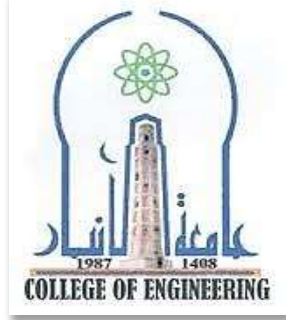


Ministry of Higher Education and Scientific Research

University of Anbar

College of Dentistry



College of Dentistry

University of Anbar

Catalogue

by

Quality Assurance and Academic Performance

**Vision**

Excellence and the top in the achievement of the first scientific ranks between the faculties of dentistry locally and Arab to the world.

**Mission**

The scientific and administrative excellence of the employees and graduates and the graduation of students with high efficiency and variety in the field of specialization and community service to achieve the University logo in the service of society.

**Programme Educational Objectives (PEOs)**

1. The student acquires adequate knowledge of medical terms used in dentistry and theoretical material.
2. The student should be familiar with the different types of materials and equipment used in the field of dentistry.
3. Enhance student confidence to deal with all types of patients.
4. Develop the student's ability to deal with different therapeutic cases.
5. Enhancing the participation of a group of students to discuss a dental condition and treatment.
6. Providing the student with full knowledge that enables him to prepare an integrated treatment plan for the patient.
7. Promoting ethics and dealing with patients among graduates
8. Students acquire different therapeutic skills
9. Promote the principle of continuous learning for life in order to continue to develop the professional dentist.

## Course Description

### Courses are coded as follows:

1. Course code and number
2. Course title
3. Parenthesized numerals, e.g., (4-3-1-3), indicate, in order, the credit hours, the classroom hours (1 hour = 2 credit hour), tutorial hours (credit hour = 0), and the laboratory hours (2 hour = 1 credit hour).

Prerequisites, if any, are indicated at the course description. These have been established to assure an adequate and uniform background for students in advanced classes. Occasionally, students may feel they already have the appropriate background for an advanced course because of previous training, transfer credits, or Credit by examination.

### Course Numbering System:

Course code = ..... (For example **MECE000** represents one of the courses of department requirements in the mechanical engineering)

The CODE consists of specifically three to four English letters which represent the course code and three digits refers to the level as following:-

- 100-199: First level
- 200-299: Second level
- 300-399: Third level
- 400-499: Fourth level
- 500-599: Fifth level
- 600-699: Sixth level

If the course is one of the college requirements then the first three or four letters on the course code represent the college code (for example ENG000 is college requirement in the engineering college).

If the course is one of the university requirements then the first three or four letters on the course code represent the college university code (for example UOA000 is university requirement in any college).

## University Requirements: 12 credit hours

Course code	Course Title	Credit hours	Weekly hours	Prerequisite
UOA140	English Language	2	1	University
UOA135	Human Rights	2	1	University
UOA201	Democracy and Freedom	2	1	University
UOA137	Arabic Language	2	1	University
UOA141	Computer science	4	3	University
<b>Total</b>		<b>12</b>	<b>7</b>	<b>University</b>

## College Requirements: 212 credit hours

Course Code	Course Title	Credit hours	Weekly hours			Prerequisite
			Lec.	Tut.	Lab.	
DNT101	Dental Anatomy	4	1	-	2	College
DNT102	Biology	6	2	-	2	College
DNT103	Medical Chemistry	6	2	-	2	College
DNT104	Medical Physics	6	2	-	2	College
DNT204	Prosthodontics	6	1	-	4	College
DNT202	Dental Material	4	1	-	2	College
DNT205	Oral Histology	4	1	-	2	College
DNT207	General Histology	6	2	-	2	College
DNT203	General Physiology	6	2	-	2	College
DNT201	Anatomy	7	2	-	3	College
DNT206	Biochemistry	6	2	-	2	College
DNT301	Prosthodontics	4	1	-	2	College
DNT302	Restorative Dentistry	8	2	-	4	College
DNT303	Oral Surgery	4	1	-	2	College
DNT304	Pharmacology	6	2	-	2	College
DNT305	General Pathology	6	2	-	2	College
DNT306	Microbiology	6	2	-	2	College
DNT307	Dental Radiology	4	1	-	2	College
DNT401	Prosthodontics	5	1	-	3	College
DNT402	Restorative Dentistry	8	1	-	6	College
DNT403	Oral Surgery	7	1	-	5	College

DNT404	Periodontology	5	1	-	3	College
DNT405	Orthodontics	7	1	-	5	College
DNT406	Oral Pathology	7	2	-	3	College
DNT407	General Medicine	5	1	-	3	College
DNT408	General Surgery	5	1	-	3	College
DNT409	Community Dentistry	4	1	-	2	College
DNT501	Prosthodontics	8	1	-	6	College
DNT502	Restorative Dentistry	8	1	-	6	College
DNT503	Oral Surgery	8	1	-	6	College
DNT504	Oral Medicine	5	1	-	3	College
DNT505	Periodontology	5	1	-	3	College
DNT506	Pedodontics	5	1	-	3	College
DNT507	Orthodontics	5	1	-	3	College
DNT508	Preventive Dentistry	4	1	-	2	College
<b>Total</b>		<b>212</b>				

**FIRST ACADEMIC YEAR (30 Weeks)**

Course code	Course Title	Credit Hours	Weekly hours			Total Hours/Week		Prerequisite
			Lec.	Tut.	Lab.	Lec.	Lab.	
DNT101	Dental Anatomy	4	1	-	2	30	60	College
DNT102	Medical Biology	6	2	-	2	60	60	College
DNT103	Medical Chemistry	6	2	-	2	60	60	College
DNT104	Medical Physics	6	2	-	2	60	60	College
UOA141	Computer Science	4	1	-	2	30	60	University
UOA135	Human rights	2	1	-	-	30	-	University
UOA137	Arabic Language	2	1	-	-	30	-	University
UOA140	English Language	2	1	-	-	30	-	University
<b>Total</b>		<b>32</b>	<b>11</b>		<b>10</b>	<b>330</b>	<b>300</b>	

**Summary: First Year****Total Theories - Hours/ Week: 11****Total Theories - Hours/ year: 11x 30= 330****Total Practical Hours/ Week: 10****Total Practical Hours/ year: 10 x 30= 300****Total Hours / Year: 630****Total credits: 32**

**SECOND ACADEMIC YEAR (30 Weeks)**

Course code	Course Title	Credit Hours	Weekly hours			Total Hours/Week		Prerequisite
			Lec.	Tut.	Lab.	Lec.	Lab.	
DNT204	Prosthodontics	6	1	-	4	30	120	College
DNT202	Dental Material	4	1	-	2	30	60	College
DNT205	Oral Histology	4	1	-	2	30	60	College
DNT207	General Histology	6	2	-	2	60	60	College
DNT203	Physiology	6	2	-	2	60	60	College
DNT201	Anatomy	7	2	-	3	60	90	College
DNT206	Biochemistry	6	2	-	2	60	60	College
UOA201	Democracy and Freedom	2	1	-	-	30	-	University
<b>Total</b>		<b>41</b>	<b>12</b>		<b>17</b>	<b>360</b>	<b>510</b>	

**Summary: Second Year.****Total Theories - Hours/ Week: 12****Total Theories - Hours/ year: 12 x 30= 360****Total Practical Hours/ Week: 17****Total Practical Hours/ year: 17 x 30= 510****Total Hours / Year: 870****Total credits: 41**



**THIRD ACADEMIC YEAR (30 Weeks)**

Course code	Course Title	Credit Hours	Weekly hours			Total Hours/Week		Prerequisite
			Lec.	Tut.	Lab.	Lec.	Lab.	
DNT301	Prosthodontics	4	1	-	2	30	60	College
DNT302	Restorative Dentistry	8	2	-	4	60	120	College
DNT303	Oral Surgery	4	1	-	2	30	60	College
DNT304	Pharmacology	6	2	-	2	60	60	College
DNT305	General Pathology	6	2	-	2	60	60	College
DNT306	Microbiology	6	2	-	2	60	60	College
DNT307	Dental Radiology	4	1	-	2	30	60	College
<b>Total</b>		<b>38</b>	<b>11</b>		<b>16</b>	<b>330</b>	<b>480</b>	

**Summary: Third Year****Total Theories - Hours/ Week: 11****Total Theories - Hours/ year: 11 x 30= 330****Total Practical Hours/ Week: 16****Total Practical Hours/ year: 16 x 30= 480****Total Hours / Year: 810****Total credits: 38**

**FOURTH ACADEMIC YEAR (30 Weeks)**

Course code	Course Title	Credit Hours	Weekly hours			Total Hours/Week		Prerequisite
			Lec.	Tut.	Lab.	Lec.	Lab.	
DNT401	Prosthodontics	5	1	-	3	30	90	College
DNT402	Restorative Dentistry	8	1	-	6	30	180	College
DNT403	Oral Surgery	7	1	-	5	60	150	College
DNT404	Periodontology	5	1	-	3	30	90	College
DNT405	Orthodontics	7	1	-	5	30	150	College
DNT406	Oral Pathology	7	2	-	3	60	90	College
DNT407	General Medicine	5	1	-	3	30	90	College
DNT408	General Surgery	5	1	-	3	30	90	College
DNT409	Community Dentistry	4	1	-	2	30	60	College
<b>Total</b>		<b>53</b>	<b>10</b>		<b>33</b>	<b>300</b>	<b>990</b>	

**Summary: Fourth Year.****Total Theories - Hours/ Week: 10****Total Theories - Hours/ year: 10x30= 300****Total Practical Hours/ Week: 33****Total Practical Hours/ year: 33x30= 990****Total Hours / Year: 1320****Total credits: 53****Total Hours / Year with summer training (8 weeks): 1320+208=1528**

**Fifth ACADEMIC YEAR (30 Weeks)**

Course code	Course Title	Credit Hours	Weekly hours			Total Week/Hours		Prerequisite
			Lec.	Tut.	Lab.	Lec.	Lab.	
DNT501	Prosthodontics	8	1	-	6	30	180	College
DNT502	Restorative Dentistry	8	1	-	6	30	180	College
DNT503	Oral Surgery	8	1	-	6	30	180	College
DNT504	Oral Medicine	5	1	-	3	30	90	College
DNT505	Periodontology	5	1	-	3	30	90	College
DNT506	Pedodontics	5	1	-	3	30	90	College
DNT507	Orthodontics	5	1	-	3	30	90	College
DNT508	Preventive Dentistry	4	1	-	2	30	60	College
<b>Total</b>		<b>48</b>	<b>8</b>		<b>32</b>	<b>240</b>	<b>960</b>	

**Summary: Fifth Year.****Total Theories - Hours/ Week: 8****Total Theories - Hours/ year: 8 x 30= 240****Total Practical Hours/ Week: 32****Total Practical Hours/ year: 32 x 30= 960****Total Hours / Year: 1200****Total credits: 48****Total Hours / Year with summer training (8 weeks) : 1200+224= 1424**

## Curriculum Map of the PEOs with courses according to learning outcomes

Programme Educational Objectives PEOs	1	2	3	4	5	6	7	8	9	
<b>FIRST ACADEMIC YEAR (30 Weeks)</b>										
Course code	Course title	PEO1	PEO2	PEO3	PEO4	PEO5	PEO6	PEO7	PEO8	PEO9
DNT101	Dental Anatomy	X	X	X	X					X
DNT102	Medical Biology	X	X	X	X					X
DNT103	Medical Chemistry	X	X	X	X					X
DNT104	Medical Physics	X	X	X	X					X
UOA141	Computer science	X								X
UOA135	Human rights	X								
UOA137	Arabic Language	X								
UOA140	English Language	X	X							X
<b>SECOND ACADEMIC YEAR (30 Weeks)</b>										
Course code	Course title									
DNT204	Prosthodontics	X	X			X	X	X	X	X
DNT202	Dental Material	X	X							X
DNT205	Oral Histology	X		X	X					X
DNT207	General Histology	X		X						
DNT203	Medical Physiology	X		X	X					X
DNT201	General Anatomy	X		X	X	X	X	X	X	X
DNT206	Biochemistry	X	X	X						
UOA201	Democracy	X								
<b>THIRD ACADEMIC YEAR (30 Weeks)</b>										
Course code	Course title									
DNT301	Prosthodontics	X	X		X	X	X	X	X	X
DNT302	Restorative Dentistry	X	X		X	X	X	X	X	X
DNT303	Oral Surgery	X	X		X	X	X	X	X	X
DNT304	Pharmacology	X	X		X			X	X	X
DNT305	General Pathology	X			X	X	X	X	X	X
DNT306	Microbiology	X			X					X
DNT307	Radiology	X	X		X	X	X	X	X	X
<b>FOURTH ACADEMIC YEAR (30 Weeks)</b>										
Course code	Course title									
DNT401	Prosthodontics	X	X		X	X		X	X	X
DNT402	Restorative Dentistry	X	X		X	X		X	X	X
DNT403	Oral Surgery	X	X		X	X		X	X	X
DNT404	Periodontology	X			X	X		X	X	X
DNT405	Orthodontics	X	X		X	X		X	X	X
DNT406	Oral Pathology	X			X	X		X	X	X
DNT407	General Medicine	X			X	X		X	X	X
DNT408	General Surgery	X			X	X		X	X	X
DNT409	Community Dentistry	X			X	X		X	X	X
<b>FIFTH ACADEMIC YEAR (30 Weeks)</b>										
Course code	Course title									
DNT501	Prosthodontics	X	X		X	X		X	X	X
DNT502	Restorative Dentistry	X	X		X	X		X	X	X
DNT503	Oral Surgery	X	X		X	X		X	X	X
DNT504	Oral Medicine	X			X	X		X	X	X
DNT505	Periodontology	X			X	X		X	X	X
DNT506	Pedodontics	X			X	X		X	X	X
DNT507	Orthodontics	X	X		X	X		X	X	X
DNT508	Preventive Dentistry	X			X	X		X	X	X

**University requirement courses**

**Or**

**College requirement courses**

**Or**

**Department requirement courses**

**Course code: DNT101****Course title: Dental Anatomy****Course Definition:**

Dental anatomy is a field of anatomy dedicated to the study of human tooth structures.

**Course Topics:**

Introduction, Numbering Systems, Anatomical Landmarks, Permanent Maxillary Central Incisor, Permanent Maxillary Lateral Incisor, Permanent Mandibular Incisors, Permanent Canines, Permanent Maxillary Premolars, Permanent Mandibular Premolars, Maxillary First Molar, Maxillary second Molar, Mandibular First Molar, Tooth Development, Pulp Cavities.

**Course Description: 4-1-0-2****Course Outcomes:**

The study of dental anatomy, physiology, and occlusion provides one of the basic components of the skills needed to practice all phases of dentistry.

**Recommended Textbook (s):**

1. Wheeler's dental anatomy, physiology and occlusion / Stanley J. Nelson/ Major M. Ash, Jr. / ninth edition 2010.
2. Woolfell's dental anatomy, its relevance to dentistry. By Rickne C. Scheid.

**Prerequisites: College requirement****Lab. Topics:**

Introduction to Dental Anatomy & Carving Instruments, Numbering systems, Practical demonstration of Carving a Cube (1cm\*1cm\*1cm), Introduction to Anatomical landmarks on Teeth models.-Carving of a cube, Description & Carving of the Labial Aspect of P. Max. Right Central Incisor, Description & Carving of the mesial aspect of P. Max. Right Central Incisor, Description, Carving & Finishing of the Incisal Aspect of Permanent Max. Right Central Incisor, Practical Training of Carving of P. Max. Right Central Incisor, Description & Carving of the Labial & Mesial Aspects of P. Max. Right Canine, Description, Carving & Finishing of the Incisal Aspect of P. Max. Right Canine, Practical Training of Carving of P. Max. Right Canine, Description & Carving of the Buccal & Mesial Aspects of P. Max. Right 1st Premolar, Description, Carving & Finishing of the Occlusal Aspect of P. Max. Right 1st Premolar, Practical Training of Carving of P. Max. Right 1st Premolar, Description & Carving of the Buccal & Mesial Aspects of P. Mand. Right 1st Premolar, Description, Carving & Finishing of the Occlusal Aspect of P. Mand. Right 1st Premolar, Practical Training of Carving of P. Mand. Right 1st Premolar, Description & Carving of the Buccal & Mesial Aspects of P. Max. Right 1st Molar, Description, Carving & Finishing of the Occlusal Aspect of P. Max. Right 1st Molar, Practical Training of Carving of P. Max. Right 1st molar, Description & Carving of the Buccal & Mesial Aspects of P. Mand. Right 1st Molar, Description, and Carving & Finishing of the occlusal aspect of P. Mand 1st Molar/Practical Training of Carving p. Mand 1st molar.

**Course code: DNT102****Course title: Medical Biology****Course Definition:**

is a natural science that studies life and living organisms, including their physical structure, chemical processes, molecular interactions, physiological mechanisms, development and evolution.

**Course Topics:**

Introduction to Biology, Bacteria and viruses, Bacteria and disease, Immune system, Parasitology, type of parasites, Types of hosts, Entamoeba histolytica, and coli, Giardia lamblia, Leishmaniatropica, Plasmodium vivax, Toxoplasma gondii, Fasciola hepatica, Schistosoma spp, Taeniasaginata and solium, Echinococcus granulosus, Ascarislumbricoides, Ancylostoma, Enterobius, Cell biology, Structure of macromolecules, Structure of plasma membrane, Half-year Brea, Endoplasmic reticulum, Mitochondria, Golgi apparatus, Nuclear membrane and Chromatin, Spermatogenesis and Oogenesis, Histology, epithelial tissues, Connective tissues, Cartilage, bones, Blood, Muscular tissue

**Course Description: 6-2-0-2**

**Course Outcomes:** Demonstrate deep understanding of evolution; pathways and transformations of energy and matter; information flow, exchange, and storage; structure and function; and biological systems. Use the standard skills and methodologies of biology to answer scientific questions.

**Prerequisites: College requirement**

**Lab. Topics:** Laboratory safety, parts of microscope, types of cells, simple epithelial, tissue, stratified epithelia tissue, glandular epithelial tissue, serous, mucous, sero-mucous cell glands, proper connective tissue, loose, proper connective tissue, dense, special connective tissue, type of cells, cartilage, hyaline, elastic, fibro, compact and spongy bone, human blood, W.B.C. , R.B.C. and frog blood, muscular tissue: skeletal, cardiac and smooth muscles, nerve cell, central and peripheral nerve system spinal cord and meninges, entamoeba histolytica, entamoeba coli, giardia lamblia, trichomonas vaginalistrichomonan tenax, leishmania tropical, leishmanial donovani trypanosoma gambiense, t.rhodesiense, plasmodium vivax, toxoplasma gondii balantidium coli, Echinococcus granulosus,taenia saginata,taenia solium, Ancylostoma, ascaris, entrobius, Schistosoma spp, Fasciola hepatica, endoskeleton of frog experiment...examine samples of water, experiment examine samples of water (one hour, experiment blood groups.

**Course code: DNT103****Course title: Medical Chemistry****Course Definition: 6-2-0-2**

**Course topics:** Acid, base and salt, preparation of salts, fluid and electrolyte, buffer-pH. and acid-base balance, acid-base balance and blood pH., colloids and colloidal dispersions, molar concentration (molarity), chirality in biological systems, pollution, radiochemistry alkanes and cycloalkanes, alkenes and alkynes, aromatic compounds aromatic compounds in nature, stereoisomers of carbon, diastereomers phenols, carboxylic acids and their derivatives amides, aldehydes and ketones, carbohydrates,

monosaccharide's, disaccharides, lipids, derived lipids, proteins and amino acids, amino acids, nucleic acids.

**Course outcomes:** Students will have a firm foundation in the fundamentals and application of current chemical and scientific theories including those in Analytical, Inorganic, Organic and Physical Chemistries. Majors to be certified by the American Chemical Society will have extensive laboratory work and knowledge of Biological Chemistry. They will be able to design and carry out scientific experiments as well as accurately record and analyze the results of such experiments. Furthermore, they will be skilled in problem solving, critical thinking and analytical reasoning as applied to scientific problems.

**Recommended Textbook(s):** Chemical Bases of life, Textbook of Biochemistry, General Chemistry principle and applications of Inorganic, Organic and Biochemistry.

**Prerequisites: College requirement**

**Lab topics:** Lab safety, Name of some important chemicals and equipment's, Action of Strong Base and Acids, Solubility rules and Applications, Test for negative ions (Anions).Part I, Test for negative ions (Anions).Part II, Test for positive ions (Cations).Part I, Test for positive ions (Cations).Part II, Test for positive ions (Cations) Unknown investigations, Hydrocarbons, Alcohol, Aromatic hydrocarbons(Phenol), Aromatic hydrocarbons(Aspirin), Aldehyde and Ketone, Aldehyde and Ketone( Unknown investigations), Carboxylic acid (Part I), Carboxylic acid (Part II), Carbohydrates. (Part I), Carbohydrates. (Part II), Carbohydrates. (Unknown investigations), Lipids. (Part I), Lipids. (Part II), Protein. (Part I), Protein. (Part II), Protein. (Unknown investigations), Buffers, Osmosis, Acid-Base Titration., Oxidation–Reduction.

**Course code: DNT104**

**Course title: Medical Physics**

**Course Definition: 6-2-0-2**

**Course topics:** Force on & in body, static forces, dynamic forces, and physics of the skeleton: bones: (function of bones, composition of bone, bone remodeling, compact and trabecular bone) stress-strain curve, compressive and tensile stress, young modulus). Bone joints: (synovial fluid, coefficient of a joint). Heat and cold in medicine, energy, work and power of the body, 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: pressure: pressure: electricity within the body: electricity within the body: sound in medicine: ultrasound (a-scan, b-scan, m-scan and Doppler Effect). Physiological effect of ultrasound in therapy. sound in medicine: ultrasound (a-scan, b-scan, sound in medicine, ultrasound (a-scan, b-scan, physics of the ear and hearing: defective vision, audits correlation (short and long sight, astigmatism, contact lenses, glasses prescription. color vision and chromatic aberration (color blindness, purkinje effect, and ocular chromatic aberration). Ophthalmoscope, Physics of the ear and hearing, Light in medicine, Light in medicine, Laser in medicine What is laser, Physics of diagnostic X- ray, Physics of diagnostic X- ray, Physics of diagnostic X- ray, Physics of diagnostic X- ray, Physics of nuclear medicine, Brach therapy, quality factor (QF),



Principles of radiation therapy, The dose units (Rad and Gray), Physics of radiation therapy, Radiation protection, Radiation effects of ionizing radiation, Radioactive materials (Radon gas).

**Course outcomes:** You will learn how different external physical factors such as ionizing radiation, electrical and magnetic fields and thermal effects influence biological systems. You will also gain insight into how modern research makes use of this fundamental understanding in order to generate new knowledge.

**Recommended Textbook(s):** Medical Physics, John Cameron.

**Prerequisites: College requirement**

**Lab topics:** Focal length of a concave mirror, laser application for measurements of single slit width, laser application for measurements of laser wave length, divergence of laser beam, intensity of laser beam, widening the bundle of laser rays, cathode ray oscilloscope to measure d.c voltage, cathode ray oscilloscope to measure a.c voltage, viscosity of a liquid using small sphere, viscosity of a liquid using different small sphere weight, viscosity of different kind of liquids using small sphere, ohm's law to calculate unknown resistance, ohm's law for metal wire with different length, ohm's law for metal wire with different section area, the focal length of a convex lens, pendulum measuring the acceleration of free fall, pendulum measuring the acceleration of free fall of different spheres, semiconductors (junction diode). boyle's law, hook's law to determine the force constant of the spring, hook's law to determine the work done by the stretching the spring, velocity of the sound using tube of water, velocity of the sound using tube of different liquids, the focal length of a converging lens. Measuring the intensity of radiation, specific heat capacity of water, specific heat capacity of solid, and latent heat of vaporization, Archimedes principle, and thermal conductivity.

**Course code: UOA141**

**Course title: Computer science**

**Course Definition:** is the study of processes that interact with data and that can be represented as data in the form of programs.

**Course Topics:** Introduction about compute/Hardware and Software/computer structure/` Floppy magnetic disks, Operating systems/CD-ROM/, Create Files & Folders, High level programming language /Constant and variable/Library Function /Arithmetic expression/Type of Monitor /Number of systems, Introduction about MS-DOS, Operating systems/DOS drive /Key-Board, DOS commands/Internal Commands/External Commands, Introduction about Windows /A look at Windows 7/Stating Windows XP/Working with a windows Program, Working with files and folders/ Using My computer, Working with Taskbar and Desktop, Using Windows Accessories, A look at Control Panel, Widows Explorer, libraries, Introduction about Microsoft Word, A look at Microsoft Word /Editing Document, Formatting Text/, Formatting paragraphs, Proofing documents, Adding Tables, Inserting Graphic Elements Controlling page Appearance, Introduction about Excels /A Look at Microsoft Excel, Modifying A Worksheet /performing Calculations, Formatting a worksheet/ Developing a work book, Printing Workbook Contents/Customizing Layout, Introduction about Microsoft Access/ A look at Microsoft Access, Creating Data tables/properties of the fields, Querying the

database/Designing Forms/Producing reports, Introduction about Microsoft Power point/starting power point, Formatting text/Using graphics and Text, Manipulating the slides/Using Multimedia Elements, Power point Management.

**Course Description: 4-1-0-2**

**Recommended text book (s):** Windows 7 Office 2010.

**Course code: UOA135**

**Course title: Human Rights**

**Course Definition:** is the study of right to all human beings, regardless of language, life and freedom, the right to work and education.

**Course Topics:** This course is designed to give the student the definition of freedom and the right language and idiomatically and legitimacy of the user, origin of the right in the eyes of Islamic law, elements of the right and types of, personal freedom, intellectual freedom, rights and economic freedoms, islam and slavery, human rights objectives, the use of freedom and the right general project, parental rights, right neighbor.

**Course description: 2-1-0-0**

**Course code: UOA140**

**Course title: English**

**Course Definition:** is to study of English listening conversation, reading and writing

**Course Topics:** This course is designed for the students to learn and practice the skills needed for handling topics related to the field of study. The course emphasizes the development of academic writing skills as well as the ability to read and think critically. Students will learn to use the library and appropriate online resources to find and evaluate data to inform, develop and support their ideas in term paper writing. They will also learn skills for paper analysis.

**Course Description: 2-1-0-0**

**Course code: UOA137**

**Course title: Arabic Language**

**Course Definition:** This course aims at building students' familiarity with and competence in Arabic literature in its various genres so as to increase their ability to appreciate literature and to develop their awareness of its concepts through the study of poetry, novel and the short story.

**Course Description: 2-1-0-0**

**Course code: DNT201****Course title: Anatomy****Course Definition: 7-2-0-3****Course topics:**

Introduction to Human Anatomy, Descriptive Anatomic Terms, Basic Structures: Skin, Fasciae, Muscle, Joints, Ligament, Bursae, Bone, Cartilage, Blood Vessels, Lymphatic System, Nervous System, Mucous Membranes, Serous, Skeletal system of the body, the Cranial Cavity, Neonatal Skull, Scalp, Face Parotid gland, Facial artery, Temporal fossa and infra temporal fossa, Orbit, Nasal cavity, Cranial nerves, Central nervous system, Pharynx, Alimentary tract & associated glands, Main body vessels, Anatomy of nerve block, Lymph drainage of head and neck, Spaces of head and neck.

**Course outcomes:** explain the basic knowledge of human anatomy and physiology.

**Recommended Textbook (s):**

1. Snell's Clinical anatomy 7<sup>th</sup> edition.
2. Netter's head and neck anatomy for dentistry 2<sup>nd</sup> edition 2012.

**Prerequisites: College requirement****Lab topics:**

Introduction to Human Anatomy, Descriptive Anatomic Terms, Basic Structures: Skin, Fasciae, Muscle, Joints, Ligament, Bursae, Bone, Cartilage, Blood Vessels, Lymphatic System, Nervous System, Mucous Membranes, Serous, Skeletal system of the body, the Cranial Cavity, Neonatal Skull, Scalp, Face Parotid gland, Facial artery, Temporal fossa and infra temporal fossa, Orbit, Nasal cavity, Cranial nerves, Central nervous system, Pharynx, Alimentary tract & associated glands, Main body vessels, Anatomy of nerve block, Lymph drainage of head and neck, Spaces of head and neck.

**Course code: DNT202****Course title: Dental Material****Course Definition: 2-1-0-2****Course topics:**

Introduction to dental materials physical, mechanical, chemical and biological properties of dental materials, gypsum product definition, investment materials, impression materials, impression compound, zinc oxide –eugenol, elastic impression material, Filling materials, Direct filling material, Anterior filling materials, composite filling materials, metallic denture base materials, Metal and metal alloy, Denture base resin, Properties of heat cure, Waxes, Cements,

**Course outcomes:** explain the basic knowledge of human anatomy and physiology.

**Recommended Textbook(s):**

1. Phillips applied dental material.
2. Restorative dental material, Dental material their selection and use.

**Prerequisites: College requirement****Lab topics:**

Introduction and physical properties of dental material, mechanical properties (stress strain curve), showing different types of gypsum materials (plaster, stone), steps of mixing plaster and demonstrate the steps of setting, impression plaster, demonstrate

the manipulation of impression compound, zinc oxide impression material and agar impression \demonstrate the mixing of zinc oxide impression, alginate impression (elastic impression) showing the trays used and the mixing of alginate and water according to manufacturer instructions, poly supplied condensation and addition silicon\mixing of heavy body and light body, poly ether, hybrid impression, digital impression, showing different types of wax(denture base plate ,denture casting wax and others), demonstrate how to use wax material and its manipulation, introduction to polymers, different types of denture base materials (heat, cold and light activated polymers) demonstrate the mixing of polymer and monomer, thermoplastic polymers (flexible denture base material), investment materials (showing the method of the investment), introduction to cement materials, showing different types of cement materials and the method of mixing of cement, temporary filling (use and manipulation), introduction to metal and metal alloy, showing the different types of metal and metal alloy, introduction to crown and bridge material, introduction to filling material, amalgam filling\showing the amalgam capsules and mixing of amalgam, composite filing (chemical and light activated), micro filled ,hybrid ,and nano composite, demonstrate the setting of chemical and light activated composite filling material, showing different types of preventive materials (tooth pastes, gargles. mouth wash fluoride varnishes and resin sealers), demonstrate the obturation materials (gatta percha, sealers) and endodontic instruments, finishing and polishing materials, relining materials.

**Course code: DNT203**

**Course title: Physiology**

**Course Definition:** the branch of biology that deals with the normal functions of living organisms and their parts.

**Course description: 6-2-0-2**

**Course topics:**

Cell physiology, nerve and muscle microanatomy of nerves, red blood cells, blood groups, blood coagulation, cardiovascular system, respiratory system, renal system and body fluids, endocrine system, vision & hearing, oral cavity, gastrointestinal tract.

**Course outcomes:** Demonstrate knowledge of organ systems function.

**Recommended Textbook(s):**

1. Phillips applied dental material.
2. Restorative dental material, Dental material their selection and use.

**Prerequisites: College requirement**

**Lab topics:**

Collection of Blood Samples, Blood Smears, Differential WBCs, Estimation of Hemoglobin, Packed cell volume and Erythrocytes indices, Fragility Test, Blood groups, Homeostasis, Platelets Count, Measurement of blood pressure &pulse rate, Measurement of body temperature &respiratory rate, Effect of exercise on blood pressure and respiratory rate, Examination of Cranial nerves, Examination of reflexes, Vision, Hearing, Taste, Smell, Resuscitation & Artificial respiration, Stimulation and collection of salivary secretion, Physiology of Skeletal muscles, Regulation of the Heart.

**Course code: DNT204****Course title: Prosthodontics**

**Course Definition:** Prosthodontic care includes decision-making, planning and the provision of fixed, removable and implant-retained prostheses. Fixed prostheses include restorations such as crowns, bridges, inlays and onlays. Removable prostheses include acrylic and cobalt chromium dentures. Implant retained prostheses can be fixed or removable including crowns, bridges and dentures.

**Course description: 6-1-0-4****Recommended Textbook(s):**

1. Syllabus of complete denture (text book of complete denture).
2. Dental laboratory technology for removable prosthodontics.
3. Iraqi virtual library.

**Prerequisites: College requirement****Lab topics:**

Clinical and laboratory steps of complete denture construction. Description of anatomical landmarks (maxillary and mandibular). Demonstration of making upper and lower special tray by cold cure acrylic. Finishing and polishing of special tray and evaluation. Demonstration of taking final impression and construction of master cast. Evaluation of record base construction + finishing and polishing. Bite rims construction (upper and lower). Demonstration of face bow and fox bite + description of types of jaw relation. Demonstration about the types of articulators, parts, its uses and action. Mounting of upper and lower casts on articulators. Evaluation, mounting of upper and lower casts on articulators. Description the methods of selection of anterior and posterior teeth for complete denture. Demonstration about arrangement of upper and lower anterior teeth. Evaluation, arrangement of upper and lower anterior teeth. Demonstration about arrangement of upper and lower posterior teeth. Arrangement of upper and lower posterior teeth. Evaluation, arrangement of posterior teeth and carving of posterior palatal seal. Demonstration about carving and waxing of upper complete denture. Evaluation, carving and waxing of lower complete denture. Flasking and investment of the denture. Wax elimination, packing and curing of heat cure acrylic. Deflasking, finishing and polishing of upper complete denture. Deflasking, finishing and polishing of lower complete denture. Demonstration of selective grinding. Repair of fracture denture. Repair of missing tooth.

**Course code: DNT205****Course title: Oral Histology**

**Course Definition:** is the microscopic study of Oral Mucosa, structure variation in relation to functional requirements, mechanisms of keratinization, clinical parts of gingiva, Dentogingival & Mucocutaneous junctions & lingual papillae and embryology is the study of prenatal development throughout the stages before birth.

**Course Topics:** First week of development and ovulation, infertility and implantation, second week of development, bilaminar germ layers, third weeks Of embryo development, development of fetus and placenta, twin fetus, third to eight week,

development of the head and neck, pharyngeal arch, congenital anomalies, pharyngeal pouch, pharyngeal cleft, development of the tongue, development of the palate, nasal chamber, congenital malformation, environmental factors of malformation, chromosomal and genetic factors, skeletal system, congenital malformation, muscular system, urinary system, cardiovascular system, digestive system, pharyngeal gut, foregut, coelomic cavity and mesenteries, nervous system :development, spinal cord, congenital malformation.

**Course Description: 4-1-0-2**

**Recommended text book (s):** Langman's Medical Embryology,

**Course code: DNT206**

**Course title: Biochemistry**

**Course Definition:** is the study of biological processes at the cellular and molecular level.

**Course Topics:** Enzymes, lipid, carbohydrate metabolism, vitamins, amino acids degradation and synthesis, dynamic equilibrium and nitrogen balance.

**Course Description: 6-2-0-2**

**Lab topics:**

1. Lab safety
2. Sample collection (part 1)
3. Sample collection (part 2)
4. Spectrophotometer
5. Standard curve
6. Blood glucose
7. Total Protein
8. Albumin + Globulin
9. Troponin
10. Liver function test (Bilirubin)
11. Alkaline Phosphatase
12. Transaminases (GPT & GOT)
13. Lipid in blood (cholesterol & lipoprotein)
14. Triglyceride
15. Kidney function Test (urea)
16. Serum creatinine & creatinine clearness
17. General Urine Analysis (part 1)
18. General Urine Analysis (part 2)
19. Uric acid
20. Amylase in serum+ saliva
21. creatine phosphokinase
22. lactate Dehydrogenase
23. serum calcium
24. serum phosphorus
25. serum Na
26. serum K

27. serum Iron
28. Vitamin D
29. Vitamin C
30. Acid phosphatase.

**Recommended text book (s):** Chemical Bases of life, Textbook of Biochemistry, General Chemistry principle and applications of Inorganic, Organic and Biochemistry

**Course code: DNT207**

**Course title: General Histology**

**Course Definition:** is to provide students with a thorough understanding of the microscopic appearance and function of normal structures in the human body. This allows students to integrate this information with other disciplines such as gross anatomy, pathology, and physiology. The basic histology component of the course will concentrate on the microanatomy of the four basic tissues, namely: epithelial tissue, including glandular tissue, connective tissue, muscular tissue, and nervous tissue. The systematic histology component of the course will investigate how these basic tissues combine to form organs, which operate together to maintain homeostasis.

**Course Topics:** Introduction to general histology, Resp.system: Conduction portion, Resp. system, Urinary system, Skin , Bone marrow, Hemopoeisis, Blood cells, Circulatory System, Lymphoid System, Nervous System, Endocrine system, Digestive system, Male Reproductive system, Female Reprod. System, Sense Organ (Ear).

**Course Description: 6-2-0-2**

**Course code: UOA201**

**Course title: Democracy and Freedom**

**Course Definition:** This course is designed to give the student the definition of freedom democracy, the concept of democracy, history of democracy, the properties of democracy, traditional Greek democracy, its principles, modern democracy, and pressure groups.

**Course Description: 2-1-0-0**

**Course code: DNT301****Course title: Prosthodontics**

**Course Definition:** Is the branch of dentistry dealing with the treatment such as decision-making, planning and the provision of fixed, removable prostheses.

**Course Topics:** Anatomical landmarks, complete denture impression, record base, occlusion rims, anatomy and physiology of temporomandibular joint, Maxillo-mandibular relation, methods of recording vertical relation, horizontal jaw relation, dental articulators, face – bow, mounting, selection of artificial teeth, selection of posterior teeth, arrangement of artificial teeth, arrangement of posterior teeth, waxing and carving, complete denture occlusion, processing of the denture (flasking), occlusal correction, finishing and polishing of complete denture, repair of complete denture relining and rebasing, clinical and laboratory steps of complete denture construction. taking primary impression on metal mold by impression compound + beading and boxing pouring by dental plaster, finishing and polishing of special tray and evaluation evaluation of record base construction +finishing and polishing, bite rims construction (upper and lower), evaluation ,arrangement of upper and lower anterior teeth (continue), arrangement of upper and lower posterior teeth( continue), evaluation ,carving and waxing of lower complete denture, flasking and investment of the denture, wax elimination, packing and curing of heat cure acrylic, deflasking ,finishing and polishing of lower complete denture, demonstration of selective grinding, repair of fracture denture, repair of missing tooth.

**Course Description: 4-1-0-2****Recommended Textbook(s):**

1. Syllabus of complete denture.
2. Dental laboratory technology for removable prosthodontics.
3. McCracken text book Laboratory procedures for RPD Dental technology

**Prerequisites: College requirement****Course code: DNT302****Course title: Restorative Dentistry**

**Course Definition:** is the branch of dentistry dealing with management and procedures that performs to keep mouth healthy and functional. These procedures including's dentures, fillings, and crowns.

**Course Topics:**

Definition of operative dentistry, principles of cavity preparations. Hand and rotary instruments and general instrumentation of cavity preparation. Biomechanical principles of tooth preparation. complete ceramic crown (porcelain jacket crown: indications, contra-indications, advantages, disadvantages, steps of preparation. amalgam cavity preparations for class i1 mod. partial veneer crown. amalgam cavity preparations for class v. partial veneer crown. cavity liners and cement bases. post crown. cement bases (zinc polycarboxylate cement, glass ionomer cement, resin cement). cavity liner (cavity varnish, bonding, calcium hydroxide. dental amalgam alloys (material). dental amalgam placement (part 1). provisional restoration. dental amalgam placement (part 2).



complex amalgam restoration. working cast and dies. advantages of working cast, definition of die, types of die material, techniques of producing die. pin retained amalgam restoration. working cast and dies (continued). failures in amalgam restorations. tooth colored restorations composite. composite resin (material). principles of cavity preparation for composite restoration (cl iii, iv and v). cementation. fluoride releasing materials.

**Course Description: 8-2-0-4**

**Course Outcomes:** Introduction to operative dentistry, and to work in phantom lab. Demonstration about the rotary instrument, and how to cut geometrical cavities (circle, triangle, square, rectangle, and dove-tail), and leave students to work under supervision.

**Recommended Textbook(s):** Contemporary fixed prosthodontics, Fundamental Consideration in Fixed Prosthodontics Art & Science of operative dentistry, Restorative Dentistry Walmsleyetal, Fundamental in Operative Dentistry.

**Prerequisites: College requirement**

**Lab topics:**

1. Introduction to operative dentistry, and to work in phantom lab.
2. Demonstration of how to use phantom head, working positions for both student and phantom head, also demonstration cavity preparation on buccal pit of lower 1st molar and palatal pit of upper lateral incisor.
3. Demonstration of principles of amalgam cavity preparation for CL I on the occlusal surface of lower 2nd premolar on the board then do demonstration of cutting on the phantom head. Quiz about the principles of CL I amalgam cavity preparation.
4. Demonstration amalgam CL I cavity for lower 1st premolar and Leave students to work under supervision.
5. Demonstration amalgam CL I cavity for upper 1st molar (two separated cavities) on the phantom head and teaching the students how to work indirectly by using mirror. Leave students to work under supervision.
6. Demonstration amalgam cavity for the palatal extension in upper 1st molar (continue with last lab in distal occlusal cavity), and Demonstration on the hand instrument groups, and teach students to differentiate between them.
7. Demonstration amalgam CL II MO cavity for lower 1st premolar.
8. Demonstration amalgam CL II MO cavity for upper 1st molar.
9. Demonstration amalgam CL II MOD cavity for lower 1st molar
10. Demonstration amalgam CL II MOD cavity for upper 2nd molar
11. Demonstration amalgam CL V cavity for lower 2nd premolar, upper 1st molar and upper 2nd premolar.
12. Demonstration amalgam CL III cavity in distal side of upper canine.
13. Demonstration of the liner and base placement, their indication, advantage, and uses.
14. Amalgam filling of CL I cavity of lower 1st premolar
15. Amalgam filling of CL II cavity of lower 2nd premolar.
16. Amalgam filling of CL II cavity of upper 1st molar.
17. Amalgam filling of CL II MOD cavity of upper 2nd molar.

18. Amalgam filling of CL V cavities of upper 1st molar and lower 2nd premolar.
19. Preparation of CL III composite cavity on upper central incisor with composite filling placement (light cure).
20. Preparation of CL III composite cavity on upper lateral incisor with composite filling placement (light cure).
21. Preparation of CL V composite cavity on upper central incisor with composite filling placement (light cure).

**Course code: DNT303**

**Course title: Oral Surgery**

**Course Definition:** the branch of dentistry that deals with repair fractured jaws and broken facial bones. Lesion removal and biopsy.

**Course Topics:**

1. Diagnosis in oral surgery (exodontia)
2. Extraction of teeth (exodontia)
3. Contra indications of extraction (exodontia)
4. General arrangement for extraction (exodontia)
5. Dental forceps (exodontia)
6. Elevators (exodontia)
7. Techniques of forceps extraction and post-operative instructions (exodontia)
8. Complications of teeth extractions (exodontia)
9. Basic surgical instruments (exodontia)
10. Introduction to local anesthesia (local anesthesia)
11. Pharmacology of local anesthesia (local anesthesia)
12. Surgical anatomy in local anesthesia (local anesthesia)
13. Instruments of local anesthesia (local anesthesia)
14. Techniques of local anesthesia (local anesthesia)
15. Complications of local anesthesia (local anesthesia)

**Course Description: 4-1-0-2**

**Recommended text book (s):**

1. Contemporary oral and maxillofacial surgery 5th edition 2008.
2. Extraction of teeth.
3. Handbook of Local anesthesia 6th edition 2011.

**Lab topics:**

1. What is oral and maxillofacial surgery?
2. History and diagnosis.
3. Case sheet and patient.
4. Surgical instruments.
5. General arrangement for extraction.
6. Position of patient, operator, the use of chair (in the clinic).
7. Local anesthesia (introduction)
8. Dental forceps.
9. Dental elevator.
10. Local anesthesia (surgical), (anatomy).

11. Local anesthesia equipment.
12. Local anesthesia techniques (infiltration).
13. Local anesthesia techniques (block).
14. Complication of local anesthesia.
15. Complication of extraction.

**Course code: DNT304**

**Course title: Pharmacology**

**Course Definition:** the branch of medicine concerned with the uses, effects, and modes of action of drugs.

**Course Topics:** General Pharmacology, Pharmacokinetics & Pharmacokinetics, Cholinergic system & Cholinergic antagonists or blockers, Adrenergic system & Adrenergic Agonists, Adrenergic Antagonists, Management of hypertension, Management of heart failure, Management of angina, Management of arrhythmias, Management of hyperlipidemias, Management of hyperglycemia, Anxiolytic and Hypnotic drugs, Narcotic analgesics, Local anesthetics & General anesthetics, NSAIDs & Disease-modifying ant rheumatic agents and drugs used in the treatment of gout, Chemotherapeutic agent, Penicillin's & Cephalosporin's, Protein synthesis inhibitors 1 & Protein synthesis inhibitors 2, Quinolones, Folic Acid Antagonist, and Urinary Tract Antiseptics, Ant mycobacterial & Antiprotozoal, Antifungal & Drugs used for supragingival plaque, Antiviral, Autacoids, Drugs acting on respiratory system, Adrenocortico-steriod Hormones, Drugs acting on GIT and vomiting management, Immunomodulating drugs, Diuretics, Thyroid hormones and anti-thyroid drugs, Anticoagulants and antianemic medications, Sex hormones and contraceptive drugs, Anticancer medications, Toxicology.

**Course Description: 6-2-0-2**

**Recommended text book (s):** Lippincott illustrates review of pharmacology.

**Lab topics:**

1. Routes of drug administration
2. Dosage forms
3. Clinical parameters in drug pharmacokinetics
4. Investigations of the effects of  $\beta$ -blockers on CVS
5. Effects of drugs on blood pressure
6. Curare-physostigmine drug antagonism
7. The effects of Atropine

**Course code: DNT305**

**Course title: General Pathology**

**Course Definition:** is the study of the nature and causes of diseases and the ways in which diseases affect our bodies by examining changes in the tissues and in blood and other body fluids.

**Course Topics:** Introduction, Cell damage, Inflammation, Healing and repair, Deposits and pigmentation, Infections Immunopathology, Disorders of cell growth and development, Neoplasia, Genetics, Disturbances in body fluids and blood flow, Diseases

of the cardiovascular system, Diseases of respiratory system, Hematological diseases, Diseases of G.I.T, Diseases of liver, pancreas and gall bladder, Bone diseases, Joints, Muscle and C.T. diseases.

**Course Description: 6-2-0-2**

**Recommended text book (s):** Robin S., basic pathology.

**Lab topics:**

1. Introduction to general pathology.
2. Histopathological slides demonstrating fatty changes in liver and cloudy swelling in kidney.
3. Slides of coagulative necrosis in heart muscles and caseous necrosis in lung.
4. Slides of anthracosis of lung and hemosiderosis in liver.
5. Slides of amyloidosis in kidney, H&E. and Congo-red stain.
6. slides of acute appendicitis (appendix), acute osteomyelitis and lobar pneumonia (lung),
7. slides of chronic cholecystitis in gall bladder and chronic osteomyelitis in bone
8. slides of keloid in skin and granulation tissue
9. slides of TB in lung and actinomycosis
10. slides of Sarcoidosis
11. slides of CVC in lung and liver
12. slides of blood vessels thrombosis
13. slides of lipoma, S.C papilloma of skin
14. slides of osteoma of the bone
15. slides of S.C. carcinoma and adeno carcinoma of the colon
16. slides of thyrotoxicosis of thyroid and hashimoto's thyroiditis in thyroid
17. slides of myocardial infarction of heart and atherosclerosis in blood vessels
18. slides of chronic gastritis in stomach and peptic ulcer
19. slides of liver cirrhosis and hepatocellular carcinoma
20. slides of emphysema in lung and chronic bronchitis in bronchus

**Course code: DNT306**

**Course title: Microbiology**

**Course Definition:** is the study of all living organisms that are too small to be visible with the naked eye. This includes bacteria, archaea, viruses, fungi, prions, protozoa and algae, collectively known as 'microbes'.

**Course Topics:** Morphology and Ultra-structures of M.Os, Eukaryotic Vs Prokaryotic cells, Growth curve (diagram) phases, Physiology and metabolism of M.O., Sterilization, Antibiotic and Chemotherapy, Immunology, streptococci, staphylococci, Lactobacilli, Corynebacterium, C. diphtheria & Diphtherioides, Bacillus, Clostridium, Mycobacterium, Enterobacteriaceae, Fusiform, Spirochaetes, Actinomyces and other Filamentous bacteria, Actinobacillus, Miscellaneous micro-organism, Ecology of the oral flora, Dental plaque and dental caries, Virology, Oral mycology & Parasitology.

**Course Description: 6-2-0-2**

**Recommended text book (s):**

1. Review of medical microbiology and immunology

2. Medical microbiology
3. Clinical microbiology
4. Diagnostic microbiology

**Lab topics:**

1. Orientation to the Microbiology laboratory
2. The microscope
3. Sterilization and disinfection:
4. Bacterial growth
5. Types of culture media
6. Sampling and transport of test material
7. Laboratory cultivation of microorganisms
8. Bacterial identification: 1-Macroscopical characteristics (colonial morphology and cultural characteristics).
9. Microscopically examination (morphology of bacterial cells).
10. Staining
11. Biochemical tests (part 1).
12. Biochemical tests (part 2).
13. Biochemical tests (part 3).
14. Antibiotic sensitivity test (part 1).
15. Antibiotic sensitivity test (part 2).
16. Serological tests (antigen and antibody detection tests) (part 1).
17. Serological tests (antigen and antibody detection tests) (part 2).
18. Nucleic acid assays, Animal pathogenicity test
19. Staphylococci
20. Streptococci
21. Corynebacterium
22. Spore-forming Gram-positive bacilli: Bacillus spp.
23. Clostridium spp.
24. Mycobacterium spp.
25. Enterobacteriaceae (part1)
26. Enterobacteriaceae (part2)
27. The Enterobacteriaceae( part3)
28. Neisseria spp.
29. Virology
30. Mycology

**Course code: DNT307**

**Course title: Dental Radiology**

**Course Definition:** is the branch of dentistry dealing with diagnostic modality of veterinary dentistry. Used for detecting hidden painful pathology, estimating the severity of dental conditions, assessing treatment options, providing intraoperative guidance, and also serve to monitor success of prior treatments.

**Course Topics:** Fundamentals of radiology, production & interaction of x-ray, x-ray film & processing cycle, factors relating to the production of radiograph, ideal

radiographic projections& artifacts, hazards of X-radiation & its biological effects, protection from x-radiation in the clinic of radiography, darkroom, patient's management, localization techniques, radiographic survey, viewing techniques (conventional & digital), dental panoramic radiography (principals), dental panoramic radiography (anatomy), introduction for normal radiographic anatomy, radiographic appearance of normal intraoral landmarks, radiographic appearance of common diseases of teeth & supporting structure, extra oral radiography, digital imaging system computed tomography (theory & physics), computed tomography (clinical application in maxillofacial region), CBCT (theory & advantages over conventional CT), CBCT (Clinical applications in MAXILLOFACIAL region), TMJ radiography (normal & pathological) TMJ imaging, MRI (theory & physics), MRI (clinical applications), radiography & implantology.

**Course Description: 4-1-0-2**

**Lab topics:**

1. Fundamentals of radiology: Introduction, Similarity and differences between x-ray and visible light, component of x-ray machine.
2. Fundamentals of radiology: X-ray tube, Generation of x-ray, Selection of target material.
3. Production & interaction of X-ray: X-ray beam shape and position, Inverse square law, Rectification, Filtration, and Collimation. X-ray spectrum, half value layer, and X-ray measuring units.
4. X-ray film & processing cycle X-ray films, intra-oral, chemical composition, film type and speed, extra-oral; screen a non screen, film properties, density, contrast, details.
5. Ideal radiograph.
6. Intraoral techniques.
7. Factors relating to the production of radiograph.
8. Hazards & protection.
9. Dental panoramic radiography.

**Course code: DNT401****Course title: Prosthodontics**

**Course Definition:** is the branch of dentistry dealing with the treatment such as decision-making, planning and the provision of fixed, removable prostheses.

**Course Topics:**

1. Diagnosis and treatment plan for RPD
2. Mouth preparation and abutment tooth preparation
3. Impression materials and techniques for R PD
4. Support in FEE RPD
5. Techniques altered cast and metal check
6. Occlusion in RPD
7. Jaw relation in RPD
8. Preparation prosthetic surgery
9. Diagnosis and treatment plane CD
10. Impression in CD
11. TMJ and mandibular movement
12. Jaw relation-vertical
13. Jaw relation-horizontal
14. Try in stage in CD
15. Insertion of CD
16. Adjustments of CD
17. Relining and rebasing in RPD

**Course description: 5-1-0-3****Recommended Text Books:**

1. Prosthodontic treatment for edentulous patient
2. McCracken removable partial denture
3. Text book, atlas, besides to book for RPD and CD with paper from internet

**Course code: DNT402****Course title: Restorative Dentistry**

**Course Definition:** is the branch of dentistry dealing with management and procedures that performs to keep mouth healthy and functional. These procedures include dentures, fillings, and crowns.

**Course Topics:**

Biologic considerations of enamel structure and its clinical significance in practice of operative dentistry, objectives of endodontic treatment, basic phases of treatment, pulp pathologies, biologic considerations of enamel structure and its clinical significance in practice of operative dentistry. classification of periapical diseases, biologic considerations of dentin structure & its clinical significance in operative dentistry, access opening preparation, biologic considerations of dentin structure & its clinical significance in operative dentistry, endodontic instruments, dentin bonding, current strategies for adhesion of resin to dentin, expanded clinical indications for dentin adhesives, rubber dam and its applications, techniques in root canal errors in root canal preparation, caries management (diagnosis & treatment strategies) the treatment goal in caries,

obturation of root canals, lateral condensation, pit & fissure lesions, lesions involving proximal surfaces. lesions in smooth free surfaces, root caries, biological consideration of enamel and dentin its practical significant in operative dentistry, new detection devices, new technologies for caries removal & cavity preparation, cervical lesion, non-carious cervical lesions erosion, abrasion, inflammatory conditions of the pulp, treatment of deep seated caries, fluoride-releasing materials, laser, direct composite veneers, indirect tooth-colored restorations, (inlay and onlay posterior composite restorations), techniques of posterior composite inlay/onlay restoration system, laboratory-processed composite inlays and onlays, ceramic veneers, inlays and onlays, clinical procedures, CAD/CAM techniques.

**Course description: 8-1-0-6**

**Course code: DNT403**

**Course title: Oral Surgery**

**Course Definition: is** the branch of dentistry that deals with repairing fractured jaws and broken facial bones, lesion removal and biopsy.

**Course Topics:**

1. Dental pain DNT403
2. Cardiovascular diseases
3. Bleeding disorders
4. Blood dyscrasias
5. Thyroid disease
6. Adrenal insufficiency
7. Diabetes mellitus
8. Pulmonary diseases
9. Arthritis
10. Allergy
11. Renal disease
12. Liver disease
13. C.N.S. disease
14. Pregnancy
15. AIDS.
16. Management of patient receiving chemotherapy and radiotherapy
17. Intra oral incisions, flaps and suturing
18. Principles of management of impacted teeth
19. Pyogenic infections of the soft tissues
20. Inflammatory disease of the bone
21. Complications of exodontia

**Course Description: 7-1 -0-5**

**Recommended text book (s):**

1. Contemporary oral and maxillofacial surgery 5th edition 2008.
2. An outline of oral surgery 2000.
3. Dental management of medically compromised patients 7th edition 2007.
4. Medical problems in dentistry 6th edition 2010.



**Course code: DNT404****Course title: Periodontology**

**Course Definition:** Refers to management and procedures that your dentist performs to keep your mouth healthy and functional. These procedures include putting in dental implants, dentures, fillings, and crowns.

**Course Topics:** Histology of the periodontium, terms & definitions frequently used in periodontology, gingiva, periodontal ligament, alveolar bone, root cementum, etiology of periodontal disease & risk factors, microbial dental plaque, dental calculus & tooth stain, pathogenesis of periodontal disease, classification of periodontal disease, plaque & non plaque induced gingivitis, chronic & aggressive periodontitis, acute periodontal conditions, perio-endo lesion, periodontal disease prevention & diet, treatment of periodontal disease, cause related phase, corrective phase, maintenance phase, drugs in periodontology.

**Course Description: 5-1-0-3**

**Recommended text books:** Lindhe Niklaus P. Lang, Jan Lindhe-Clinical Periodontology and Implant Dentistry, 2 Volume Set-Wiley-Blackwell (2015).

**Course code: DNT405****Course title: Orthodontic**

**Course Definition:** is a subject of dentistry that deals with the diagnosis, prevention and correction of malposition teeth and jaws. It can also focus on modifying facial growth, known as dentofacial orthopedics.

**Course Topics:**

1. Definition of orthodontics
2. Definition of occlusion, normal occlusion, ideal occlusion and malocclusion
3. Aims of orthodontic treatment
4. Orthodontic definitions (overjet, overbite, cross bite, spacing, crowding, midline deviation, rotation, displacement, proclination, retroclination, protrusion, retrusion, imbrication, overlap, impaction) – including types
5. Classification of malocclusion
  - a. Angle's classification including division and subdivisions
  - b. molar, canine, incisor classifications
  - c. classification of deciduous and mixed dentitions
6. Growth and development
7. Developmental anomalies
8. Jaw rotation and adaptation
9. Deciduous and permanent dentition
10. Stages of tooth development: Formation, calcification and root completion
11. Tooth eruption (stages and theories)
12. Sequences and timing of eruption
13. Development of occlusion
14. Etiology of malocclusion:
15. Genetic factors and inherited factors

16. Classification of etiological factors
17. Tooth movement
18. Orthodontic appliances
19. Use of extra-oral anchorage, temporary anchorage devices (TADs), and lingual fixed appliance
20. Retention and retainers
21. Retention (definition, reason, time)
22. Retainers (Hawley, clear overlay, positioners, permanent fixation, precision)

**Course descriptions: 7-1-0-5**

**Recommended text books:**

1. Contemporary orthodontics.
2. Textbook of orthodontics.
3. Orthodontics; current principles and technique.
4. Introduction to orthodontic.

**Clinical Sessions:**

1. Seminar 1 (Introduction to orthodontics)
2. Seminar 2 (Types of orthodontic appliances)
3. Seminar 3 (Orthodontic pliers)
4. Seminar 4 (Stainless steel alloy properties)
5. Seminar 5 (Acrylic baseplate)
6. Seminar 6 (Principles of wire bending)
7. Wire bending training
8. Z-Spring
9. Recurved Z-Spring
10. Simple Finger Spring
11. Modified Finger Spring
12. Buccal Canine Retractor
13. Modified Buccal Canine Retractor
14. Adams' Clasps on Upper Right 1st Molar
15. Adams' Clasps on Upper Left 1st Molar
16. Adams' Clasps on Upper Right 1st Premolar
17. Double Adams' Clasps on Upper Right 2nd premolar & 1st molar
18. Fitted Labial Arch
19. Hawley Arch
20. Robert's Retractor
21. Soldering and Welding

**Course code: DNT406**

**Course title: Oral Pathology**

**Course Definition:** is the discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions (the mouth and jaw areas).

**Course Topics:** Introduction, Principles of biopsy techniques, Dental caries, Pulp pathology, Periapical pathology, Bone infection, Bone diseases (Genetic diseases,

metabolic diseases; fibro-osseous lesions), Developmental disturbances, Bone neoplasms, Cysts of the jaw, Odontogenic tumors, Oral mucosal lesions, White lesions, Vesiculo-bulbous lesions, Vesiculo-ulcerative lesions, Oral malignancies, Diseases of salivary glands, Tumors of salivary glands, Red lesions, Connective tissue lesions, Pigmented lesions, Forensic odontology, T.M.J pathology, Osseointegration

**Course Description: 7-2-0-3**

**Recommended text book (s):** Oral and maxillofacial pathology Neville 4th edition.

**Lab topics:**

1. biopsy processing
2. Acute and chronic dental caries
3. Acute pulpitis, chronic pulpitis and pulp polyp
4. Periapical granuloma, cyst and abscess
5. Acute and chronic osteomyelitis and sequestra
6. Paget's disease, GCG, Fibrous dysplasia and ossifying fibroma
7. Osteoma, osteosarcoma, chondrosarcoma, Burkitt's lymphoma, eosinophilia granuloma
8. Dentigerous cyst, Keratocyst, calcifying odontogenic cyst and eruption cyst
9. Ameloblastoma, Adenomatoid odontogenic tumor and odontoma
10. Lichen planus, leukoplakia,
11. Pemphigus vulgaris and data show
12. Epithelial dysplasia, squamous cell papilloma, squamous cell carcinoma
13. Fibroma, hemangioma and lymphangia
14. Mucocele and data show
15. pleomorphic adenoma and Mucoepidermoid carcinoma

**Course code: DNT407**

**Course title: General Medicine**

**Course Definition:** dealing with the prevention, diagnosis, and treatment of diseases.

**Course Topics:** Systemic hypertension, ischemic heart disease, hematemesis, rheumatic fever, infective endocarditis, diseases of the heart valves, hemorrhagic diseases, anemias, hemolytic anemia, erythrocytosis and polycythemia, leukemia, esophagitis, acute abdomen, diabetes mellitus, tuberculosis, symptoms of elementary tract disease, branchial asthma, peptic ulcer, jaundice, diarrhea and constipation, upper gut bleeding and hepatic disorders causes, congestive heart failure.

**Course Description: 5-1-0-3**

**Recommended text book (s):** Davidson's principles and practice of medicine 21st edition 2010. Oxford handbook of clinical medicine 8th edition 2010. Dental management of medically compromised patients 7th edition 2007. Medical problems in dentistry 6th edition 2010.

**Clinical sessions:**

1. History, Clinical and communication skills.
2. Principals of physical examination.
3. The analysis of symptoms and signs.
4. The general examination and the external features of disease.

5. Examination of the head.
6. Examination of the neck.
7. Examination of the hands.
8. Examination of the skin.
9. Cardiovascular system; presenting symptoms.
10. Cardiovascular system physical examination.
11. Examination of the heart.
12. Examination of the arteries and veins.
13. Introduction to ECG
14. Acute rheumatic fever and rheumatic heart disease presenting features.
15. Infective endocarditis presenting features.
16. The cardinal symptoms of respiratory disease.
17. Physical examination of the respiratory system
18. Presenting features in renal and urinary tract disease.
19. Clinical examination of kidneys and urinary tract.
20. Presenting features of thyroid disease, and clinical examination of the thyroid gland.
21. Presenting problems in adrenal gland disease and clinical examination of patients.
22. Presenting symptoms in diabetes mellitus and clinical examination of patients.
23. Physical examination of the abdomen and groins
24. Presenting features in liver disease and clinical examination
25. Presenting problems in blood disease and clinical examination
26. Use of the ophthalmoscope
27. Presenting problems in neurological disease
28. Clinical examination of the nervous system

**Course code: DNT408**

**Course title: General Surgery**

**Course Definition:** is the discipline of pathology that deals with the nature, identification, and management of diseases affecting the oral and maxillofacial regions (the mouth and jaw areas).

**Course Topics:** Case history, clinical examination, surgical wound and infections, wound healing, hemorrhage and blood transfusion, fracture and dislocation of bones, head injuries, parenteral feeding, fluid and electrolytes balance, surgical resuscitation and medical emergencies, differential diagnosis of swelling in the neck, diseases of the nose and para nasal sinuses, diseases of pharynx and larynx and esophagus, general anesthesia, pain management and postoperative care, chest trauma and diseases, thyroid gland and goiter, tumors, cyst, ulcer & fistula.

**Course Description: 5-1-0-3**

**Recommended text book (s):** Baily and Love's short practice of surgery 25th edition 2008. Schwarz principles of surgery.

**Clinical sessions:**

1. History taking.
2. How to fill case sheet.
3. General Examination

4. Pulse rate measurement
5. Blood pressure measurement
6. Body temperature
7. Respiratory rate measurement and oximetry (oxygen saturation)
8. Head & Neck examination
9. Cranial nerve examination
10. Abdominal examination
11. Pelvic examination.
12. Upper limb examination
13. Central nervous system & Peripheral nervous system.
14. Intramuscular & Intravenous injections
15. Types of fluids
16. Types of solutions
17. Examination of the cardiovascular system
18. X-Rays
19. U\S
20. MRI
21. Specific laboratory examination.
22. Laboratory examination.
23. CT scan.
24. Types of drains.
25. Manifestation of endocrine disease

**Course code: DNT409**

**Course title: Community Dentistry**

**Course Definition:** is a branch of Dentistry which deals with preventing disease, prolonging life & promoting physical & mental efficiency through organized community efforts for the sanitation of the environment, the control of communicable infections, the education of individual in personal hygiene.

**Course Topics:** Dental public health, procedural steps in dental public health, primary health care, dental indices, indices used for dental caries assessment, indices used for oral hygiene and periodontal health assessment, biostatistics and dental science, measures of central tendency & dispersion, dental treatment need and demand, dental care for special groups, dental manpower planning, examination, epidemiology of dental caries, forensic dentistry, age assessment in forensic dentistry, fluoridation as a public health measure, fluoridation, mechanism and effects, dental ancillaries personnel, introduction to epidemiology, tools of measurement in epidemiology, epidemiology of periodontal disease, epidemiological studies, dental health education, principles of health education, school dental health program, occupational hazards, environment and health, professional ethics, dental patient relationships, infection control, sterilization.

**Course Description: 4-1-0-2**

**Recommended text book (s):**

1. Principle and practice of public health dentistry by Krishna and Dasar, 2010.
2. Community dentistry by Sikri and Sikri, 2008.

3. Primary preventive dentistry by Harris and Christen, 1995.
4. Essentials of preventive and community dentistry by Peter, 2003.

**Lab. Topics:**

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

**Course code: DNT501****Course title: Prosthodontics**

**Course Definition:** is the branch of dentistry dealing with the complete denture.

**Course Topics:**

1. Occlusion in Complete Denture
2. Retention, Stability and Support.
3. Post Insertion Problems.
4. Complications Of Complete Denture
5. Immediate Denture
6. Classification system for completely edentulous patients
7. Posterior palatal seal area
8. Single CD
9. Geriatric dentistry
10. Maxillofacial Prosthesis
11. Facial Prosthesis
12. Alveolar Ridge Atrophy
13. Dental Implantology
14. Esthetics in CD
15. Characteristics Of Ideal Materials For Dental Implant
16. Copy denture
17. Over Denture
18. Neutral zone in CD
19. Precision Attachments

**Course Description: 8-1-0-6****Course code: DNT502****Course title: Restorative Dentistry**

**Course Definition:** is the branch of dentistry dealing with pulp and root canal treatment, pulp obturation, fixed crown and removable crown.

**Course Topics:**

1. Endodontic diagnosis
2. Pain control in endodontic
3. Endodontic radiography
4. Intra canal instruments
5. Preparation of RCS
6. Microbiology
7. Introduction and Definition of Fixed Bridges and Comparison with Partial Denture.
8. Clinical consideration For Bridge Construction
9. RC filling materials
10. Obturation of RCS
11. Endodontic Emergency treatment
12. Endo-perio relations
13. Restoration of endodontic treated teeth
14. Tooth discoloration & bleaching

15. Advantages and Disadvantages Of Fixed
16. Patient Selection and Examination
17. Types of retainer
18. Gingival displacement.
19. Impression Materials and Procedure.
20. Types of Bridge.
21. Tooth discoloration & bleaching
22. Bite Registration and Articulation
23. Temporary Restoration
24. Temporary Bridges
25. Pontic and Pontic Design
26. Porcelain Material.
27. Try In and Shade Selection
28. Failure in Crown & Bridge

**Course Description: 8-1-0-6**

**Recommended text books:**

1. Endodontics, Ingle, Pathways of the pulp, Weine.
2. Contemporary Fixed Prosthodontic.
3. Fundamental Consideration in Fixed Prosthodontics.
4. Theoretical and clinical training in using different materials and techniques in fixed prosthodontics.
5. Fixed and Removable Prosthodontics.

**Course code: DNT503**

**Course title: Oral Surgery**

**Course Definition:** the branch of dentistry that deals with repair fractured jaws and broken facial bones, lesion removal and biopsy.

**Course Topics:** Endodontic surgery, orofacial pain, benign cystic lesions, preprosthetic surgery, salivary gland diseases, diseases of t.m.j, facial injuries, premalignant conditions, oral cancer, biopsy in oral surgery, odontogenic tumors, non-odontogenic tumors, fibro-osseous lesions, diagnostic imaging, surgical aids to orthodontics, orthognathic surgery, cleft lip & palate, laser & cryosurgery, management of foreign bodies, reconstructive surgery.

**Course Description: 8-1-0-6**

**Recommended text books:**

1. Contemporary oral and maxillofacial surgery 5th edition 2008.
2. An outline of oral surgery 2000.
3. Rowe and William's maxillofacial injuries 1994.
4. Maxillofacial surgery 2004.
5. Contemporary implant dentistry 3rd edition 2008.



**Course code: DNT504****Course title: Oral Medicine**

**Course Definition:** is the discipline of dentistry concerned with the oral health care of medically complex patients - including the diagnosis and management of medical conditions that affect the oral and maxillofacial region.

**Course Topics:** The principles of oral diagnosis, clinical examinations, laboratory investigations in dentistry, facial pain, neuromuscular disorder, t.m.j, vesiculo-bullus lesions, white & red lesions, oral cancer, pigmented oral lesions, oral ulceration, bms salivary glands diseases, autoimmune diseases, oral manifestation of allergic reaction.

**Course Description: 5-1-0-3****Course code: DNT505****Course title: Periodontology**

**Course Definition:** is the branch of dentistry dealing with supporting structures of teeth, as well as diseases and conditions that affect them.

1. Diagnosis & classification of periodontal disease.
2. Advance diagnosis.
3. Tooth mobility.
4. Furcation involvement.
5. Epidemiology of periodontal disease.
6. Immunopathology.
7. Dentin hypersensitivity.
8. Halitosis.
9. Perio& other aspects of dentistry.
10. Medical compromised patient.
11. Periodontal surgery.
12. Laser therapy.
13. Non-surgical periodontal therapy.
14. Cross infection.
15. Risk factors in the etiology of periodontal disease.
16. Antibiotics in periodontology.
17. Healing & regeneration.
18. GTR.
19. Gingival crevicular fluid.

**Course Description: 5-1-0-3****Recommended text book(s):****Course code: DNT506****Course title: Pedodontics**

**Course Definition:** the branch of dentistry that deals with children's teeth.

**Course Topics:** Eruption of teeth, normal eruption process, teething and difficult eruption, eruption haematoma, sequestra, ectopic eruption, natal and neonatal teeth, local factors influence eruption, systemic factors influence eruption, morphology of the primary teeth, normal morphology of all primary teeth and their clinical,

consideration, morphologic differences between primary and permanent, teeth, functions of primary teeth, dental caries, definition and classification, early childhood caries, nursing caries, baby bottle tooth decay, severe childhood caries, rampant dental caries, restorative dentistry for children, isolation & maintenance of dry field and application of the rubber dam, morphological consideration, cavity preparation and instrumentation, cavity preparation on primary teeth, restorative materials used on pediatric dentistry, matrices & retainers, chrome steel crowns, atraumatic restorative therapy (art) type of space maintainer (indication maintainer (indication and contraindication treatment of deep caries.

**Course Description: 5-1-0-3**

**Recommended text book(s):**

1. Dentistry for child and Adolescent RALPHE-McDonald/2011/ninth edition.
2. Text book of pediatric dentistry Nikhil Marwa 2nd.ed. 2009 New Delhi.

**Course code: DNT507**

**Course title: Orthodontics**

**Course Definition:** is a subject of dentistry that deals with the diagnosis, prevention and correction of malposition teeth and jaws. It can also focus on modifying facial growth, known as dentofacial orthopedics.

**Course Topics:** Orthodontic diagnosis and treatment planning: a. personal data (name, age, gender, race, address, reference and chief complaint, motivation, dental and medical history, prenatal history, postnatal history, and family history) b. clinical examination i. general body stature ii. Face examination in 3 dimensions (facial proportion, facial divergence, profile analysis) iii. Skeletal examination (sagittal, vertical and transverse relationship) IV. Soft tissue examination: extraoral (lips, nose and nasolabial angle, chin, cheek) and intraoral (tongue, frenum, gingiva, palate, tonsils and adenoids) v. occlusion (classification, midline, overjet and overbite) VI. Dentition (teeth number, position, dental age, wear, cracks and white spots) vii. Temporomandibular joint c. diagnostic aids i. orthopantomography (development, advantages, disadvantages, limitations, uses) ii. Study models (preparation, advantages, disadvantages, uses) iii. Cephalometric (development, cephalostat, advantages, disadvantages, limitations, uses, tracing and landmarks) IV. Other views: hand wrist and periapical radiographs (skeletal maturity, localization, root resorption) v. photography vi. 3d imaging d. consent form e. treatment planning: preventive, interceptive, and corrective orthodontics incisal overbite and crossbite: a. deep bite (types, etiology, treatment) b. open bite (types, etiology, treatment, skeletal vs. dental) c. cross bite and scissors bite (types, etiology, treatment, skeletal vs. dental) c. cross bite and scissors bite (types, etiology, treatment, skeletal vs. dental) crowding, spacing, space need: a. types of crowding (primary, secondary and tertiary) b. space analysis (in permanent and mixed dentition, space required and potential space, methods, Bolton's ratio) c. space creation (molar distalization, expansion, extraction, incisor proclination, proximal stripping, derotation and uprightening) d. closure of spaces (molar protraction, incisor retraction, conservative) e. teeth extraction in orthodontics (types: enforced, therapeutic, wilkinson, balancing and compensating extractions)

(indications, advantages, disadvantages for each tooth) f. serial extraction (definition, indications, procedure, advantages, limitations) treatment of common local factors: including definition, prevalence, etiology, types, effect on occlusion, and treatment (with emphasis maxillary canine): a. extra-teeth (supernumerary) and missing teeth (hypodontia) b. early loss of deciduous teeth(space maintainers and space regainers), c. retained deciduous teeth, delayed eruption of permanent teeth, impacted teeth, ankylosis d. abnormal eruptive behavior (displacement, transposition) e. large frenum (labial and lingual) f. bad oral habits treatment of general factors: a. class i treatment (etiology, skeletal and soft tissue pattern, dental factors, bimaxillary proclination, treatment methods and time) a. class i treatment (etiology, skeletal and soft tissue pattern, dental factors, bimaxillary proclination, treatment methods and time) b. class ii div. 1 treatment (etiology, skeletal and soft tissue pattern, dental factors, habits, treatment methods and time) c. class ii div. 2 treatment (etiology, skeletal and soft tissue pattern, dental factors, treatment methods and time) d. class iii treatment (etiology, skeletal and soft tissue pattern, dental factors, treatment methods and time) treatment of adult, periodontal problems and orthognathic surgery, cleft lip and palate embryology, classification, dental effects, treatment.

**Course Description: 5-1-0-3**

**Recommended text book (s):**

1. Contemporary orthodontics
2. Textbook of orthodontics
3. Orthodontics; current principles and technique
4. Introduction to orthodontic

**Course code: DNT508**

**Course title: Preventive Dentistry**

**Course Definition:** is the practice of caring for teeth to keep them healthy. This helps to avoid cavities, gum disease, and enamel wear.

**Course Topics:**

1. Preventive dentistry (introduction)
2. Dental Caries development
3. Fluoride in Dentistry
4. Systemic fluoridation (history)
5. Communal water fluoridation
6. Fluoride supplements
7. Topical fluoridation
8. Self-applied fluoride
9. Professionally applied fluoride
10. Toxicity of fluoride
11. Microbiology of caries
12. Cariogenic potential of bacteria
13. Fissure sealants
14. New approach in restorative dentistry
15. Diet and dental caries

16. Non- sugar sweeteners
17. Dietary counseling in dental practice
18. Nutrition and oral health
19. Nutrition, diet & periodontal disease
20. Saliva and dental caries
21. Oral immune system
22. Oral hygiene measures(Mechanical)
23. Oral hygiene measures (Chemical)
24. Diagnosis of caries
25. Identification of high risk group
26. Dental health of disabled and medically compromised patients
27. Geriatric dentistry
28. Health education and motivation
29. Uses of LASER in dentistry
30. Prevention of peri-implantitis

**Course Description: 4-1-0-2**

**Recommended text book (s):**

The prevention of oral disease by Murry NunnJH and Steele JG fourth edition, 2003. Primary Preventive Dentistry by Harris NO Garcia-GodoyF-Nathe CN 7th Ed. (2008). Essential of dental caries the disease and its management by Kidd E third edition (2005). Textbook of Cariology by Fejerskov and Thylstry 1996. Principles and practice of public health dentistry by Krishna M and DasarPL.2010. 6-Community dentistry by Sikri V and Sikri P 2008. Text book of preventive and social medicine. Gupta M. and Mahajan BK. 3rd edition, 2003. Dentistry, dental practices and the community Striffler D, Young W., and Burt B., 5th edition 1999. The prevention of oral diseases. Murray J.J., Nunn G. H. and Steele J. G. 4th edition, 2003.