilis
Viral infection
Protozoa infection
Healing& repair
Definition, mechanism, healing by 1 st intention
Healing by 2 nd intention, complication of healing.
Healing of fracture & extraction tooth. mediator of healing.
Radiation
Genetics
Classification, mode of inheritance
Syndromes associated with chromosomal abnormalities
Laboratory investigations
Blood flow
Disturbance of water & electrolyte
Edema & congestion
Thrombosis, embolism & bleeding
Infarction & shock

Immunopathology

Introduction, definition, & types of immunity, antigen

Antibodies: types & subtypes

Topics
Hypersensitivity reactions
Autoimmune diseases
Neoplasm
Definition, classification & nomenclature
Characters of benign & malignant tumors
Epithelial tumors
Connective tissue tumors
Tumors of melanocyte
Spread & effects
Grading ,staging & tumor markers
Carcinogenesis
Gastrointestinal tract
Oral manifestation, Disease of esophagus
Gastritis, peptic ulcer
Tumor of stomach, malabsorption syndrome
Inflammatory bowel disease
Gall stone, cholecystitis
Pancreatitis , tumour
Liver cirrhosis & tumor.
Hepatitis, acute viral, chronic hepatitis
Respiratory system
Rhinitis, laryngitis & tumors
Asthma, chronic bronchitis
Emphysema. Bronchiectasis
Pneumonia, disease of pleura.
Bronchogenic carcinoma
Hematology
Anemia, types
Bone marrow neoplasm
Bleeding disorder
Disease of lymph reticular system
Lymphoma
Cardiovascular diseases
Disease of blood vessel :: atherosclerosis
Hypertension, vasculitis
Ischemic heart disease
Rheumatic fever & rheumatic heart disease

Infective endocarditis & tumors of blood vessel

Subject : **General Pathology** (Practical)

Topics
Introduction
Gaseous necrosis, fatty changes
Calcification, amyloidosis
Tutorial in cell injury
Acute appendicitis, chronic cholecystitis
Nasal polyp, pseudo membranous inflammation
Tutorial in inflammation
Tuberculosis, actinomycosis
Syphilis
Tutorial in infection
Granulation tissue, scar
Squamous papilloma, fibro adenoma
Lipoma , leiomyoma
Tutorial in healing
Squamous cell carcinoma, Basal cell carcinoma
Adenocarcinoma
Peptic ulcer, ulcerative colitis
Liver cirrhosis
Chrohns disease, celiac disease
Atherosclerosis
Capillary & cavernous hemangioma
Tutorial in gastrointestinal tract
Pneumonia, oat cell carcinoma
Iron deficiency anemia, megaloblastic anemia
Thallasemia, sickle cell anemia
Acute leukemia, chronic leukemia
Hodgkin's disease, NHL
Reactive hyperplasia
Revision
Examination

Subject : **Pharmacology** (Theory)

Topics
Introduction, pharmacokinetic, pharmacodynamic process.
Autonomic NS, cholinergic & adrenergic NS (agonist, antagonist),

skeletal muscle relaxant.
Non narcotic analgesics.
Narcotic analgesics.
Local anesthesia.
General anesthesia ,Deep sedation and conscious sedation
Histamine and antihistamine.
Serotonin agonist and antagonist.
Sedative, hypnotic.
Antipsychotic drugs.
Antiepileptic.
C.N.S. stimulants.
Antimicrobials.
Insulin & oral hypoglycemic drugs.
Antithyroid.
Corticosteroid,immuno therapy
Drugs acting on gastrointestinal tract.
Drugs acting on respiratory tract.
Cytotoxic.
Drug interaction.
Drugs acting on cardiovascular system.
Anticoagulants.
Antibiotic prophylaxis in dentistry

Subject : **Pharmacology** (Practical)

Topics
Introduction, definition.
Pharmaceutical formula (internal).
Pharmaceutical formula (external).
Metrology.
Routes of drug excretion.
Measurement of concentration and dose calculation.
Routes of drug administration.
Biological variability.
Drug acting on rabbit eye.
Hypoglycemic effect of insulin over dose(mice)
LD ₅₀ , ED ₅₀ & therapeutic index.
General anesthesia.
Oregano phosphorous toxicity in chicks.
Effect of drug on blood pressure.
Seminar (dental pain).
Seminar (local anesthesia).

Effect of premedication or general anesthesia
Seminar (topical uses of antibiotic).
Seminar (infection caused by drugs).
Triple response.
Determination of Na , K & Cl in Blood
CNS stimulant on the frog.
Local anesthesia.
Drug acting on the respiratory system.
Neuro behavioral tests in rat and mice
Prescription writing.
Drug compatibility.
Analgesic drug in mice (tramadol)
Dose modification in renal impairment.
Dose monitoring in children.

Subject : **Operative Dentistry** (Theory)

Topics
1-Introduction,definitions,aims of operative dentistry.
2-Indications of operative dentistry.
3- Instruments and general instrumentation of cavity preparation.
4- Dental caries:definition,aetiological factors.
5- Classifications of dental caries.
6- Principles of cavity preparation for amalgam restoration.
7- Steps of cavity preparation for amalgam restoration.
8- Class I cavity preparation for amalgam restoration.
9- Class V cavity preparation for amalgam restoration.
10- Class II cavity preparation for amalgam restoration.
11- management of complicated cavities.
12- Pins in restorative dentistry.
13- Liners and bases.
14- Amalgam: as dental material, indications, contraindications, advantages, disadvantages.
15- Retainers in restorative dentistry.
16- Manipulation and application of dental amalgam
17- finishing and polishing of amalgam restoration.
18- Amalgam toxicity.
19- Tooth colored restoration: history, types, and indications.
20- Resin composite: as dental material, indications, contraindications, advantages, disadvantages.
21- Class III,IV,and V cavity preparation for composite restoration.
22- Isolation and moisture control in restorative dentistry.

٢٢- Manipulation and application of resin composite.
٢٤- Finishing and polishing of tooth colored restorations.
٢٥- Chemomechanical caries removal carisolv
٢٦- Tunnel preparation
٢٧- Ozone dentistry
٢٨- Laser
٢٩- MTA
٣٠- Adhesive cement, amalgam bond
٣١- Mercury free alloy
٣٢- Labial veneer
٣٣- laminar
٣٤-CAD-CAM System
٣٥- Zirconia

Subject : **Operative Dentistry** (Practical)

Topics
١- Definition of operative dentistry, Aim and General terminology.
٢- Instruments & general instrumentation of cavity preparation. - Hand instruments.- Rotary instrument.
٣- Instruments: handing, sharpening, sterilization.
٤- Principles of cavity preparations (intracoronar & extracoronar: definitions). Steps of cavity preparation according to types of caries.
٥- Amalgam cavity preparation for class I & V .
٦- Amalgam cavity preparation for class II
٧- Amalgam cavity preparation for complicated cavities
٨- Cavity liner & cement bases (dental material)
٩- Manipulation of liner & bases insertion into the cavity.
١٠- Dental amalgam alloy (dental material)
١١- General characteristics.
١٢- Manipulations
١٣- Insertion into cavity. Advantages & disadvantages.
١٤- Matrix bands
١٥- Polishing of amalgam
١٦- Failure in amalgam restorations
١٧- Tooth colored restoration composite
١٨- Cavity preparations for the tooth colored restoration composite: class III, IV, &V
١٩- Resins composite: Manipulation. Application. Finishing & polishing. Types of liners.
٢٠- Failures in anterior restorations
٢١- Acid etch technique for anterior restorations

ΥΖ- Inlays & onlays
ΥΥ- Crown & bridges history. Definitions, indications in general
ΥΣ- Crown types. Indications & contraindications
Υο- Types of finishing lines
Υϒ- General factor in crown & bridge preparation.
ΥV- Full crown preparations & some clinical modifications.
ΥΛ- ¾ Crown.
Υϑ- Post crown (dowel crown)
Υο- Temporary crowns.
Υϑ- Impression for crowns
Υϒ- Die construction articulation
ΥΥ- Waxing, investing, & casting.
ΥΣ- Try-in & cementation
Υο- Pontics.
Υϒ- steps in bridge construction
ΥV- Porcelain material (dental material).
ΥΛ- Porcelain jacket crown

Subject : **General Surgery** (Theory)

Topics
Introduction to clinical surgery and general principles of patient assessment
Case sheet in surgical patient and taking history
Post –operative care and management
Surgical nutrition .
Blood transfusion .
Fluid therapy
Surgical wounds.
Wound Healing .
Surgical Infections .
Medical emergencies in the dental office , first aid and cardiopulmonary resuscitation (C P R) .
Orthopaedics .
Bone infection .
Congenital disorders.
The Paranasal sinus .

Neck lesions .
Diseases of the Esophagus .
Chest .
Neoplasm
Ophthalmology
Management of burn patient

Subject **General Medicine** **(Theory)**

Topics
Principles of history taking and physical examination .
Anaemia .
Cardiovascular diseases .
Dermatology .
Sore Throat and Sore Mouth .
Bleeding disorders .
Renal Diseases .
Vitamins .
Poisoning , Overdose , Antidotes .
Liver diseases .
Endocrine System (Diabetic ,Hyperthyroidism,.....ect)

