



Faculty of Dentistry  
Bachelor's Degree of Oral & Dental Surgery  
Program Specification  
2024-2025





| <b>Content:</b>   | <b>Page number</b> |
|---|--------------------|
| • Introduction about PUA and University policies  | 3                  |
| • Strategic Framework of Faculty of Dentistry<br>(Mission, vision and governing values) | 4                  |
| A Program Basic Information   | 6                  |
| B Program Professional Information  | 7                  |
| 1. Program General aim  | 8                  |
| 2. Graduate attributes  | 9                  |
| 3. Intended learning outcomes   | 10                 |
| 4. Academic standards of the course specifications                                      | 19                 |
| a- Program attributes vs NARS   | 20                 |
| b- Program ILOs vs NARS   | 25                 |
| 5. External references for standards (Benchmarks)                                       | 33                 |
| 6. Program structure and content  | 33                 |
| a. Study plan   | 35                 |
| b. Course description   | 41                 |
| 7. Admission requirements   | 57                 |
| 8. Regulations rules for program course completion                                      | 57                 |
| 9. Examination and grading system   | 60                 |
| 10. Methods and rules for student evaluation  | 66                 |
| 11. Methods of program evaluation   | 70                 |



## Pharos University in Alexandria

- **History and establishment:**

The first Egyptian private university in Alexandria, established by Republican Decrees Nos. 252 of 2006, 302 of 2009, and 659 of 2020. Further, it is an accredited university, whose degrees are equivalent from the Supreme Council of Egyptian Universities and the Ministry of Higher Education. The bachelor's degree in Oral and Dental Surgery has been accredited by the Ministry of Higher Education, the Supreme Council of Egyptian Universities Nos 316 of 2017 and by NAQAAE since 26/8/2019.

- **University Policies:**

1. Creating a working and learning environment that respects the dignity and rights of all staff and students and where individuals would realize their full potential.
2. Integrate the goals of equitable access and successful participation for all learners and specific objectives and strategies achieving excellence>
3. Providing high quality education to undergraduate and post graduate students and follow the university code of ethics with academic integrity and ethical conduct of research, free and open dissemination of knowledge and solidarity with and fair treatment of international partners.
4. Seeking the highest standards of openness, probity, and accountability, and conduct of affairs in a responsible manner.
5. Shaping a gender equality policy with favorable stand for gender equality regarding pay scale equity and gender pay gaps, and encouragement of women, that provides equal access for female students to achieve full access to academic excellence and compatible aspects of quality higher education.
6. Commitment to equivalent rights of workers and leveled-pay scale equity to all staff and faculty in accordance with the living wages, and with no forced labor, no modern slavery nor child labor with complete recognition of unions and labor rights including women.
7. Commitment to pursuing sustainable development within and through the university and reassessing higher education and its role in the transition to more sustainable societies and building synergies collaboration in the search for effective and innovative approaches to solving today's as well as future sustainable development challenges. The university is as a body initiate in conferences and cross-sectoral dialogue and involve stakeholders and NGOs about SDGs.
8. Affirming Academic values in internationalization of higher education.



# Strategic Framework of Faculty of Dentistry



## Faculty of Dentistry Pharos University

### **Faculty Vision:**

Enhancing dental education, research, and community programs through the implementation of best practices to foster excellence, sustainable development, and community engagement in collaboration with local and global partners.

### **Faculty Mission:**

Faculty of Dentistry at Pharos University is committed to providing high-quality education within the framework of benchmark academic standards. Through a distinguished academic environment that focuses on developing knowledge and clinical skills, the college aims to train specialized dental professionals. Furthermore, it seeks to achieve excellence by integrating advanced scientific research with applied learning, promoting community health through comprehensive and innovative healthcare, and making a positive and sustainable impact on society.

### **Governing Values**

The success of the college's strategic plan requires the identification of a set of governing values that represent the fundamental principles guiding behaviors and serve as a solid foundation for all interactions. Therefore, governing values have been adopted to ensure the successful implementation of the strategic plan and the achievement of its desired goals.



# Program Specification

## A. Basic Information:

1- **Program Title:** بكالوريوس طب وجراحة الفم والأسنان

2- **Program Type:** Single  Double  Multiple

3- **Department (s) responsible for Program:**

1. Oral Biology
2. Oral Pathology
3. Oral Medicine & Periodontology
4. Pediatric & Community Dentistry
5. Oral & Maxillofacial Surgery
6. Restorative Dentistry & Dental Biomaterials
7. Prosthetic Dentistry (Fixed & Removable Prosthodontics)
8. Orthodontics

The program offers a comprehensive curriculum that includes basic science courses, and basic medical courses taught by faculty staff members from the Faculty of Science & Faculty of Medicine. Basic science courses include Chemistry, Biophysics, Zoology, Botany & Genetics. Basic medical courses include Biochemistry, Microbiology, Human Anatomy, Physiology, General Histology, General Pathology, and Pharmacology. In addition to medical courses like General Medicine, Dermatology & Venereal Diseases, General Surgery ENT and Ophthalmology.

- **Program coordination:** Vice dean of student affairs.

4. **Date of approval of the program bylaws 10 August 2006**

Date of approval of program specification update: **10 September 2024**



**Program Aims**  
**Graduate Attributes**  
**Program Intended learning outcomes**  
**‘ILOs’**





## **B. Professional Information:**

### **1. PROGRAM GENERAL AIMS:**

"The Bachelor of Dental and Oral Surgery offers a curriculum that fosters a comprehensive understanding of oral health and its interconnectedness with general health. Aligned with international strategies and the Sustainable Development Goals (SDGs), this program equips students with the knowledge and skills necessary to address oral health challenges effectively, promoting preventive dentistry and community health initiatives."

This Program aims to:

- 1.1 Provide students with integrative medical & dental sciences, practical & clinical skills to effectively manage oral & dental diseases.
- 1.2 Establish a strong scientific foundation for infection control, patient safety, clinic management, and medicolegal aspects.
- 1.3 Stay up-to date with the latest technological advancements and developments in dental education and practice.
- 1.4 Deliver high-quality comprehensive clinical dental care services to a diverse community population within a value-driven system that prioritize patient's needs, ethical standards and effective communication.
- 1.5 Foster a culture of lifelong life-long learning, continuing education & professional development among students and faculty members.
- 1.6 Implement a strong, self-sufficient internal quality assurance system to monitor & maintain high academic, professional, & ethical standards; and facilitate collaborative scientific activities with international dental healthcare institutions.





## **2. GRADUATE ATTRIBUTES:**

1. Demonstrate a comprehensive understanding of all the biomedical and dental sciences underlying human health and disease.
2. Possess proficiency in all the practical and clinical skills required for managing oral diseases and performing dental procedures.
3. Deliver professional dental service that adhere to ethical standards, evidence-based approaches, and continues professional development.
4. Effectively manage a dental practice.
5. Exhibit excellent interpersonal and communication skills when interacting with patients and colleagues and work effectively in teams.
6. Utilize available dental technologies and adapt to the ongoing advancements in the field.
7. Maintain a life-long learning mindset, with a foundational understanding of research principles.
8. Cultivate innovative and creative thinking skills and apply critical thinking to dental practice.
9. Be able to maintain a safe working environment.
10. Be aware of the community needs and actively participate in the community health services.



### **3. Intended Learning Outcomes of Program (ILOs):**

#### **A. Knowledge and Understanding:**

**Upon completion of the program, the graduate must be able to:**

|           |  |
|-----------|--|
| <b>A1</b> | Describe the anatomical, cellular, biophysical and bimolecular structural organization of major body systems, as well as their functions; which form the basis for describing growth, development, and physiology.   |
| <b>A2</b> | Recognize the essentials of genetics, anatomical structures, biodiversity and physiological principles related to animal, plants, & human health, as well as the interrelationship between organisms and between the functions of different systems of the human body. |
| <b>A3</b> | Describe the normal homeostasis, healing of wounds, mechanisms of body responses to trauma and diseases, as well as the pharmacological action of drugs used.  |
| <b>A4</b> | Describe the pathogenesis and patho-histological features of diseases affecting the body, oral and maxillofacial region, and genetic disorders.  |
| <b>A5</b> | Describe the structure, progression and spread of different types of pathogens, pathophysiology of microbial diseases, and human immunology  |
| <b>A6</b> | Identify the structures and functions of teeth and associated structures, in health and disease, as well as principles of occlusion, chronology and detailed morphology of primary, as well as permanent teeth   |
| <b>A7</b> | Classify the diseases and disorders affecting the oral cavity and its associated structures, their predisposing factors, manifestations, and prognosis; together with the principles of their diagnosis, management and prevention.                                    |
| <b>A8</b> | Discuss in details specific dental topics including:   |
|           | <b>A8.1</b> The present theoretical and practical knowledge regarding the composition, manipulation and properties of all the dental materials used in the field of dentistry.   |
|           | <b>A8.2</b> The normal structure of periodontium and variable periodontal diseases.  |
|           | <b>A8.3</b> The microbiological & immunological aspects of different diseases and their oral manifestations, along with, diseases of concern in the dental practice.   |



|            |   |
|------------|---|
|            | <b>A8.4</b> The different oral lesions, their pathogenesis and differential diagnosis   |
|            | <b>A8.5</b> The basic principles of radiology, dental x-ray machines and interpretation of radiographs  |
|            | <b>A8.6</b> Local anesthesia, pain and anxiety control.   |
|            | <b>A8.7</b> The process of caries formation and progression, together with the basic principles of tooth restoration and root canal treatment.  |
|            | <b>A8.8</b> The types of orthodontic problems, principles of diagnosis and treatment of various cases of malocclusion.  |
|            | <b>A8.9</b> The principles and advances in restoring teeth by fixed and removable prosthodontics  |
|            | <b>A8.10</b> The necessary information in behavior management, diagnosis, prevention and treatment of patients in primary, mixed, and early permanent dentition in Pediatric dentistry,                                 |
|            | <b>A8.11</b> The basic Pharmacology and effects of drugs and therapeutics.  |
|            | <b>A8.12</b> The types of oral and maxillofacial diseases and defects, together with the principles of their surgical and prosthetic management protocols.  |
|            | <b>A8.13</b> The concept of Dental Public Health, epidemiology of several dental diseases, methods of oral health education and preventive dentistry.   |
|            | <b>A8.14</b> The principles of examination, diagnosis, various diagnostic aids and new methods in data collection.  |
| <b>A9</b>  | Identify the sources of cross-infection and the essential means for infection control.  |
| <b>A10</b> | Identify the health hazards from different dental biomaterials and fluorides.   |
| <b>A11</b> | Recognize the medical emergencies that may occur in the dental surgery, as well as, their prevention and management methods, including basic life support and resuscitation.  |
| <b>A12</b> | Describe basic principles of Chemistry, Biochemistry, pharmacokinetics and pharmacodynamics of major classes of drugs used in dental practice, in order to ensure safe prescription of the drugs to the dental patient. |
| <b>A13</b> | Identify the basic principles of oral health promotion, levels of prevention of oral diseases, then, how these principles are applied in population-based approaches.   |





|            |   |
|------------|---|
| <b>A14</b> | Define the various principles of medico-legal aspects & code of ethics upon which the practice of dentistry is based, especially those relating to treatment of patients and involvement of patients in research. |
| <b>A15</b> | Define the broad principles of scientific research methodologies, scientific writing and the evaluation of evidence that are necessary for an evidence-based approach in the dental field.                        |
| <b>A16</b> | Summarize the basics of dental practice management and the role of dental personnel.  |

**Knowledge in NARS vs in Program:**

|  |     | Program ILOs (Knowledge and Understanding) |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
|--|-----|--|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|  |     | A1   | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A16 |
| <b>NARS ILOs<br/>(Knowledge and Understanding)</b> | 2.1 | ■  | ■  | ■  |    |    |    |    |    |    |     |     |     |     |     |     |     |
|  | 2.2 |  |    |    | ■  | ■  | ■  | ■  | ■  |    |     |     |     |     |     |     |     |
|  | 2.3 |  |    |    |    |    |    |    | ■  |    |     |     |     | ■   |     |     |     |
|  | 2.4 |  |    |    |    |    |    |    |    |    |     | ■   | ■   |     |     |     |     |
|  | 2.5 |  |    |    |    |    |    |    |    | ■  | ■   |     |     |     |     |     |     |
|  | 2.6 |  |    |    |    |    |    |    |    |    |     |     |     |     |     |     | ■   |
|  | 2.7 |  |    |    |    |    |    |    |    |    |     |     |     |     |     | ■   |     |
|  | 2.8 |  |    |    |    |    |    |    |    |    |     |     |     |     | ■   |     |     |
|  | 2.9 |  |    |    |    |    |    |    | ■  |    |     |     |     |     |     |     |     |



**B. Intellectual Skills:**

**Upon completion of the program, the graduate must be able to:**

|            |   |
|------------|---|
| <b>B1</b>  | Integrate the structure of the body systems with their function and concepts of physiology with emphasis on clinical relevance.   |
| <b>B2</b>  | Distinguish the signs and symptoms, pathological and histological structures, as well as risk factors of various diseases.  |
| <b>B3</b>  | Evaluate patient's general health status & its relation to other body systems & oral tissues.   |
| <b>B4</b>  | Interpret extra and intra oral radiographs in order to recognize health and disease condition.  |
| <b>B5</b>  | Analyze all the collected diagnostic data, including, patient's history, laboratory and radiographic investigations, as well as, clinical examination, to solve clinical problems based on current evidence   |
| <b>B6</b>  | Design an appropriate, sequenced, and prioritized treatment plan relevant to patients' needs and requirements, whether children, adults or specific populations.  |
| <b>B7</b>  | Compare between the different types, designs and techniques of teeth restorations, prosthodontics, as well as restorative materials.  |
| <b>B8</b>  | Integrate deductive reasoning in formulating effective clinical solutions, elevating proficiency in clinical problem solving for diverse challenges in the dental clinic.   |
| <b>B9</b>  | Integrate the basic biomedical, behavioral and dental sciences with signs, symptoms and physical findings to reach an accurate differential diagnosis   |
| <b>B10</b> | Differentiate between normal and abnormal features that are particularly relevant to oro-facial region.   |
| <b>B11</b> | Assess the effects of medications taken by the patient on dental management.  |
| <b>B12</b> | Differentiate between the various conditions related to the medico-legal aspects of the dental profession.  |
| <b>B13</b> | Combine the basic principles of scientific research to the regulations of evidence-based dentistry in order to stimulate critical thinking to allow students to acquire research methods & skills in the collection, evaluation & presentation of evidence. |



|            |   |
|------------|---|
| <b>B14</b> | Inspect the recent materials, and updated technologies in diagnosis and their clinical application in treatment and prevention of dental and oral problems. |
| <b>B15</b> | Integrate the concepts of chemistry, biophysics, genetics and cell differentiation with formulation of hypothesis   |

**Intellectual skills in NARS vs in Program**

|                                    |     | Program ILOs (Intellectual Skills) |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
|------------------------------------|-----|------------------------------------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
|                                    |     | B1                                 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | B15 |
| NARS ILOs<br>(Intellectual Skills) | 4.1 | ■                                  | ■  |    |    |    |    |    |    | ■  |     |     |     |     |     |     |
|                                    | 4.2 |                                    |    | ■  | ■  |    |    |    |    |    | ■   |     |     |     |     |     |
|                                    | 4.3 |                                    |    |    |    |    | ■  |    |    |    |     |     |     |     |     |     |
|                                    | 4.4 |                                    |    |    |    | ■  |    |    |    |    |     |     | ■   | ■   | ■   |     |
|                                    | 4.5 |                                    |    |    |    |    |    | ■  |    |    |     |     |     |     |     |     |
|                                    | 4.6 |                                    |    |    |    |    |    |    |    |    |     | ■   |     |     |     |     |
|                                    | 4.7 |                                    |    |    |    |    |    |    | ■  |    |     |     |     |     |     | ■   |



***C. Professional & Practical Skills:***

**Upon completion of the program, the graduate must be able to:**

|           |   |
|-----------|---|
| <b>C1</b> | Apply current infection control guidelines as well as practice management protocols for a proper effective safe environment.  |
| <b>C2</b> | Build database including comprehensive patient's history and all diagnostic data for patient illness.   |
| <b>C3</b> | Apply systematic clinical examination including general, extra-oral, & intraoral procedures;  |
| <b>C4</b> | Choose appropriate investigations & radiographic examination  |
| <b>C5</b> | Interpolate consultation with other health care professionals, when needed, especially if systemic diseases are suspected.  |
| <b>C6</b> | Discover oral & maxillofacial diseases, disorder and pathological conditions, as well as, etiological and/or risk factors that may contribute to the disease process. |
| <b>C7</b> | Apply comprehensive clinical care, encompassing patient assessments after taking patients consent for treatment procedures  |
| <b>C8</b> | Modify level of patient's anxiety and apprehension for better cooperation in different age groups.  |
| <b>C9</b> | Apply a range of pre-clinical and clinical procedures which are within the scope of general dentistry, which include:   |
|           | <b>C9.1</b> Use properly different dental materials different instruments and equipment.  |
|           | <b>C9.2</b> Apply the steps of oral surveying and designing then the different laboratory procedures for preparation of various restorations/appliances.              |
|           | <b>C9.3</b> Apply oral preventive procedures  |
|           | <b>C9.4</b> Apply different local anesthetic techniques.  |
|           | <b>C9.5</b> Apply teeth extraction and removal of roots when necessary.   |
|           | <b>C9.6</b> Apply different types of teeth preparations for various types of restorations.  |
|           | <b>C9.7</b> Construct fixed and removable Prosthetic appliances for missing teeth and various procedural preparatory aids (trays, record blocks ...etc.)              |





|            |  |
|------------|--|
|            | <b>C9.8</b> Apply gingival & periodontal disease treatment.  |
|            | <b>C9.9</b> Use different techniques of root canal preparation, obturation, as well as, peri radicular lesions surgical and non-surgical management.                         |
|            | <b>C9.10</b> Use implants, and superstructure fixed restoration/ over dentures in recommended cases.   |
| <b>C10</b> | Build skills in managing dental and medical emergencies which may occur in dental practice and in performing basic life support measures.                                    |
| <b>C11</b> | Select the appropriate pharmaceutical, therapeutic and preventive agents taking into consideration drug and patient factors.   |
| <b>C12</b> | Use patent Monitoring to ensure quality-control comprehensive dental management.   |
| <b>C13</b> | Use electron and light microscope for detection of various, histological and pathological slides, anatomical sections, as well as microorganisms and microbiological smears. |
| <b>C14</b> | Select the appropriate laboratory procedures for classifying different types of enzymes, macromolecules, biochemical preparations, as well as inorganic chemical reactions.  |
| <b>C15</b> | Sketch anatomical and histological structures for normal or pathological cells tissues and body organs, as well as their distribution.                                       |
| <b>C16</b> | Use diagnostic criteria in disease detection and indices in disease measurement.   |
| <b>C17</b> | Use didactic knowledge to solve clinical and oral problems.  |

**Professional and practical skills in NARS vs Program**

|  |        | Program ILOs (Practical & Professional Skills) |    |    |    |    |    |    |    |                    |     |     |     |     |     |     |     |     |   |
|--|--------|--|----|----|----|----|----|----|----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|---|
|  |        | C1   | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9                 | C10 | C11 | C12 | C13 | C14 | C15 | C16 | C17 |   |
| NARS ILOs<br>(Practical & Professional Skills) | 3.1    |  | ■  | ■  |    |    |    |    |    |                    |     |     |     |     |     |     |     |     |   |
|  | 3.2    |  |    |    |    | ■  |    |    |    |                    |     |     |     |     |     | ■   |     |     |   |
|  | 3.3    |  |    |    |    |    | ■  |    |    |                    |     |     | ■   | ■   |     |     |     |     |   |
|  | 3.4    |  |    |    |    |    |    | ■  |    | 9.1                |     |     |     |     |     |     |     |     |   |
|  | 3.4.1  |  |    |    |    |    |    |    |    | 9.3                |     |     |     |     |     |     |     |     |   |
|  | 3.4.2  |  |    |    |    |    |    |    |    | 9.4                |     |     |     |     |     |     |     |     |   |
|  | 3.4.3  |  |    |    |    |    |    |    |    | 9.5                |     |     |     |     |     |     |     |     |   |
|  | 3.4.4  |  |    |    |    |    |    |    |    |                    |     |     |     |     |     |     |     | ■   |   |
|  | 3.4.5  |  |    |    | ■  |    |    |    |    |                    |     |     |     |     |     |     |     |     |   |
|  | 3.4.6  |  |    |    |    |    |    |    |    | 9.8                |     |     | ■   |     |     |     |     |     |   |
|  | 3.4.7  |  |    |    |    |    |    |    |    | 9.6                |     |     |     |     |     |     |     |     |   |
|  | 3.4.8  |  |    |    |    |    |    |    |    | 9.9                |     |     |     |     |     |     |     |     |   |
|  | 3.4.9  |  |    |    |    |    |    |    |    | 9.2<br>9.7<br>9.10 |     |     |     |     |     |     |     |     |   |
|  | 3.4.10 |  |    |    |    |    |    |    |    |                    |     |     |     |     |     |     |     |     | ■ |
|  | 3.4.11 |  |    |    |    |    |    |    |    | 9.9                |     |     |     |     |     |     |     |     |   |
|  | 3.5    |  | ■  |    |    |    |    |    |    |                    |     |     |     |     |     |     |     |     |   |
|  | 3.6    |  |    |    |    |    |    |    |    |                    | ■   |     |     |     |     |     |     |     |   |
|  | 3.7    |  |    |    |    |    |    |    |    |                    |     | ■   |     |     |     |     |     |     |   |
|  | 3.8    |  |    |    |    |    |    |    |    |                    |     |     | ■   |     |     |     |     |     |   |



***B. General & transferable skills:***

**Upon completion of the program, the graduate must be able to:**

|           |   |
|-----------|---|
| <b>D1</b> | Develop teamwork skills appropriate for working within a multi-skilled team.  |
| <b>D2</b> | Apply efficient flexible Communication Skills with different multicultural, & diverse groups of the community in general.     |
| <b>D3</b> | Combine constructive criticism with positive reaction and self-evaluation of professional abilities, as well as performance   |
| <b>D4</b> | Appraise ethical professional attitude including confidentiality, compassion, empathy, integrity, responsibility & tolerance. |
| <b>D5</b> | Develop students' innovative & creative skills.   |
| <b>D6</b> | Maximize professional development through:  |
|           | <b>D6.1</b> Use available technologies and resources  |
|           | <b>D6.2</b> Generate life-long learning strategies  |
| <b>D7</b> | Recognize the professional guidelines to ensure quality assurance in the clinical work.                                       |
| <b>D8</b> | Organize workload to minimize personal stress in the framework of proper performance and management.                          |

**General and transferable skills in NARS vs Program**

|   |     | Program ILOs ( General & Transferable Skills ) |    |    |    |    |      |    |    |
|---|-----|--|----|----|----|----|------|----|----|
|   |     | D1   | D2 | D3 | D4 | D5 | D6   | D7 | D8 |
| NARS ILOs<br>( General & Transferable Skills) | 5.1 |  |    |    |    |    |      |    |    |
|   | 5.2 |  |    |    |    |    |      |    |    |
|   | 5.3 |  |    |    |    |    | D6.2 |    |    |
|   | 5.4 |  |    |    |    |    |      |    |    |
|   | 5.5 |  |    |    |    |    |      |    |    |
|   | 5.6 |  |    |    |    |    |      |    |    |
|   | 5.7 |  |    |    |    |    | D6.1 |    |    |
|   | 5.8 |  |    |    |    |    |      |    |    |
|   | 5.9 |  |    |    |    |    |      |    |    |



## Program matching with NARS

#### 4. Academic Standards of Program specification:

The National Academic Reference Standards (NARS) of an undergraduate program in dentistry.

##### Relation between NARS vs Program ILO's:

##### [I] Program graduates' attributes Vs NARS:

| Program graduates' attributes  | NARS   | NARS ILO statement   |
|--|--|--|
| (1)<br><b>Demonstrate a comprehensive understanding of all the biomedical and dental sciences underlying human health and disease.</b>           | Graduate attributes<br><b>1.1</b>                          | 1.1 Deliver independently oral health care services within the scope of general dentistry  |
|  | Knowledge and Understanding<br><b>2.1, 2.2, 2.4</b>        | 2.1 The interrelationship between different systems of the human body.<br>2.2 The principles of pathogenic mechanisms and manifestations of human disease which are of dental significance.<br>2.4 Prevention and management of medical emergencies  |
|  | Intellectual skills<br><b>4.1, 4.2, 4.3, 4.4,</b>          | 4.1 Integrate basic biomedical, behavioral and dental sciences with signs, symptoms and physical findings of the disease<br>4.2 Differentiate between normal and abnormal features that are particularly relevant to dental practice.<br>4.3 Identify, prioritize and generate a list of potential patient's clinical problems.<br>4.4 Analyze, interpret, and integrate collected diagnostic data to solve clinical problems based on current evidence. |
| (2)<br><b>Possess proficiency in all the practical and clinical skills required for managing oral diseases and performing dental procedures.</b> | Graduate attributes<br><b>1.1</b>                          | 1.1 Deliver independently oral health care services within the scope of general dentistry  |
|  | Practical and Clinical Skills<br><b>3.1, 3.2, 3.4, 3.8</b> | 3.1 Establish a comprehensive patient's history, perform clinical examination, request and evaluate appropriate investigations.<br>3.2 Review the body systems and consult with other health care professionals.<br>3.4 Perform a range of clinical procedures which are within the scope of general dentistry<br>3.8 Prescribe and monitor the effects of appropriate pharmaceutical agents taking into consideration drug and patient factors          |



|   |  |   |
|---|--|---|
|   | <p>Intellectual skills<br/> <b>4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7</b></p> | <p>4.1. Integrate basic biomedical, behavioral and dental sciences with signs, symptoms and physical findings of the disease.<br/>           4.2. Differentiate between normal and abnormal features that are particularly relevant to dental practice<br/>           4.3 Identify, prioritize and generate a list of potential patient’s clinical problems.<br/>           4.4 Analyze, interpret, and integrate collected diagnostic data to solve clinical problems based on current evidence.<br/>           4.5 Design appropriate treatment plans for different dental problems.<br/>           4.6 Assess and evaluate the effects of medications taken by the patient on dental management.<br/>           4.7 Reason deductively in clinical problem solving</p> |
| <p><b>(3)<br/>           Deliver professional dental service that adhere to ethical standards, evidence-based approaches, and continues professional development.</b></p> | <p>Graduate attributes<br/> <b>1.2</b></p>                               | <p>1.2 Provide ethical professional practice including compassion, empathy, integrity, responsibility and tolerance.</p>  |
|   | <p>Knowledge and Understanding<br/> <b>2.7, 2.8</b></p>                  | <p>2.7 Principles of evidence-based dentistry and its relation to scientific research<br/>           2.8 Ethical and medico-legal aspects relevant to the practice of dentistry and research</p>  |
|   | <p>Practical and Clinical Skills<br/> <b>3.1, 3.7</b></p>                | <p>3.1 Establish a comprehensive patient’s history, perform clinical examination, request and evaluate appropriate investigations.<br/>           3.7 Manage dental and medical emergencies which may occur in dental practice and perform basic life support measures.</p>   |
|   | <p>Intellectual skills<br/> <b>4.3, 4.4, 4.5</b></p>                     | <p>4.3 Identify, prioritize and generate a list of potential patient’s clinical problems.<br/>           4.4 Analyze, interpret, and integrate collected diagnostic data to solve clinical problems based on current evidence.<br/>           4.5 Design appropriate treatment plans for different dental problems.</p>   |
|   | <p>General and transferable skills<br/> <b>5.3, 5.4, 5.5</b></p>         | <p>5.3 Recognize and effectively utilize all sources for continuing professional development and life-long learning.<br/>           5.4 Adopt a creative attitude in an ethical and scientific approach.<br/>           5.5 Self evaluate professional abilities, performance, and progress</p>   |



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| <b>(4)<br/>Effectively manage a dental practice.</b>   | Graduate attributes<br><b>1.3</b>                  | 1.3 Provide comprehensive practice management encompassing patient assessments and maintain patient's records in complete and accurate forms.   |
|  | Knowledge and Understanding<br><b>2.6</b>          | 2.6 Basis of practice management  |
|  | General and transferable skills<br><b>5.8, 5.9</b> | 5.8 Recognize the basic concepts of quality assurance and practice management<br>5.9 Prioritize workload and manage personal stress un the framework of proper performance and management |
| <b>(5)<br/>Exhibit excellent interpersonal and communication skills when interacting with patients and colleagues and work effectively in teams.</b> | Graduate attributes<br><b>1.4</b>                  | 1.4 Communicate effectively to develop a mature, sensitive and caring relationship with their patients.   |
|  | Knowledge and Understanding<br><b>2.9</b>          | 2.9 Social and psychological issues relevant to dental care with emphasis on behavioral management.   |
|  | Practical and Clinical Skills<br><b>3.6</b>        | 3.6 Control different levels of patient's anxiety and apprehension in different age groups.   |
|  | General and transferable skills<br><b>5.1, 5.2</b> | 5.1 Work in collaboration as a member of an interdisciplinary team.<br>5.2 Communicate effectively in multicultural work environment using verbal and non-verbal means.                   |





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| <b>(6)</b><br><b>Utilize available dental technologies and adapt to the ongoing advancements in the field.</b>         | Graduate attributes<br><b>1.10</b>             | 1.10. Evaluate and respond to ongoing dental technology.  |
|  | General and transferable skills<br><b>5.7</b>  | 5.7 Use information technologies to enrich and diversify professional experience.   |
| <b>(7)</b><br><b>Maintain a life-long learning mindset, with a foundational understanding of research principles.</b>  | Graduate attributes<br><b>1.7</b>              | 1.7 Realize the importance of lifelong learning and strive for continuous professional education.   |
|  | Knowledge and Understanding<br><b>2.7, 2.8</b> | 2.7 Principles of evidence-based dentistry and its relation to scientific research<br>2.8 Ethical and medico-legal aspects relevant to the practice of dentistry and research |
|  | General and transferable skills<br><b>5.3</b>  | 5.3 Recognize and effectively utilize all sources for continuing professional development and life-long learning.   |
| <b>(8)</b><br><b>Cultivate innovative and creative thinking skills and apply critical thinking to dental practice.</b> | General and transferable skills<br><b>5.3</b>  | 5.3 Recognize and effectively utilize all sources for continuing professional development and life-long learning.   |
|  | Intellectual skills<br><b>4.5, 4.7</b>         | 4.5 Design appropriate treatment plans for different dental problems.<br>4.7 Reason deductively in clinical problem solving   |
|  | General and transferable skills<br><b>5.4</b>  | 5.4 Adopt a creative attitude in an ethical and scientific approach.  |



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| <b>(9)</b><br><b>Be able to maintain a safe working environment</b>  | Graduate attributes<br><b>1.6</b>                | 1.6 Maintain a safe and infection-controlled environment.  |
|  | Knowledge and Understanding<br><b>2.5</b>        | 2.5 Maintenance of infection control and a safe working environment.   |
|  | Practical and Clinical Skills<br><b>3.5</b>      | 3.5 Apply current infection control guidelines   |
| <b>(10)</b><br><b>Be aware of the community needs and actively participate in the community health services.</b> | Graduate attributes<br><b>1.5</b>                | 1.5 Respond to socio-economic aspects of different communities and engage effectively in community services.                               |
|  | Knowledge and understanding<br><b>2.3</b>        | 2.3 Basis and significance of oral health promotion, nutritional education and prevention of oral diseases in population-based approaches. |
|  | 5. General and transferable skills<br><b>5.6</b> | 5.6 Recognize professional responsibility towards the surrounding community  |



**[II] Program ILOs Vs NARS:**

|                                    | NARS ILOs  | Program ILOs   |
|------------------------------------|--|--|
| <b>Knowledge and understanding</b> | <b>2.1 The interrelation ship between different systems of the human body</b>  | A1. Describe the anatomical, cellular, biophysical and bimolecular structural organization of major body systems, as well as their functions, which form the basis for describing growth, development, and physiology.   |
|                                    |  | A2. Recognize the essentials of genetics, anatomical structures, biodiversity and physiological principles related to animal, plants, & human health, as well as the interrelationship between organisms and between the functions of different systems of the human body. |
|                                    |  | A3. Describe the normal homeostasis, healing of wounds, mechanisms of body responses to trauma and diseases, as well as the pharmacological action of drugs used.  |
|                                    | <b>2.2 The principles of pathogenic mechanisms and manifestations of human disease which are of dental significance.</b> | A4. Describe the pathogenesis and patho-histological features of diseases affecting the body, oral and maxillofacial region, and genetic disorders.  |
|                                    |  | A5. Describe the structure, progression and spread of different types of pathogens, pathophysiology of microbial diseases, and human immunology.   |
|                                    |  | A6. Identify the structures and functions of teeth and associated structures, in health and disease, as well as principles of occlusion, chronology and detailed morphology of primary, as well as permanent teeth.  |
|                                    |  | A7. Classify the diseases and disorders affecting the oral cavity and its associated structures, their predisposing factors, manifestations, and prognosis; together with the principles of their diagnosis, management and prevention.                                    |



|   |   |  |
|---|---|--|
|   | <b>2.3 Basis and significance of oral health promotion, nutritional education and prevention of oral diseases in population-based approaches.</b>                                 | A8.13. The concept of Dental Public Health, epidemiology of several dental diseases, methods of oral health education and preventive dentistry.  |
|   |   | A13. Identify the basic principles of oral health promotion, levels of prevention of oral diseases, then, how these principles are applied in population-based approaches.   |
|   | <b>2.4. Prevention and management of medical emergencies.</b>   | A11. Recognize the medical emergencies that may occur in the dental surgery, as well as, their prevention and management methods, including basic life support and resuscitation.                                      |
|   |   | A12. Recognize the medical emergencies that may occur in the dental surgery, as well as, their prevention and management methods, including basic life support and resuscitation.                                      |
|   | <b>2.5. Maintenance of infection control and a safe working environment.</b>  | A9. Identify the sources of cross-infection and the essential means for infection control.   |
|   |   | A10. Identify the health hazards from different dental biomaterials and fluorides.   |
|   | <b>2.6. Basis of practice management</b>  | A16. Summarize the basics of dental practice management and the role of dental personnel.  |
|   | <b>2.7. Principles of evidence-based dentistry and its relation to scientific research.</b>   | A15. Define the broad principles of scientific research methodologies, scientific writing and the evaluation of evidence that are necessary for an evidence-based approach in the dental field.                        |
|   | <b>2.8. Ethical and medico-legal aspects relevant to the practice of dentistry and research</b>   | A14. Define the various principles of medico-legal aspects & code of ethics upon which the practice of dentistry is based, especially those relating to treatment of patients and involvement of patients in research. |
| <b>2.9. Social and psychological issues relevant to dental care with emphasis on behavioral management.</b> | A8.10. The necessary information in behavior management, diagnosis, prevention and treatment of patients in primary, mixed, and early permanent dentition in Pediatric dentistry. |  |



**Intellectual skills**

|                            |   |   |
|----------------------------|---|---|
| <b>Intellectual skills</b> | <b>4.1. Integrate basic biomedical, behavioral and dental sciences with signs, symptoms and physical findings of the disease.</b> | B1. Integrate the structure of the body systems with their function and concepts of physiology with emphasis on clinical relevance.   |
|                            |   | B2. Distinguish the signs and symptoms, pathological and histological structures, as well as risk factors of various diseases.  |
|                            |   | B9. Integrate the basic biomedical, behavioral and dental sciences with signs, symptoms and physical findings to reach an accurate differential diagnosis.  |
|                            | <b>4.2. Differentiate between normal and abnormal features that are particularly relevant to dental practice.</b>                 | B3. Evaluate patient's general health status & its relation to other body systems & oral tissues.   |
|                            |   | B4. Interpret extra and intra oral radiographs in order to recognize health and disease condition.  |
|                            |   | B10. Differentiate between normal and abnormal features that are particularly relevant to oro-facial region.  |
|                            | <b>4.3. Identify, prioritize and generate a list of potential patient's clinical problems.</b>                                    | B6. Design an appropriate, sequenced, and prioritized treatment plan relevant to patients' needs and requirements, whether children, adults or specific populations.  |
|                            | <b>4.4. Analyze, interpret and integrate collected diagnostic data to solve clinical problems based on current evidence.</b>      | B5. Analyze all the collected diagnostic data, including, patient's history, laboratory and radiographic investigations, as well as, clinical examination, to solve clinical problems based on current evidence |
|                            |   | B12. Differentiate between the various conditions related to the medico-legal aspects of the dental profession.   |



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|  |  | B13. Combine the basic principles of scientific research to the regulations of evidence-based dentistry in order to stimulate critical thinking to allow students to acquire research methods & skills in the collection, evaluation & presentation of evidence. |
|  |  | B14. Inspect the recent materials, and updated technologies in diagnosis and their clinical application in treatment and prevention of dental and oral problems.   |
|  | <b>4.5. Design appropriate treatment plans for different dental problems</b>                         | B7. Compare between the different types, designs and techniques of teeth restorations, prosthodontics, as well as restorative materials.   |
|  | <b>4.6. Assess and evaluate the effects of medications taken by the patient on dental management</b> | B11. Assess and evaluate the effects of medications taken by the patient on dental management.   |
|  | <b>4.7. Reason deductively in clinical problem solving</b>   | B8. Integrate deductive reasoning in formulating effective clinical solutions, elevating proficiency in clinical problem solving for diverse challenges in the dental clinic.  |
|  |  | B15. Integrate the concepts of chemistry, biophysics, genetics and cell differentiation with formulation of hypothesis   |



**Practical and clinical skills**

|  |   |
|--|---|
| <b>3.1 Establish a comprehensive patient's history, perform clinical examination, request and evaluate appropriate investigations.</b> | C2. Build database including comprehensive patient's history and all diagnostic data for patient illness.   |
|  | C3. Apply systematic clinical examination including general, extra-oral, & intraoral procedures;  |
|  | <b>3.2 Review the body systems and consult with other health care professionals, when required.</b>   |
|  | C5. Interpolate consultation with other health care professionals, when needed, especially if systemic diseases are suspected.  |
|  | C15. Sketch anatomical and histological structures for normal or pathological cells, tissues and body organs, as well as their distribution.                                      |
|  | <b>3.3 Detect abnormal and pathological conditions, as well as etiological and/or risk factors that may contribute to disease process.</b>  |
|  | C6. Discover oral & maxillofacial diseases, disorder and pathological conditions, as well as, etiological and/or risk factors that may contribute to the disease process.         |
|  | C13. Use electron and light microscope for detection of various, histological and pathological slides, anatomical sections, as well as microorganisms and microbiological smears. |
|  | C14. Select the appropriate laboratory procedures for classifying different types of enzymes, macromolecules, biochemical preparations, as well as inorganic chemical reactions.  |
|  | <b>3.4 Perform a range of clinical procedures which are within the scope of general dentistry</b>   |
| C7. Apply comprehensive clinical care, encompassing patient assessments after taking patients consent for treatment procedures         |   |
| C9.1 Use properly different dental materials and handle different instruments and equipment.   |   |





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|  | <b>3.4.1 . Applications of preventive procedures</b>  | C9.3. Apply oral preventive procedures   |
|  | <b>3.4.2. Application of different local anesthetic techniques</b>  | C9.4. Apply different local anesthetic techniques.   |
|  | <b>3.4.3. Extraction of teeth and removal of roots when necessary</b>   | C9.5 Apply teeth extraction of teeth and removal of roots when necessary.  |
|  | <b>3.4.4. Diagnosis of commonly encountered oral lesions</b>  | C16. Use diagnostic criteria in disease detection and indices in disease measurement.  |
|  | <b>3.4.5. Performance of the necessary radiographs</b>  | C4. Choose appropriate investigations & radiographic examination.  |
|  | <b>3.4.6. Performance of non-surgical periodontal treatment and monitor treatment outcomes</b>                  | C9.8. Apply gingival & periodontal disease treatment.  |
|  |   | C12. Use patient monitoring to ensure quality-control comprehensive dental management.   |
|  | <b>3.4.7 Restorations of carious and non-carious tooth defects with emphasis on basic concepts of esthetics</b> | C9.6 Apply different types of teeth preparations for various types of restorations.  |
|  | <b>3.4.8. Basic endodontic procedures</b>   | C9.9 Use different techniques of root canal preparation, obturation, as well as peri radicular lesions surgical and non-surgical management. |



|   |   |
|---|---|
| <b>3.4.9. Rehabilitation of partially and completely edentulous patients</b>  | C9.2. Apply the steps of oral surveying and designing then the different laboratory procedures for preparation of various restorations/appliances.    |
|   | C9.7. Construct fixed and/or removable Prosthetic appliances for missing teeth and various procedural preparatory aids (trays, record blocks ...etc.) |
|   | C9.10. Use implants insertion, and superstructure fixed restoration/ over dentures in recommended cases.  |
| <b>3.4.10. Diagnosis and prevention of developing malocclusions</b>   | C17. Use didactic knowledge to solve clinical and oral problems.  |
| <b>3.4.11. Basic endodontic treatment</b>   | C9.9. Use different techniques of root canal preparation, obturation, as well as peri radicular lesions surgical and non-surgical management.         |
| <b>3.5. Apply current infection control guidelines.</b>   | C1. Apply current infection control guidelines as well as practice management protocols for a proper effective safe environment.                      |
| <b>3.6. Control different levels of patient anxiety and apprehension in different age groups.</b>                                     | C8. Modify level of patient's anxiety and apprehension for better cooperation in different age groups.  |
| <b>3.7 Manage dental and medical emergencies which may occur in dental practice and perform basic life support measures.</b>          | C10. Build skills in managing dental and medical emergencies which may occur in dental practice and in performing basic life support measures.        |
| <b>3.8 Prescribe and monitor the effects of appropriate pharmaceutical agents taking into consideration drug and patient factors.</b> | C11. Select the appropriate pharmaceutical, therapeutic and preventive agents taking into consideration drug and patient factors.                     |



**General and Transferable skills**

|  |   |
|--|---|
| <b>5.1 Work in collaboration as a member of an interdisciplinary team.</b>   | D1. Develop teamwork skills appropriate for working within a multi-skilled team.  |
| <b>5.2 Communicate effectively in multicultural work environment using verbal and non-verbal means.</b>                  | D2. Apply efficient flexible Communication Skills with different multicultural, & diverse groups of the community in general.     |
| <b>5.3 Recognize and effectively utilize all sources for continuing professional development and life-long learning.</b> | D6.2. Generate lifelong learning strategies   |
| <b>5.4. Adopt a creative attitude in an ethical and scientific approach.</b>   | D5. Develop students' innovative & creative skills.   |
| <b>5.5 Self evaluate professional abilities, performance, and progress</b>   | D3. Combine constructive criticism with positive reaction and self-evaluation of professional abilities, as well as performance   |
| <b>5.6 Recognize professional responsibility towards the surrounding community</b>                                       | D4. Appraise ethical professional attitude including confidentiality, compassion, empathy, integrity, responsibility & tolerance. |
| <b>5.7 Use information technologies to enrich and diversify professional experience.</b>                                 | D6.1 Use available technologies and resources   |
| <b>5.8 Recognize the basic concepts of quality assurance and practice management</b>                                     | D7. Recognize the professional guidelines to ensure quality assurance in the clinical work.                                       |
| <b>5.9 Prioritize workload and manage personal stress in the framework of proper performance and management.</b>         | D8. Organize workload to minimize personal stress in the framework of proper performance and management.                          |

**5. EXTERNAL REFERENCES FOR STANDARDS (BENCHMARKS):**

No Benchmark standards, but a comparative analysis between PUA and 10 Universities was done.

**6. PROGRAM STRUCTURE AND CONTENTS:**

a- *Program duration:* 5 years program / 10 semesters / 180 weeks

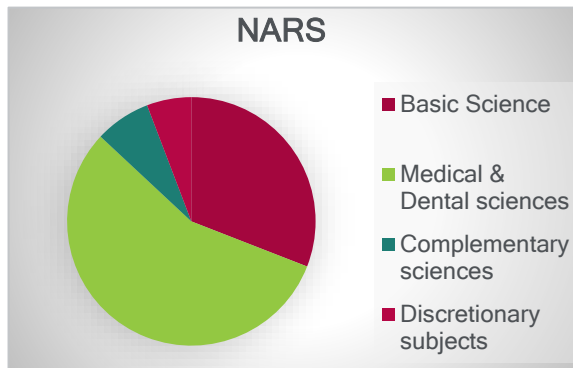
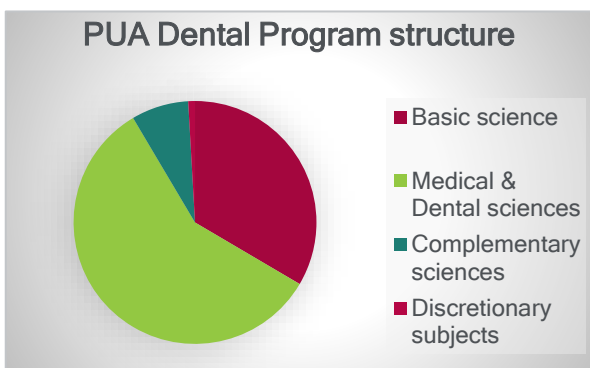
b- *Program structure:*

No. of hours per week: Lectures **105** Lab/Tutorial **106/24** Clinical **90**

No. of credit hours: Compulsory **207** Elective **2** Total **209**

|   | Pharos Dental Program |        | NARS (reference)    |
|---|-----------------------|--------|---------------------|
|   | CH                    | %      | %                   |
| 1- Basic Sciences courses   | 70                    | 33.4 % | 28% -32%            |
| 2- Medical & Dental Sciences<br>-Didactic<br>-Laboratory and clinical | 121                   | 57.9 % | 21%-25%<br>33% -37% |
| 3- Complementary sciences   | 16                    | 7.6 %  | 5%-8%               |
| 4- Discretionary subjects   | 2                     | 0.9 %  | 6-8%                |

**N.B. The percentages mentioned in the NARS for each area of study are just a guide for the faculty and not obligatory to follow.**



**Categories in the Program Specs:**

- 1. Basic sciences  
Biophysics, Chemistry, Zoology, Botany & Genetics.
- 2. Basic medical sciences:  
Biochemistry, Microbiology & Immunology, Human Anatomy, Physiology, General Histology, General Pathology, Pharmacology
- 3. Basic dental sciences.  
Dental Biomaterials, Dental Anatomy, Oral Biology & Embryology, Oral Pathology
- All dental and medical sciences  
General Medicine, General surgery, Restorative dentistry, Prosthodontics, Oral & maxillofacial surgery & general anesthesia, Oral Radiology,

**Categories as mentioned in the NARS:**

- All basic sciences including basic medical and dental sciences.  
Physics, Chemistry, Bioscience, Human Anatomy, Growth and Genetics, Physiology, Biochemistry, Microbiology and Immunology, General Histology, Pharmacology, General Pathology, Oral Biology, Dental Anatomy and Oral Physiology, Dental Biomaterials and Oral Pathology.
- All dental and medical sciences.  
Internal medicine, General surgery, Restorative Dentistry, prosthodontics, Oral and maxillofacial Surgery and General Anesthesia, Diagnostic Sciences, Oral Medicine, Oral Maxillofacial Radiology, Periodontics, Endodontic, Orthodontics



Endodontics, Periodontics, Orthodontics, Pediatric dentistry, Community dentistry.

- Complementary sciences: (University Req.)  
English, Arabic, Computer, Communication skills, Law and human rights and ethics.

- Discretionary subjects (electives)  
Ethics in dentistry, Forensic dentistry, dental photography

and Dentofacial Orthopedics, Pediatric Dentistry, Public Health and Community Dentistry

- Complementary sciences:  
Behavioral science, Law, Ethics and Professionalism, Information Technology

- Discretionary subjects  
No subjects are specified in this category by the NARS

- **Practical/Field training:** Internship training/Rotation after graduation

*c- Program course Levels (in credit-hours system):*

| Year   | Student position in the study system | Credit hours successfully passed   | Semester         | Credit hours (%) | Compulsory | Elective |
|--------|--------------------------------------|------------------------------------|------------------|------------------|------------|----------|
| First  | Freshman                             | From 0 to 25<br>[0%-12.2%]         | 1 <sup>st</sup>  | 18 (8.6%)        | 18         | 0        |
|        |                                      |                                    | 2 <sup>nd</sup>  | 20 (9.57%)       | 20         | 0        |
| Second | Sophomore                            | From 26 to 59<br>[12.44%-28.2%]    | 3 <sup>rd</sup>  | 20 (9.57%)       | 20         | 0        |
|        |                                      |                                    | 4 <sup>th</sup>  | 22 (10.5%)       | 20         | 2        |
| Third  | Junior                               | From 60 to 104<br>[28.7%-49.76%]   | 5 <sup>th</sup>  | 21 (10%)         | 21         | 0        |
|        |                                      |                                    | 6 <sup>th</sup>  | 19 (9%)          | 19         | 0        |
| Fourth | Mid-senior                           | From 105 to 145<br>[50.23%-69.37%] | 7 <sup>th</sup>  | 22 (10.5%)       | 22         | 0        |
|        |                                      |                                    | 8 <sup>th</sup>  | 21 (10%)         | 21         | 0        |
| Fifth  | Senior                               | From 146 to 205<br>[69.85%-100%]   | 9 <sup>th</sup>  | 23 (11%)         | 23         | 0        |
|        |                                      |                                    | 10 <sup>th</sup> | 23 (11%)         | 23         | 0        |

*Program number of courses and credit-hours distribution*

| Category                    | Number of courses                   | Total CH      |
|-----------------------------|-------------------------------------|---------------|
| University requirements     | 10                                  | 16 CH         |
| Basic Science               | 7                                   | 15 CH         |
| Basic Medical               | 14                                  | 32 CH         |
| Basic Dental                | 8                                   | 23 CH         |
| Medical and Dental Sciences | 47                                  | 121 CH        |
| Elective                    | 1                                   | 2 CH          |
| <b>Total program</b>        | <b>87 (44 fall &amp; 43 spring)</b> | <b>209 CH</b> |



## Study Plan of the Program

**a- Program Courses in each semester (study plan):**

| Semester 1  |         |  |       |      |        |      |       |    |         |
|-------------|---------|--|-------|------|--------|------|-------|----|---------|
| S e         | Code    | Course                                   | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req |
| 1           | UCS 01  | Communication Skills 1                   |       |      |        | 2    | 2     | 1  |         |
| 2           | UEC 01  | Computer Skills & Programming Concepts 1 | 1     | 2    |        |      | 3     | 2  |         |
| 3           | CHM 111 | Chemistry 1                              | 1     | 2    |        |      | 3     | 2  |         |
| 4           | OBD 111 | Dental Anatomy 1                         | 1     | 4    |        |      | 5     | 3  |         |
| 5           | BCM 112 | Biochemistry 1                           | 1     | 2    |        |      | 3     | 2  |         |
| 6           | ZOL 111 | Zoology 1                                | 1     | 2    |        |      | 3     | 2  |         |
| 7           | BOT 111 | Botany & Genetics 1                      | 1     | 2    |        |      | 3     | 2  |         |
| 8           | HST 211 | General & Systemic Histology1            | 1     | 2    |        |      | 3     | 2  |         |
| 9           | GEN 211 | Principles Of Law Human Rights & Ethics  | 2     |      |        |      | 2     | 2  |         |
| 10          | UGE 00  | English 0                                |       | 2    |        | 4    | 6     | 0  |         |
| Total Hours |         |  | 9     | 18   | 0      | 6    | 33    | 18 |         |

| Semester 2  |         |  |       |      |        |      |       |    |         |
|-------------|---------|--|-------|------|--------|------|-------|----|---------|
| S e         | Code    | Course                                   | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req |
| 1           | UGE 01  | English 1                                |       | 2    |        | 4    | 6     | 2  |         |
| 2           | UEC 02  | Computer Skills & Programming Concepts 2 | 1     | 2    |        |      | 3     | 2  | UEC 01  |
| 3           | CHM 122 | Chemistry 2                              | 1     | 2    |        |      | 3     | 2  |         |
| 4           | OBD 122 | Dental Anatomy 2                         | 1     | 4    |        |      | 5     | 3  | OBD 111 |
| 5           | BPH 111 | Biophysics                               | 2     | 2    |        |      | 4     | 3  |         |
| 6           | ZOL 122 | Zoology 2                                | 1     | 2    |        |      | 3     | 2  |         |
| 7           | BOT 122 | Botany & Genetics 2                      | 1     | 2    |        |      | 3     | 2  |         |
| 8           | HST 222 | General & Systemic Histology 2           | 1     | 2    |        |      | 3     | 2  | HST 211 |
| 9           | BCM 221 | Biochemistry 2                           | 1     | 2    |        |      | 3     | 2  | BCM 112 |
| Total Hours |         |  | 9     | 20   | 0      | 4    | 33    | 20 |         |

|                                 |  |  |    |    |   |    |    |    |  |
|---------------------------------|--|--|----|----|---|----|----|----|--|
| Total First Academic Year Hours |  |  | 18 | 38 | 0 | 10 | 66 | 38 |  |
|---------------------------------|--|--|----|----|---|----|----|----|--|



| Semester 3  |         |  |       |      |        |      |           |    |         |
|-------------|---------|--|-------|------|--------|------|-----------|----|---------|
| S e         | Code    | Course                                       | Lect. | Labs | Clinic | Tut. | CNIT<br>T | CH | Pre-req |
| 1           | UGE 02  | English 2                                    |       | 2    |        | 4    | 6         | 2  | UGE 01  |
| 2           | RDM 211 | Dental Biomaterial 1                         | 1     | 2    |        |      | 3         | 2  |         |
| 3           | PHY 211 | General Physiology 1                         | 2     | 2    |        |      | 4         | 3  |         |
| 4           | ANT 211 | Human Anatomy 1                              | 2     | 2    |        |      | 4         | 3  |         |
| 5           | PTH 212 | General Pathology 1                          | 1     | 2    |        |      | 3         | 2  |         |
| 6           | PHM 311 | Pharmacology 1                               | 1     | 2    |        |      | 3         | 2  | CHM 122 |
| 7           | CD 312  | Dental Clinic Management & Infection Control | 1     |      |        | 2    | 3         | 2  |         |
| 8           | OMR 312 | Dental Radiology                             | 1     | 2    |        |      | 3         | 2  |         |
| 9           | MCR 311 | General Microbiology & Immunology 1          | 1     | 2    |        |      | 3         | 2  | BOT 122 |
| Total Hours |         |  | 10    | 16   | 0      | 6    | 32        | 20 |         |

| Semester 4  |         |                                  |       |      |        |      |           |    |         |
|-------------|---------|----------------------------------|-------|------|--------|------|-----------|----|---------|
| S e         | Code    | Course                           | Lect. | Labs | Clinic | Tut. | CNIT<br>T | CH | Pre-req |
| 1           | UGE 03  | English 3                        |       | 2    |        | 4    | 6         | 2  | UGE 02  |
| 2           | ANT 222 | Human Anatomy 2                  | 2     | 2    |        |      | 4         | 3  | ANT 211 |
| 3           | PHY 222 | General Physiology 2             | 2     | 2    |        |      | 4         | 3  | PHY 211 |
| 4           | OB 212  | Oral Biology & Embryology 1      | 2     | 2    |        |      | 4         | 3  | HST 211 |
| 5           | RDM 222 | Dental Biomaterial 2             | 2     | 2    |        |      | 4         | 3  | RDM 211 |
| 6           | PHM 322 | Pharmacology 2                   | 1     | 2    |        |      | 3         | 2  | PHM 311 |
| 7           | PTH 321 | General Pathology 2              | 1     | 2    |        |      | 3         | 2  | PTH 212 |
| 8           | MCR 322 | Oral Microbiology & Immunology 2 | 1     | 2    |        |      | 3         | 2  | MCR 311 |
| 9           | ELC     | Elective                         | 2     |      |        |      | 2         | 2  |         |
| Total Hours |         |                                  | 13    | 16   | 0      | 4    | 33        | 22 |         |

|  |    |    |   |    |    |    |
|--|----|----|---|----|----|----|
| Total Second Academic Year Hours           | 23 | 32 | 0 | 10 | 65 | 42 |
| Total Credit Hours [1st+2nd Academic Year] | 80 |    |   |    |    |    |





| Semester 5  |          |   |       |      |        |      |       |    |         |
|-------------|----------|---|-------|------|--------|------|-------|----|---------|
| S e         | Code     | Course  | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req |
| 1           | RD 311   | Restorative Dentistry 1                             | 1     | 4    |        |      | 5     | 3  | RDM 222 |
| 2           | FPR 311  | Fixed Prosthodontic 1                               | 1     | 2    |        |      | 3     | 2  | RDM 222 |
| 3           | RPR 311  | Removable Prosthodontics 1                          | 2     | 4    |        |      | 6     | 4  | RDM 222 |
| 4           | OPTH 311 | Oral Pathology 1                                    | 2     | 2    |        |      | 4     | 3  | OB 212  |
| 5           | OB 321   | Oral Biology & Embryology 2                         | 2     | 2    |        |      | 4     | 3  | HST 222 |
| 6           | GMD 411  | General Medicine, Dermatology & Venereal Diseases 1 | 1     |      | 2      |      | 3     | 2  | PHY 222 |
| 7           | PDCD 531 | Community Dentistry 1                               | 1     |      |        | 2    | 3     | 2  | CD 312  |
| 8           | UGA 03   | Arabic Language Skills                              | 2     |      |        |      | 2     | 2  |         |
| Total Hours |          |   | 12    | 14   | 2      | 2    | 30    | 21 |         |

| Semester 6  |          |   |       |      |        |      |       |    |          |
|-------------|----------|---|-------|------|--------|------|-------|----|----------|
| S e         | Code     | Course  | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req  |
| 1           | RD 322   | Restorative Dentistry 2                             | 1     | 4    |        |      | 5     | 3  | RD 311   |
| 2           | FPR 322  | Fixed prosthodontic 2                               | 1     | 2    |        |      | 3     | 2  | FPR 311  |
| 3           | RPR 322  | Removable Prosthodontics 2                          | 2     | 4    |        |      | 6     | 4  | RDM 222  |
| 4           | RDE 312  | Endodontics 1                                       | 1     | 2    |        |      | 3     | 2  | RD 311   |
| 5           | OPTH 322 | Oral Pathology & Forensic Dentistry 2               | 2     | 2    |        |      | 4     | 3  | OB 321   |
| 6           | GMD 422  | General Medicine, Dermatology & Venereal Diseases 2 | 1     |      | 2      |      | 3     | 2  | GMD 411  |
| 7           | UCS 02   | Communication skills 2                              |       | 2    |        |      | 2     | 1  | UCS 01   |
| 8           | PDCD 542 | Community Dentistry 2                               | 1     |      |        | 2    | 3     | 2  | PDCD 531 |
| Total Hours |          |   | 9     | 16   | 2      | 2    | 29    | 19 |          |

|  |     |    |   |   |    |    |
|--|-----|----|---|---|----|----|
| Total Third Academic Year Hours                | 21  | 30 | 4 | 4 | 59 | 40 |
| Total Credit Hours [1st+2nd+3rd Academic Year] | 120 |    |   |   |    |    |



| Semester 7         |         |   |           |          |           |          |           |           |                   |
|--------------------|---------|---|-----------|----------|-----------|----------|-----------|-----------|-------------------|
| S e                | Code    | Course                                    | Lect.     | Labs     | Clinic    | Tut.     | CNTC<br>T | CH        | Pre-req           |
| 1                  | RD 431  | Restorative Dentistry 3                   | 1         |          | 4         |          | 5         | 3         | RD 322            |
| 2                  | FPR 431 | Fixed Prosthodontic 3                     | 1         |          | 2         |          | 3         | 2         | FPR 322           |
| 3                  | RPR 431 | Removable Prosthodontics 3                | 2         |          | 4         |          | 6         | 4         | RPR 311,<br>PR322 |
| 4                  | RDE 421 | Endodontics 2                             | 1         | 2        |           |          | 3         | 2         | RDE 312           |
| 5                  | OS 411  | Local Anesthesia & Pain Control           | 1         |          | 2         |          | 3         | 2         | ANT 222           |
| 6                  | OMD 411 | Oral Medicine & Diagnosis 1               | 2         |          | 2         |          | 4         | 3         | OPHT 322          |
| 7                  | PI 411  | Periodontology 1                          | 1         |          | 2         |          | 3         | 2         | OB 321            |
| 8                  | OR 411  | Orthodontics 1                            | 1         | 2        |           |          | 3         | 2         | ANT 222           |
| 9                  | GSR 411 | General Surgery, E.N.T. & Ophthalmology 1 | 1         |          | 2         |          | 3         | 2         | PHY 222           |
| <b>Total Hours</b> |         |   | <b>11</b> | <b>4</b> | <b>18</b> | <b>0</b> | <b>33</b> | <b>22</b> |                   |

| Semester 8         |         |   |           |          |           |          |           |           |         |
|--------------------|---------|---|-----------|----------|-----------|----------|-----------|-----------|---------|
| S e                | Code    | Course                                    | Lect.     | Labs     | Clinic    | Tut.     | CNTC<br>T | CH        | Pre-req |
| 1                  | RD 442  | Restorative Dentistry 4                   | 1         |          | 4         |          | 5         | 3         | RD 431  |
| 2                  | FPR 442 | Fixed Prosthodontic 4                     | 1         |          | 2         |          | 3         | 2         | FPR 431 |
| 3                  | RPR 442 | Removable Prosthodontics 4                | 2         |          | 4         |          | 6         | 4         | RPR 431 |
| 4                  | RDE 432 | Endodontics 3                             | 1         |          | 2         |          | 3         | 2         | RDE 421 |
| 5                  | OS 422  | Oral Exodontia                            | 1         |          | 2         |          | 3         | 2         | OS 411  |
| 6                  | OMD 422 | Oral Medicine 2                           | 1         |          | 2         |          | 3         | 2         | OMD 411 |
| 7                  | PI 422  | Periodontology 2                          | 1         |          | 2         |          | 3         | 2         | PI 411  |
| 8                  | OR 422  | Orthodontics 2                            | 1         | 2        |           |          | 3         | 2         | OR 411  |
| 9                  | GSR 422 | General Surgery, E.N.T. & Ophthalmology 2 | 1         |          | 2         |          | 3         | 2         | GSR 411 |
| <b>Total Hours</b> |         |   | <b>10</b> | <b>2</b> | <b>20</b> | <b>0</b> | <b>32</b> | <b>21</b> |         |

|   |            |          |           |          |           |           |
|---|------------|----------|-----------|----------|-----------|-----------|
| <b>Total Fourth Academic Year Hours</b>                   | <b>21</b>  | <b>6</b> | <b>38</b> | <b>0</b> | <b>65</b> | <b>43</b> |
| <b>Total Credit Hours [1st+2nd+3rd+4th Academic Year]</b> | <b>163</b> |          |           |          |           |           |



| Semester 9  |          |  |       |      |        |      |       |    |                 |
|-------------|----------|--|-------|------|--------|------|-------|----|-----------------|
| S e         | Code     | Course   | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req         |
| 1           | RD 551   | Restorative Dentistry 5                        | 1     |      | 4      |      | 5     | 3  | RD 442          |
| 2           | FPR 551  | Fixed Prosthodontic 5                          | 1     |      | 4      |      | 5     | 3  | FPR 442         |
| 3           | RPR 551  | Removable Prosthodontics (Advanced) 5          | 2     |      | 4      |      | 6     | 4  | RPR 442         |
| 4           | RDE 541  | Endodontics 4                                  | 1     |      | 2      |      | 3     | 2  | RDE 432         |
| 5           | PDCD 511 | Pediatric Dentistry 1                          | 2     |      | 4      |      | 6     | 4  | RD 442, RDE 432 |
| 6           | OS 531   | Oral & Maxillofacial Surgery & Dental Implants | 2     |      | 2      |      | 4     | 3  | OS 422          |
| 7           | OMD 531  | Oral Medicine 3                                | 1     |      | 2      |      | 3     | 2  | OMD 422         |
| 8           | PI 531   | Periodontology 3                               | 1     |      | 2      |      | 3     | 2  | PI 422          |
| Total Hours |          |  | 11    | 0    | 24     | 0    | 35    | 23 |                 |

| Semester 10 |          |   |       |      |        |      |       |    |          |
|-------------|----------|---|-------|------|--------|------|-------|----|----------|
| S e         | Code     | Course  | Lect. | Labs | Clinic | Tut. | CNTCT | CH | Pre-req  |
| 1           | RD 562   | Restorative Dentistry 6                           | 1     |      | 4      |      | 5     | 3  | RD 551   |
| 2           | FPR 562  | Fixed Prosthodontic 6                             | 1     |      | 4      |      | 5     | 3  | FPR 551  |
| 3           | RPR 562  | Removable Prosthodontics (Advanced) 6             | 2     |      | 4      |      | 6     | 4  | RPR 551  |
| 4           | RDE 552  | Endodontics 5                                     | 1     |      | 2      |      | 3     | 2  | RDE 541  |
| 5           | PDCD 522 | Pediatric Dentistry 2                             | 2     |      | 4      |      | 6     | 4  | PDCD 511 |
| 6           | OS 542   | Oral & Maxillofacial Surgery & General Anesthesia | 2     |      | 2      |      | 4     | 3  | OS 531   |
| 7           | OMD 542  | Oral Medicine 4                                   | 1     |      | 2      |      | 3     | 2  | OMD 531  |
| 8           | PI 542   | Periodontology 4                                  | 1     |      | 2      |      | 3     | 2  | PI 531   |
| Total Hours |          |   | 11    | 0    | 24     | 0    | 35    | 23 |          |

|                                 |     |     |    |    |     |     |
|---------------------------------|-----|-----|----|----|-----|-----|
| Total Fifth Academic Year Hours | 22  | 0   | 48 | 0  | 70  | 46  |
| Total Credit Hours              | 105 | 106 | 90 | 24 | 325 | 209 |



## Course Description

***b- Course Description:***

**[1] Complementary subjects:**

**UEC01 Computer skills and programming concepts 1**

**Prerequisite: --**

**2 CrHr (1 LCT+ 2 LAB)**

**Description:** The aim of this course is to introduce students to the concepts and terminologies of Computer Science and to provide students with an understanding of the role computation. Students will develop algorithmic thinking and explore the various topics of basic Computer Science. The course also aims to help students, regardless of their major, to feel justifiably confident of their ability to write small algorithms that allow them to accomplish useful goals. This course gives students a practical experience on dealing with operating systems, communicate with others through the internet, doing a professional search, writing their documents in an organized way, and preparing their presentations.

**UEC02 Computer skills and programming concepts 2**

**Prerequisite: UEC01**

**2 CrHr (1LCT+2LAB)**

**Description:** The aim of this course is to teach newcomers spreadsheet, Databases and Hypertext markup language. Enable the student to carry out simple or more complicated calculations using numerical data and formulas using the variety of tasks that spreadsheets are used. Help students to analyze, organize, and manipulate data, and help students, regardless of their major, to feel justifiably and confident of their ability to create static webpages.

**UCS 01 Communication skills (1)**

**Prerequisite: --**

**1 CrHr (2 TUT)**

**Description:** To develop students' communication and presentation skills and train them to present themselves and their ideas orally and written in an effective manner that leads them to excellence and leadership in their work and lives.

**UCS02 Communication skills (2)**

**Prerequisite: UCS01**

**1 CrHr (2TUT)**

**Contents:** To provide a professionally oriented, skills-based learning that helps the students to get appropriate jobs and emphasizes on providing the community with qualified graduates show excellence in their career.

**UGE01 English (1)**

**Prerequisite: --**

**2 CrHr (2 LAB+4TUT)**

**Description:** A course is designed to establish effective reading, writing, oral/aural, and study skills. Emphasis on essay writing and Academic style and task-based work are stressed.

**UGE 02 English (2)**

**Prerequisite: UGE01**

**2 CrHr (2 LAB+ 4 TUT)**

**Description:** A required course designed to establish advanced reading and writing skills. Emphasis on essay writing as well as research techniques. The major project is an expository research paper. Academic styles are emphasized.



**UGE 03 English (3)**

**Prerequisite:** UGE03

**2 CrHr (2 LAB+4 TUT)**

**Description:** A required course designed to establish advanced reading and writing skills. Emphasis on essay writing as well as research techniques. The major project is an expository research paper. Academic styles are emphasized.

**GEN 211 Principles of Law & Human Rights & Ethics**

**Prerequisite:** --

**2 CrHr (2 LCT)**

**Description:** Theoretical and historical introduction to human rights, on the premise that a sound understand of contemporary practice and debates requires grounding in their historical and theoretical roots and foundations.

**UGA03 Arabic languages skills**

**Prerequisite:** --

**2 CrHr (2 LCT)**

**Description:** بعد الانتهاء من هذا المقرر يكون الطالب قادراً على إجادة مهارات اللغة وإعداد تقرير أو صياغة طلب باللغة العربية بأسلوب صحيح العربية التي تصقل أسلوب كتابته العرض و إعادة الصياغة ، مع تجنب الخطأ أو ، ولغة سليمة واستخدام اللغة العربية في غموض المعنى

**[2] Basic Sciences (Bioscience, Medical & Dental)**

**CHM111 Chemistry (1)**

**Prerequisite:** --

**2 CrHr (1LCT + 2LAB)**

**Description:** Study the periodic table and its elements, Gas laws, liquid and solid states, Solubility and solutions, chemical equilibrium, Thermodynamics and Analytical Chemistry atoms, molecules and ions. Atomic structure, electronic configuration also basic concepts of chemical bonding, stoichiometry (Mass and Moles of substance) and finally chemical reactions.

**CHM122 Chemistry (2)**

**Pre-requisite:** --

**2 CrHr (1 LCT+2 LAB)**

**Description:** The Course includes Organic Chemistry and Aromatic Compounds.

**BCM112 Biochemistry (1)**

**Prerequisite:** --

**2 CrHr (1 LCT+ 2 LAB)**

**Description:** This course deals with the basic principles and concepts of medical biochemistry. Protein structure and function, enzyme action, chemistry of carbohydrates, nutrition as vitamins and minerals, DNA and RNA structure and function.

**BCM 221 Biochemistry (2)**

**Pre-requisite:** BCM112

**2 CrHr (1 LCT+ 2 LAB)**

**Description:** This course covers metabolism of carbohydrates, lipids and protein, nucleic acids, hormones and second messengers and connective tissue biochemistry.



### **BPH111 Biophysics**

**Prerequisite:** --

**3 CrHr (2 LCT+2 LAB)**

**Description:** Heat and laws governing it, geometrical optics, physical optics, and types of dispersing system. Electricity, electric & magnetic flux. Modern physics. X-ray, laser, wave duality, and Properties of matter.

### **BOT111 Botany and genetics (1)**

**Prerequisite:** --

**2 CrHr (1 LCT + 2 LAB)**

**Description:** Basic information about the principles of genetics at the molecular level, gene structure, function and regulation in addition to cancer as a consequence of gene alterations. The practical study includes types of cell division and tissue organization in plants.

### **BOT122 Botany and Genetics (2)**

**Prerequisite:**--

**2 CrHr (1 LCT +2 LAB)**

**Description:** The structural, reproductive and nutritional features of the cellular forms of life. Representatives of sub-cellular life forms including gene and non-gene creatures are also considered. The practical study covers an introduction to plant anatomy, cell division and biodiversity.

After completing this course, students should be able to:

1. Describe DNA structure, function and gene technology.
2. Become familiar with the terminology of classical and molecular genetics.
3. Recognize a group of genetic disorders.
4. Practice light microscopy as a tool of investigating anatomical structures.

### **ZOL111 Zoology (1)**

**Prerequisite:**--

**2 CrHr (1 LCT +2 LAB)**

**Contents:** Branches of Zoology and the animal cells. Cell biology, histology, and physiology. Types of cell division, animal tissues, and the physiology of the various mammalian systems.

### **ZOL 122 Zoology (2)**

**Prerequisite:** --

**2 CrHr (1 LCT +2 LAB)**

**Description:** Nutrition, digestion, respiration, circulation, and the nervous systems.

### **MCR311 General Microbiology and Immunology (1)**

**Prerequisite:** **BOT122**

**2 CrHr (1 LCT +2 LAB)**

**Description:** Bacterial structure, physiology and genetics, Viral structure and function. The course also includes Bacterial and viral diseases of the respiratory tract, skin, GI tract, UG tract. Innate and adaptive immunity, Immune responses to infection, immunodeficiency and autoimmunity. Analyze major mechanisms of infectious disease and the resultant responses of the host. Evaluating virulence mechanisms.

### **MCR 322 Oral Microbiology and Immunology (2)**

**Prerequisite:** **MCR311**

**2 CrHr (1 LCT +2 LAB)**

**Description:** The course starts with Analysis of microbial diseases and progresses through viral diseases, candidacies, prior diseases ending with oral ecology/microbiology and periodontal diseases. Mucosal spread of disease and mucosal diseases, role of microorganisms in human dental diseases, and plaque related microbial diseases.



**ANT 211 Human Anatomy (1)**

**Prerequisite: --**

**3 CrHr (2 LCT +2 LAB)**

**Description:** An introduction to the anatomy of human body and its various systems, as well as embryology and development of the oral and maxillofacial region.

**ANT 222 Human Anatomy (2)**

**Prerequisite: ANT211**

**3 CrHr (2 LCT +2 LAB)**

**Description:** Study of the anatomy of the head and neck including muscles, blood and nerve supply bone and lymphatic drainage. The course also includes the study of salivary glands, tongue as well as nasal and maxillary sinuses.

**PHY 211 General Physiology (1)**

**Prerequisite:--**

**3 CrHr (2 LCT +2 LAB)**

**Description:** Introduction to physiology (Normal Function of the living organism in terms of its tissues, organs and systems. Blood constituents, Autonomic nervous system, Excitable tissues (nerve and muscle), and endocrinology

**PHY 222 General Physiology (2)**

**Prerequisite: PHY211**

**3 CrHr (2 LCT +2 LAB)**

**Description:** Functions and functional limits of various systems of the human body under variable physiological conditions. Circulatory, digestive, respiratory, urinary and central nervous system.

**HST 211 General and systemic Histology (1)**

**Prerequisite:--**

**2 CrHr (1 LCT +2 LAB)**

**Description:** study LM & EM structure of the nucleus, cell membrane, cell organelles, and **different** types of cytoskeletons. The course also includes the study of various tissues epithelial tissues as skin and membranes. Different connective cells and fibers and types of connective tissue proper cartilage, bone matrix and cells, blood vessels and blood cells

**HST 222 General Histology (2)**

**Prerequisite: HST211**

**2 CrHr (1 LCT +2 LAB)**

**Description:** The course studies the tissues of various human body systems as nervous, circulatory, lymphatic, digestive, endocrine and urinary systems.

**PTH 212 General Pathology (1)**

**Prerequisite: --**

**2 CrHr (1 LCT +2 LAB)**

**Description:** Course involves a study of the general pathology concepts, inflammation, degeneration and repair, neoplasm and others.

**PTH 321 General Pathology (2)**

**Prerequisite: PTH212**

**2 CrHr (1 LCT +2 LAB)**

**Description:** This course involves a study of the diseases of the various body systems as developmental, bone, circulatory, respiratory, digestive, endocrine, and immune and nervous systems. Different types of tumors will also be discussed.





**PHM 311 Pharmacology (1)**

**Prerequisite:** CHM122

**2 CrHr (1 LCT +2 LAB)**

**Description:** Principles of pharmacology to include drug names, pharmacokinetics, pharmacodynamics, routes of drug administration, therapeutic effects, indications and contraindications of drugs.

**PHM 322 Pharmacology (2)**

**Prerequisite:** PHM311 (co-req)

**2 CrHr (1 LCT +2 LAB)**

**Description:** Emphasis on antibiotics, anti-inflammatory, anti-fungal and local drugs related to dental conditions.

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**RDM 211 Dental Biomaterial (1)**

**Prerequisite:** --

**2 CrHr (1 LCT +2 LAB)**

**Description:** The basic properties of dental biomaterials. This includes the physical chemical and mechanical properties of metals, ceramics and polymers, surface chemistry of materials, the wetting of various tooth surfaces by different liquids and the properties of composites.

**RDM222 Dental Biomaterial (2)**

**Prerequisite:** RDM211

**3 CrHr (2 LCT +2 LAB)**

**Description:** Study the composition, properties and behavior of the various biomaterial systems that the dentist and dental technician, description of restorative materials, impression materials, denture base, model materials, endodontic and implant materials.

**OBD 111 Dental Anatomy (1)**

**Prerequisite:** --

**3 CrHr (1 LCT +4 LAB)**

**Description:** Study the principles of dental anatomy, normal anatomic, physiologic, and biomechanical relationships of the dental structures for diagnosis and treatment of oral pathology as it involves the dentition, identify, describe, and reproduce in drawings and wax, the morphology of permanent teeth from both an external perspective and a cross-sectional view, discuss the relationships between teeth and supporting structures.

**OBD 122 Dental Anatomy (2)**

**Prerequisite:** OBD111

**3 CrHr (1 LCT +4 LAB)**

**Description:** Study the principles of dental anatomy, normal anatomic, physiologic, and biomechanical relationships of the dental structures for diagnosis and treatment of oral pathology as it involves the dentition, identify, describe, and reproduce in drawings and wax, the morphology of permanent teeth from both an external perspective and a cross-sectional view, discuss the relationships between teeth and supporting structures.

**OB212 Oral Biology & Embryology**

**Prerequisite:** HST211

**3 CrHr (2 LCT +2 LAB)**

**Description:** The understanding of the microscopic structure of teeth and contiguous tissues and thereby provides an important source for decisions about dental treatments. The embryology segment gives the student an appreciation of the normal development of the major organ systems and some insight into the bases of craniofacial malformations.



**OB321 Oral Biology & Embryology (2)**

**Prerequisite:** HST222

**3 CrHr (2 LCT +2 LAB)**

**Description:** The microscopic structure and function of soft and hard tissues components of orofacial region, it includes the oral mucosa, salivary glands, the bony structure of maxilla and mandible. The embryology identifies the normal development of the major organ systems and some of craniofacial malformations, the structure and dynamic changes of alveolar bone and associated eruption and shedding mechanisms of teeth during growth and functioning.

**OPTH311 Oral Pathology (1)**

**Prerequisite:** OB212

**3 CrHr (2 LCT +2 LAB)**

**Contents:** Histopathology of oral lesions, oral white lesions, premalignant lesions, differences between benign & malignant tumor, salivary gland tumors. Examination, and abnormalities in the oral and maxillofacial region. Pathogenesis of apical, periapical and bone lesions. Clinical differential diagnosis using clinical, radiographic, microscopic or biochemical.

**OPTH322 Oral Pathology and Forensic Dentistry (2)**

**Prerequisite:** OB321

**3 CrHr (2 LCT +2 LAB)**

**Description:** This course presents the etiology, pathogenesis, clinical and radiographic appearance, treatment, and histopathology of local and systemic diseases that affect the oral & Para oral tissues. Diagnosis of developmental, inflammatory, metabolic, neoplastic and miscellaneous diseases.

Forensic dentistry, gives the student the ability to know about both dentistry & law & their relation Perform correct management, examination, evaluation & presentation of dental evidence in criminal or civil proceedings in the interest of justice

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**(3) Medical and Dental Sciences**

**(Didactic, Laboratory & Clinical)**

**GMD411 General Medicine, Dermatology & Venereal Diseases (1)**

**Prerequisite:** PHY222

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Diagnosis and treatment of systemic diseases, circulatory, digestive, respiratory, nervous and endocrine systems. The course also includes skin diseases and skin manifestations of various diseases. the oral manifestations of various diseases, the precautions needed to be taken during dental procedures for patients with certain systemic diseases, as well as the proper interpretation of laboratory findings & EKG's.

**GMD422 General Medicine, Dermatology & Venereal Diseases (2)**

**Prerequisite:** GMD411

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Diagnosis and treatment of systemic diseases, circulatory, digestive, respiratory, nervous and endocrine systems. The course also includes skin diseases and skin manifestations of various diseases. the oral manifestations of various diseases, the precautions needed to be taken during dental procedures for patients with certain systemic diseases, as well as the proper interpretation of laboratory findings & EKG's.



**GSR411 General Surgery, E.N.T. & Ophthalmology (1)**

**Prerequisite:** PHY222

**2 CrHr (1 LCT +2 CLNC)**

**Description:** General surgery, infection, wounds, burns, electrolytic balance, shock and blood transfusion. Neoplastic surgeries, surgeries of thyroid and salivary glands as well as emergency care.  
Ear, nose and throat, surgery of the nasal sinuses,  
Ophthalmology including eye surgeries and traumatic injuries as well as the relation between teeth and eye diseases

**GSR422 General Surgery, E.N.T. & Ophthalmology (2)**

**Prerequisite:** GSR411

**2 CrHr (1 LCT +2 CLNC)**

**Description:** General surgery, infection, wounds, burns, electrolytic balance, shock and blood transfusion. Neoplastic surgeries, surgeries of thyroid and salivary glands as well as emergency care.  
Ear, nose and throat, surgery of the nasal sinuses,  
Ophthalmology including eye surgeries and traumatic injuries as well as the relation between teeth and eye diseases.

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**OMR312 Dental Radiology**

**Prerequisite:** ANT222

**2 CrHr (1 LCT +2 LAB)**

**Contents:** Radiation physics and biological effects of radiation. It provides the students with detailed description of x-ray machine, digital radiography, and different intra- and extra-oral techniques. Also, the student will be educated how to interpret different x-rays together with anatomical landmarks and to identify radiographic artifacts to differentiate from pathologic conditions.

**OMD 411 Oral Medicine and Diagnosis (1)**

**Prerequisite:** OPTH 322

**3 CrHr (2 LCT +2 CLNC)**

**Description:** Fundamentals of oral diagnosis as concern both intra-oral extra-oral examination and systemic background using all scientific tools and methods via chief complaints and history of the lesions. Differential diagnosis and laboratory investigations as, radiographs, Blood, bleeding disorders. Complications and how to avoid it during the dental management.

**OMD 422 Oral Medicine (2)**

**Prerequisite:** OMD411

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Etiology and oral manifestations of common vesiculobullous ulcerative lesions, oral red, white lesions affecting the oral cavity and various skin manifestation associated with this lesion. Differential diagnosis, management of such lesions, and management of this lesions explaining the complications that might occur upon them.

**OMD531 Oral Medicine (3)**

**Prerequisite:** OMD422

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Endocrinal diseases and the associated oral lesions (the effects of the hyperfunction and hypofunction of the endocrinal glands). Complications & Management of Diabetes mellitus, Dental management of patients with cardiovascular, bleeding and clotting disorders.



**OMD 542 Oral medicine (4)**

**Prerequisite:** OMD531

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Classifications and differential diagnosis of pigmented lesions affecting the oral cavity. Tuberculosis, ulcers and syphilis, various form of diseased teeth, and oral manifestations affecting HIV patients. Basic immunology and classification of immunologic diseases, which might have intra oral manifestations.

**PI411 Periodontology (1)**

**Prerequisite:** OB 321

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Criteria and histology of normal periodontium and gingiva. Classification of periodontal diseases, bacteria involved in periodontal diseases, etiology with theories of dental plaque formation. Immunity and inflammation, together with different microbial interactions, instruments used for periodontal treatment and surgery.

**PI422 Periodontology (2)**

**Prerequisite:** PI411

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Classification and theories of formation of dental calculus. Local and systemic predisposing factors of periodontal diseases and their specific effect periodontal infection on systemic health.

**PI 531 Periodontology (3)**

**Prerequisite:** PI422

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Periodontal and gingival pathology. periodontal diseases with special emphasis on diagnosis, prognosis and treatment plan for each disease. Chemical plaque control. Using different periodontal surgical instruments, ultrasonic scalers, manual supra and subgingival scaling and root planning.

**PI542 Periodontology (4)**

**Prerequisite:** PI531

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Conventional and recent advances in management and treatment of periodontal diseases. Guidelines of resective and reconstructive periodontal and mucogingival surgeries using different types of bone grafts.

**OS411 Local Anesthesia & pain control**

**Prerequisite:** ANT 222

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Pharmacology, administration and Techniques (oral, inhalation, intravenous) of local anesthesia. Anatomy, physiology and nerve conduction of the oral-facial region Pharmaco-dynamics and metabolism of local anesthetics. Acute pain and dental fear control. Complications of Local Anesthesia (Local & Systemic) & office emergencies.



### **OS422 Oral Exodontia**

**Prerequisite:** OS411

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Exodontia: Indications & Precautions of tooth/root removal; Patient's clinical & radiographic evaluation; & factors complicating extraction. Forceps extraction of teeth (Intra-alveolar Extraction). Elevators extraction & root removal: types, indication & precautions. Surgical removal of teeth & roots (Trans-alveolar extraction). Impacted teeth: indications, contraindications, classifications, basic surgical steps & armamentarium, modified techniques for maxilla, mandible, & aberrant positions. And complications of oral surgery & Exodontia

### **OS531 Oral & Maxillofacial Surgery & Dental Implants**

**Prerequisite:** OS422

**3 CrHr (2 LCT +2 CLNC)**

**Contents:** Salivary gland diseases: anatomical factors, special diagnostic aids, mucocele, ranula, sialolithiasis, Xerostomia, syndromes and tumors. Maxillary sinus Involvement: Odontogenic & non-Odontogenic infections, antral pathology, & management of maxillary sinusitis. Oral, Face, & Neck infections: microbiology, pathogenesis, dento-alveolar abscess, spread & fascial space infections, serious complications of infection, management, fate of infection, & basics of Antibiotic therapy. Pre-prosthetic surgery: bony abnormalities, soft-tissues abnormalities, ridge augmentation, & sulcus deepening. Oral Implantology, Replantation and Transplantation.

### **OS 542 Oral & Maxillofacial Surgery & General Anesthesia**

**Prerequisite:** OS531

**3 CrHr (2 LCT +2 CLNC)**

**Contents:** Management of traumatic injuries to the maxillofacial region (Fractures of the mandible & middle third of facial skeleton) types, clinical & radiographic diagnosis, & techniques for management. Maxillofacial pathology (Cysts, Benign & Malignant tumors). TMJ disorders and jaw deformities. Orthognathic surgery for maxilla & mandible, osteoarthritis, ankylosis, and dislocation. General Complications of oral surgery. Management of Osseous Defects. **And** principles of sedation & General anesthesia.

### **RD311 Restorative Dentistry (1)**

**Prerequisite:** RDM222

**3 CrHr (1 LCT +4 LAB)**

**Description:** Basic principles of cavity preparation, treatment planning of diseased or damaged tooth to proper function and esthetics. Control using hand instruments and hand pieces, prepare occlusal, facial and lingual, and restore prepared cavities with dental amalgam in Phantom lab.

### **RD322 Restorative Dentistry (2)**

**Prerequisite:** RD311

**3 CrHr (1 LCT +4 LAB)**

**Description:** preparation of Class II, III, IV, V and MOD cavities, cement basing and luting, proper selection and use of restorative materials, dental matrices and restore prepared cavities with dental amalgam, inlays, composite and glass ionomer in Phantom lab.



**RD431 Restorative Dentistry (3)**

**Prerequisite:** RD322

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Dental chair & operator position, Patient assessment Examination and diagnosis, Caries assessment & management. Moisture control in operative dentistry. Temporization and Glass ionomer restoration.

**RD 442 Restorative Dentistry (4)**

**Prerequisite:** RD431

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Selection of the suitable restorative materials, Caries assessment & management. Composite as an anterior and posterior restorative material, and shade selection.

**RD 551 Restorative Dentistry (5)**

**Prerequisite:** RD442

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Restoration of badly destructed teeth, esthetic consideration in operative dentistry, mechanism and factors affecting bonding to tooth structure. Problem solving and dealing with different types of patient's regarding their satisfaction. And using several materials as choices to restore different defects.

**RD 562 Restorative Dentistry (6)**

**Prerequisite:** RD551

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Management of non-carious lesion, indirect esthetic restoration, failure of restoration, repair of restoration, and modern advances in restorative dentistry

**RDE 312 Endodontics (1)**

**Prerequisite:** RD311

**2 CrHr (1 LCT +2 LAB)**

**Description:** The biology, Pulp space Anatomy of all teeth with their abnormalities, pathology, diagnosis, treatment, and outcome of dentin-pulp complex and pulpal-related peri radicular pathology. Preclinical laboratory component covers endodontic treatment techniques on extracted teeth from different tooth groups as practice for clinical cases. Students will learn to deal with clinical procedures particular to endodontics,

**RDE 421 Endodontics (2)**

**Prerequisite:** RDE312

**2 CrHr (1 LCT +2 LAB)**

**Description:** diagnosis of endodontic case, Preparation, obturation, diagnosis and treatment of endodontic emergencies and surgical management of endodontic problems. The basic techniques and hand skills required for beginning endodontic practice in the clinic.

**RDE 432 Endodontics (3)**

**Prerequisite:** RDE421

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Endodontic radiography, vital pulp therapy, management of the open apex, endodontic emergency treatment, and traumatic emergency





**RDE 541 Endodontics (4)**

**Prerequisite:** RDE432

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Root resorption, endodontic periodontal relations, non-surgical management of teeth with periradicular lesions, periradicular surgery, tooth discoloration and bleaching

**RDE552 Endodontics (5)**

**Prerequisite:** RDE541

**2 CrHr (1 LCT +2 CLNC)**

**Description:** Endodontic mishaps, detection, correction, and prevention. Nickel titanium rotary instruments. Restorations of endodontically treated teeth. Ultra sonic endodontics. Outcome of endodontic treatment and retreatment. And endodontic pharmacology.

**FPR311 Fixed prosthodontics (1)**

**Prerequisite:** RDM222

**2 CrHr (1 LCT +2 LAB)**

**Description:** The principles and techniques of tooth preparation for fixed prosthodontics, fabrication of provisional restorations, full veneer crown preparation, classification of impression materials, Alginate impression, fabrication of metal-ceramic crowns and all ceramic crowns.

**FPR322 Fixed prosthodontics (2)**

**Prerequisite:** FPR311

**2 CrHr (1 LCT +2 LAB)**

**Description:** Identify the biomechanical principles of tooth preparation. Extra-coronal single teeth restorations, preparation of full veneer crowns, metal-ceramic crowns and all ceramic crowns. Fabrication of

provisional restorations. and classification of impression materials for crown restorations. Alginate impression

**FPR431 Fixed Prosthodontics (3)**

**Prerequisite:** FPR322

**2 CrHr (1 LCT +2 CLNC)**

**Description:** the biomechanical principles of tooth preparation, planning and designing restoration of missing teeth and endodontically treated teeth with fixed prostheses. Preparation of full veneer, metal-ceramic and all ceramic crowns, classify impression materials, working cast, fabrication of provisional restoration, try in and final cementation.

**FPR442 Fixed Prosthodontics (4)**

**Prerequisite:** FPR431

**2 CrHr (1 LCT +2 CLNC)**

**Description:** General fundamentals in treatment planning, indications, material selection, and fabrication of esthetic veneer restorations for fixed prostheses

Designs of resin-bonded ultraconservative prostheses and resin or ceramic veneered fixed prostheses. Color applications in esthetic restorations and shade selection.

**FPR551 Fixed Prosthodontics (5)**

**Prerequisite:** FPR442

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Indications, contraindications, and different types of all ceramic restorations. Different systems for construction of machined ceramic restorations. Indications, tooth preparation & cementation procedures for porcelain laminate tooth preparation. Writing instructions for laboratories and occlusal registration, diagnostic wax-ups, and the use of semi-adjustable articulators and face bows.



**FPR562 Fixed Prosthodontics (6)**

Prerequisite: **FPR551**

**3 CrHr (1 LCT +4 CLNC)**

**Description:** Periodontal and esthetic considerations into the scope of current dental practice. Post insertion care and follow up in fixed prosthodontics. Bridge removal and Bridge repair. Failure in fixed prosthodontics, bridge removal and Bridge repair. And prosthetic aspects of dental implants.

**RPR311 Removable Prosthodontics (1)**

Prerequisite: **RDM222**

**4 CrHr (2 LCT +4 LAB)**

**Description:** Study of maxillary and mandibular landmarks, impression trays and materials, jaw relations and face bow. Then acrylic complete denture construction starting from mounting of the models on articulators, selection and setting of teeth, waxing, flasking, packing and curing of Poly Methyl methacrylate, finishing and polishing of the deflasked dentures, also demonstrate and explain possible defects in cured dentures and how to avoid them, repair and relines of dentures.

**RPR322 Removable Prosthodontics (2)**

Prerequisite: **RDM222**

**4 CrHr (2 LCT +4 LAB)**

**Description:** Removable Partial Denture “RPD” construction, surveying and its principle, different types of metallic RPD’s, their designs and the mechanical principles of designing. Fabrication of working models, duplication, waxing, investing and casting. As well as acrylic partial dentures, design, advantages and disadvantages.

**RPR431 Removable Prosthodontics (3)**

Prerequisite: **RPR311, PRP322**

**4 CrHr (2 LCT +4 CLNC)**

**Description:** Examine, diagnose & clinical removable prosthodontics treatment for completely edentulous patients. Importance of mechanical and biological factors for the success of complete dentures. Diagnosis & treatment of the post insertion complains. Relining, rebasing and repairing old dentures.

**RPR 442 Removable Prosthodontics (4)**

Prerequisite: **RPR431**

**4 CrHr (2 LCT +4 CLNC)**

**Description:** Examine, diagnose & design partially edentulous patients. The biological and mechanical considerations required designing, constructing and maintaining removable partial denture. Diagnose & treat the post insertion complains. Reline and repair old dentures

**RPR511 Removable Prosthodontics (5)**

Prerequisite: **RPR442**

**4 CrHr (2 LCT +4 CLNC)**

**Description:** The basic clinical management of completely or partially edentulous patients with special prosthetic designs. Propose a treatment plan based on clinical findings and on the patient’s condition.





**RPR 562 Advanced removable Prosthodontics (6)**

**Prerequisite:** RPR551

**4 CrHr (2 LCT +4 CLNC)**

**Description:** The basic principles of maxillofacial prosthodontics, materials and techniques necessary for the fabrication of maxillofacial prosthetics and nomenclature, classification, Maxillary defects, prosthetic, radiographic therapy, splints and stents, Removable prosthesis over implants and different types of attachments.

**OR 411 Orthodontics (1)**

**Prerequisite:** ANT222

**2 CrHr (1 LCT +2 LAB)**

**Description:** The basic information in orthodontics, craniofacial growth and development, development of normal occlusion, malocclusion; definition, forms and etiology, serious sequels of untreated malocclusion, ending with best timing of patient referral, and practicing the basic components of orthodontic appliance.

**OR 422 Orthodontics (2)**

**Prerequisite:** OR411

**2 CrHr (1 LCT +2 LAB)**

**Description:** Foundation of orthodontic procedure, interpretation of orthodontic records; photographs, casts, panoramic and lateral cephalometric, biology of tooth movements and types of forces used to move teeth, preventive and interceptive methods for malocclusions, and different treatment protocols.

**PDCD 511 Pediatric Dentistry (1)**

**Prerequisite:** RD 442, RDE 432

**4 CrHr (2 LCT+4 CLNC)**

**Description:** Principles of clinical care of children and adolescents concerning development and psychology, and behavior modification techniques. Fundamentals of restorative and preventive techniques unique to children.

*Pre-requisite: RD442, RDE 432*

**PDCD 522 Pediatric dentistry (2)**

**Prerequisite:** PDCD511

**4 CrHr (2 LCT+4 CLNC)**

**Description:** Treatment plan for a child dental patient, developmental anomalies, traumatic injuries and their treatment protocol. Management of children with special health care needs, medically compromised children as well as management of medical emergencies. Nonnutritive oral habits in children.

*Pre-requisite: PDCD 511*

**PDCD531 Community Dentistry (1)**

**Prerequisite:** CD312

**2 CrHr (1 LCT+2 TUT)**

**Description:** Definition and core functions of public health, principles of epidemiology, types of studies, the main factors determining distribution of disease among population and different methods to measure a particular condition in a population.



### **PDCD542 Community & Preventive Dentistry (2)**

**Prerequisite:** PDCD531

**2 CrHr (1 LCT+2 TUT)**

**Description:** Definition preventive dentistry, levels of prevention, fluoride in environment and uptake by man, fluoride toxicity, uses & application of fluoride. Sealant application. And measures to prevent caries & periodontal diseases.

### **CD312 Dental Clinic Management & Infection Control**

**Prerequisite:** --

**2 CrHr (1 LCT +2 TUT)**

**Description:** Definition of infection control, common infections in dentistry, vaccinations, hand hygiene, personal protective equipment, different types on sterilization and disinfection, definition of dental waste and how to manage each type.

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#### **Elective courses:**

### **ELC01 The Ethics of Dentistry**

**Prerequisite:** -

**2 CrHr (1 LCT+2 TUT)**

**Description:** The purpose of this course is to provide students with knowledge of the evolution of dentistry to acquaint students with the interrelationships of dentistry, medicine and science and to acquaint students with the dentistry's many contributions to human well-being in order to heighten ethical and professional responsibility.

### **ELC02 Forensic Dentistry**

**Prerequisite:** -

**2 CrHr (1 LCT+2 TUT)**

**Description:** Students are introduced to basic procedures in identification of a human body based on hereditary and acquired dental characteristics. They are introduced to the effects of law in dental practice and to identifying victims especially in mass disasters. The course emphasizes on the importance of taking records of the patients and preserving them.

### **ELC03 Dental Photography**

**Prerequisite:** -

**2 CrHr (1 LCT+2 TUT)**

**Description:** This free course will cover all aspects of the use of digital photography in dental practice: intraoral, extraoral, and portraits. Participants will be taken through photograph, from the basics of choosing correct equipment and setting it up, to optimum settings, techniques for consistent imaging and the safe storage of images.

# Faculty Regulations



## 7. Admission Requirements:

- Students must hold the Egyptian high school certificate, or an equivalent certificate accepted by the Supreme Council of Egyptian Universities.
- Students are nominated for admission to the faculty according to the rules of the Supreme Council of Private Universities.
- Foreign students are nominated for admission to the faculty according to the general regulations of the ministry of higher education.
- Students must fulfill all requirements and comply with the rules of the faculty.
- Full-time study is a requirement for all students.

## 8. Regulations rules for program course completion

Students may transfer from accredited Egyptian, foreign, private or governmental faculties of dentistry, to, Pharos University under the following conditions:

- Students must have at least 2.0 cumulative GPA.
- Required curricula passed by the student at original university that have counterparts at Pharos University will be considered for accreditation.
- Grades of Egyptian high school certificate or equivalent degrees are not less than what was determined by the University council.
- Students must spend **at least 6 semesters** at Pharos University (~50% of total CHs)

### a. Faculty Education System

- English is the language of instruction.
- All faculty courses are assigned a credit hour value. Generally, each one hour lecture is equivalent to one credit (**1 LCT=1 CH**). Two to three hours laboratory/clinical session per week, are equivalent to one credit (**2-3 LAB/CLNC=1 CH**), unless otherwise specified by the degree plan.
- The academic year is divided into three terms (Fall, Spring, and Summer). The fall and spring terms are 15 weeks each, while the summer term is only six weeks.
- Selected courses by the faculty may be offered in the summer term in which students can register in not more than three courses, according to the regulations of the faculty.
- To obtain the BDS degree, undergraduates are required to pass successfully at least **209** credit hours.
- Successful candidates may terminate the full requirements in 5 academic years.



### *b. Academic Advising*

Advisors are expected to:

- Decide with each student, individually, his/her class sheet for each semester before registration.
- Follow-up student's performance/attendance during each semester, 3 meetings are held during each semester.
- Help and solve academic and/or behavioral problems, if any.
- Approve on course dropping, adding or withdrawal at assigned dates.
- Customized study plan designed for each student with on probation status until his/her GPA is raised and status change to regular.
- Templates for academic advising are provided from the University, they are recorded and uploaded to the blackboard platform.

### *c. Registration Procedure*

#### *1. Regular Registration*

Students are required to register at the beginning of each semester during the assigned registration period. Candidates select courses with the consultation of the academic advisor who must approve their workload before registration. The registration department issues a regulation bulletin as well as the procedures to be followed.

#### *2. Late registration*

Candidates are allowed to register with maximum two weeks after the registration deadline, with the approval of the dean of the faculty.

#### *3. Adding and dropping subjects*

Candidates may add or drop a course during the period announced on the timetable of each semester as long as his/her work load remains within the permitted load limit

### *d. Withdrawal*

Candidates have the right to withdraw from an academic semester within the withdrawal period announced on the academic calendar of the semester.

### *e. Attendance*

If the student's attendance is **below 75%** of the total number of hours in any course throughout the semester (with or without excuse) he/she are forced to withdraw (**FW**) from the course.

### *f. Worksheets*

Curriculum requirements leading to graduation are recorded on a worksheet kept in the student's folder. Worksheets are available in the registration office.



## Grading system



## 9. Examinations and Grading System

### *a. Examinations:*

1. The final grade awarded to the student in a course is usually based on the sum of the course work, quizzes, mid-term and final grade exam of each semester.

Grades are distributed as follows:

|            |                      |
|------------|----------------------|
| <b>10%</b> | <b>Quiz</b>          |
| <b>20%</b> | <b>Mid-term exam</b> |
| <b>20%</b> | <b>Assignments</b>   |
| <b>50%</b> | <b>Final exam</b>    |

2. Each credit is allotted a total of 100 points.
3. The pass mark for each course is 60% (conditional pass mark is 50%)
4. A student can register a maximum of 7 hours for a summer session or a maximum of 9 hours in case of graduation or excellent students with GPA above 3.5, and 5 hours for on probation students.

### *b. Grading System:*

| Grade            |                | Numerical Average | Grade Points |
|------------------|----------------|-------------------|--------------|
| Excellent        | A              | $90 \leq X < 100$ | 4.0          |
| Excellent        | A-             | $85 \leq X < 90$  | 3.7          |
| Very good        | B <sup>+</sup> | $80 \leq X < 85$  | 3.3          |
| Very good        | B              | $75 \leq X < 80$  | 3.0          |
| Good             | B <sup>-</sup> | $70 \leq X < 75$  | 2.7          |
| Good             | C <sup>+</sup> | $65 \leq X < 70$  | 2.3          |
| Pass             | C              | $60 \leq X < 65$  | 2.0          |
| Pass Conditional | C <sup>-</sup> | $56 \leq X < 60$  | 1.7          |
| Pass Conditional | D <sup>+</sup> | $53 \leq X < 56$  | 1.3          |
| Pass Conditional | D              | $50 \leq X < 53$  | 1.0          |
| Fail             | F              | $X < 50$          | 0.0          |



| The numerical and symbolic indicators of grades and course evaluations |        |                     |
|--|--------|---------------------|
| Grade  | points | Indication          |
| NE   | 0.0    | No excuse absence   |
| DN   | 0.0    | Deny                |
| I  | -      | Incomplete          |
| IP   | -      | In Progress         |
| W  | -      | Withdrawal          |
| FW   |        | Forced Withdrawal   |
| MW   |        | Military Withdrawal |
| AU   |        | Audit               |
| NP   |        | Satisfactory        |
| NF   |        | Unsatisfactory      |

- Student receives **(BL)** if he/she didn't pass <30% in the final written exam paper.
- Student receives **(NE)** no or non-approved excused absence in the final examination, in a course if he/she does not attend the final examination in that course. Grades NE is a failing grade and carry no grade points.
- Student receives **(DN)** if he or she is accused of cheating during the exam
- Student receives **(I)** in case of an incomplete course. In case of serious circumstances, a student may postpone attending the final examination of a course(s) till the following semester with the approval of the Faculty Council.
- Grade **(W)** is withdraw. Student has the right to withdraw from an academic semester within the withdrawal period announced on the academic calendar of the semester.
- Grade **(FW)** is forced to withdraw. If the student's attendance is below 75% of the total number of hours in any course throughout the semester (with or without excuse)
- Grade **(MW)** military withdraw
- Grade **(AU)** auditory, student can register and attend the course only as a listener with no assessments or grading.

The **(NP and NF)** Pass/fail assessments if course is not graded, they were implemented for certain courses during the COVID-19 pandemic.





### Grade-Point Average

The current grade-point average (Current GPA) and the cumulative grade-point average (Cumulative GPA) are calculated as indicated below:

Example:

| Course  | Credit Hours | Grade          | Grade Point | Quality Point |
|---------|--------------|----------------|-------------|---------------|
| Title 1 | 3            | A              | 4           | 12            |
| Title 2 | 3            | B <sup>-</sup> | 2.7         | 8.1           |
| Title 3 | 4            | A <sup>-</sup> | 3.7         | 14.8          |
| Title 4 | 3            | C              | 2           | 6             |
| Title 5 | 2            | NE             | 0           | 0             |
| Title 6 | 3            | F              | 0           | 0             |
|         | <b>18</b>    |                |             | <b>40.9</b>   |

Therefore, the current GPA =  $40.9/18 = 2.272$

The current GPA is an average determined by weighting each grade awarded during a one term study

- Academic workload for students after spending 2 academic semesters in the university.

| CGPA                    | Number of CrHr the student can register  |
|-------------------------|--|
| $1.65 \leq \text{CGPA}$ | Full load according to the study plan  |
| $1.65 > \text{CGPA}$    | Student's status is: <b>On probation</b><br>1 <sup>st</sup> academic warning is sent, and registered CrHr is done as per the following table |

- A student is considered under academic probation if he/she records less than 2.0 cumulative GPA, for 2 subsequent academic years.
- A student must raise his/her GPA in the first year and by the end of the second semester, he/she must record 2.0 cumulative GPA.
- A student under academic probation must meet his/her academic advisor regularly to follow up his/her academic performance and solve difficulties as they may arise.



### ❖ Workload for students after spending 3 semesters in the university

| CGPA                           | Number of the student is allowed registered | Courses to be registered              |                                      |  |
|--------------------------------|---|---------------------------------------|--------------------------------------|--|
|                                |   | Courses the student failed to pass in | Courses the student will re-register | New courses the student will register for the 1 <sup>st</sup> time |
| <1                             | 12 CH                                       | Registered first                      | D, D+, C-                            | Not allowed  |
| $1 \leq \text{CGPA} < 1.5$     | 12 CH                                       | Registered first                      | D, D+, C-                            | 1 New course (Max 3CrHr)   |
| $1.5 \leq \text{CGPA} < 1.65$  | 15 CH                                       | Registered first                      | D, D+, C-                            | 3 new courses (Max 9CrHr)  |
| $1.65 \leq \text{CGPA} < 1.95$ | 15 CH                                       | Registered first                      |                                      | 4 new courses (Max 12 CH)  |
| $1.95 \leq \text{CGPA}$        | CH as in the study plan                     | Registered first                      |                                      | According to the study plan  |
| $3.5 \leq \text{CGPA}$         | CH as in study plan + 3 CH                  |                                       |                                      |  |
| Senior graduating students     | CH as in study plan + 3 CH                  |                                       |                                      |  |

### Student Suspension and Re-registration

- Students who spent more than 2 semesters at the university with CGPA <1.67 will receive their first academic warning and a customized study plan will be made with workload according to the previous table, if the CGPA is not raised above 2.0 he/she receives a second academic warning, this is repeated for maximum 3 warnings. If the student fails to obtain 2.0 GPA at the end of the academic probation, he/she is suspended from attending the faculty.
- A student may submit a petition explaining circumstances that caused failure of recording 2.0 GPA cumulative.
- University Council may allow re-registration on conditions that help the students to proceed for graduation. Otherwise, student must change his faculty.

### Course Repeat for Students

- Approval of the Academic Advisor and Faculty Council are required.
- Final grade is based on the better score.
- Both grades are shown in transcript.



### **Graduation Requirements**

- Students must fulfill the attendance requirements for practical and clinical training for each course.
- Students are required to pass all courses offered in the curriculum with a minimum grade “D”.
- A cumulative GPA of minimum 2.0 is required
- If a student transferred from another university, he/she must spend at least 6 academic semesters at Pharos University in order to obtain the degree, which is equivalent to around 50% of the total credit hours.

### **Graduation Honors**

- High Honor: First class honor, when a student records 3.7 or higher CGPA.
- Honor: Second class honor, when a student records 3.3 to less than 3.7 CGPA.

### **Internship Training/Rotation**

- Internship year of rotational training is required to practice dentistry.
- Interns may obtain all their training at the faculty clinics, with minimum of 1 rotation (3months) spent at faculty clinics.
- Student’s rotation schedule is settled via the faculty with the appropriate MOH hospitals.

### **Academic Plan**

- Faculty of Dentistry has developed an innovative program that meets the current and future needs of dentistry.
- Curricula and courses offered are presented in detail using the given course coding system.

#### ***Course Coding System***

The course starts with a certain abbreviation related to the subject followed by a 3-digit number like Chemistry ...CHM

#### ***The 3-digit number***

Classified as follows:

- First digit refers to the academic year
- Second digit refers to levels of field of specialization
- Third digit refers to the semester



## Student Evaluation



**10. Methods and Rules of Student's Evaluation:**

| <b>Methods</b>                                | <b>Program Intended Learning Outcomes</b>   |
|---|---|
| Written exams                                 | Knowledge & Understandings,<br>Intellectual Skills<br>Professional and Practical skills                                   |
| Oral exams                                    | Knowledge & understanding,<br>Intellectual Skills<br>Professional and Practical skills<br>General & Transferrable skills  |
| Practical exams                               | Knowledge & understanding,<br>Intellectual Skills<br>Professional and Practical skills,<br>General & Transferrable skills |
| *Research projects                            | Knowledge & Understandings,<br>Intellectual Skills,<br>Professional skills<br>General & Transferrable skills              |
| Research reports                              | Knowledge & Understandings,<br>Intellectual Skills,<br>General & Transferrable skills                                     |
| *Comprehensive Clinical Case (CCC) assessment | Knowledge & Understandings,<br>Intellectual Skills,<br>Professional & Practical skills<br>General & Transferrable skills  |



## Comprehensive Clinical Case (CCC) and Research Projects

The CCC treatment program and senior student research projects were pioneering initiatives at PUA. These components aim to cultivate scientific inquiry, innovation, and practical clinical skills.

### 1- CCC Treatment Program

Students engage in comprehensive treatment of diverse cases spanning multiple dental specialties. Equipped with advanced diagnostic tools like endomicroscopy, CBCT, CAD-CAM, and a dedicated dental implant unit, students develop and execute comprehensive treatment plans. Our state-of-the-art digital lab houses cutting-edge technology, including Exocad, milling machines, oral and disc scanners, and a 3D printer, enabling students to fabricate restorations on-campus.

A professional academic committee, chaired by the faculty dean and comprising university professors from various specialties, evaluates treatment plans prior to implementation. CCC grades contribute to the overall assessment in five core courses (Operative Dentistry, Endodontics, Fixed Prosthodontics, Removable Prosthodontics, and Periodontology), weighted according to course credit hours.

Upon treatment completion, students present their work to internal and external examination committees composed of faculty and external experts. Final grades are determined following rigorous clinical evaluation.

The CCC program offers significant social impact by providing treatment to underserved patients, with students assuming treatment costs. This initiative also enhances public dental health awareness.

### 2- Senior Student Research Projects

Fifth-year students undertake original research projects under faculty mentorship, adhering to rigorous scientific methodologies. Research topics encompass various dental disciplines. Upon completion, projects undergo evaluation by a committee of internal and external experts. Research grades contribute to the overall assessment in the five core courses.

This research component fosters critical thinking, problem-solving, and technological proficiency, preparing students for professional practice, advanced studies, and research careers.

An annual ceremony recognizes outstanding CCC cases and research projects, with awards presented to top performers.

## Methods in teaching strategy vs Program ILOs

| Teaching and Learning Strategy | Knowledge |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
|--------------------------------|-----------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|                                | A1        | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | A10 | A11 | A12 | A13 | A14 | A15 | A16 |
| Traditional                    |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Problem solving                |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Site visit/ report             |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Self learning assignment       |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Flipped classroom              |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Group discussion               |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Projects                       |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Tutorials                      |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Case studies                   |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Videos                         |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Cooperative learning           |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Team competitive learning      |           |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |

| Teaching and Learning Strategy | Intellectual Skills |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
|--------------------------------|---------------------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
|                                | B1                  | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | B15 |
| Traditional                    |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Problem solving                |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Site visit/ report             |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Self learning assignment       |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Flipped classroom              |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Group discussion               |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Projects                       |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Tutorials                      |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Case studies                   |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Videos                         |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Cooperative learning           |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |
| Team competitive learning      |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |



| Teaching and Learning Strategy | Professional Skills |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
|--------------------------------|---------------------|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
|                                | C1                  | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | C16 | C17 |
| Traditional                    |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Problem solving                |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Site visit/ report             |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Self learning assignment       |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Flipped classroom              |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Group discussion               |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Projects                       |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Tutorials                      |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Case studies                   |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Videos                         |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Cooperative learning           |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |
| Team competitive learning      |                     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |

| Teaching and Learning Strategy | General Skills |    |    |    |    |    |    |    |
|--------------------------------|----------------|----|----|----|----|----|----|----|
|                                | D1             | D2 | D3 | D4 | D5 | D6 | D7 | D8 |
| Traditional                    |                |    |    |    |    |    |    |    |
| Problem solving                |                |    |    |    |    |    |    |    |
| Site visit/ report             |                |    |    |    |    |    |    |    |
| Self learning assignment       |                |    |    |    |    |    |    |    |
| Flipped classroom              |                |    |    |    |    |    |    |    |
| Group discussion               |                |    |    |    |    |    |    |    |
| Projects                       |                |    |    |    |    |    |    |    |
| Tutorials                      |                |    |    |    |    |    |    |    |
| Case studies                   |                |    |    |    |    |    |    |    |
| Videos                         |                |    |    |    |    |    |    |    |
| Cooperative learning           |                |    |    |    |    |    |    |    |
| Team competitive learning      |                |    |    |    |    |    |    |    |





# Program Development and Continuous Improvement



### 11. Methods of Program Evaluation:

| Evaluator   | Tool   | Sample                                   |
|---|--|--|
| Senior Students   | Questionnaires and periodic meeting  | Questionnaires 20%                       |
| Graduates   | Questionnaire and periodic meeting   | Questionnaires 20%                       |
| Stakeholders (employers)  | Questionnaire and periodic meeting   | One meeting / year                       |
| <b>Internal Evaluator</b> <ul style="list-style-type: none"> <li>• Quality Assurance Center (QAC) at PUA</li> <li>• Internal auditing committee of Quality Assurance Unit (QAU) at the faculty</li> </ul> | Reviewing of the specifications and matrices of the program and the courses according to the bylaw and new updates approved by the University. | Continuous revisions, and annual reports |

### Development and Improvement:

- **Program Development Committee:** Continuously gathering feedback from departments, students, committees...etc., to enhance the program, staying updated on dental education trends, and adhering to relevant regulations. Continuous process and annual reports are presented.
- **Bylaws development committee:** Preparing proposal for by laws update, Benchmarking: A tool for improving the program development, performance and strategies via comparing the current program to others in equivalent universities in terms of standards, core competencies and best practices towards the fulfilment of program goals.  
A comparative analysis has been done between PUA dental program against 10 equivalent universities (Public, national, international and private) inside and outside Egypt focusing on total credit hours, newly taught courses, elective and university required courses in each university.



**Program Coordinator:**

**Vice dean of Academic and student affairs**

**Prof. Dr. Mervat Khalil**

**Signature:**

**Under supervision of:**

**Dean Faculty of Dentistry**

**Prof. Dr. Amr Abdallah**

**Signature:**

**DATE OF APPROVAL**

**10 September 2024**