



2016-2017 → 20 -20

Consisted of 27 pages

## To whom it may concern

This document certifies that **Dr. -----** studied in the Faculty of Dental Medicine – Damascus University between the years 2016-2017/20 -20  
We confirm that **Dr. -----** has accomplished the attached curriculum, for undergraduate dental course leading to Doctor of Dental Surgery (D.D.S.) at the Faculty of Dental Medicine – Damascus University.  
Should you have any further enquiry, please do not hesitate to contact me.

Yours Faithfully

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**Vice Dean for Scientific Affairs**

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### Learning objectives:

The goal of dental education is to produce dentists who are prepared to serve the fundamental purposes of dental medicine. In addition, dentists must possess the attributes that are necessary to meet their individual and collective responsibilities towards society. Emerging from this belief comes the basic aim of the faculty of Dental Medicine at Damascus University which is to graduate highly qualified dental professionals who are knowledgeable, skillful, dutiful and above all altruistic.

In order to fulfill the above mentioned goal, specific learning objectives have been set and developed by the faculty to be implemented through the different study stages of the student at the faculty through the five successive academic years.

### The main learning objectives include:

- I. To graduate socially and ethically sensitive and responsible highly qualified dental professionals who will be dedicated to serving others in the community.
- II. To provide students with good knowledge of the principles that govern ethical decision making and of the major ethical dilemmas that are faced in the field of dentistry.
- III. To create dental professionals who would care for compassionate treatment of patients and respect their privacy and dignity.
- IV. To provide students with good knowledge of:
  - Normal structures and functions of the body including major organ systems.
  - Molecular, biochemical and cellular mechanisms that take place within the body.
  - The altered structure and function (pathology and path physiology) of the body and the oral cavity.
  - Relieving dental pain and minimizing the suffer of patients resulting from acute infections.
  - The epidemiology of common oral diseases within a defined population and following systematic approaches which are useful in reducing the incidence and prevalence of such diseases.
- V. To help dental students have the appropriate skills for:
  - Obtaining accurate medical and dental history that covers all aspects related to oral health.
  - Performing complete extra and intra oral examinations.



Interpreting results of commonly used diagnostic procedures including laboratory tests and radiographs.

- Seeking consultation from other physicians and different health professionals when needed and indicated.

VI. To enhance dental students' abilities in clinical diagnosis, treatment planning and delivery of clinical care.

VII. To prepare trained students to become qualified general dentists who would treat patients with basic safe treatment requirement in various dental disciplines which could be summarized as follows:

- To be able to perform restorative and root canal treatment for different age group patients.
- To be able to carry out removable and fixed prosthodontic treatment including partial dentures, complete dentures as well as bridges, crowns and post crowns.
- To be able to manage the child patient and execute the necessary needed treatment for such target group including restorations, pulpectomies, space maintainers, orthodontic treatment and extractions.
- To know how to do dental professional teeth cleaning procedures as scaling and root planning.
- To be capable of performing simple extractions and minor oral surgeries for un-restorable teeth.
- To be capable of dealing with medically compromised patients and seeking consultation when needed.

VIII. To increase students' opportunities for research or to expose them for research opportunities and strengthen their research capabilities

IX. To graduate a dental professional who is highly competent for continuing higher education in any dental field.

### **Study stages:**

Study period to achieve Doctor of Dentistry License is Five Academic years, taking in consideration that each academic year is made of two semesters, each semester is made of 16 weeks, total weeks:  $16 \times 10 = 160$  week and that the study hour is / 60 / minute.

The student passes through two main stages during which he gains all expected knowledge and training to become a highly skilled and qualified dentist who can achieve the intended goals in his future career:



**The preclinical stage:**

This stage is primarily implemented in the first three years, where the student is exposed to all basic medical and dental sciences. The student receives his courses that are served and facilitated by various faculties such as the Faculty of Medicine, and the Faculty of Pharmacy, besides Faculty of Dental Medicine.

**The clinical stage:**

This stage is implemented in the last two years (fourth and fifth), where the student is exposed to various specialties of the dental art and medicine; and receives the suitable training to become able to treat patients.

**Exams:**

The assessment of all subjects took the form of:

Formative assessment which involves monitoring and feedback throughout the course-by answering some clinically relevant questions.

Summative assessment which involves midterm and final exams (short answers and MCQs), quiz, and OSCE (clinical exams for the subjects at the end of year 4 and 5).

MCQs: Multiple Choice Questions

OSCE: Objective Structures Clinical Exam

*Teaching hours for undergraduate student in the Faculty of Dental Medicine at Damascus University.*

*Please note that the number of weeks in the Faculty of Dental Medicine at Damascus University is: 16 sixteen weeks are for each semester and therefore the total weeks are  $16 \times 10 = 160$  weeks study in the five year study, and that the study hour is /60/ minutes.*

**Consisted of 27pages**

**Note:** *The duration Of The Study hour does not include the move amongst sessions and breaks.*



## First Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Physics	1	2	3
Chemistry	1	2	4
Cell Biology	1	2	3
English (1)	1	-	2
Medical History	1	-	2
Physiology	2	2	3
Biostatistics	2	2	2
Medical Genetics	2	-	2
Anatomy	2	2	3
English (2)	2	-	2
<b>Total</b>		<b>12</b>	<b>26</b>

## Second Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
General Histology	1	2	2
Dental Materials (1)	1	2	2
Dental Anatomy	1	4	2
Embryology	2	-	2
Head and Neck Anatomy	1	2	2
Arabic Language	1	-	2
National Social Culture	1	-	2
Foreign Language (3)	1	-	2
Oral and Dental Histology	2	2	2
Dental Materials (2)	2	2	2
Restorative Dentistry (1)	2	4	2
Medical Chemistry	2	2	2
Fixed Prosthodontics (1)	2	4	2
Microbiology	2	2	2
Oral Physiology	2	-	2
Foreign Language (4)	2	-	2
<b>Total</b>		<b>26</b>	<b>32</b>

### Third Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Immunology	1	-	1
General Pathology	1	2	2
Restorative Dentistry (2)	1	4	2
Oral Preventive Dentistry	2	2	2
Fixed Prosthodontics (2)	1	4	2
Internal and Dermatological Diseases	1	-	2
Minor Surgery and Surgical Diseases	1	2	2
Behavioral Psychology	1	-	2
Pharmacology	2	-	2
Oral and Dental Pathology	2	2	3
Radiology and Radiological Diagnosis in Dentistry	2	4	2
Removable Prosthodontics (1)	2	2	2
Occlusion Science	2	2	2
Ophthalmology and Otorhinolaryngology	2	-	2
Public Health and Epidemiology	2	-	2
Infection Control	2	-	2
Periodontology (1)	2	-	2
<b>Total</b>		<b>24</b>	<b>34</b>

## Fourth Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Oral Diseases (1)	1	2	2
Endodontics (1)	1	2	2
Anesthesia and Extraction (1)	1	4	2
Removable Prosthodontics (2)	1	4	2
Orthodontics (1)	1	2	2
Periodontology (2)	1	4	2
Restorative Dentistry (3)	1	4	2
Forensic Dentistry&Ethisc	1	-	2
Oral Diseases (2)	2	2	2
Endodontics (Y)	2	4	2
Anesthesia and Extraction (2)	2	4	2
Removable Prosthodontics (3)	2	2	2
Orthodontics (2)	2	2	2
Fixed Prosthodontics (3)	2	4	2
Pediatric Dentistry (1)	2	4	2
Emergency Medicine and Management of Children with Special needs in Dentistry	2	-	2
<b>Total</b>		<b>44</b>	<b>32</b>

## Fifth Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Anesthesia and Extraction (3)	<b>1</b>	<b>4</b>	<b>1</b>
Endodontics (3)	<b>1</b>	<b>4</b>	<b>1</b>
Fixed Prosthodontics (4)	<b>1</b>	<b>4</b>	<b>1</b>
Removable Prosthodontics (4)	<b>1</b>	<b>4</b>	<b>1</b>
Pediatric Dentistry (2)	<b>1</b>	<b>4</b>	<b>2</b>
Periodontology (3)	<b>1</b>	<b>4</b>	<b>2</b>
Oral Surgery and Implantology	<b>1</b>	<b>2</b>	<b>2</b>
Anesthesia and Extraction (4)	<b>2</b>	<b>4</b>	<b>1</b>
Endodontics (4)	<b>2</b>	<b>4</b>	<b>1</b>
Fixed Prosthodontics (5)	<b>2</b>	<b>4</b>	<b>1</b>
Restorative Dentistry (4)	<b>2</b>	<b>4</b>	<b>1</b>
Orthodontics (3)	<b>2</b>	<b>4</b>	<b>2</b>
Oral and Maxillofacial Surgery	<b>2</b>	<b>-</b>	<b>2</b>
<b>Total</b>		<b>46</b>	<b>18</b>





## Course Description

### First Year

<b>1. Physics</b>	<ol style="list-style-type: none"> <li>1. Introduction of modern physics principles.</li> <li>2. Atomic structure and atomic properties.</li> <li>3. Optics</li> <li>4. Ultraviolet radiation.</li> <li>5. X-ray (principles, generation and properties).</li> <li>6. Infrared radiation and blackbody radiation.</li> <li>7. Terahertz radiation.</li> <li>8. Microwaves</li> <li>9. Laser (principles, generation and properties).</li> <li>10. Laser imaging (devices and usage).</li> <li>11. Nuclear structure and properties.</li> <li>12. Radionuclides and Nuclear medicine.</li> <li>13. Matter states and liquid mechanism.</li> <li>14. Vibration and waves.</li> <li>15. Audible sound and infrasound.</li> <li>16. Echography and Doppler effect.</li> <li>17. Lithotripter and sound bullet.</li> <li>18. Ultrasound elastography.</li> <li>19. Magnetic field (generation, properties).</li> <li>20. Nuclear Magnetic resonance and magnetic resonance imaging.</li> <li>21. Superconductivity (origin, application).</li> </ol>
<b>2. Chemistry</b>	<ol style="list-style-type: none"> <li>1. chemical equations and moles.</li> <li>2. Atoms and chemical elements.</li> <li>3. Electrons in the atom.</li> <li>4. Interactions and chemical bonds.</li> <li>5. States of matter.</li> <li>6. Enthalpy and thermal variations.</li> <li>7. Oxidation and reduction reactions.</li> <li>8. Chemical equilibrium.</li> <li>9. Rates of chemical reactions and factors that affect the rate.</li> <li>10. Periodic table of elements and its properties.</li> <li>11. Organic chemistry.</li> <li>12. Carbohydrates.</li> <li>13. Halogens and Alkanes.</li> <li>14. Alcohols and Ester.</li> <li>15. Carbonyl, Aldehyde, Ketone.</li> <li>16. The equilibrium potential of ions and buffer solutions.</li> <li>17. Kinetic energy of chemical reactions.</li> <li>18. Transition metals.</li> <li>19. Benzene and its derivatives.</li> <li>20. Carboxylic Acids.</li> <li>21. Amines, Amides, Amino acids, Peptides.</li> </ol>

<b>3. Cell Biology</b>	<ol style="list-style-type: none"> <li>1. Introduction to cellbiology.</li> <li>2. Biochemical Structure of cell, methods of its study, types of microscopes.</li> <li>3. Structure and function of cell organelles.</li> <li>4. Structure and function of the nucleus and the nuclear genome.</li> <li>5. cell membrane (molecular architecture and functional components)</li> <li>6. The Cytoskeleton: structure, function, cell locomotion.</li> <li>7. Cell adhesion.</li> <li>8. Cell energetic (mitochondria, oxidative phosphorylation)</li> <li>9. Mitosis, cell cycle, binary fission.</li> <li>10. Meiosis and chromosomal inheritance.</li> <li>11. Cell signaling and communications.</li> <li>12. Differentiation, stem cells, apoptosis.</li> </ol>
<b>4. English (1)</b>	<p><b>Grammar content:</b></p> <ol style="list-style-type: none"> <li>1. Question formations.</li> <li>2. Auxiliary verbs</li> <li>3. Present perfect.</li> <li>4. Using adjectives as nouns.</li> <li>5. Narrative tenses, past perfect continuous.</li> <li>6. Adverbs and adverbial phrases.</li> <li>7. Passive forms.</li> <li>8. Future perfect and future continuous.</li> <li>9. Conditionals and future time clauses.</li> <li>10. Unreal conditionals.</li> <li>11. Past modals; would rather, had better.</li> <li>12. Verbs of senses.</li> </ol>
<b>5. Medical History</b>	<ol style="list-style-type: none"> <li>1. Medical history in old civilizations (Egyptians, Greeks, Chinese etc.)</li> <li>2. Medical science in Arab Islamic civilization.</li> <li>3. Development of medical science in Europe and America.</li> <li>4. Development of medical science in the world.</li> <li>5. Medical science in the current time.</li> </ol>
<b>6. Physiology</b>	<ol style="list-style-type: none"> <li>1. Introduction to physiology.</li> <li>2. Physiology of excitable tissues.</li> <li>3. The blood: its components and the lymphatic system.</li> <li>4. Autonomic nervous system.</li> <li>5. The heart and the circulatory system.</li> <li>6. Physiology of respiratory system.</li> <li>7. Physiology of urinary system.</li> <li>8. Metabolism and energy balance.</li> <li>9. Digestive system.</li> <li>10. Endocrine system.</li> <li>11. Nervous system.</li> </ol>
<b>7. Biostatistics</b>	<ol style="list-style-type: none"> <li>1. Introduction to statistics and bio-statistics.</li> <li>2. Types of variables and scales of measurement.</li> <li>3. Methods of data collection.</li> <li>4. Methods of summarizing and presenting data.</li> <li>5. The population and samples.</li> <li>6. Probability Distribution.</li> <li>7. Statistical inference and hypothesis testing.</li> <li>8. Comparing means and proportions.</li> <li>9. Correlation and prediction.</li> <li>10. Sources of data collection.</li> <li>11. Demography and Health.</li> <li>12. Medical records.</li> </ol>

<b>8. Medical Genetics</b>	<ol style="list-style-type: none"> <li>1. Introduction to medical genetics.</li> <li>2. Mendelian genetics.</li> <li>3. Non-Mendelian genetics.</li> <li>4. Genetic material and chromosomes.</li> <li>5. DNA replication.</li> <li>6. Transcription.</li> <li>7. Translation and protein synthesis.</li> <li>8. Regulation of gene expression</li> <li>9. Genetic engineering technologies.</li> <li>10. Human genome.</li> <li>11. Chromosomes abnormalities.</li> <li>12. Genetics counseling.</li> <li>13. Immunogenetics.</li> <li>14. Pharmacogenetics.</li> <li>15. Cancer genetics.</li> <li>16. Human population genetics.</li> <li>17. Genetics of common diseases.</li> </ol>
<b>9. Anatomy</b>	<ol style="list-style-type: none"> <li>1. Introduction in general anatomy (classification of body tissues, embryologic review).</li> <li>2. Skeleton bones and joints.</li> <li>3. Muscular system.</li> <li>4. Respiratory system.</li> <li>5. Cardiovascular system.</li> <li>6. Digestive system.</li> <li>7. Urinary system.</li> <li>8. Reproductive system.</li> <li>9. Endocrine system.</li> <li>10. Central nervous system.</li> <li>11. Peripheral nervous system.</li> <li>12. Sensory organs.</li> </ol>
<b>10. English (2)</b>	<p><b>Grammar content:</b></p> <ol style="list-style-type: none"> <li>1. gerunds and infinitives.</li> <li>2. used to, be used to, get used to.</li> <li>3. reporting verbs.</li> <li>4. articles.</li> <li>5. uncountable and plural nouns.</li> <li>6. quantifiers: all/ every etc.</li> <li>7. structure after wish</li> <li>8. clauses of contrast and purpose; whatever, whenever etc.</li> <li>9. relative clauses.</li> </ol>

## Second Year

<b>1. General Histology</b>	<p><i>Students will acquire knowledge and understanding of</i></p> <ol style="list-style-type: none"> <li>1. Histological examination instruments.</li> <li>2. Histological manifestations of body system, organs and tissues.</li> </ol> <p><i>Students will be able to</i></p> <ol style="list-style-type: none"> <li>1. Use microscope for histological examination.</li> <li>2. Differentiate between different tissues under microscope.</li> <li>3. Recognize different histological preparations.</li> </ol>
<b>2. Dental Materials (1)</b>	<ol style="list-style-type: none"> <li>1. Historical acknowledgement.</li> <li>2. Aim of dental material researches.</li> <li>3. Definition of physical, chemical and mechanical properties of dental biomaterials.</li> <li>4. Structure of matter.</li> <li>5. Adhesion to tooth structure.</li> <li>6. Biological considerations in use of dental materials.</li> <li>7. Classification of dental cements.</li> <li>8. Cavity liners.</li> <li>9. Clinical considerations.</li> <li>10. Working and setting times.</li> <li>11. Manipulation.</li> <li>12. Bond to tooth structure.</li> <li>13. Selection of materials.</li> <li>14. Improper cavity preparation or finishing.</li> <li>15. Chemically activated resins.</li> <li>16. Light-activated resins.</li> <li>17. Bond agents.</li> <li>18. Abrasion and polishing dentifrices.</li> <li>19. Dentifrices.</li> <li>20. Dental implant materials.</li> </ol>
<b>3. Dental Anatomy</b>	<ol style="list-style-type: none"> <li>1. A study of the structure form of each tooth (temporary and permanent), and their mutual relations within the dental arch and between the upper and lower dental arches, with an explanation of their role in maintaining the periodontal tissues. Practical and manual skills for students are developed by lab sessions for dental drawing and carving.</li> <li>2. Differences between primary and permanent teeth</li> <li>3. Essential differences between primary and permanent teeth and general knowledge of primary teeth.</li> </ol>
<b>4. Embryology</b>	<p>A study of anatomy of head and neck in details, through lectures in theory and lab sessions emphasizing on regional anatomy of special importance for dentistry. It studies as well the embryonic development and the development of craniofacial tissues in human.</p> <ol style="list-style-type: none"> <li>1. Deoxyribonucleic acid (DNA): Heredity molecule.</li> <li>2. The continuity of life.</li> <li>3. The patterns of inheritance.</li> <li>4. Developmental cranio-facial human genes.</li> <li>5. Technical molecular biology.</li> <li>6. Early embryo development.</li> <li>7. Developmental craniofacial deformities.</li> </ol>
<b>5. Head and Neck Anatomy</b>	<ol style="list-style-type: none"> <li>1. Skull and bones.</li> <li>2. Cranial nerves.</li> <li>3. Blood and lymph supply.</li> <li>4. Nerves.</li> <li>5. Salivary glands.</li> <li>6. Endocrinology.</li> </ol>

<b>6. Arabic Language</b>	<ol style="list-style-type: none"> <li>1. Verb-like letters.</li> <li>2. The use of questioning tools.</li> <li>3. The use of swearing tools.</li> <li>4. The use of wondering tools.</li> <li>5. Warning and specialty.</li> <li>6. The use of numbers.</li> <li>7. Conditional verbs.</li> <li>8. Terminologies and dictionaries.</li> </ol>
<b>7. National Social Culture</b>	<ol style="list-style-type: none"> <li>1. Arabic Islamic civilization.</li> <li>2. The Palestinian case and the Arab conflict.</li> <li>3. The Arabic socialistic "baath" party.</li> <li>4. The correctional movement and the national combat.</li> <li>5. Peace negotiations.</li> <li>6. The National Arabic security.</li> <li>7. The international alterations.</li> <li>8. The development and renewal in the speech of president Bashar Al-Assad.</li> </ol>
<b>8. Foreign Language(3)</b>	<p><i>English language</i></p> <ol style="list-style-type: none"> <li>1. Oral cavity structures.</li> <li>2. Oral hygiene.</li> <li>3. What is epidemiology?</li> <li>4. Descriptive risk factors.</li> <li>5. Analytic dentistry.</li> <li>6. Disease origin.</li> <li>7. Manifestation and etiology.</li> <li>8. Types of causation.</li> <li>9. Qualitative data.</li> <li>10. Dental caries.</li> <li>11. Active/inactive lesions.</li> <li>12. Periodontal diseases.</li> <li>13. Gingivitis.</li> </ol>
<b>9. Oral and Dental Histology</b>	<p>This course presents the microscopic structure of cells, tissues and organs emphasizing the correlation between structure and function. The course deals specifically with the oral cavity and the structures relevant to the teeth and their surroundings: The development of the oral cavity, the development of teeth, enamel, dentin, dental pulp, cementum, alveolar bone periodontal ligament, oral mucous lining, mastication oral mucosa, the oral mucous membrane, the salivary glands and TMJ.</p> <ol style="list-style-type: none"> <li>1. Tongue, gingiva, cheeks histologically.</li> <li>2. Paranasal sinuses.</li> </ol>
<b>10. Dental Materials (2)</b>	<ol style="list-style-type: none"> <li>1. Impression materials (Alginate, rubber).</li> <li>2. Casting materials.</li> <li>3. Dental wax: Types, and the indications, chemical composition and way of working of each type.</li> <li>4. Resins: Types, and the indications, chemical composition and way of working of each type.</li> <li>5. Metal mixtures: Types, and the indications, chemical composition and way of working of each type.</li> <li>6. Dental cements: Types, and the indications, chemical composition and way of working of each type.</li> <li>7. Dental ceramics.</li> </ol>
<b>11. Restorative Dentistry(1)</b>	<ol style="list-style-type: none"> <li>1. Definition of operative dentistry.</li> <li>2. Stages of cavity preparation.</li> <li>3. Instruments used in operative dentistry.</li> <li>4. Class I cavities (restorations).</li> <li>5. Class II (restorations).</li> <li>6. Class III (restorations).</li> <li>7. Class IV (restorations).</li> <li>8. Class V (restorations).</li> <li>9. Class VI (restorations).</li> <li>10. Biological considerations.</li> </ol>

<b>12. Medical Chemistry</b>	<ol style="list-style-type: none"> <li>1. Analysis of amino acids and protein misfolding.</li> <li>2. Fibrous proteins.</li> <li>3. Globular proteins.</li> <li>4. Steroids.</li> <li>5. Hormones.</li> <li>6. Vitamines.</li> <li>7. Metabolism and bioenergetics.</li> <li>8. Carbohydrate metabolism.</li> <li>9. Lipid metabolism.</li> <li>10. Nitrogen metabolism.</li> <li>11. Metabolic defects in metabolism.</li> </ol>
<b>13. Fixed Prosthodontics(1 )</b>	<ol style="list-style-type: none"> <li>1. Definitions.</li> <li>2. Introduction to fixed prosthodontics.</li> <li>3. Types of crowns.</li> <li>4. Purposes of crown construction.</li> <li>5. Steps in crown construction.</li> <li>6. Components of bridge.</li> <li>7. Biomechanical principles of tooth preparation.</li> <li>8. Preservation of sound tooth structure.</li> <li>9. Retention and resistance form.</li> <li>10. Marginal integrity.</li> <li>11. Structural durability.</li> <li>12. Full metal crown:</li> <li>13. Indications, contra-indications, advantages, disadvantages, steps of preparation</li> <li>14. Complete ceramic crown (Porcelain Jacket Crown):</li> <li>15. Indications, contra-indications, advantages, disadvantages, and steps of preparation.</li> <li>16. Partial veneer crown (three-quarter crown):</li> <li>17. Indications, contra-indications, advantages, disadvantages, steps of preparation.</li> <li>18. Post crown:</li> <li>19. Indications, contra-indications, factors to be considered in the assessment of a tooth for post crown, components of post crown, types of post crown, steps of preparation.</li> </ol>
<b>14. Microbiology</b>	<ol style="list-style-type: none"> <li>1. Microbiology- classification</li> <li>2. Bacterial structure, cultures and physiology.</li> <li>3. Bacterial genetics and genetic engineering.</li> <li>4. Pathogenesis and diagnosis of infectious diseases.</li> <li>5. Antibiotics – Methods of disinfection andsterilization.</li> <li>6. Systemic bacteriology: Gram positive cocci, gram negative cocci, gram positive bacilli, gram negative bacilli, spirochetes, mycobacterium, obligate intracellular bacteria, other bacteria.</li> <li>7. General virology.</li> <li>8. Special virology.</li> <li>9. General parasitology.</li> <li>10. Systemic parasitology.</li> <li>11. General mycology.</li> <li>12. Special mycology.</li> <li>13. 13- Oral cavity pathogen andimmune response.</li> </ol>
<b>15. Oral Physiology</b>	<ol style="list-style-type: none"> <li>1. Oral environment.</li> <li>2. Functional dental-organ.</li> <li>3. Physiology of masticatory system (mastication, swallowing, speech).</li> <li>4. Oro-facial sensation (pain, touch, pressure).</li> <li>5. Physiology of periodontal ligament.</li> <li>6. Pulp-dentin complex.</li> <li>7. Physiology TMJ.</li> <li>8. Physiology of local and general anesthesia.</li> <li>9. Histophysiological response to orthodontic movement.</li> <li>10. Physiology of bone.</li> <li>11. Growth of craniofacial complex.</li> <li>12. Autonomic neurological system and stress.</li> <li>10. Circulatory shock and syncope.</li> </ol>

<b>16. Foreign Language (4)</b>	<p><i>English Language</i></p> <ol style="list-style-type: none"> <li>1. Oral cavity structures.</li> <li>2. Restorative dentistry.</li> <li>3. Patient's background.</li> <li>4. Enamel.</li> <li>5. Dentin.</li> <li>6. Alterations of dentition.</li> <li>7. Design cycle.</li> <li>8. Evidence-based dentistry.</li> <li>9. Mechanical properties.</li> <li>10. Forces and deformation.</li> <li>11. Biocompatibility.</li> <li>12. Glass ionomers.</li> <li>13. Pit and fissure sealants.</li> </ol>
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### Third Year

<b>1. Immunology</b>	<p>It includes how to protect body from strange large particles and micro-organisms and the reactions towards them in the first defense line and killing them without need for antibodies. Also includes autoimmune towards body's cells in immunity against tumors and studies how immune system cells interact with each other by particles represent signals that help in organizing the immune reaction, these signals might be proteins like lymphocytes and cytokines.</p> <ol style="list-style-type: none"> <li>1. Introduction to immunology.</li> <li>2. The laboratory session focuses on characteristics of microbes and their production, biochemical interactions in immune reaction and cells stimulation in immunity system.</li> <li>3. Innate immunity-phagocytosis.</li> <li>4. Innate immunity- complement cascade.</li> <li>5. Antigens.</li> <li>6. T cell receptor /B cell receptors.</li> <li>7. Major Histocompatibility complex.</li> <li>8. T cell mediated immune response.</li> <li>9. B cells mediated immune response.</li> <li>10. Immunity against infectious agents.</li> <li>11. Self-tolerance.</li> <li>12. Mechanisms of autoimmunity.</li> <li>13. Hypersensitivity.</li> <li>14. Immune response against tumor.</li> <li>15. Immunologic mechanisms of transplant rejection.</li> <li>16. Congenital immunodeficiencies.</li> </ol>
<b>2. General Pathology</b>	<ol style="list-style-type: none"> <li>1. Definition of pathology.</li> <li>2. Cellular degeneration.</li> <li>3. Inflammation and infection.</li> <li>4. Hematological disorders.</li> <li>5. Pigmentation disorders.</li> <li>6. Infarction and necrosis.</li> <li>7. Neoplasm's principles.</li> <li>8. Carcinomas and sarcomas.</li> </ol>
<b>3. Restorative Dentistry (2)</b>	<ol style="list-style-type: none"> <li>1. History of operative dentistry.</li> <li>2. Considerations affecting operative dentistry.</li> <li>3. Moisture and saliva control.</li> <li>4. Liners and bases.</li> <li>5. Dental amalgam restorations.</li> <li>6. Compound amalgam restorations.</li> <li>7. Bonding systems (1).</li> <li>8. Composite.</li> <li>9. Glass ionomer cement (1).</li> <li>10. Compomer as a restorative material (1).</li> <li>11. Cast-gold restorations.</li> <li>12. Clinical cases.</li> </ol>
<b>4. Preventive Dentistry</b>	<ol style="list-style-type: none"> <li>1. Public health- an overview.</li> <li>2. Oral health education and health promotion.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Missing teeth.</li> <li>4. Dental caries.</li> <li>5. Periodontal diseases.</li> <li>6. Fluorosis.</li> <li>7. Oral cancer and other lesions.</li> <li>8. Caries assessment</li> <li>9. Periodontal diseases assessment.</li> <li>10. Fluoride- dental health and caries prevention.</li> <li>11. Water fluoridation.</li> <li>12. Fissures and pits sealant.</li> <li>13. Prevention of periodontal disease.</li> <li>14. Tobacco use cessation.</li> <li>15. Impact of epidemiology on dental practice.</li> <li>16. Oral health and geriatric medicine.</li> <li>17. Dental diseases and oral health status.</li> <li>18. Dental public health (introduction).</li> </ol>
<b>5. Fixed Prosthodontics (2)</b>	<ol style="list-style-type: none"> <li>1. Types of bridges.</li> <li>2. post and core.</li> <li>3. Indications and contraindications of crowns and bridges .</li> <li>4. Short span bridge: Preparation steps and clinical procedure including impression taking, and laboratory procedures.</li> <li>5. Partial retainers (anterior and posterior), preparation steps and clinical procedure including impression and temporary.</li> <li>6. Temporary crowns.</li> </ol>
<b>6. Internal Medicine and Dermatology</b>	<p><b>. A. Internal medicine</b></p> <ol style="list-style-type: none"> <li>1. Definition of medicine diseases, history, and clinical examination.</li> <li>2. Vital signs, approaching structural symptoms.</li> <li>3. Symptoms of nervous system – meningitis – convulsions.</li> <li>4. Symptoms of cardiovascular and respiratory systems.</li> <li>5. Symptoms and common clinical manifestation of gastroenterology system.</li> <li>6. Liver hepatitis.</li> <li>7. Symptoms of urogenital system - glandular/endocrine system.</li> <li>8. Septic diseases and sexually transmitted diseases.</li> <li>9. Approach to the patient in shock and treatments.</li> <li>10. Treatment with antibiotics and nonsteroidal anti-inflammatory.</li> <li>11. Emergencies in medicine.</li> </ol> <p><b>. B. Dermatology</b></p> <ol style="list-style-type: none"> <li>1. Basics in dermal diseases.</li> <li>2. Bacterial diseases.</li> <li>3. Viral diseases.</li> <li>4. Genetic diseases.</li> <li>5. Bullous diseases.</li> <li>6. Autoimmune diseases.</li> <li>7. Tumors.</li> </ol>
<b>7. Minor Surgery and Surgical Diseases</b>	<p><b>(A) Minor surgery</b></p> <ol style="list-style-type: none"> <li>1. Patient examination and admission to hospital.</li> <li>2. Vital signs.</li> <li>3. Surgical infection and antibiotics.</li> <li>4. Essential surgical instruments.</li> <li>5. Sterilization and antisepsis.</li> <li>6. General patient care.</li> <li>7. Drugs administration via injection, and puncture.</li> <li>8. Catheterization and electrocardiography.</li> <li>9. Emergency care.</li> <li>10. Bleeding and management of blood transfer.</li> <li>11. Wounds and managements.</li> <li>12. Burns, bone fractures and managements.</li> </ol> <p><b>(B). Surgical diseases</b></p>



	<ol style="list-style-type: none"> <li>1. Acute abdominal pain.</li> <li>2. Thrombophlebitis/ hemorrhoids.</li> <li>3. Pulmonary embolism.</li> <li>4. Hepatic surgery.</li> <li>5. Pancreatic surgery.</li> <li>6. Appendix vermiform is lesions.</li> <li>7. Peptic ulcer.</li> <li>8. Splenic surgery.</li> <li>9. Renal surgery.</li> <li>10. Thyroid and parathyroid surgery.</li> <li>11. Mammal surgery.</li> <li>12. Laparoscopic surgery.</li> </ol>
<b>8. Behavioral Psychology</b>	<ol style="list-style-type: none"> <li>1. Principles of psychology.</li> <li>2. Cognitive, behavioral and social growth for individuals.</li> <li>3. communication skills with patients in dental clinics.</li> <li>4. social and psychological factors in oral health.</li> <li>5. Management of children with psychological problems.</li> <li>6. Management of children with anxiety and apprehension problems.</li> <li>7. stress management for dentists.</li> <li>8. Management of elderly.</li> <li>9. Problems with patients with compliance.</li> <li>10. Communication skills in dental office ( dental team, colleagues)</li> </ol>
<b>9. Pharmacology</b>	<ol style="list-style-type: none"> <li>1. Introduction to pharmacology.</li> <li>2. Prescription.</li> <li>3. Principles of antimicrobial treatment (antibiotics).</li> <li>4. Antifungal and antiviral medication.</li> <li>5. Opioid analgesics and management of pain.</li> <li>6. Non-steroidal anti-inflammatory drugs (NSAIDs).</li> <li>7. Corticosteroids.</li> <li>8. Homeostasis.</li> <li>9. General and local anesthesia.</li> <li>10. Drugs of autonomic nervous system. Histamine and antihistamines.</li> <li>11. Medication use for the dental caries and periodontal diseases.</li> <li>12. Drugs for medical emergencies.</li> <li>13. Antiseptics and disinfectants.</li> </ol>
<b>10. Oral and Dental Pathology</b>	<ol style="list-style-type: none"> <li>1. Dental caries.</li> <li>2. Congenital disorders.</li> <li>3. Pulp diseases and periapical lesions.</li> <li>4. Jaws cyst.</li> <li>5. Odontogenic tumors.</li> <li>6. Salivary glands diseases and tumors.</li> <li>7. Oral white lesions and pre-malignant lesions.</li> <li>8. Oral carcinoma.</li> <li>9. Soft tissue tumors and tumors like lesions.</li> <li>10. Lymphomas in the oral cavities.</li> <li>11. Metastasis from and to the oral cavity.</li> </ol>
<b>11. Radiology and Radiological Diagnosis in Dentistry.</b>	<ol style="list-style-type: none"> <li>1. X-rays history.</li> <li>2. X-rays physics.</li> <li>3. X-rays properties.</li> <li>4. X-rays biology.</li> <li>5. Films used in X-rays.</li> <li>6. Chemical processing of films.</li> <li>7. Infection control and the radiographic technician.</li> <li>8. Methods of intraoral radiography.</li> <li>9. Anatomy – intraoral films.</li> <li>10. Mistakes in radiography and techniques.</li> <li>11. Methods of extra-oral radiography.</li> <li>12. Panoramic radiography.</li> <li>13. Digital radiography.</li> <li>14. Radiographic diagnosis of dental caries.</li> <li>15. Abnormal manifestations of periapical diseases.</li> <li>16. Manifestations of trauma and periapical lesions.</li> <li>17. Identification of restorative and dental materials and foreign bodies.</li> </ol>

	18. Use of Tomography and other techniques.
<b>12. Removable Prosthodontics (1)</b>	<ol style="list-style-type: none"> <li>1. Introduction to partial and complete dentures, anatomical landmarks and physiology of edentate mouth.</li> <li>2. Recording primary and final impressions.</li> <li>3. Establishing the relationship of the jaws (occlusal vertical dimension, and registration of centric relationship).</li> <li>4. Recording jaw relationships, checking occlusion and technical stages of denture fabrication.</li> <li>5. laboratory stages of removable complete dentures.</li> </ol>
<b>13. Occlusion Science</b>	<ol style="list-style-type: none"> <li>1. Development of temporomandibular joint and the occlusion.</li> <li>2. Masticatory system as a vital system.</li> <li>3. Mandibular's movements and positions.</li> <li>4. Normal occlusive inter-cuspatation – motility occlusion.</li> <li>5. Diagnosis and treatment of temporomandibular joint disorders- differential diagnosis (Manuel functional analysis – Axel Bumann).</li> <li>6. Articulators and dental casts mounting.</li> <li>7. Occlusal analysis in adults and restoring the occlusion.</li> <li>8. Occlusal contacts and relationship.</li> <li>9. Occlusal alterations and normal occlusal relationships.</li> <li>10. Interrelation between occlusion and other dental specialties.</li> </ol>
<b>14. Ophthalmology and Otorhinolaryngology</b>	<p><b>Otolaryngology</b></p> <ol style="list-style-type: none"> <li>1. Anatomy of ear.</li> <li>2. Otitis.</li> <li>3. Otagia.</li> <li>4. Vertigo and tinnitus.</li> <li>5. Facial nerve palsy.</li> <li>6. Anatomy of nose.</li> <li>7. Epistaxis, nose injuries, and trauma of the nose.</li> <li>8. Rhinitis, sinusitis.</li> <li>9. Tonsils and vegetation.</li> <li>10. Larynx anatomy.</li> <li>11. Laryngitis.</li> <li>12. Larynx tumors.</li> <li>13. Salivary gland diseases.</li> </ol> <p><b>Ophthalmology</b></p> <ol style="list-style-type: none"> <li>1. Applied anatomy (eyeball, the orbit, extraocular muscles, eyelid, lacrimal apparatus, vessels and verves of the orbit).</li> <li>2. Applied physiology.</li> <li>3. Clinical reflection.</li> <li>4. Errors of reflection (hypermetropia, myopia, astigmatism, presbyopia).</li> <li>5. Contact lenses.</li> <li>6. Congenital abnormalities of eyelids.</li> <li>7. Eyelid diseases.</li> <li>8. Eyelid tumors.</li> <li>9. Lacrimal apparatus diseases.</li> <li>10. Disorders of the lacrimal drainage system.</li> <li>11. The conjunctiva, bacterial, viral, fungal and allergic conjunctivitis.</li> <li>12. Conjunctival degenerations.</li> <li>13. Tumors of the conjunctiva.</li> <li>14. Congenital abnormalities of the cornea.</li> <li>15. The keratitis.</li> <li>16. The sclera.</li> <li>17. The uvea.</li> <li>18. The lens, cataract.</li> <li>19. Glaucoma.</li> <li>20. Vitreous body.</li> <li>21. Retina.</li> <li>22. The orbit and orbit diseases.</li> <li>23. Strabismus (concomitant and paralytic strabismus).</li> <li>24. Ocular pain correlated with sinusitis and pulpitis.</li> </ol>
<b>15. Public Health and Epidemiology</b>	<ol style="list-style-type: none"> <li>1. Entrance to public health.</li> <li>2. Entrance to oral health.</li> </ol>

	<ol style="list-style-type: none"> <li>3. Global prevalence of the oral diseases.</li> <li>4. Dental caries and periodontal diseases.</li> <li>5. Oral cancers.</li> <li>6. Smoking-alcohol and illegal substances.</li> <li>7. Motherhood and childhood dental care.</li> <li>8. School dental health.</li> <li>9. Oral health in the elderly.</li> <li>10. Syrian national oral health program.</li> <li>11. Water fluorination.</li> <li>12. Risks of mercury in dentistry.</li> <li>13. Environmental health.</li> <li>14. Risks of infectious diseases transmission.</li> <li>15. Metabolic and chronic diseases (obesity- diabetes – cardiovascular diseases).</li> <li>16. Scientific, national and medical vaccines programs.</li> <li>17. Nutrition , balanced diet and oral health care.</li> <li>18. Occupational hazards in dentistry.</li> </ol>
<b>16. Infection Control</b>	<p><i>Content (English)</i></p> <ol style="list-style-type: none"> <li>1. The importance and rationale of infection control in dentistry.</li> <li>2. Microbiology and infection control.</li> <li>3. Diseases of concern to the dental team–blood-borne diseases (viral hepatitis, HIV Disease...) – air-borne diseases (tuberculosis) – water-borne diseases (legionnaires disease, ...)</li> <li>4. Personal protective equipment.</li> <li>5. Instrument processing.</li> <li>6. Instrument sterilization (1): dry heat sterilization.</li> <li>7. Instrument sterilization (2): steam sterilization, indicators.</li> <li>8. Surface and equipment asepsis (surface barriers + chemical disinfectants).</li> <li>9. Aseptic techniques (disposable, hand hygiene, engineering an work practice control, immunization, and medical history).</li> <li>10. Waste management.</li> <li>11. Dental unit water asepsis.</li> <li>12. Laboratory and radiographic asepsis.</li> <li>13. Occupational hazards (management of the office safety program/ labels/ OSAP/ information and training/ chemicals safety/ mercury/ radiation).</li> <li>14. Office emergency procedures, fire and emergency action plan.</li> <li>15. Infection control regulations in dental college, Damascus University.</li> </ol>
<b>17. Periodontology (1)</b>	<ol style="list-style-type: none"> <li>1. The gingiva.</li> <li>2. The tooth supporting structure.</li> <li>3. Classification of periodontal disease.</li> <li>4. Epidemiology of periodontal diseases.</li> <li>5. Periodontal pocket and bone patterns.</li> <li>6. Clinical diagnosis.</li> <li>7. The plan and phases of periodontal therapy.</li> <li>8. Periodontal instrument.</li> <li>9. Scaling and root planning.</li> <li>10. Plaque control.</li> <li>11. Management of medically compromised patients (1).</li> <li>12. Management of medically compromised patients (2).</li> </ol>

## Fourth Year

<b>1. Oral Medicine -Oral Diseases (1)</b>	<ol style="list-style-type: none"> <li>1. Introduction.</li> <li>2. Obtaining medical and dental history.</li> <li>3. Examination techniques.</li> <li>4. Clinical examination of the head and the neck.</li> <li>5. Principles of cross-infection management.</li> <li>6. Dental developmental disorders.</li> <li>7. Pulpitis.</li> <li>8. Gingival and periodontal diseases.</li> <li>9. Bad breath.</li> <li>10. Vitamins and minerals.</li> <li>11. Fluoride.</li> <li>12. Oral cavity cysts.</li> <li>13. White and red lesions.</li> </ol>
<b>2. Endodontics (1)</b>	<ol style="list-style-type: none"> <li>1. Introduction of endodontics and its relation with other sciences, and maintenance of pulp vitality.</li> <li>2. Embryology of dental pulp and periradicular tissues.</li> <li>3. Diagnosis and treatment planning.</li> <li>4. Pulp and periradicular etiology.</li> <li>5. Isolation in endodontics.</li> <li>6. Access opening and pulp extirpation.</li> <li>7. Length determination and endodontic instruments.</li> <li>8. Cleaning and shaping of root canal system.</li> <li>9. Irrigants and intracanal medicaments.</li> <li>10. Non vital different methods and techniques of obturation.</li> <li>11. Treatment of non-vital pulps and apical lesions.</li> </ol>
<b>3. Anesthesia and Extraction(1)</b>	<ol style="list-style-type: none"> <li>1. Anatomy of oral cavity.</li> <li>2. Nerves of oral cavity.</li> <li>3. Pain.</li> <li>4. Local anesthetic drugs.</li> <li>5. Vasoconstrictors.</li> <li>6. Kinds of regional anesthesia.</li> <li>7. Extra-oral anesthesia.</li> <li>8. Electrical anesthesia.</li> <li>9. Local complications of anesthesia.</li> <li>10. General complications of anesthesia.</li> </ol>
<b>4. Removable Prosthodontics(2)</b>	<ol style="list-style-type: none"> <li>1. Introduction into complete dentures.</li> <li>2. Preliminary impressions of edentulous patients.</li> <li>3. Final impressions.</li> <li>4. Recording Jaw relationships.</li> <li>5. Clinical try-in.</li> <li>6. Insertion and post-insertion problems.</li> </ol>
<b>5. Orthodontics and Dentofacial Orthopedics (1)</b>	<ol style="list-style-type: none"> <li>1. Principles of orthodontic diagnosis.</li> <li>2. Clinical examination and functional examination.</li> <li>3. Studying casts.</li> <li>4. Radiographic and cephalometric examination.</li> <li>5. Photographs analysis.</li> <li>6. Classification of malocclusion and dentofacial deformities.</li> <li>7. Principles of orthodontic appliances and their types.</li> <li>8. Removable active appliances.</li> <li>9. Functional appliances.</li> <li>10. Fixed active appliances.</li> </ol>

	<ol style="list-style-type: none"> <li>11. Prevention and early orthodontic treatment.</li> <li>12. Orthodontic treatment in mixed dentition.</li> <li>13. Orthodontic treatment in adult dentition.</li> <li>14. Treatment planning in orthodontic treatment.</li> <li>15.</li> </ol>
<b>6.Periodontology(2)</b>	<ol style="list-style-type: none"> <li>1. Dental plaque and calculus.</li> <li>2. Microbiology of Periodontal diseases.</li> <li>3. Host modulation and genetic factors.</li> <li>4. Systemic diseases risk factors, smoking, stress, diabetes...</li> <li>5. Impact of periodontal infection on systemic health.</li> <li>6. Gingival diseases.</li> <li>7. Periodontal diseases.</li> <li>8. Non-surgical periodontal therapy supported by chemotherapeutic agents.</li> <li>9. Furcation involvement.</li> <li>10. Principles of periodontal surgery of treatment of perio emergencies.</li> <li>11. Periodontal surgery.</li> <li>12.</li> </ol>
<b>7. Operative Dentistry (3)</b>	<ol style="list-style-type: none"> <li>1. Patient and Operator Positions.</li> <li>2. Patient assessment, Examination and Diagnosis, and Treatment Planning.</li> <li>3. Carious Lasions, prevention&amp; Control.</li> <li>4. Protection of The Pulp- Dentin Complex.</li> <li>5. Dental Composite- Clinical Techniques.</li> <li>6. Light Curing Considerations for Composite.</li> <li>7. Tooth Hypersensitivity.</li> <li>8. Non-cariou Lesions &amp; Cervical Lesions.</li> <li>9. Root Caries.</li> <li>10.</li> </ol>
<b>8. Ethics and Forensic Dentistry</b>	<ol style="list-style-type: none"> <li>1. Introduction.</li> <li>2. Forensic dentistry.</li> <li>3. Scientific methods of identification.</li> <li>4. Accordance of DNA.</li> <li>5. Forensic photography.</li> <li>6. Bite marks; techniques and terminologies.</li> <li>7. Dentist role in investigations and prevention of children abuse.</li> <li>8. Natural disasters tests.</li> <li>9. Old history of dentistry.</li> <li>10. Legend prescriptions in prevention and treatment, and Arabic role in discontinue using them.</li> <li>11. Preventative care.</li> <li>12. Medicine taken after profit Mouhammad in Islam.</li> <li>13. Famous Islamic medical scientists.</li> <li>14. Anesthesia in dentistry.</li> <li>15. Development in replacement teeth industry.</li> <li>16. Dental treatment in Arabic scientific tradition.</li> <li>17. Law of dentistry.</li> <li>18. General Dental Council (GDC) and its aims.</li> <li>19. Registration with the GDC and losing and regaining membership.</li> <li>20. Dentistry and rules of deontology.</li> <li>21. Moral duties of professional dentists. GDC regulations (general, financial, legal, election, conferences, fees related conflicts, etc .).</li> </ol>
<b>9. Oral Medicine 2 (Oral Diseases2)</b>	<ol style="list-style-type: none"> <li>1.Oral lesions.</li> <li>2. Salivary gland lesions.</li> <li>3. Tongue diseases.</li> <li>4. Oral manifestations of AIDS.</li> <li>5. Maxillary sinus diseases.</li> <li>6.Temporomandibular joint disorders.</li> <li>7. Complicated infections of dental origin.</li> <li>8. Facial and nervous diseases.</li> <li>9. Bell's palsy.</li> <li>10. Torus mandibularis and palatinus.</li> </ol>

	<ol style="list-style-type: none"> <li>11. LASER applications in oral medicine.</li> <li>12. Forensic dentistry.</li> </ol>
<b>10. Endodontics(2)</b>	<ol style="list-style-type: none"> <li>1. Isolation in endodontics (rubber dam placement).</li> <li>2. Access opening and pulp extirpation.</li> <li>3. Length determination and endodontic instruments.</li> <li>4. Cleaning and shaping of root canal system (hand and rotary instrumentation).</li> <li>5. Irrigants and intracanal medicaments.</li> <li>6. Non vital different methods and techniques of obturation.</li> <li>7. Treatment of non-vital pulps and apical lesions.</li> <li>8. Endodontic complications.</li> <li>9. Endodontic surgery.</li> </ol>
<b>11. Anesthesia and Extraction (2)</b>	<ol style="list-style-type: none"> <li>1. Principles of tooth extraction.</li> <li>2. Armamentarium used for teeth extraction.</li> <li>3. Systemic diseases and extraction.</li> <li>4. Surgical extraction and extraction of impacted molars.</li> <li>5. Extraction of impacted canines.</li> <li>6. Post extraction care.</li> <li>7. Post extraction complications.</li> </ol>
<b>12. Removable Prosthodontics (3)</b>	<ol style="list-style-type: none"> <li>7. Immediate complete dentures. <ol style="list-style-type: none"> <li>1. Maxillofacial prosthodontics.</li> <li>2. Overdentures.</li> <li>3. Implant in conjunction with complete dentures.</li> <li>4. Treating abuse tissue.</li> <li>5. Treatment of compromised patients (elderly, maxillofacial deformity, and flabby ridge).</li> <li>6. Treating problems associated with denture use.</li> <li>7. Single complete denture.</li> <li>8. Use of soft lining materials.</li> </ol> </li> </ol>
<b>13. Orthodontics and Dentofacial Orthopedics(2)</b>	<ol style="list-style-type: none"> <li>1.Principles of orthodontics and malocclusion.</li> <li>2.Normal growth and development of dentofacial complex.</li> <li>3.The etiology of dentofacial deformities.</li> <li>4.Principles of orthodontic diagnosis (clinical and functional examination + radiographic, cephalometric and model investigations).</li> <li>5.Classifications of malocclusion and dentofacial deformities.</li> <li>6.The most important dentofacial deformities (development, causes, diagnosis and treatments).</li> <li>7.Principles of malocclusion and biomechanics and teeth movement.</li> <li>8.Principles of orthodontic appliances (types and their functions).</li> <li>9.Principles of orthodontic treatment (timing and limitation).</li> <li>10.Prevention in orthodontics.</li> <li>11.Early orthodontic treatment and interceptive treatment.</li> <li>12.Orthodontic treatment in mixed dentition.</li> <li>13.Orthodontic treatment for adults.</li> <li>14.Orthognathic surgery.</li> </ol>
<b>14. Fixed Prosthodontics (3)</b>	<ol style="list-style-type: none"> <li>1. Diagnosis in Fixed Prosthodontics.</li> <li>2. Treatment planning for partially edentulous patients.</li> <li>3. Try-in stage and color science.</li> <li>4. Pontics.</li> <li>5. Implant prosthesis option.</li> <li>6. Temopromandibular disorders.</li> </ol>

<b>15. Pediatric Dentistry(1)</b>	<ol style="list-style-type: none"> <li>1. Eruption, development in pediatric dentistry.</li> <li>2. Diagnosis and assessment in Pediatric dentistry.</li> <li>3. Prevention in pediatric dentistry.</li> <li>4. Cavity preparation in primary teeth.</li> <li>5. Operative dentistry and endodontic treatment in children.</li> <li>6. Behavior management in children.</li> <li>7. Preventive orthodontics in children.</li> <li>8. Local anesthesia in children.</li> <li>9. Caries prevention in pediatric dentistry.</li> <li>10. Pediatric oral and general diseases</li> </ol>
<b>16. Emergency Medicine and Management of Children with Special needs in Dentistry</b>	<ol style="list-style-type: none"> <li>1. Chemical Radiologic Therapy.</li> <li>2. Cancers (Leukemia ...)</li> <li>3. Disability (Classification ..)</li> <li>4. Cerebral Palsy- Autism- Down Syndrome - Epilepsy Mental Retardation.</li> <li>5. Cardiopulmonary Resuscitation.</li> <li>6. Emergency Situations (Epilepsy Seizure- Asthma- Angina Pectoris- Respiratory Diseases).</li> <li>7. Dental Management of the Pregnant Patients- Osteoporosis</li> <li>8. Drugs abuse (Addiction) – Allergy towards Drugs</li> <li>9. Hemorrhage encouraging medicines</li> <li>10. Bleeding Disorders and Coagulation (Blood Diseases)</li> <li>11. Endocrine Glands Disorders (Diabetes)</li> <li>12. Kidneys' Disorders</li> <li>13. Dental Management of the Hepatitis Patients</li> <li>14. Dental Management of the Cardiovascular Disorders Patient</li> <li>15. Dental Management of the Acquired Immunodeficiency Syndrome (AIDS) Patient</li> <li>16. Dental Management of Patients with Organs Implantation</li> </ol>

### **Fifth Year**

<b>1. Anesthesia and Extraction(3)</b>	<ol style="list-style-type: none"> <li>1. Principles of tooth extraction.</li> <li>2. Armamentarium used in teeth extraction.</li> <li>3. Systemic diseases and extraction.</li> <li>4. Non-surgical extraction.</li> <li>5. Extraction of impacted molars and canines.</li> <li>6. Post extraction care.</li> <li>7. Post extraction complications.</li> </ol>
<b>2. Endodontics(3)</b>	<ol style="list-style-type: none"> <li>1. Diagnosis and treatment planning.</li> <li>2. Rubber dam placement.</li> <li>3. Root canal treatment on vital upper molars.</li> <li>4. Root canal treatment on vital lower molars.</li> <li>5. Root canal treatment on vital upper premolars.</li> <li>6. Root canal treatment on vital lower premolars.</li> <li>7. Root canal treatment on vital upper incisors.</li> <li>8. Root canal treatment on vital lower incisors.</li> <li>9. Performing two cases or more using crown down technique.</li> <li>10. Performing two cases or more using warm vertical condensation.</li> </ol>
<b>3. Fixed Prosthodontics (4)</b>	<ol style="list-style-type: none"> <li>1. Diagnosis in fixed prosthodontics.</li> <li>2. Treatment plan for partially edentulous patients.</li> <li>3. Try-in stage and color science.</li> <li>4. Pontics.</li> <li>5. Implant prosthesis option.</li> <li>6. Relation between fixed prosthodontics and other dental disciplines.</li> </ol>
<b>4. Removable Prosthodontics (4)</b>	<ol style="list-style-type: none"> <li>1. Soft Denture Relining Materials</li> <li>2. Immediate Dentures</li> <li>3. Treatment Dentures</li> <li>4. Maxillofacial Prosthodontics</li> <li>5. Overdentures</li> </ol>

	<p>6. Implant Supported Dentures</p> <p>7. Removable Prosthodontics for Elderly Patients</p>
<b>5. Pediatric Dentistry (2)</b>	<ol style="list-style-type: none"> <li>1. Maxillofacial and dental traumatic injuries in children.</li> <li>2. Gingival and periodontal diseases in children.</li> <li>3. Sedation and general anesthesia.</li> <li>4. Management of children with special needs.</li> <li>5. Management of children with systematic diseases.</li> <li>6. Oral surgical diseases in children.</li> </ol>
<b>6. Periodontology (3)</b>	<ol style="list-style-type: none"> <li>1. Regenerative periodontal therapy.</li> <li>2. Bone grafts.</li> <li>3. Gingival grafts ridge augmentation.</li> <li>4. Occlusal trauma and its therapy.</li> <li>5. Laser therapy in periodontology.</li> <li>6. Clinical aspects of dental implants.</li> <li>7. Aesthetic considerations in dental implants.</li> <li>8. Diagnosis and treatment of peri-implantitis.</li> <li>9. Orthodontic periodontology.</li> <li>10. Evidence-based decision making.</li> </ol>
<b>7. Oral Surgery and Implantology</b>	<ol style="list-style-type: none"> <li>1. Historical overview of dental implantology.</li> <li>2. Concept of osseointegration.</li> <li>3. Classification and types of dental implants.</li> <li>4. Implant biomechanics/biomaterials.</li> <li>5. Implant surface treatment.</li> <li>6. Anatomy and/or histology of the hard and soft tissue/implant interface.</li> <li>7. Implant patient education.</li> <li>8. Dental pre-surgical assessment of the implant patient.</li> <li>9. Medical pre-surgical assessment of the analysis of the implant patient.</li> <li>10. Radiographic/image evaluation and analysis of the implant patient.</li> <li>11. Treatment planning for an implant-supported fixed partial denture.</li> <li>12. Treatment planning for an implant-retained overdenture.</li> <li>13. Treatment planning for partially edentulous cases.</li> <li>14. Treatment planning for fully edentulous cases.</li> <li>15. Treatment planning for the single tooth implant restoration.</li> <li>16. Screw-retained cemented implant restoration.</li> <li>17. Occlusion on implant restorations.</li> <li>18. Craniofacial applications of implants.</li> <li>19. Implant site selection.</li> <li>20. Implant stage 1 and 2 surgical procedure.</li> <li>21. Implant postsurgical care.</li> <li>22. Adjunct surgical techniques for implant therapy (soft and hard tissue augmentation, sinus elevation techniques)</li> <li>23. Implant surgical complications and management.</li> <li>24. Implant prosthetic complications and management.</li> <li>25. Current research and developments in implantology.</li> </ol>
<b>8. Anesthesia and Extraction(4)</b>	<ol style="list-style-type: none"> <li>1. Surgical extraction.</li> <li>2. Extraction of impacted molars and canines.</li> <li>3. Post extraction care.</li> <li>4. Post extraction complications.</li> </ol>
<b>9. Endodontics (4)</b>	<ol style="list-style-type: none"> <li>1. Performing different methods of cleaning and shaping of root canal system in non-vital teeth.</li> </ol>
<b>10. Fixed Prosthodontics (5)</b>	<ol style="list-style-type: none"> <li>1. Physiologic principles of mandible movements.</li> <li>2. Using articulators for oral rehabilitation.</li> <li>3. Oral rehabilitation and restorative dentistry.</li> <li>4. Oral rehabilitation and periodontology.</li> <li>5. Oral rehabilitation and orthodontic.</li> <li>6. Oral rehabilitation and orthognathic surgery.</li> <li>7. Oral rehabilitation and TMDs.</li> <li>8. Oral rehabilitation and removable prosthodontics.</li> <li>9. Oral rehabilitation and occlusion.</li> </ol>



	<ol style="list-style-type: none"> <li>10. Oral rehabilitation and implantology.</li> <li>11. Dental splinting.</li> <li>12. Tooth wear.</li> <li>13. Indications and contraindications for oral rehabilitation.</li> </ol>
<b>11. Operative Dentistry(4)</b>	<ol style="list-style-type: none"> <li>1. Color Theory.</li> <li>2. Esthetic Considerations in Smile Design.</li> <li>3. Conservative Aesthetic Procedures.</li> <li>4. Management of Discolored Teeth.</li> <li>5. Composite Veneers.</li> <li>6. Indirect Composite Posterior Restorations.</li> <li>7. Restoration of Endodontically Treated Teeth.</li> <li>8. Success and Failure Factors of Restorations.</li> <li>9. Recent Advances in Operative Dentistry.</li> </ol>
<b>12. Orthodontics and Dentofacial Orthopedics(2)</b>	<ol style="list-style-type: none"> <li>1. Principles of orthodontics and malocclusion.</li> <li>2. Normal growth and development of dentofacial complex.</li> <li>3. The etiology of dentofacial deformities.</li> <li>4. Principles of orthodontic diagnosis (clinical and functional examination + radiographic, cephalometric and model investigations).</li> <li>5. Classifications of malocclusion and dentofacial deformities.</li> <li>6. The most important dentofacial deformities (development, causes, diagnosis and treatments).</li> <li>7. Principles of malocclusion and biomechanics and teeth movement.</li> <li>8. Principles of orthodontic appliances (types and their functions).</li> <li>9. Principles of orthodontic treatment (timing and limitation).</li> <li>10. Prevention in orthodontics.</li> <li>11. Early orthodontic treatment and interceptive treatment.</li> <li>12. Orthodontic treatment in mixed dentition.</li> <li>13. Orthodontic treatment for adults.</li> <li>14. Orthognathic surgery.</li> </ol>
<b>13. Oral and Maxillofacial Surgery</b>	<ol style="list-style-type: none"> <li>1. Patient presentation.</li> <li>2. Odontogenic infections.</li> <li>3. Osteomyelitis and osteoradionecrosis.</li> <li>4. Cellulitis.</li> <li>5. Periapical surgery.</li> <li>6. Facial fractures.</li> <li>7. Orthognathic surgery.</li> <li>8. Surgical management of dentofacial deformities.</li> <li>9. Salivary glands diseases.</li> <li>10. Maxillary sinus diseases.</li> <li>11. Management of temporomandibular disorders.</li> <li>12. Principles of implantology.</li> </ol>

**Vice Dean for Scientific Affairs**

**Dean of Faculty of Dental Medicine**

**Prof. Dr. Mohannad Laflouf**

**Prof. Dr. Khaldoun Mhd Atef Darwich**

**Revealed the number of completed cases in the practical sections in the  
Faculty of Dental Medicine in University of Damascus**

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Restorative Dentistry : **50 cases in Laboratory +25 (clinical )**

Endodontic : **2 Incisors, 2 Premolars, 2 Molars in Laboratory every (2 semester )**

**2 Incisors, 2 Premolars, 2 Molars in clinical every (2 semester )**

Pediatric dentistry: **10 cases every semester**

Fixed Prosthodontics : **Laboratory 3 cases every semester**

**clinical 5 cases every semester**

Partial Removable Prosthetics : **2 cases every semester**

Complete Removable Prosthetics : **2 cases every semester**

Anesthesia and Extraction: **12 cases every semester**

Orthodontics : **2 cases every semester**

Periodontology : **10 cases every semester**

Oral Diseases : **15 cases every semester**

**Clinical hours for The fourth and fifth academic years undergraduate student in  
the Faculty of Dental**

**Medicine in Damascus University**

<b>fourth year first semester time</b>		
the number of clinical hours	the number of weeks in the semester	The total
22	16	$22 \times 16 = 352$

<b>fourth year second semester time</b>		
the number of clinical hours	the number of weeks in the semester	
22	16	$22 \times 16 = 352$

<b>fifth year first semester time</b>		
the number of clinical hours	the number of weeks in the semester	The total
26	16	$26 \times 16 = 416$

<b>fifth year second semester time</b>		
the number of clinical hours	the number of weeks in the semester	The total
20	16	$20 \times 16 = 320$

**Please note that the number of clinical hours in the fourth and the fifth year are/ 1440 / hours.**

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