



وصف المقرر الدراسي

قسم طب الاسنان

Subjects of the 1st Year Dental College

No.	Subjects
١.	Medical Physics
٢.	Computer
٣.	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 الاولى

Subject : **Medical Physics** (Theory)

Topics
Lardiov ascular system
Structures & fractures of bones
Function of bones
Physics of the skeleton
Static, frictional and dynamic forces in the body
Principle of heat and cold in medicine
Energy, work and power of the body
Pressure in various body organs
Introduction to electricity
Electricity with in the body
Electrical instrument related to the respiratory sys.
Acoustic and ultrasound ,application to medicine
Physics of ear and hearing
Basic concepts of light and optical measurements
Physics of the eye and vision
Electronics(the diode, triode and transistor)
Rectifier, amplifier and photoelectric cells and their medical applications
x-ray –production and absorpion
Diagnostic and treatment
x-ray hazards and protection
Atomic nature of matter(radioactivity)
Radioactive isotopes and their medical uses
Radiation therapy
Lasers-generation therapy
Application of laser to medicine
Physics of nuclear medicine
Personal dosimetry

Subject : **Medical Physics** (Practical)

Topics
Introduction
Simple pendulum
The surface tension
Static and dynamic friction

The fall of a body through a viscous medium
Coefficient of viscosity
Terminal velocity
The principles of thermometry : (١)the room temperature
(٢) the boiling point of liquid
The specific heat capacity of a liquid
The specific heat capacity of a poor conductor
The specific heat capacity of a liquid by the cooling
Boyle 's law
The saturation vapor pressure
The focal length of a concave mirror
The focal length of convex lenses
The refraction index of a)glass prism
The refraction index of b)glass block
The velocity of sound by means of a resonance tube
The velocity of sound by a monometer
The velocity of sound by comparison with a fork of known frequency
Wheat stones bridge
The post office
Ohms low
Hooks low to find (١) accelerations
(٢) The hooks constant
Comparison of liquid density by Hares apparition
The index coefficient by concave mirror
The focal length of convex lenses using a plan mirror
The focal length of convex lenses using a graphical method

Subject : **Computer** (Theory)

Topics
Descriptive of Computer
Microsoft Word Program
Introduction of Microsoft Word Program
File & Edit menu
View & Insert Menu
Format & Tools Menu
Table , Window & Help Menu
Microsoft Excel Program
Introduction of Microsoft excel Program
File , Edit & View menu
Insert, Format & Tools Menu

Data Menu
Window & Help Menu
Microsoft Power Point Program
Introduction of Power Point Microsoft Program
File & Edit Menu
View & Insert Menu
Format & Tools Menu
Slide Show , Border & Help Menu
Microsoft Access Program
Introduction of Microsoft Access Program
Tables
Inquiries
Forms
Reports
V. B. Program
Introduction of V.B. and Run A Program In V.B.
Use Tools Box & Its Properties
If -Then-Else Statement In V.B.
For-Next Statement In V.B.
Message Box Statement In V. B.
Minitab Program
Introduction of Minitab System
Function From Session Window
Structure of Macros Program
Statements In Macros

Subject : **Computer** (Practical)

Topics
Descriptive of Computer's Laboratory
Descriptive of Computer
Windows System
Application in Microsoft Word Program
Introduction of Microsoft Word Program
File & Edit menu
View & Insert Menu
Format & Tools Menu
Table , Window & Help Menu
Application in Microsoft Excel Program
Introduction of Microsoft excel Program
File , Edit & View menu

Insert, Format & Tools Menu
Data Menu
Window & Help Menu
Application of Microsoft Power Point Program
Introduction of Power Point Microsoft Program
File & Edit menu
View & Insert Menu
Format & Tools Menu
Slide Show , Border & Help Menu
Application of Microsoft Access Program
Introduction of Application in Microsoft Access Program
Tables
Quiries
Forms
Reports
Application of V. B. program
Introduction of Application in V.B. and run a program in V.B.
Use tools Box & its Properties
If – Then - Else statement in V.B.
For – Next statement in V.B.
Message Box statement in V. B.
Application of Minitab & Macros Program
Introduction of Minitab system
Function from session window
Structure of Macros program, Statements in Macros
Computerizes Application
Central Tendency & Variation Measure ,Graphs& Histograms
Parametric Test

Subject : **Medical Chemistry** (Theory)

Topics
Hydrocarandbons: Introduction, Alkanes, Alkenes, Alkynes & Aromatic Compounds
Stereoisomerism: Structural, Geometric & Optical Isomerism. Importance in enzymatic Reaction and drug receptors.
Alcohols , Phenols & Ethers : Nomenclature , Physical Properties , Preparation ,Reaction & related subjects of medical interest :
Antiseptic & Disinfectant , Inhalation anesthesia and Antioxidant
Aldehydes & Ketones: Nomenclature , Physical Properties , Preparation ,Reaction & related subjects of medical interest
:Chemistry of Vision, Pyridoxal phosphate, hypnotics.

Carboxylic Acids :Nomenclature , Physical Properties , Preparation , Reaction & Compounds of medical & Dental Interest : Benzoic Acid , EBA Cement and Salycilic Acid, Decarboxylation of β -keto Acid.

Derivatives of carboxylic Acids Acyl halides , Acids anhydrides , Esters & ester condensation ,Amides . Medical & Dental Interest : Ketone Bodies , Barbiturates , Lidocaine.

Nitrogen Containing Compounds :
Nomenclature, Physical Properties, Preparation, Reaction of Amines & Heterocyclic Aromatic Compounds Containing nitrogen. Subject of Medical Interest: Quaternary Ammonium Compounds Purines Pyrimidine.

Sulfur Containing Compounds: Thiols, Sulfides, Disulfides, Sulfones & Sulfoxides.

Chemistry of Carbohydrates :
Monosaccharides (Properties & Reaction, cyclization, Glycosidic Bond) Disaccharides, Homo & heteropolysaccharides

Chemistry of Lipid: Fatty Acid, triacylglycerol, Phospholipid, Prostaglandin & Steroids. Mammalian cell membrane composition

Chemistry of Protein: Amino Acids (structure, Physical Properties & Chemical Reaction), peptide bond, physiological role of Protein, Classification of Protein structure.

Chemistry of Nucleic Acid; Nucleotides & Nucleosides, Naturally occurring Nucleotides, Biosynthesis of Purine & pyrimidine , Chemical Nature of DNA & RNA.

Carbohydrate . Lipid & Protein Composition of Teeth

Sulfur Containing Drugs: Sulfanylamide: Structure, Preparation. Mode of Action.

Chemistry of Antibiotic : β -lactam , tetracycline , Aminoglycoside , Macrolides & Polypeptide .

Introduction to inorganic chemistry, some definitions

Atomic structure and periodic table classification

Atomic interaction, compounds formation

Molecules and their interaction and properties

Werner theory, formation of complexes

Order of chelation and some definition

Introduction for solution, some international units used in medicine

Classification of Dental filling ,Temporary and permanent

Zinc oxide- eugenol cement, preparation, chemical reaction, structure & properties

Zinc phosphate cement, , preparation, chemical reaction, structure and properties

Alloy: Amalgam, preparation, types, chemical composition, reactions & properties

Chemical Mechanism of dental caries

Chemical composition of teeth: preparation and analysis
Physiochemical properties of enamel and Dentine
Solubility of teeth, the importance of fluoride
Lipids in teeth, structure and importance
Carbohydrate in teeth, types and importance
Proteins in teeth, types and importance
Vitamins in teeth, chemical structures and importance
Emulsion and suspension

Subject : **Medical Chemistry** (Practical)

Topics
Safety in the laboratory
Recrystallisation and melting point determination
Distillation and boiling point determination
Some qualitative tests for hydrocarbons
Some qualitative tests for alcohol, phenol and ethers
Some qualitative tests for aldehydes and ketones
Some qualitative tests for carboxylic acid
Some qualitative tests for amines
Identification of unknown organic compound
Isolation of Eugenol from cloves
Preparation of barbituric acid
Preparation of alpha and beta-pentacetyl glucose
Preparation of aspirin
Some Chelation reactions
Preparation of phenyl diazonium chloride
Preparation of acetanilide
Acid-base titration
Some qualitative tests for carbohydrates
Identification of unknown carbohydrates compound
Nelson's colorimetric determination of reducing sugar
Some qualitative tests for amino acids and proteins
Precipitation and separation of proteins
Identification of unknown amino acid or protein
Some qualitative tests for lipids
Determination of saponification No. and iodine No.
General review

Subject : **Medical Biology**

(Theory)

Topics
Introduction to Parasitology
Cestodes, Hymenoleps, Trematods
Schistosoma spp. Nematodes, Hook worm
Protozoan, Trichomonas and Leishmania
Malaria and Toxoplasma
Introduction to cell biology
Prokaryotes and Eukaryotes
Cell structures and contents
Cell membrane, cell wall, nucleus and Golgi apparatus
Endoplasmic reticulum and ribosomes
Cell diffusion
Mitosis and meiosis
Spermatogenesis and oogenesis, Fertilization
DNA and RNA structures and Protein synthesis
Introduction to histology, epithelial tissues and type of cells
Connective tissues
Fibers
Bones
Cartilages
Muscular tissues
Nerve tissues and neurobiology
Introduction to genetics
Hybrid and gene allele
Dominance, polygenic inheritance
Lethal genes
Blood group and Rh factor
Genetic determination of sex
Barr's body
Sex linkage
Chromosomal abnormalities
Type of human chromosomes
Sickle cell anaemia
Incomplete dominance
Genetic Engineering
Oral Biology

Subject : **Medical Biology** (Practical)

Topics
Parasitology
Taenia solium and Taenia saginata
Echinococcus
Hymenoleps nana and deminuta
Fasiola hepatica
Schistosoma spp
Ascaris lumbricoids
Hook worm
Strongyloides, pin worm
Entamoeba spp.
Giardia intestinalis
Trichomonas
Leishmania
Plasmodium spp.
Toxoplasma gondii
Histology
Type of cells
Epithelial tissues
Type of glands
Connective tissues
Cells of connective tissue
Fibers
Bones
Cartilages
Muscular tissues
Nerve tissues
Revision

Subject : **Dental anatomy** (Theory)

Topics
١-Introduction and Nomenclature
٢-Numbering systems.
٣-Anatomical landmarks
٤-Development of teeth, calcification and eruption
٥-General consideration in the physiology of the Permanent teeth
٦-Physiologic form of the teeth and periodontium
٧-The permanent maxillary central incisor+ anatomical variations

Λ-The permanent maxillary lateral incisor+ anatomical variations
ϑ-The permanent mandibular incisors. + anatomical variations
ϑ•-The permanent maxillary and mandibular canines. + anatomical variations
ϑϑ-The permanent maxillary premolars+ anatomical variations
ϑϒ-The permanent mandibular premolars+ anatomical variations
ϑϓ-The permanent maxillary molars+ anatomical variations
ϑϔ-The permanent mandibular molar+ anatomical variations
ϑϕ-The deciduous teeth.
ϑϖ-The pulp cavities of anterior permanent teeth
ϑϗ-The pulp cavities of posterior permanent teeth.
ϑϘ- Comparative dental anatomy.
ϑϙ- Clinical applications of dental anatomy
ϑ••- Classification of dental occlusion & geriatric changes of dentition

Subject : **Dental anatomy** (Practical)

Topics
ϑ- Carving of external block. (plaster and soap)
ϒ- Carving of internal block. (plaster and soap)
ϓ- Drawing permanent maxillary central incisor
ϔ- Drawing permanent maxillary lateral incisor
ϕ- Carving permanent maxillary central incisor. (plaster and soap)
ϖ- Carving permanent maxillary lateral incisor(plaster and soap)
ϗ- Drawing permanent maxillary canine.
Ϙ- Carving permanent maxillary canine. (plaster and soap)
ϙ- Drawing permanent maxillary first premolar
ϑ•- Carving permanent maxillary first premolar(plaster and soap)
ϑϑ- Drawing permanent maxillary first molar.
ϑϒ- Carving permanent maxillary first molar. (plaster and soap)
ϑϓ- Drawing permanent mandibular central incisor
ϑϔ- Carving permanent mandibular central incisor(plaster and soap)
ϑϕ- Drawing permanent mandibular lateral incisor
ϑϖ- Carving permanent mandibular lateral incisor(plaster and soap)
ϑϗ- Drawing permanent mandibular canine.
ϑϘ- Carving permanent mandibular canine (plaster and soap)
ϑϙ- Drawing permanent mandibular first premolar.
ϑ••- Carving permanent mandibular first premolar. (plaster and soap)

٢١- Drawing permanent mandibular second premolar
٢٢- Carving permanent mandibular second premolar. (plaster and soap)
٢٣- Drawing permanent mandibular first molar.
٢٤- Carving permanent mandibular first molar(plaster and soap)

Subject : **حقوق الانسان والديمقراطية (نظري)**

Topics
حقوق الإنسان في القانون الإنساني
المدارس التي تناولت مفهوم حقوق الإنسان
التعريف العام بحقوق الإنسان
نظريات الحق الإنساني
موقف الأديان السماوية في الحق البشري
نبذة عن المنظمات واللجان الخاصة بحقوق الإنسان
لجنة التمييز العنصري
لجنة مناهضة التعذيب
لجنة مناهضة حالات الاختفاء القسري وغير الطوعي
لجنة حقوق الطفل
لجنة التربية والثقافة والعلم
اللجنة المعنية بمحاكمة مجرمي الحرب
لجنة الحقوق المدنية وقانون المجتمع المدني
تشكيلات المحاكم الدولية
محكمة العدل الدولية في لاهاي
حق الإنسان وواجباته ضمن السلوك المهني الإنساني
المفهوم العام للسلوك المهني الطبي كأحد مرتكزات حقوق الإنسان
واجبات الطبيب تجاه المريض
حقوق الطبيب كأحد أفراد المجتمع
أهمية المسؤولية الطبية في أداء الطبيب

Subject : **English & Dental Terminology (Theory)**

Topics
What is language?
The Spoken Language
Culture and Manifestations
The Functions of Scientific, Technical and Medical Language
The Divisions of Scientific, Technical and Medical Language

The Concept of Linguistics and Grammar

ESL Miscellany: an American British Inventory of Vocabulary

Academic Activities

Classroom Activities

Life activities (Cooking – Eating – Housing – Cloths – Paraphernalia)

Geography (Animals – Birds – Plants and Trees)

Medical Sciences

Medical Biology

Periodontics

Prosthodontics

Pharmacology

Communication and Speech Organs

Skin Functions and Touch

Mechanism of Speech (Brain and Lungs)

Tongue, Vocal Folds & Teeth

The Physics and Physiology of Speech and Production of speech sounds

The Auditory System and Hearing in Human and Mechanism

Outer Ear, Inner Ear and Middle Ear

Central Auditory System, Representation of Loudness, Pitch, Timber, Hearing and Language

Sentence Grammar

Sentence Basic Divisions

Stative Sentences and Non – stative sentences

Sentence Types

Definiteness in English

Singular, Dual and Plural

Time and Tense in English

Suffixes and Prefixes

The Present Tense, The Past Tense and The Future

Passive and Active Voice

Dictionaries and Word Order

Types of Negation and Questions

Listening voices and dialogue

Medical vocabularies