SYRIAN ARAB REPUBLIC

Damascus University

Faculty of Dental Medicine

الجمهورية العربية السورية

جامعة دمشق

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Syllabuses and Curriculum Details for Primary Dental Qualification for Faculty of Dental Medicine Damascus University

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Consisted of 21 pages

Student Name:

Vice Dean for Scientific Affairs	**Dean of Faculty of Dental Medicine**
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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 dental faculty at Damascus University which is to graduate highly qualified dental professionals who are knowledgeable, skillful, dutiful and above all altruistic.

In order to fulfil 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 pathophysiology) 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: 16×10=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 and5).

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 16x 10 = 160 weeks study in the five year study, and that the study hour is /60/ minutes.

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

First Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Medical Physics	1	2	2
Medical Chemistry (1)	1	2	2
Arabic Language	1	-	2
Cytology	1	2	2
Foreign Language (1)	1	-	4
National Social Culture	1	-	2
General Anatomy and Head and Neck Anatomy	1	2	3
Dental Anatomy	1	4	2
Medical Chemistry (2)	2	2	2
Biostatistics andEpidemiology	2	-	2
Microbiology	2	2	2
Immunology	2	1	2
Foreign Language (2)	2	-	4
Behavioral Psychology	2	-	2
General Histology	2	4	2
Total		21	35

Second Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
General Physiology	1	2	2
Dental Materials	1	4	2
Oral and Dental Histology	1	4	2
Fixed Prosthodontics (1)	1	4	2
Foreign Language (3)	1	-	4
Ophthalmology and Otorhinolaryngology	1	-	2
Embryology andGenetics	2	-	2
Foreign Language (4)	2	-	4
Restorative Dentistry (1)	2	4	2
Removable Prosthodontics (1)	2	4	2
Oral Physiology	2	-	2
Radiological Diagnosis	2	3	2
Minor Surgery andSurgical Diseases	2	2	2
Total		27	30

Third Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Internal and Dermatological Diseases	1	-	3
General Pathology	1	4	2
Restorative Dentistry (2)	1	4	2
Public Health, Oral Preventive Medicine and Community Dentistry	1	2	2
Periodontology (1)	1	2	1
Pharmacology	2	2	2
Oral and Dental Pathology	2	3	3
Pediatric Dentistry (1)	2	2	-
Fixed Prosthodontics (2)	2	4	2
Occlusion Science	2	2	2
Infection Control	2	-	2
Total		25	21

Fourth Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Oral Diseases (1)	1	2	1
Restorative Dentistry (3)	1	2	1
Endodontics (1)	1	4	1
Periodontology (2)	1	4	2
Removable Prosthodontics (2)	1	2	1
Anesthesia and Extraction (1)	1	2	2
Orthodontics (1)	1	4	4
Oral Diseases (2)	2	2	1
Endodontics (2)	2	4	1
Pediatric Dentistry (2)	2	4	2
Removable Prosthodontics (3)	2	4	2
Fixed Prosthodontics (3)	2	4	2
Anesthesia and Extraction (2)	2	4	2
Total		42	22

Fifth Year

Module	Semester	Weekly Hours	
		Practical	Theoretical
Implantology	1	2	1
Endodontics (3)	1	4	1
Pediatric Dentistry (3)	1	4	1
Removable Prosthodontics (4)	1	4	-
Fixed Prosthodontics (4)	1	4	1
Anesthesia and Extraction (3)	1	2	2
Restorative Dentistry (4)	2	4	1
Endodontics (4)	2	4	1
Orthodontics (2)	2	4	1
Periodontology (3)	2	4	1
Oral Rehabilitation	2	-	2
Anesthesia and Extraction (4)	2	4	-
Ethics and Forensic Dentistry	2	-	2
Oral and Maxillofacial Surgery	2	-	2
Total		40	16

Course Description

First Year

1. Medical Physics	1. Introductionof crystals and mechanisms of mineralization. 2. Calcification of bone and dentaltissues. 3. Principles of biomechanics. 4. Forces of surface tension (wet and adhesion). 5. X-ray (principles, generation and properties). 6. X-ray (devices and usage). 7. Laser (principles, generation and properties). 8. Laser (devices and usage). 9. Biology of radiation (effect and prevention). 10. Sonic and ultrasonic waves (Echography). 11. Subsonic waves. 12. Electric current (continuous and alternate) and its application.
2. Medical chemistry(I)	1- Atoms. 2- Interactions and chemical bonds. 3- Organic and inorganic compounds. 4- Water and mineral elements. 5- Carbohydrates. 6- Lipids. 7- Amino acids. 8- Proteins. 9- Enzymes. 10- Nucleotides and nucleic acids.
3. Cytology	1. Cellcharacteristics. 2. Animal cell and methods of its study: photonic and electronic microscopy. 3. Chemical Structure of cell. 4.Cellularmouvements and actine- myosine system. 5.Molecular architecture and functional components of the cell membrane and its mechanisms of transferring. 6. Structure and function of intracellular organelle. 7.Nucleus and controls of proteins synthesis. 8.Cell communications.
4. Anatomy of Head and Neck	1. Skull and bones. 2. Cranial nerves. 3. Blood and lymph supply. 4. Nerves. 5. Salivary glands. 6. Endocrinology.
5. Dental Anatomy	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. 2. Differences between primary and permanent teeth 3. Essential differences between primary and permanent teeth and general knowledge of primary teeth.
6. National Culture	1- Arabic Islamic civilization. 2- The Palestinian case and the Arab conflict. 3- The Arabic socialistic "baath" party. 4- The correctional movement and the national combat. 5- Peace negotiations. 6- The National Arabic security. 7- The international alterations. 8- The development and renewal in the speech of president Bashar Al-Asad.

7. Arabic Language	1- Verb-like letters. 2- The use of questioning tools. 3- The use of swearing tools. 4- The use of wondering tools. 5- Warning and specialty. 6- The use of numbers. 7- Conditional verbs. 8- Terminologies and dictionaries.
8. Foreign Language	***(a)*English (1)** 1- Simple and continuous past tenses. 2- Future forms. 3- Present perfect. 4- Present perfect continuous. 5- Comparatives and superlatives. 6- Model verbs. 7- Conditionals. **(b) French (1)** 1- Racines. 2- Préfixes. 3- Suffixes. 4- Terminologiefondamentaleen odonto-stomatologie. 5- Medicameivts
9. Medical Chemistry(II)	1. Analysis of amino acids and protein misfolding. 2. Fibrous proteins. 3. Globular proteins. 4. Steroids. 5. Hormones. 6. Vitamines. 7. Metabolism and bioenergetics. 8. Carbohydrate metabolism. 9. Lipid metabolism. 10. Nitrogen metabolism. 11. Metabolic defects in metabolism.
10. Biological Statistics and Epidemiology	1-Discriptive statistics. 2 Methods of graphic presentation in statistics. 3 Calculating probabilities, probabilities distribution. 4 Sampling of statistical population. 5 Estimation. 6 Parametric and nonparametric statistical hypothesis 7 Statistical analysis of correlation between 2 variables 8 Analysis of variance and experimental design 9 Survival analysis and Kaplan Meier curves 10 Some basic terms and definitions in epidemiology
11. Microbiology	1- Microbiology- classification 2- Bacterial structure, cultures and physiology. 3- Bacterial genetics and genetic engineering. 4- Pathogenesis and diagnosis of infectious diseases. 5- Antibiotics – Methods of disinfection andsterilization. 6- Systemic bacteriology: Gram positive cocci, gram negative cocci, gram positive bacilli, gram negative bacilli, spirochetes, mycobacterium, obligate intracellular bacteria, other bacteria. 7- General virology. 8- Special virology. 9- General parasitology. 10- Systemic parasitology. 11- General mycology. 12- Special mycology. 13- Oral cavity pathogenand immune response.

12. Immunology	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 organising the immune reaction, this signals might be proteins like lymphocytes and cytokines. 1. Introduction to immunology. 2. The laboratory session focuses on characteristics of microbes and their production, biochemical interactions in immune reaction and cells stimulation in immunity system. 3. Innate immunity-phagocytosis. 4. Innate immunity- complement cascade. 5. Antigens. 6. T cell receptor /B cell receptors. 7. Major Histocompatibility complex. 8. T cell mediated immune response. 9. B cells mediated immune response. 10. Immunity against infectious agents. 11. Self-tolerance. 12. Mechanisms of autoimmunity. 13. Hypersensitivity. 14. Immune response against tumor. 15. Immunologic mechanisms of transplant rejection. **16.** Congenital immunodeficiencies.
13. Foreign Language(2)	***English language (2)*** 1. Quantifies. 2. Gerunds. 3. Articles. 4. Reported speech. 5. Passive/ tags. 6. Phrasal verbs. 7. All within themes such as: sports, lifestyle, work, food, transportations, etc. ***French language (2)*** 1. Deivtaires. 2. La tête. 3. Les dents. 4. La gencive. 5. La visite che2 un praticien
14. Behavioral Psychology	1- Principles of psychology. 2- Cognitive, behavioral and social growth for individuals. 3- Personal communication process and the importance of language. 4- Pain, its mechanism, psychology and methods of management 5- Management of children with psychological problems. 6- Management of children with anxiety and apprehension problems. 7- Management of bad oral habits. 8- Management of elderly. 9- Problems with patients with compliance.
15. General Histology	*Students will acquire knowledge and understanding of* 1. Histological examination instruments. 2. Histological manifestations of bodysystem, organs and tissues. *Students will be able to* 1. Use microscope for histological examination. 2. Differentiate between different tissues under microscope. 3. Recognize different histological preparations.

Second Year

1. Human Physiology	1. Introduction to human physiology. 2. Chemical composition of the body. 3. Excitable tissues. 4. Autonomic nervous system. 5. Heart and circulation. 6. Blood: Immune system, andlymphatic system. 7. Physiology of respiratory system. 8. Physiology of gastro-intestinal system. 9. Physiology of kidneys. 10. Endocrine glands: Secretion and action of hormones. 11. Nervous system (neurons, synapses, neurotransmitters and receptors). 12. Central nervous system. 13. Physiology of sense. **14.** Physiology of reproduction.
2. Dental Materials	1. Historical acknowledgement. 2. Aim of dental material researches. 3. International standards. 4. Definition of physical, chemical and mechanical properties of dental biomaterials. 5. Structure of matter. 6. Adhesion to tooth structure. 7. Biological considerations in use of dental materials. 8. Classification of dental cements. 9. Cavity liners. 10. Clinical considerations. 11. Working and setting times. 12. Manipulation. 13. Bond to tooth structure. 14. Selection of materials. 15. Improper cavity preparation or finishing. 16. Chemically activated resins. 17. Light-activated resins. 18. Bond agents. 19. Abrasion and polishing dentifrices. 20. Dentifrices. 21. Dental implant materials. 22. Impression materials. 23. Casting materials. 24. Dental wax: Types, and the indications, chemical composition and way of working of each type. 25. Resins: Types, and the indications, chemical composition and way of working of each type. 26. Metal mixtures: Types, and the indications, chemical composition and way of working of each type. 27. Dental cements: Types, and the indications, chemical composition and way of working of each type. 28. Dental ceramics.

3. Fixed Prosthodontics(1)	1. Definitions. 2. Introduction to fixed prosthodontics. 3. Types of crowns. 4. Purposes of crown construction. 5. Steps in crown construction. 6. Components of bridge. 7. Biomechanical principles of tooth preparation. 8. Preservation of sound tooth structure. 9. Retention and resistance form. 10. Marginal integrity. 11. Structural durability. 12. Full metal crown: 13. Indications, contra-indications, advantages, disadvantages, steps of preparation 14. Complete ceramic crown (Porcelain Jacket Crown): 15. Indications, contra-indications, advantages, disadvantages, and steps of preparation. 16. Partial veneer crown (three-quarter crown): 17. Indications, contra-indications, advantages, disadvantages, steps of preparation. 18. Post crown: 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.
4. Ophthalmology and Otorhinolaryngology	***Otolaryngology*** 1. Anatomy of ear. 2. Otitis. 3.Otalgia. 4. Vertigo and tinnitus. 5. Facial nerve palsy. 6. Anatomy of nose. 7. Epistaxis, nose injuries, and trauma of the nose. 8. Rhinitis, sinusitis. 9. Tonsils and vegetation. 10. Larynx anatomy. 11. Laryngitis. 12. Larynx tumors. 13. Salivary gland diseases. ***Ophthalmology*** 1. Applied anatomy (eyeball, the orbit, extraocular muscles, eyelid, lacrimal apparatus, vessels and verves of the orbit). 2. Applied physiology. 3. Clinical reflection. 4. Errors of reflection (hypermetropia, myopia, astigmatism, presbyopia). 5. Contact lenses. 6. Congenital abnormalities of eyelids. 7. Eyelid diseases. 8. Eyelid tumors. 9. Lacrimal apparatus diseases. 10. Disorders of the lacrimal drainage system. 11. The conjunctiva, bacterial,viral, fungal and allergic conjunctivitis. 12. Conjunctival degenerations. 13. Tumors of the conjunctiva. 14. Congenital abnormalities of the cornea. 15. The keratitis. 16. The sclera. 17. The uvea. 18. The lens, cataract. 19. Glaucoma. 20. Vitreous body. 21. Retina. 22. The orbit and orbit diseases. 23. Strabismus (concomitant and paralytic strabismus). 24. Ocular pain correlated with sinusitis and pulpitis.

5. Foreign Language*(3)*	***English language*** 1- Oral cavity structures. 2- Oral hygiene. 3- What is epidemiology? 4-. Descriptive risk factors. 5- Analytic dentistry. 6- Disease origin. 7- Manifestation andetiology. 8- Types of causation. 9- Qualitative data. 10-. Dental caries. 11- Active/inactive lesions. 12- Periodontal diseases. 13- Gingivitis. ***French language*** 1. La cariedentaire. 2. Les gingivites. 3. Les parodontolyses. 4. La couronne. 5. La prosthèse fixe. 6. La prosthèseamovible. 7. Orthodontie. 8. Les extractions et leurssvites. 9. Curetageperi-apicale. 10. Implants et greffes. 11. Les dents devosenfants. 12. Les malpositionsdentaires.
6. Oral and Dental Histology	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 glandsandTMJ. 1. Tongue, gingiva, checks histologically. 2. Paranasal sinuses.
7. Genetics and Embryology	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. 1.Deoxyribonucleicacid (DNA): Heredity molecule. 2.Thecontinuity of life. 3.The patterns of inheritance. 4.Developmentalcranio-facial human genes. 5.Technical molecular biology. 6.Early embryo development. 7. Developmental craniofacial deformities.
8. Operative Dentistry(1)	1. Definition of operative dentistry. 2. Stages of cavity preparation. 3. Instruments used in operative dentistry. 4. Class I cavities (restorations). 5. Class II (restorations). 6. Class III (restorations). 7. Class IV (restorations). 8. Class V (restorations). 9. Class VI (restorations). 10. Biological considerations.
9. Removable prosthodontics (1) (English)	1. Introduction to partial and complete dentures, anatomical landmarks and physiology of edentate mouth. 2. Recording primary and final impressions. 3. Establishing the relationship of the jaws (occlusal vertical dimension, and registration of centric relationship). 4. Recording jaw relationships, checking occlusion and technical stages of denture fabrication. 5. Technical stages of denture fabrication. 6. Clinical and laboratory stages of removable denture.

10. Oral Physiology	1. Oral environment. 2. Functional dental-organ. 3. Physiology of masticatory system (mastication, swallowing, speech). 4. Oro-facial sensation (pain, touch, pressure). 5. Physiology of periodontal ligament. 6. Pulp-dentin complex. 7. Physiology TMJ. 8. Physiology of local and general anesthesia. 9. Histophysiological response to orthodontic movement. 10. Physiology of bone. 11. Growth of craniofacial complex. 12. Autonomic neurological system and stress. 13. Circulatory shock and syncope.
11. Minor Surgery and Surgical Diseases	***(A)Minor surgery*** 1. Patient examination and admission to hospital. 2. Vital signs. 3. Surgical infection and antibiotics. 4. Essential surgical instruments. 5. Sterilization and antisepsis. 6. General patient care. 7. Drugs administration via injection, and puncture. 8. Catheterization and electrocardiography. 9. Emergency care. 10. Bleeding and management of blood transfer. 11. Wounds and managements. 12. Burns, bone fractures and managements. ***(B). Surgical diseases*** 1. Acute abdominal pain. 2. Thrombophlebitis/ hemorrhoids. 3. Pulmonary embolism. 4. Hepatic surgery. 5. Pancreatic surgery. 6. Appendix vermiformis lesions. 7. Peptic ulcer. 8. Splenic surgery. 9. Renal surgery. 10. Thyroid and parathyroid surgery. 11. Mammal surgery. 12. Laparoscopic surgery.
12. Foreign Language*(4)*	***(A). English Language*** 1- Oral cavity structures. 2- Restorative dentistry. 3- Patient's background. 4- Enamel. 5- Dentin. 6- Alterationsof dentition. 7- Design cycle. 8- Evidence-based dentistry. 9- Mechanical properties. 10- Forces anddeformation. 11- Biocompatibility. 12- Glass ionomers. 13- Pit and fissure sealants. ***. (B). French Language*** 1. La cariedentaire. 2. Les gingivites. 3. Les parodontolyses. 4. La couronne. 5. La prosthèse fixe. 6. La prosthèseamovible. 7. Orthodontie. 8. Les extractions et leurssvites. 9. Curetageperi-apicale. 10. Implants et greffes. 11. Les dents devosenfants. 12. Les malpositionsdentaires.

13. Radiology	1. X-rays history. 2. X-rays physics. 3. X-rays properties. 4. X-rays biology. 5. Films used in X-rays. 6. Chemical processing of films. 7. Infection control and the radiographic technician. 8. Methods of intraoral radiography. 9. Anatomy – intraoral films. 10. Mistakes in radiography and techniques. 11. Methods of extra-oral radiography. 12. Panoramic radiography. 13. Digital radiography. 14. Radiographic diagnosis of dental caries. 15. Abnormal manifestations of periapical diseases. 16. Manifestations of trauma and periapical lesions. 17. Identification of restorative and dental materials and foreign bodies. 18. Use of Tomography and other techniques.

Third Year

1. General Pathology	1. Definition of pathology. 2. Cellular degeneration. 3. Inflammation and infection. 4. Hematological disorders. 5. Pigmentation disorders. 6. Infarction and necrosis. 7. Neoplasm's principles. 8. Carcinomas and sarcomas.
2. Internal Medicine and Dermatology	***. A. Internal medicine*** 1. Definition of medicine diseases, history, and clinical examination. 2. Vital signs, approaching structural symptoms. 3. Symptoms of nervous system – meningitis – convulsions. 4. Symptoms of cardiovascular and respiratory systems. 5. Symptoms and common clinical manifestation of gastroenterology system. 6. Liver hepatitis. 7. Symptoms of urogenital system - glandular/endocrine system. 8. Septic diseases and sexually transmitted diseases. 9. Approach to the patient in shock and treatments. 10. Treatment with antibiotics and nonsteroidal anti-inflammatory. . 11. Emergencies in medicine. ***. B.Dermatology*** 1. Basics in dermal diseases. 2. Bacterial diseases. 3. Viral diseases. 4. Genetic diseases. 5. Bullous diseases. 6. Autoimmune diseases. 7. Tumors.
3. Operative Dentistry (2)	1. History of operative dentistry. 2. Considerations affecting operative dentistry. 3. Moisture and saliva control. 4. Liners and bases. 5. Dental amalgam restorations. 6. Compound amalgam restorations. 7. Bonding systems (1). 8. Composite. 9. Glass ionomer cement (1). 10. Compomer as a restorative material (1). 11. Cast–gold restorations. 12. Clinical cases.

4. Public Health, Preventive Dentistry and Community Dentistry	1. Public health- an overview. 2. Oral health education and health promotion. 3. Missing teeth. 4. Dental caries. 5. Periodontal diseases. 6. Fluorosis. 7. Oral cancer and other lesions. 8. Caries assessment 9. Periodontal diseases assessment. 10. Fluoride- dental health and caries prevention. 11. Water fluoridation. 12. Fissures and pits sealant. 13. Prevention of periodontal disease. 14. Tobacco use cessation. 15. Nutrition and oral health care. 16. Impact of epidemiology on dental practice. 17. Oral health and geriatric medicine. 18. Dental diseases and oral health status. 19. Dental public health (introduction).
5. Periodontology 1	1. The gingiva. 2. The tooth supporting structure. 3. Classification of periodontal disease. 4. Epidemiology of periodontal diseases. 5. Periodontal pocket and bone patterns. 6. Clinical diagnosis. 7. The plan and phases of periodontal therapy. 8. Periodontal instrument. 9. Scaling and root planning. 10. Plaque control. *11*. Management of medically compromised patients (1). *12*. Management of medically compromised patients (2).
6. Pharmacology	1. Introduction to pharmacology. 2. Prescription. 3. Principles of antimicrobial treatment (antibiotics). 4. Antifungal and antiviral medication. 5. Opioid analgesics and management of pain. 6. Non-steroidal anti-inflammatory drugs (NSAIDs). 7. Corticosteroids. 8. Homeostasis. 9. General and local anesthesia. 10. Drugs of autonomic nervous system. Histamine and antihistamines. 11. Medication use for the dental caries and periodontal diseases. 12. Drugs for medical emergencies. 13. Antiseptics and disinfectants.
7. Oral Pathology	1. Dental caries. 2. Pulp diseases and periapical lesions. 3. Jaws cyst. 4. Odontogenictumors. 5. Salivary glands diseases and tumors. 6. Oral white lesions and pre-malignant lesions. 7. Oral carcinoma. 8. Soft tissue tumors and tumors like lesions. 9. Lymphomas in the oral cavities. 10. Metastasis from and to the oral cavity.
8. Pediatric Dentistry (1)	1. Eruption, development in pediatric dentistry. 2. Diagnosis and assessment in Pediatric dentistry. 3. Prevention in pediatric dentistry. 4. Cavity preparation in primary teeth. 5. Operative dentistry and endodontic treatment in children.

9. Fixed Prosthodontics (2)	1. Types of bridges. 2. Restoration of extensively damaged teeth (post and core). 3. Indications and contraindications of crowns andbridges . 4. Partial retainers (anterior and posterior), preparation steps and clinical procedure including impressionand temporary. 5. Short span bridge: Preparation steps and clinical procedure including impression taking, interim restoration and laboratory procedures.
10. Science of Occlusion	1. Development of temporomandibular joint and the occlusion. 2. Masticatory system as a vital system. 3. Mandibular's movements and positions. 4. Occlusal surfaces of the teeth, and static occlusion. 5. Normal occlusive inter-cuspation – motility occlusion. 6. Diagnosis and treatment of temporomandibular joint disorders - differential diagnosis (Manuel functional analysis – Axel Bumann). 7. Articulators and dental casts mounting. 8. Occlusal analysis in adults and restoring the occlusion. 9. Occlusal contacts. 10. Occlusal alterations and normal occlusal relationships. 11. Interrelation between occlusion and other dental specialties.
11. Infection Control	***Content (English)*** 1. The importance and rationale of infection control in dentistry. 2. Microbiology and infection control. 3. Diseases of concern to the dental team – blood-borne diseases (viral hepatitis, HIV Disease...) – air-borne diseases (tuberculosis,…) – water-borne diseases (legionnaires disease, …) 4. Personal protective equipment. 5. Instrument processing. 6. Instrument sterilization (1): dry heat sterilization. 7. Instrument sterilization (2): steam sterilization, indicators. 8. Surface andequipment asepsis (surface barriers + chemical disinfectants). 9. Aseptic techniques (disposable, handhygiene, engineering an work practice control, immunization, and medical history). *10*. Waste management (housekeeping, ex.teeth, laundry). *11*. Dental unit water asepsis. *12*. Laboratory and radiographic asepsis. *13*. Occupational hazards (management of the office safety program/ labels/ OSAP/ information and training/ chemicals safety/ mercury/ radiation). *14*. Office emergency procedures, fire and emergency action plan. 15. Infection control regulations in dental college, Damascus University. ***Content (French)*** 1- Importance du control infectieux en odontologie. 2- Les microorganismes impliques en control infectieux en odontologie. 3- les maladies infectieuses dans le cabine dentaire porte par : a. le voila sanguin (Hépatite, HIV etc). b. - l´ air (tuberculoses,…). c. L´eau (Légionnaires,...). 4- Protection personale. 5- Décontamination des instruments. 6- Stérilisation des instruments (1) : stérilisation par la chaleur sèche. 7- Stérilisation des instruments (2) : stérilisation par le vapeur, indices de la stérilisation. 8- Nettoyage de sol et de surface et d'unit : les antiseptiques, Les désinfectants chimiques. 9- Des infection du matériel : les instrument neufs, matériel à usage unique, matériel réutilisable, lavage de mains / vaccin, histoire médical. 10- Elimination de déchet ,le soigne à domicile, élimination de dents extraites extraction. le nettoyage. 11- Décontamination de l´eau dans l´unité dentaire. 12- Désinfections de laboratoire dentaire et en radiologie. 13- Risque professionnel : étiquettes/ OSAP -information, stage / la sécurité chimique / Mercure / Radiation. 14- Instruction de control du risque infectieux dans la faculté de chirurgie dentaire – université de Damas.

Fourth Year

1. Oral Medicine (Oral Diseases (1))	1. Introduction. 2. Obtaining medical and dental history. 3. Examination techniques. 4. Clinical examination of the head and the neck. 5. Principles of cross-infection management. 6. Dental developmental disorders. 7. Pulpitis. 8. Gingival and periodontal diseases. 9. Bad breath. 10. Vitamins and minerals. 11. Fluoride. 12. Oral cavity cysts. 13. White and red lesions.
2. Operative Dentistry (3)	1. Patient assessment and principles of clinical work practice. 2. Caries diagnosis, treatment planning and prognosis. 3. Instruments and materials used in clinical practice. 4. Class I and II (Amalgam restorations). 5. Composite and tooth colored restorations, 6. Anterior composite restorations. 7. Posterior composite restorations. 8. Bonding systems (2). 9. Glassinomer cement (2). 10. Compomers (2). 11. Failure in composite restorations and its treatment.
3. Endodontics (1)	1. Introduction of endodontics and its relation with other sciences, and maintenance of pulp vitality. 2. Embryology of dental pulp and periradicular tissues. 3. Diagnosis and treatment planning. 4. Pulp and periradicular etiology. 5. Isolation in endodontics. 6. Access opening and pulp extirpation. 7. Length determination and endodontic instruments. 8. Cleaning and shaping of root canal system. 9. Irrigants and intracanal medicaments. 10. Non vital different methods and techniques of obturation. 11. Treatment of non-vital pulps and apical lesions.
4.Periodontology(2)	1. Dental plaque and calculus. 2. Microbiology of Periodontal diseases. 3. Host modulation and genetic factors. 4. Systemic diseases risk factors, smoking, stress, diabetes… 5. Impact of periodontal infection on systemic health. 6. Gingival diseases. 7. Periodontal diseases. *8.* Non-surgical periodontal therapy supported by chemotherapeutic agents. *9.* Furcation involvement. *10.* Principles of periodontal surgery of treatment of perio emergencies. 11. Periodontal surgery.
5. Removable Prosthodontics(2)	1. Introduction to complete dentures. 2. Recording primary and final impressions. 3. Aspects of designing a removable denture. 4. Practical steps of making removable denture. 5. Clinical steps of removable partial denture construction. 6. Clinical steps of complete denture (diagnosis, preliminary impression, final impression, bite registration, clinical try in, delivery). **7.** Post insertion problems**.**

6. Anesthesia and Extraction(1)	1. Anatomy of oral cavity. 2. Nerves of oral cavity. 3. Pain. 4. Local anesthetic drugs. 5. Vasoconstrictors. 6. Kinds of regional anesthesia. 7. Extra-oral anesthesia. 8. Electrical anesthesia. 9. Local complications of anesthesia. 10. General complications of anesthesia.
7. Orthodontics and DentofacialOrthopedics (1)	1. Principles of orthodontic diagnosis. 2. Clinical examination and functional examination. 3. Studying casts. 4. Radiographic and cephalometric examination. 5. Photographs analysis. 6. Classification of malocclusion and dentofacial deformities. 7. Principles of orthodontic appliances and their types. 8. Removable active appliances. 9. Functional appliances. 10. Fixed active appliances. 11. Prevention and early orthodontic treatment. 12. Orthodontic treatment in mixed dentition. 13. Orthodontic treatment in adult dentition. 14. Treatment planning in orthodontic treatment.
8. Oral Medicine 2 (Oral Diseases(2)	1.Oral lesions. 2. Salivary gland lesions. 3. Tongue diseases. 4. Oral manifestations of AIDS. 5. Maxillary sinus diseases. 6.Temporomandibular joint disorders. 7. Complicated infections of dental origin. 8. Facial and nervous diseases. 9. Bell's palsy. 10. Torus mandibularis and palatinus. 11. LASER applications in oral medicine. 12. Forensic dentistry.
9. Endodontics(2)	1. Isolation in endodontics (rubber dam placement). 2. Access opening and pulp extirpation. 3. Length determination and endodontic instruments. 4. Cleaning and shaping of root canal system (hand and rotary instrumentation). 5. Irrigants and intracanal medicaments. 6. Non vital different methods and techniques of obturation. 7. Treatment of non-vital pulps and apical lesions. 8. Endodontic complications. 9. Endodontic surgery.
10. Pediatric Dentistry(2)	1. Diagnosis and assessment in pediatric dentistry. 2. Behavior management in children. 3. Eruption, developmental and craniofacial disorders. 4. Preventive orthodontics in children. 5. Local Anesthesia in children. 6. Cavity preparation in primary teeth. 7. Operative and endodontic treatment in children. 8. Caries prevention in pediatric dentistry. 9. Pediatric oral and general diseases.
11. Removable Prosthodontics (3)	1. Immediate complete dentures. 2. Maxillofacial prosthodontics. 3. Overdentures. 4. Implants in conjunction with complete dentures. 5. Treating abuse tissues. 6. Treatment of compromised patients (elderly, maxillofacial deformity, and flabby ridge). 7. Treating problems associated with denture use. 8. Single complete denture. 9. Use of soft lining materials.

12. Fixed Prosthodontics (3)	1. Diagnosis in Fixed Prosthodontics. 2. Treatment planning for partially edentulous patients. 3. Try-in stage and color science. 4. Pontics. 5. Implant prosthesis option. 6. Temopromandibular disorders.
13. Anesthesia and Extraction (2)	1. Principles of tooth extraction. 2. Armamentarium used for teeth extraction. 3. Systemic diseases and extraction. 4. Surgical extraction and extraction of impacted molars. 5. Extraction of impacted canines. 6. Post extraction care. 7. Post extraction complications.

Fifth Year

1. Endodontics(3)	1. Diagnosis and treatment planning. 2. Rubber dam placement. 3. Root canal treatment on vital upper molars. 4. Root canal treatment on vital lower molars. 5. Root canal treatment on vital upper premolars. 6. Root canal treatment on vital lower premolars. 7. Root canal treatment on vital upper incisors. 8. Root canal treatment on vital lower incisors. 9. Performing two cases or more using crown down technique. 10. Performing two cases or more using warm vertical condensation.
2. Implantology	1. Historical overview of dental implantology. 2. Concept of osseointegration. 3. Classification and types of dental implants. 4. Implant biomechanics/biomaterials. 5. Implant surface treatment. 6. Anatomy and/or histology of the hard and soft tissue/implant interface. 7. Implant patient education. 8. Dental pre-surgical assessment of the implant patient. 9. Medical pre-surgical assessment of the analysis of the implant patient. 10. Radiographic/image evaluation and analysis of the implant patient. 11. Treatment planning for an implant-supported fixed partial denature. 12. Treatment planning for an implant-retained overdenture. 13. Treatment planning for partially edentulous cases. 14. Treatment planning for fully edentulous cases. 15. Treatment planning for the single tooth implant restoration. 16. Screw-retained cemented implant restoration. 17. Occlusion on implant restorations. 18. Craniofacial applications of implants. 19. Implant site selection. 20. Implant stage 1 and 2 surgical procedure. 21. Implant postsurgical care. 22. Adjunct surgical techniques for implant therapy (soft and hard tissue augmentation, sinus elevation techniques). 23. Implant surgical complications and management. 24. Implant prosthetic complications and management. 25. Current research and developments in implantology.
3. Pediatric Dentistry (3)	1. Diagnosis and assessment in pediatric dentistry. 2. Behavior management in children. 3. Maxillofacial and dentaltraumatic injuries in children. 4. Gingival and periodontal diseases in children. 5. Sedation and general anesthesia. 6. Management of children with special needs. 7. Management of children with systematic diseases. 8. Oral surgical diseases in children.

4. Removable Prosthodontics (4)	1. Immediate complete dentures. 2. Maxillofacial prosthodontics. 3. Overdentures. 4. Implants in conjunction with complete dentures. 5. Treating abused tissues. 6. Treatment of compromised patients (elderly, maxillofacial deformity, and flabby ridge). 7. Treating problems associated with denture use. 8. Single complete denture. 9. Use of soft lining materials.
5. Fixed Prosthodontics (4)	1. Diagnosis in fixed prosthodontics. 2. Treatment plan for partially edentulous patients. 3. Try-in stage and color science. 4. Pontics. 5. Implant prosthesis option. 6. Relation between fixed prosthodontics and other dental disciplines.
6. Anesthesia and Extraction(3)	1. Principles of tooth extraction. 2. Armamentarium used in teeth extraction. 3. Systemic diseases and extraction. 4. Non-surgical extraction. 5. Extraction of impacted molars and canines. 6. Post extraction care. 7. Post extraction complications.
7. Operative Dentistry(4)	1. Patient assessment and principles of clinical work practice. 2. Caries diagnosis, treatment planning and prognosis. 3. Instruments and materials used in clinical practice. 4. Class I and II (Amalgam restorations). 5. Composite and tooth colored restorations, 6. Anterior composite restorations. 7. Posterior composite restorations. 8. Bonding systems (2). 9. Glass inomer cement (2). 10. Compomers (2). 11. Failure in composite restorations and its treatment.
8. Endodontics (4)	• Performing different methods of cleaning and shaping of root canal system in non-vital teeth.
9. Orthodontics and DentofacialOrthopedics (2)	1. Principles of orthodontics and malocclusion. 2. Normal growth and development of dentofacial complex. 3. The etiology of dentofacial deformities. 4. Principles of orthodontic diagnosis (clinical and functional examination + radiographic, cephalometric and model investigations). 5. Classifications of malocclusion and dentofacial deformities. 6. The most important dentofacial deformities (development, causes, diagnosis and treatments). 7. Principles of malocclusion and biomechanics and teeth movement. 8. Principles of orthodontic appliances (types and their functions). 9. Principles of orthodontic treatment (timing and limitation). 10. Prevention in orthodontics. 11. Early orthodontic treatment and interceptive treatment. 12. Orthodontic treatment in mixed dentition. 13. Orthodontic treatment for adults. 14. Orthognathic surgery.
10. Periodontology (3)	1. Regenerative periodontal therapy. 2. Bone grafts. 3. Gingival grafts ridge augmentation. 4. Occlusal trauma and its therapy. 5. Laser therapy in periodontology. 6. Clinical aspects of dental implants. 7. Aesthetic considerations in dental implants. 8. Diagnosis and treatment ofperi-implantitis. 9. Orthodontic periodontology. *10*. Evidence-based decision making.

11. Oral Rehabilitation	1. Physiologic principles of mandible movements. 2. Using articulators for oral rehabilitation. 3. Oral rehabilitation and restorative dentistry. 4. Oral rehabilitation and periodontology. 5. Oral rehabilitation and orthodontic. 6. Oral rehabilitation and orthognathic surgery. 7. Oral rehabilitation and TMDs. 8. Oral rehabilitation and removable prosthodontics. 9. Oral rehabilitation and occlusion. 10. Oral rehabilitation and implantology. 11. Dental splinting. 12. Tooth wear. 13. Indications and contraindications for oral rehabilitation.
12. Anesthesia and Extraction(4)	1. Surgical extraction. 2. Extraction of impacted molars and canines. 3. Post extraction care. 4. Post extraction complications.
13. Ethics and Forensic Dentistry	1. Introduction. 2. Forensic dentistry. 3. Scientific methods of identification. 4. Accordance of DNA. 5. Forensic photography. 6. Bite marks; techniques and terminologies. 7. Dentist role in investigations and prevention of children abuse. 8. Natural disasters tests. 9. Old history of dentistry. 10. Legend prescriptions in prevention and treatment, and Arabic role in discontinue using them. 11. Preventative care. 12. Medicine taken after profit Mouhammad in Islam. 13. Famous Islamic medical scientists. 14. Anesthesia in dentistry. 15. Development in replacement teeth industry. 16. Dental treatment in Arabic scientific tradition. 17. Law of dentistry. 18. General Dental Council (GDC) and its aims. 19. Registration with the GDC and loosing and regaining membership. 20. Dentistry and rules of deontology. 21. Moral duties of professional dentists. 22. GDC regulations (general, financial, legal, election, conferences, fees related conflicts, etc .).
14. Oral and Maxillofacial Surgery	1. Patient presentation. 2. Odontogenic infections. 3. Osteomyelitis and osteoradionecrosis. 4. Cellulitis. 5. Periapical surgery. 6. Facial fractures. 7. Orthognathic surgery. 8. Surgical management of dentofacial deformities. 9. Salivary glands diseases. 10. Maxillary sinus diseases. 11. Management of temporomandibular disorders. 12. Principles of implantology.

Vice Dean for Scientific Affairs **Dean of Faculty of Dental Medicine**

Prof. Dr. Rania Haddad **Prof. Dr. Mohammad Salem Rikab**