

Course Description

Course Title	Brief Description
English Language	This course aims to empower dental students with the essential abilities for achieving excellence in both spoken and written English communication, establishing a strong foundation for effective professional discourse. Furthermore, it provides an intensive study of the writing process, with a particular emphasis on organizing ideas effectively within cohesive expository and persuasive essays. The primary objective is to broaden vocabulary and elevate proficiency in constructing articulate responses during examinations.
Arabic Language	This course is tailored to meet the unique needs of first-year dental students, providing them with a strong foundation in the Arabic language. The course also introduces dental students to Arabic culture in particular the UAE cultures. This course enhances their communication skills and cultural competence in order to provide high-quality care to Arabic-speaking patients.
Biostatistics	This course serves as an introduction for dental students to the fundamentals of statistics and the concepts underlying the design and analysis of clinical trials. The systematic and critical evaluation of trial design, analysis methods, and the resulting outcomes constitutes the cornerstone for drawing conclusions regarding the effectiveness of various treatment approaches. These conclusions, in turn, serve as the foundation for establishing evidence-based guidelines in clinical practice.
Information technology in Scientific Communication	This course aims to equip dental students with the essential IT skills needed to develop effective literature search, scientific writing, and presentation skills. It intends to enable the students to understand the various types of scientific literature available, perform an effective literature search, write a review on a scientific topic, prepare effective tables and graphs and present effective oral and poster presentations. Through a combination of hands-on exercises, interactive lectures, and practical applications, students will gain proficiency in harnessing the power of information technology to enhance their research processes. The student will be made aware of plagiarism as well.
Thinking skills	This course is an introduction to the main thinking skills and strategies. A brief definition of thinking and intelligence will be considered. Students will study and exercise critical and creative thinking skills. They will also apply different problem solving and decision taking strategies.
Interprofessional Education	This course is one of a series of courses introducing the concept of interprofessional education and practice. The first IPE course is designed to provide a comprehensive understanding of interprofessional education and practice while fostering collaboration, communication, and ethical decision-making skills among first-year dental students. In this engaging and interactive course, students will embark on a transformative journey that will equip them with the essential skills and knowledge needed to collaborate effectively with other healthcare professionals, ensuring the highest quality of patient care.

Research Methodology	This course is structured to encompass the fundamental principles of research methodology and equip students with the knowledge required to critically assess various research methodologies. Upon completion, students will possess the skills to evaluate the suitability of research methodologies for addressing research inquiries or testing hypotheses, select appropriate statistical techniques, analyze data effectively, elucidate and appraise the resultant findings, and apply these outcomes to inform decisions in both research and practical contexts.
Behavioral Sciences & psychology	The course is designed to give an overview of the main topics in behavioral sciences and Ethics including Cultural issues in dental education and Dental Ethics. The objective of the course is to enable the student to understand and apply the knowledge, skills and attitude developed in this course to communicate effectively especially in dental settings. Students will learn and practice strong values, ethical conduct and social responsibilities, especially personal, academic, and professional integrity while developing collaboration in diverse team settings. Students will be trained to display sensitivity to cultural, psychosocial, and ethical issues.
Islamic Culture	The course aims to provide knowledge of the concepts and beliefs in Islam that form the basis of Islamic culture. The students are expected to identify the differences, compare values and preferences in Islamic culture with the existing ones. The course consists of a general overview of Islamic culture and arts as an approach to life. The objective of this course is to enable the student to demonstrate awareness of the effects of culture upon interpersonal communications and interact appropriately to the culture of the colleague/patient/client.
UAE Society & Cultural Diversity	This course focuses on the unique nature of UAE society and its political, geographical, cultural, demographic, and social aspects. It highlights the Emirati perspective of contemporary global changes. This course allows the students to explore the Emirati society in a global context. The students will be able to get an insight into the unique political, geographical, cultural, demographic, and social aspects of UAE society. They will use this knowledge in their interpersonal dealings with the individual members of this community when they meet them in work-related settings or the community. Students will develop awareness of cultural diversity advantages and disadvantages and discuss cultural, social and communication sensitivities and will be able to relate themselves to global context.
Artificial intelligence	This introductory course will focus on introducing students to the discipline of artificial intelligence and will lay the groundwork for understanding AI tools, methods, and models like machine learning and deep learning. The course will start with a brief history and discuss concepts and models required for learning how to apply AI. Specific references will be made to the healthcare environment. Furthermore, students will explore the benefits of AI, identify opportunities where AI can be employed.

Health Information systems	This course prepares the student to utilize informatics and healthcare technologies in the health care of individuals for the enhancement of patient outcomes as well as to gain an appreciation of the proficiencies required of an expert knowledge worker and apply these competencies to routine practice as a Healthcare professional.
Entrepreneurship, innovation, and sustainability	The purpose of this course is to offer students practical information about the exciting frontier of innovation and entrepreneurial activity benefiting people, the planet, and profit. Sustainability entrepreneurship takes a slightly different perspective from the traditional focus of entrepreneurship by emphasizing additional goals of promoting sustainable living and environmental improvement. An emphasis on sustainability within entrepreneurship involves searching for opportunities for new products or services or new technologies or production processes that alleviate social or environmental conditions, make more efficient use of energy and natural resources, and harness new resources that are more abundant, cheaper to produce, and less harmful to society. The course will examine key trends and drivers of corporate innovation, strategic shifts, and new markets. Examples of entrepreneurial process, innovation, and strategic shifts will be analyzed to gain insight into the identification of market opportunities, and the application of tools, concepts, and frameworks used by individuals and companies who understand the importance of pursuing innovative and sustainable market opportunities.
Anatomy I	This course covers the fundamentals of Anatomy and Embryology, including thorax and abdomen viscera with their blood and nerve supply, oral cavity structure, head & neck components, and skull anatomy. It also incorporates computer interactive sessions with 3D software. Students gain hands-on experience through dissections in the laboratory to enhance their dentistry-related knowledge.
Biochemistry	The course is specifically tailored for first-year dental students, providing them with a comprehensive grasp of the structure-function relationships inherent in proteins, carbohydrates, lipids, and nucleic acids. Special emphasis is placed on the clinical significance of specialized proteins such as immunoglobulins, which play a pivotal role in safeguarding the oral cavity. Furthermore, students will delve into the exploration of extracellular matrix proteins essential for the development of teeth and gingiva. The course also delves into the intricate mechanisms governing enzyme actions within the oral environment, particularly in relation to dental plaque and caries.
General Histopathology I	The General Histopathology I course serves as a foundational course exploring the histopathological foundations of both healthy and diseased tissues, encompassing the morphological alterations in tissues resulting from diverse disease mechanisms. The course proceeds to delve deeply into the ultramicroscopic intricacies of cellular structures and their functions, all while comprehending cellular injury, cell demise, and adaptation processes. Additionally, the course emphasizes the ultramicroscopic composition of typical epithelial and connective tissues, seamlessly integrating histology concepts with pathological occurrences like inflammation and the healing of wounds.

Anatomy II: Head & Neck	This course provides comprehensive coverage of head and neck anatomy, encompassing both the skeletal and soft tissue aspects. The skeletal component delves into the anatomy of the skull and cranium, including the jaws, parietal, frontal, sphenoid, ethmoid, vomer, nasal, zygomatic, temporal, lacrimal bones, and nasal conchae. In addition, the soft tissue component explores the scalp and temple, examining muscles, vessels, and nerves. Additionally, the anterior and posterior triangles, suboccipital triangles, and the muscles, vessels, and fascia within the neck, face, and facial muscles, as well as the nose, ear, eye, pharynx, and larynx. Furthermore, the course incorporates computer software as an integral instructional method facilitating a deeper understanding of these complex anatomical structures.
General Histopathology II	This course covers the histopathological basis of normal and diseased tissue. It includes normal histopathological characteristics of the nervous tissue, muscle, circulatory and lymphatic system, gastrointestinal system with preference to the histology of the liver, and the respiratory system. Parallely, the course involves the study of morphological alterations and the pathological basis of musculoskeletal pathologies, nerve injury, blood and lymphatic pathologies, respiratory pathologies, immune system, hypersensitivity reactions and autoimmune disease. The course also discusses the important systems; such circulatory, integumentary, gastrointestinal, and respiratory system. The latter part of the course focuses on bacterial, viral, fungal, and parasitic infections along with various environmental, nutritional, genetic and congenital disorders.
Human Physiology	This course helps the students in identifying the functions of different organs of the body. It provides information on cell physiology, extracellular fluid and transport across the cell membrane and homeostasis. Also, it covers blood and the function of its constituents, the hemostasis, blood groups and principles of blood transfusion. It describes physiological properties of the cardiac muscle, hemodynamic of the circulation, principles of the normal ECG, cardiac output, blood pressure, heart rate and some cardiovascular disturbance like fainting & myocardial infarction. In addition, it covers the principle of physiology of respiratory, excretory, endocrine, reproductive systems, GIT as well as CNS and the pathophysiology of its major illness and its influence on oral tissues and saliva.
Microbiology & Immunology	This course offers comprehensive insights into the essential attributes of microorganisms, as well as the causes, development, mechanisms, diagnosis, preventive measures, and therapeutic strategies for a wide spectrum of infectious diseases. Special attention is devoted to the study of systematic bacteriology, virology, mycology, and parasitology. Additionally, the course delves into the structural and functional aspects of the immune system, including cell interactions, antibody production, antigen-antibody reactions, hypersensitivity responses, transplantation and tumor immunity, cell-mediated immunity, and the biological consequences of immunological reactions. Furthermore, the curriculum spotlights the relevance of these principles in both oral and clinical microbiology contexts.

Pharmacology	This course covers basic principles of pharmacology with special emphasis on dental therapeutics. The pharmacokinetics and pharmacodynamic principles related to general dentistry including drug prescription writing and patients compliance to medication are also included. It is designed to establish the core pharmacological knowledge and attitude to drug information. The importance of patient safety during medication administration to ensure sound and safe dental practice throughout a dental practitioner's career.
Dental Pharmacotherapeutics	This course provides a comprehensive understanding of pharmacotherapeutic principles essential for dental practice. The course builds on the knowledge acquired in the previous course PHA 201. Students will delve into the management of dental pain, local anesthesia, antibiotics, oral rinses, viral infections, and specialized topics like glucocorticoids, muscle relaxants, and sedatives in dentistry. Emphasis will be placed on drug interactions, pharmacotherapy for medically compromised patients, and considerations in geriatric and pediatric dental care.
Dental Anatomy and Occlusion	This course presents the fundamentals of dental anatomy, encompassing dental terminology, dental notation systems, dental formulas, a comprehensive examination of tooth chronology and morphology, exploration of anatomical deviations, alignment within dental arches, and an introduction to occlusion and forensic dentistry. Moreover, it incorporates 3D interactive sessions using computer technology for enhanced learning. The laboratory component involves hands-on anatomical wax carving of teeth.
Dental Materials	This course serves as an introductory exploration into the fundamentals of dental materials, encompassing their structure, terminology, composition, manipulation techniques, physical characteristics, biocompatibility, and diverse applications. It covers a wide array of dental materials, including gypsum products, impression materials, resins, waxes, restorative materials, cements, cavity liners, varnishes, amalgam, alloys, ceramics, and implant materials, emphasizing practical utilization.
Oral Histopathology I	This course covers growth and development of the head, face, palate, tongue, teeth, and jaws. In addition, this course covers developmental disturbances of dento-oral and paraoral structures including hereditary disorders, congenital abnormalities, odontogenic and nonodontogenic cysts and general infections. Emphasis is placed on demonstration of microscopic sections of oral lesions that aids in understanding the histopathology and the management to be planned.
Endodontics I	This course offers an introduction to Endodontics. It provides the fundamentals of root canal treatment including internal morphology of different teeth, access cavity preparation, working length determination, biomechanical preparation, and obturation. In the laboratory, the student will perform Endodontic treatment on artificial teeth which helps in understanding the anatomy of the root canal system and will prepare the student for the clinical courses.

Fixed Prosthodontics I	It is an introductory pre-clinical course in Fixed Prosthodontics. It includes lectures and practical training which cover the principles and procedures of fixed prosthodontics. The theoretical part includes classification of Crowns, principles of tooth preparation for different crowns, principles of wax pattern construction and laboratory procedures for its casting. The Practical part includes training on different types of tooth preparation for single extra-coronal restorations.
Operative Dentistry I	This course offers basic information such as introduction to operative dentistry, classification of cavity designs, biomechanical principles of cavity design, and preparation as related to tooth morphology, knowledge, and skills to identify and use the operative instruments. Differentiate between carious and non-carious lesions, infection control, and chair positions. Along with theoretical knowledge, students prepare simple and compound class I and II cavities along with restorations on simulators which provide a patient-like environment. This information is so important for the student to manage the different clinical situations regarding teeth restoration. Also, it offers information and skills required for patient management, diagnosis for cases that need restorative dentistry, and selection of the most appropriate materials used in restorative dentistry.
Oral Radiology I	Oral Radiology is the branch of dentistry concerned with the use of X-ray for the diagnosis of oral diseases. Oral radiology- It is a preclinical course. This course covers topics on introduction to oral and maxillofacial imaging, radiation physics and Dental x-ray unit, radiation biology, radiation safety and protection. The course also includes patient preparation and infection control in dental imaging, dental radiographic techniques, digital imaging, radiographic artifacts, faults and errors, along with the normal radiological anatomy of the maxilla, mandible and principles of dental imaging radiological interpretation and diagnosis of the common lesions. The practical component of the course will involve performance of radiographic procedures in a simulated environment, identification of normal radiological landmarks and interpretation with the diagnosis of the common lesions in the intraoral radiographs.
Removable Prosthodontics I	It is an introduction to the basic laboratory (pre-clinical) course in removable prosthodontics. The theoretical part covers the anatomical landmarks related to complete denture prosthodontics, introduction to impression theories and techniques, introduction to mandibular movements, articulators, and maxillo-mandibular relations. The laboratory part includes training on all the procedures involved in complete denture fabrication, manipulation of the materials, instruments, and devices.

Oral Histopathology II	The course provides information about the microscopic and ultramicroscopic structure of dental tissues like enamel and dentin-pulp complex. This is followed by studying the pathogenesis and histopathology of dental caries and its sequelae in relation to the pulp and periapical region. In addition, the course also includes the normal structure of the periodontium and periodontal pathosis. Emphasis is placed on demonstration of microscopic sections of oral lesions in the laboratory that aids in understanding the various craniofacial pathologies.
Endodontics II	This course emphasizes basic and advanced concepts of Endodontics so that the student can be introduced to pulp and periapical biology and pathology, and endodontic microbiology. The effect of dental caries and dental procedures on the pulp will be covered in this course. The diagnostic procedures, emergency care, and pain control will also be covered. Proper tooth isolation needed for proper root canal treatment will be detailed. In laboratory sessions, students will get training on procedures of obturating root canal systems on artificial training blocks in addition to proper tooth isolation and working length determination using electronic apex locators.
Fixed Prosthodontics II	This is the second pre-clinical course in fixed prosthodontics. It will provide the students with the theoretical and laboratory background in preparation, components, fabrication, designing of fixed partial denture cases as well as the laboratory steps in fabrication of fixed partial dentures, metal-ceramic restorations, and all-ceramic restorations. This course will prepare the dental students for the clinical practice of fixed partial denture prosthesis.
Operative Dentistry II	In this course, students are trained to select proper pre-clinical skills in restoration. It provides the students with continued information regarding the diagnosis and treatment of patients with an emphasis on the management of defective restorations. Along with theoretical knowledge students prepare cavities along with restorations on simulators which provide a patient like environment, under the supervision of faculty members. The student participates in the selection of the most appropriate restorative material and the execution of basic operative dental treatment. This experience improves their skill and confidence for subsequent clinical courses.
Periodontics I	Periodontics I (PER 301) is a preclinical course in a series of five courses in periodontics. This course is designed to focus on functions and structures of periodontium, etiopathogenesis, classification of periodontal diseases and discuss different types of periodontal disorders. The laboratory part of this course will provide students with the necessary training to acquire the skill in performing manual and ultrasonic scaling on simulated models using the recommended periodontal instruments. The course logbook will include filling and interpretation of the periodontal chart based on clinical scenarios, and evidence for simulated role play exercises (early clinical exposure) to enhance their communication skills by creating videos and utilizing different social media platforms.

Removable Prosthodontics II	It is an introductory basic laboratory (pre-clinical) course in removable Prosthodontics. It includes lectures and laboratory training that cover the principles and lab procedures of partial denture prosthesis fabrication. The theoretical part includes lectures for the following topics: components of RPD, surveying, forces acting on RPD, and lab procedures. The lab part concerns the training on surveying cast and outlining, designing of RPD, wax pattern fabrication, investing, casting, finishing, and polishing of RPD framework.
Orthodontics I	This course is the introduction to orthodontics to provide students with basic knowledge to identify the existing and developing problems associated with dental and skeletal malocclusions. The course also deals with the etiologies of malocclusion describing the various classification systems of malocclusion. The practical sessions include appropriate wire selection, basic wire bending exercises, soldering and welding techniques and fabrication of various components of removable appliances.
Medically Compromised Patient and Medical Emergency	This course covers medical, dental, oral manifestations, psychological problems of medically compromised patients and the role of the dentist to manage the patient's safety. The course also covers diagnosis and management of medical emergencies. According to the nature of medically compromised patients, each one may need special collection of the data, diagnosis, treatment planning and management during an emergency. The management of health care of these patients must be tailored according to the nature of the medical problem. This course is designed to provide the students information and experience to deal with medically compromised patients and the principles of medical emergencies, in regard to potential problems related to dental care, prevention of problems and treatment planning modifications, administration of emergency drugs. The practical component of this course deals with management of medical emergencies in a simulated environment.
Preclinical-Implantology	This course is a preclinical course that provides the students with the knowledge and skills needed to replace missing teeth with dental implants in a simulated environment. It covers the indications and contraindications of dental implants, pre surgical investigations, diagnosis and treatment planning, various prosthetic techniques to restore missing tooth or teeth by fixed, removable or hybrid prosthesis.

Pediatric Dentistry I	The course represents the foundation for pediatric dentistry courses. It provides an introduction to numerous aspects of pediatric dental practice and treatment. These encompass child psychology, behavioral management, growth and development, cavity preparation and restoration of primary teeth, and the young permanent dentition, nutrition and caries control, radiography, pulp therapy, stainless crowns, preventive orthodontics, risk assessment in pediatric dentistry including caries risk assessment, caries preventive strategies, radiation, periodontal risk assessment for children, risk assessment for traumatic injuries, anesthetic risk assessment, fluoride (safety and toxicity), dietary analysis and advice. Students manage children in the clinic with the accent on caries preventive measures, cavity preparation, and restoration, pulpotomy, tooth preparation, and construction of stainless-steel crowns.
Preventive Dentistry	This course emphasizes the importance of ongoing hygiene procedures and daily practices to prevent tooth decay and other dental diseases and conditions. This course covers the primary preventive measures like dental prophylaxis, role of fluorides, nutrition, pit and fissure sealants and atraumatic restorative treatment in preventive dentistry. It also includes school dental health program for motivating patients to practice effective oral health care.
Periodontics II	Periodontics II (PER 301) is a clinical course designed to cover topics on different types of periodontal diseases, periodontal medicine, influence of systemic diseases and conditions of the periodontium and other related risk factors besides and its management. The clinical sessions will provide the students with the necessary training for educating and motivating patients to prevent, improve and maintain their periodontal health and perform scaling and root planning on patients with periodontal diseases. They will be trained to practice in an ethical and professionally responsible manner and exhibit a high level of communication skills. Students will record and interpret the periodontal chart of their patients considering the medico-legal aspects of medical record keeping.
Endodontics III	This course introduces the student to the clinical application skills learned in the relevant preclinical courses. It covers the clinical experience in the examination, evaluation, diagnosis, treatment planning, and management of endodontic patients under the supervision of faculty members. The course will provide knowledge of drugs to be given to endodontic patients and management of patients with systemic health considerations. The course will prepare the undergraduates to deal with cases that require vital pulp. The course shall also focus on the restoration of endodontically treated teeth. The students will be introduced to the management of dental traumatic injuries and the management of teeth resorption and determine the outcome of endodontic treatment.

Fixed Prosthodontics III	This is the first clinical course in the series of fixed partial denture courses. This course introduces the student to the clinical application of skills learned in the preclinical relevant courses. In this course, the student performs all clinical steps of graded complexity for the construction of full crowns & fixed partial dentures for patients under faculty supervision. This course exposes the student to interaction with the professional dental laboratory technician. It ensures the strict implementation of the infection control policy by students with their patients, staff, and lab technician.
Oral Histopathology III	This course covers the microscopic study of the oral mucosa and para oral structures; lips, tongue, floor of the mouth, palate, salivary glands of the oral cavity, shedding and eruption of teeth and temporomandibular joint. This is followed by studying the histopathology of potentially malignant disorders, benign and malignant odontogenic and non-odontogenic tumors, vesiculobullous lesions, diseases and tumors of salivary glands, bone & temporomandibular joint disorders. Emphasis is placed on the demonstration of microscopic sections in the laboratory that aids in understanding the histopathology and the concurrent management.
Operative Dentistry III	This course gives students the knowledge and clinical experience in restorative Dentistry. Besides, the course provides the learner with the necessary clinical experience for helping them in carrying out proper diagnosis and treatment planning. Also, it covers topics fulfilling the esthetic demands of the patients and advanced restorative dentistry.
Oral Radiology II	This is a clinical course in Oral Radiology. The course incorporates basic principles with radiographic features of normal anatomy of panoramic radiography, and basics, radiographic features of normal anatomy with clinical applications of 3D CBCT, including dental implant imaging. The course covers topics concerned with radiological interpretation and diagnosis of dental anomalies, dental caries, periodontal disease, inflammatory lesions, cysts, tumors, malignant lesions, jaw bone diseases, systemic diseases and craniofacial anomalies. The course also includes Diagnostic imaging, interpretation and diagnosis of temporomandibular joint disorders, traumatic injuries to teeth and facial structures, salivary gland disorder and paranasal sinus diseases. In the clinical component of the course, the students perform intraoral/extraoral radiographic procedures on patients.
Oral Surgery I	The course is the first of a series of five courses of oral surgery. It is a clinical course, which introduces the learners to the basics of oral surgery practice including injection of LA, its techniques, different methods of teeth extraction as well as how to manage intraoperative and postoperative complications. Moreover, the course will train students on identifying and selection of surgical armamentarium to prepare a dento-alveolar tray for surgical procedures. Students will be able to Perform the Intra-Alveolar/ Trans-Alveolar extraction procedures under local anesthesia.

Removable Prosthodontics III	This is the first clinical course in the series of removable prosthodontics. This course introduces students to the clinical application of skills learned in the preclinical relevant courses. Students are required to directly deal with patients under the supervision of staff. This course includes diagnosis, treatment planning, preparation of the mouth for complete dentures, impression techniques and techniques for recording maxillomandibular relations, selection of teeth, try-in procedures, delivery of denture and follow up. This course exposes the student to interaction with the professional dental laboratory technician. It ensures the strict implementation of the infection control policy by students with their patients, staff, and lab technician.
Endodontics IV	This course covers more advanced topics in endodontics delivered in a simplified way to suit undergraduate students. The scientific knowledge in this course will allow the student to learn about the latest technology of root canal preparation using rotary nickel titanium instruments. Diagnosis and treatment of longitudinal tooth fractures will be included in this course. Endodontic surgery, geriatric endodontics as well as discussing the management of immature roots using pulp regeneration and the endodontic-periodontic relationship. Evaluation of previously root canal treated teeth whether they are successful or failed and how to manage these cases. Advanced topics in endodontics will be assigned for the students to expand their knowledge and train them for writing scientific reports. Moreover, clinical practice on performance of root canal treatment on all teeth will be achieved.
Fixed Prosthodontics IV	This is the second clinical course in the series of fixed partial denture courses. This course includes clinical training in advanced prosthodontic cases. It covers all clinical principles of single crowns & fixed partial denture prosthesis fabrication including patient's examination, diagnosis, and treatment planning for rehabilitation of oral functions. The student is expected to manage their clinical treatment procedure with progressively less supervision and assistance from the faculty. The student must follow up with the patients and assess the effectiveness of treatment.
Oral Diagnosis	This clinical course enables the student to take patient history, conduct complete regional, extra-, and intraoral examination; obtain appropriate diagnostic tests including radiographs and imaging, various investigations, obtain medical advice and reach conclusions regarding patients' health status. Also, it offers knowledge on treatment planning, principles associated with diagnostic methods, and data analysis followed by treatment planning of various oro-facial diseases. This clinical course also enables the student to earn communication skills and aids are used for presentations and data collection.
Operative Dentistry IV	The present course appraises students with skills to diagnose, plan treatment, and perform several esthetic procedures with appropriate materials in the context of comprehensive care. New concepts in esthetic dentistry are applied in this course like porcelain veneers. It encompasses a broad approach to the total esthetic needs of the patient.

Orthodontics II	This is a clinical course in orthodontics, in which the students apply their knowledge and skills obtained from preclinical courses on patients. They are focused on infection control protocol in orthodontic practice. In the present course the students are trained for comprehensive management of simple orthodontic cases encountered in general dental practice using diagnostic aids like clinical examination, cephalometric and cast model analyses. The infection control protocol is emphasized during clinical sessions. This course also outlines preventive, interceptive and adult orthodontic procedures.
Oral Surgery II	This is the second in the series of oral surgery courses. The course is intended to provide the students with the knowledge and cognitive skills that would enable them to formulate a treatment plan and manage patients with problems related to impacted wisdom teeth, maxillary sinus and oro-facial fascial space infections. The course will also allow the students to acquire the psychomotor (clinical) skills relevant to injection of local anesthesia and teeth extraction on real patients.
Removable Prosthodontics IV	This course deals with partially edentulous patients and is a continuation of the clinical experiences gained in the previous relevant course. The theory part covers all the topics related to casting RPD starting from the diagnosis to the insertion. The clinical part covers the diagnosis, treatment planning, designing, and all clinical procedures for partially edentulous patients.
Internal clinical training I	This course is the first course in a series of three courses, it is designed to enhance the student's clinical skills in different dental disciplines including Operative Dentistry, Endodontic, Fixed Prosthodontics, Removable Prosthodontics, and Oral surgery. The course is purely clinical. The theory is given in the context of feedback on the workplace while the students are practicing on real patients. The students will learn how to take history and perform clinical examinations in order to reach appropriate diagnosis. Furthermore, the students will be guided on how to formulate a comprehensive treatment plan while considering the patient's needs. The students will practice consenting the patient and will learn how to write patients' notes.
Comprehensive Care Dentistry I	This course is the first course in a series of four courses, it is designed to increase the student's skills in all disciplines of dentistry providing intensive clinical emphasis and patient care experiences which will further develop the student's expertise in the field of comprehensive care dentistry. Students will perform all required dental management phases for each case. Phases include, extraction of uncomplicated erupted teeth and remaining roots, non-surgical Periodontal therapy, crown and bridge, root canal therapy, partial and full dentures, Onlays and inlays and treating carious tooth tissues with appropriate tooth-colored materials. It is designed to introduce the students to the concept of patient-centered care. Students will perform a comprehensive treatment that considers patient complaints and at the same time emphasizes the importance of performing different treatment phases. Students are required to record patient history, perform a complete intraoral and extraoral examination in addition to taking photographs. Further, they will record and present their cases to the CCD committee at the end of the year.

Comprehensive Care Dentistry II	This course is the continuation of the first course taught in 4th year (CCD I). And it is the second course in a series of four courses, it is designed to increase the student's skills in all disciplines of dentistry providing intensive clinical emphasis and patient care experiences which will further develop the student's expertise in the field of comprehensive care dentistry. Students will perform all phases of dentistry on a more complicated cases level compared to cases managed in the CCD I course. Phases include, extraction of uncomplicated erupted teeth and remaining roots, non-surgical Periodontal therapy, crown and bridge, root canal therapy, partial and full dentures, Onlays and inlays and treating carious tooth tissues with appropriate tooth-colored materials. It is designed to introduce the students to the concept of patient-centered care. Students will perform a comprehensive treatment that considers patient complaints and at the same time emphasizes the importance of performing different treatment phases. Students are required to record patient history, perform a complete intraoral and extraoral examination in addition to taking photographs. Further, they will record and present their cases to the CCD committee at the end of the year.
Internal clinical training II	This course is the second course in a series of three courses, it is designed to enhance the student's clinical skills in different dental disciplines including Operative Dentistry, Endodontic, Fixed Prosthodontics, Removable Prosthodontics, and Oral surgery. The course is purely clinical. The theory is given in the context of feedback on the workplace while the students are practicing on real patients. The students will learn how to take history and perform clinical examinations in order to reach appropriate diagnosis. Furthermore, the students will be guided on how to formulate a comprehensive treatment plan while considering the patient's needs. The students will practice consenting the patient and will learn how to write patients' notes.
Comprehensive Care Dentistry III	This course is the continuation of the second course taught in the last semester (CCD II). it is the third course in a series of the four courses, it is designed to increase the student's skills in all disciplines of dentistry providing intensive clinical emphasis and patient care experiences which will further develop the student's expertise in the field of comprehensive care dentistry. Students will perform all phases of dentistry to a higher degree of complexity compared to cases managed in CCD I and CCD II. Phases include, extraction of uncomplicated erupted teeth and remaining roots, non-surgical Periodontal therapy, crown and bridge, root canal therapy, partial and full dentures, Onlays and inlays and treating carious tooth tissues with appropriate tooth-colored materials. It is designed to introduce the students to the concept of patient-centered care. Students will perform a comprehensive treatment that considers patient complaints and at the same time emphasizes the importance of performing different treatment phases. Students are required to record patient history, perform a complete intraoral and extraoral examination in addition to taking photographs. Further, they will record and present their cases to the CCD committee at the end of the year.

Clinical Dental implantology -I	This is the first clinical implantology course which builds upon the foundational knowledge and skills acquired during preclinical implantology IMP 402. In this patient-based clinical course, students will translate their theoretical understanding and simulation-based experience into real-life patient scenarios. Through this course, students will explore various aspects of dental implantology, from patient consultation to surgical procedures and prosthetic restoration.
Laser in Dentistry I	This course is designed to equip final-year dental students with the knowledge and skills needed to effectively integrate laser technology into their clinical practice. Dental lasers have revolutionized various aspects of dentistry, offering precise and minimally invasive solutions for a wide range of procedures. Throughout this course, students will explore the fundamental principles of laser physics, safety protocols, and hands-on techniques for soft and hard tissue applications.
Pediatric Dentistry II	This course emphasizes the importance of the introduction to the foundational concepts of pediatric dental care, providing essential knowledge and skills needed to understand and address the oral health needs of children in the pre-clinical level regarding the scope of pediatric dentistry as well as responsibility of pedodontics, also the anatomy & Morphology of the primary teeth as well as medication as well as dental materials used in pediatric dentistry. Also, cultural and legal prospective in pediatric dentistry and finally, the principles of cavity preparation in primary teeth and how the morphological difference with the permanent as well as the principles of pulp therapy in primary teeth.
Interprofessional Practice-I	This course, "Interprofessional Practice in Dentistry," is the first course of a two-part series designed to equip dental students with the knowledge, skills, and attitudes necessary for effective collaboration and interprofessional teamwork within the healthcare industry. The course involves hands on in workplace, guest speakers for various health professions and interactive case-based discussion
Interprofessional Practice-II	This course is the second installment of a two-part series designed to equip dental students with the knowledge, skills, and attitudes necessary for effective collaboration and interprofessional teamwork within the healthcare industry. Building upon the foundational concepts introduced in the first course, students will delve deeper into the applied aspects of interprofessional practice within the context of dental care. The course involves hands-on in the workplace (clinics/simulations), guest speakers for various health professions and interactive case-based discussion.

Comprehensive Care Dentistry IV	This course is the continuation of the third course taught in the last semester (CCD III) and it is the last course in a series of four courses, it is designed to increase the student's skills in all disciplines of dentistry providing intensive clinical emphasis and patient care experiences which will further develop the student's expertise in the field of comprehensive care dentistry. Students will perform all phases of dentistry to a higher degree of complexity compared to cases managed in CCD I, CCD II and CCD III. Phases include, extraction of uncomplicated erupted teeth and remaining roots, non-surgical Periodontal therapy, crown and bridge, root canal therapy, partial and full dentures, Onlays and inlays and treating carious tooth tissues with appropriate tooth-colored materials in addition to place one simple implant. It is designed to introduce the students to the concept of patient-centered care through interactive theoretical session related to interdisciplinary planning. Moreover, students will perform a comprehensive treatment that considers patient complaints and at the same time emphasizes the importance of performing different treatment phases. Students are required to record patient history, perform a complete intraoral and extraoral examination in addition to taking photographs. Further, they will record and present their cases to the CCD committee at the end of the year.
Clinical Dental implantology -II	This is the last implantology course which builds upon the knowledge and skills acquired during the previous implantology course. In this patient-based clinical course, students will refine and deepen their experience in dental implants. Through this course, students will explore various aspects of dental implantology, from patient consultation to surgical procedures with a more focus on prosthetic restoration.
Laser In Dentistry II	This clinical course in dental lasers builds upon the foundational knowledge acquired in the previous laser course LAD 501. This course is focused exclusively on practical, hands-on experience using lasers in a variety of advanced dental procedures. Students will work closely with experienced faculty in a clinical setting to refine their skills and gain confidence in performing laser-assisted treatments for various dental procedures such as soft tissue procedure, endodontic, crown lengthening, teeth whitening, and the surgical removal of oral lesions and ulcers.
Pediatric Dentistry III	The course represents an extension to the previous Pediatric Dentistry courses. Students manage children in the clinic with the emphasis on caries-preventive measures, cavity preparation, and restoration, pulpotomy, tooth preparation, construction of stainless-steel crowns, and management of dental trauma under supervision. The course ensures continuous clinical training and further experience in the field of pediatric dentistry.

General Surgery	This course includes an introduction to general surgery covering information about introduction, road traffic accidents and other injuries, basic and advanced life support, fluid and electrolyte balance, hemorrhage and shock, wound infections and wound healing. Knowledge in these subject areas is kernel to the provision of satisfactory dental practice and advice to patients undergoing dental treatment. The course is intended to provide students with sufficient knowledge to recognize problems in the surgical history of patients about to go under dental treatment and to take the appropriate action to provide quality care. An important aspect is to ensure that graduate practitioners understand when referral of complex treatment is indicated.
General Medicine	This course covers definite infectious diseases, metabolic, endocrinal, renal, hematological, rheumatological, cardiovascular, respiratory, gastrointestinal, hepatic, neurological and oncological diseases. This is a fundamental course for a dentist as it covers the most important human diseases specially those of intimate relation to dentistry. Knowledge on etiology, pathophysiology, diagnosis, and treatment of these diseases is required for a dentist to help student enhance their clinical decision-making abilities, establish effective doctor-patient relationships, and uphold ethical medical practices. Also, student must be familiar with the implications of systemic diseases on oral cavity. This information helps students in proper management of dental diseases.
Research literacy I	The course is the first course of two courses that enable the students to learn principles of research. The course will be delivered through didactic interactive sessions and practical sessions. The students will have the opportunity to work as a team group, apply the research knowledge and skills in developing a research protocol to get IRB approval and be able to implement it in the REP course in year 5. This includes the development of the required tools and methods to answer a specific research question, choosing study subjects, application of the ethically acceptable process for data collection, planning for data collection, management, and analysis; using the Excel stat software to analyze.
Research literacy II	The course is a continuation course of two courses that enable the students to learn principles of research. The course will be delivered through didactic interactive sessions and hand-on sessions. The students will have the opportunity to complete their work that has been conducted during REP 401 and finalize the IRB approval to be able to implement it in the REP course in year 5.

Research project I	The course enables the students to integrate the knowledge, skills, and will have the opportunity to work as a team group, apply the knowledge and skills developed during the previous courses of study in comprehensive research. This includes the development of the required tools and methods to answer a specific research question, choosing study subjects, application of the ethically acceptable process for data collection, planning for data collection, management, and analysis; using of the Excel software to analyze the data in addition to the writing and critical appraisal of a research paper. The course also focuses on basic ethical and legal principles of research including academic misconduct, the confidentiality of information, and informed consent. Concepts of bias, confounders, validity precision, accuracy, and their applications in research are also discussed in this course while implementing the research work.
Research project II	The course is the second course of research following research project I (REP 501). The students will have the opportunity to complete their research project. This includes the process for data collection, planning for data collection, management, and analysis, writing a comprehensive discussion and presenting their research. The course also focuses on basic ethical and legal principles of research including academic misconduct, the confidentiality of the information, and informed consent. Concepts of bias, confounders, validity precision, accuracy, and their applications in research are also discussed in this course while implementing the research work.
Digital Dentistry I	This introductory course marks the commencement of a comprehensive series dedicated to elucidating the pivotal role of digital dentistry and 3D printing within the field of dentistry. Throughout this course, dental students will engage in immersive hands-on experiences within a digital laboratory setting, enabling the practical application of theoretical digital skills acquired in tandem with other courses such as oral surgery, oral radiology, oral diagnosis, periodontics, endodontics, restorative dentistry, orthodontics, and prosthodontics. The curriculum underscores the indispensable nature of computers and diverse software applications as fundamental tools in the realm of dental care.
Digital Dentistry II	This is the second course of digital dentistry which builds upon the foundational knowledge and practical skills acquired during the course DID 302. This course is designed to provide dental students with a deeper understanding of cutting-edge technologies and innovative techniques related to digital dentistry. In this course, through an immersive hands-on experience, students will gain the expertise needed to harness these technologies effectively in their future dental career.
Digital Dentistry III	This is the third course of digital dentistry which builds upon the foundational knowledge and practical skills acquired during the course DID 401. This course is designed to provide dental students with a deeper understanding of cutting-edge technologies and innovative techniques related to digital dentistry. In this course, through an immersive hands-on experience, students will gain the expertise needed to harness these technologies effectively in their future dental career.

Digital Dentistry IV	This is the fourth course of digital dentistry which builds upon the practical skills acquired during the course DID 402. This course has been meticulously crafted to offer dental students with more profound practical sessions of digital dentistry, throughout this course, students will immerse themselves in hands-on experiences, equipping them with the proficiency required to adeptly utilize these technologies in their prospective dental careers.
Digital Dentistry V	This is the final course of digital dentistry which builds upon the practical skills acquired during the course DID 501. This comprehensive course has been carefully designed to provide dental students with extensive hands-on training in the field of digital dentistry. Throughout the course, students will actively engage in practical experiences, allowing them to acquire the necessary skills to confidently apply these advanced technologies in their future dental practice.
Local Anesthesia	This course covers the fundamentals of local anesthesia, nerve conduction, pain physiology, pharmacology, safe and efficient administration of anesthetic agents. In addition to the armamentarium used to administer local anesthesia. Moreover, the students will understand how to manage the different local and systemic complications of local anesthesia. This course will enable the students to apply the knowledge and skills of local anesthesia in dental practice.
Dental Practice Management	This course is a continuation of the previously taught course in ethical and medico-legal aspects in dental practice. It is primarily concerned with reviewing the previously taught principles and standards of professional conduct and ethical behavior that is applied to all dental practitioners. This course also covers non-dental legislation affecting dentists including inquests. Also, the course appraises infection control and patient safety. The focus is given on effective communication and teamwork, as well as, management skills, financial management, record keeping, general professional training, audit, and peer review.
Ethical & Medico-legal Aspects of Dentistry-I	This course is intended to provide an overview of the ethical and legal obligations of dental practitioners. It is primarily concerned with the principles and standards of professional conduct and ethical behavior that apply to all dental practitioners.
Oral Medicine I	This Course is essential for offering student's knowledge of oral medicine practice. It provides knowledge on taxonomy, etiology, pathogenesis, clinical presentation, diagnosis, and treatment of oro-facial lesion: ulcerative, vascular-bolus lesions, red and white lesions, pigmented lesions, benign tumors, oral cancer, temporomandibular disorders, and salivary gland diseases, to allow students carry out diagnosis and treatment of these diseases. The clinical training allows the student to carry outpatient management applying the knowledge, skills, and attitude for correct diagnosis and successful treatment.

Oral Surgery III	This is the third course in the series of Oral Surgery. The course ensures that the students gain sufficient experience, skills, and self-confidence to carry out minor surgical cases. The course deals with preparation of the mouth for dentures (pre-prosthetic surgery), surgical treatment for medically compromised patients, and interpretation of radiographs, management of emergency cases (maxillofacial trauma) and the use of intravenous and Inhalation anesthesia. The students are also trained in minor oral surgical procedures.
Periodontics III	This course is designed to provide students with the core scientific knowledge that enables them to understand and comprehend the bidirectional relationship between periodontal and systemic diseases. Diagnose furcation involvement, formulate the non-surgical periodontal treatment plan considering the patient's functional and esthetic needs.
Community Dentistry I	This course will discuss the community dentistry programs, preventive modalities, and the dentist's obligation to patients, professions, and the community. It also explains the dimensions of health, disease, illness, and different views on healthcare. This course will further introduce the various epidemiological studies and indices used to measure caries, fluorosis, periodontal diseases, and dental trauma along with the cause of the disease and its prevention.
Geriatrics Dentistry	This course covers challenges of the aging process, including demography, epidemiology, psychological aspects, pathological changes, gingival recession, root caries, oral aging problems, special pharmacological considerations, and functional declines, e.g. Alzheimer's disease, with special emphasis on comprehensive elderly patient oral care, dental considerations for geriatric patients and their impact on treatment plan.
Oral Medicine II	This Course is a continuation for oral medicine course OME 401. It provides knowledge on taxonomy, etiology, pathogenesis, clinical presentation, diagnosis and treatment of oro-facial lesion: oro- -facial pain, cervical swelling, tongue disorders, granulomatous diseases, systemic diseases and their impact on oral health, to allow students carry out diagnosis and treatment of these diseases. In addition to review of various methods for treatment of oro- -facial diseases, drug interaction in immune compromised patients. The clinical training allows the student to carry outpatient management safely, applying the knowledge, skills and attitude for correct diagnosis and successful treatment.
Oral Surgery IV	This course aims to equip students with a profound understanding of advanced concepts, techniques, and current developments in oral surgery such as conscious sedation and orthognathic surgery. Artificial intelligence and telemedicine in oral surgery. Students will explore a wide range of topics, from complex surgical procedures to cutting-edge technologies, ethical considerations, and multidisciplinary approaches.
Periodontics IV	This course covers advanced topics including management of periodontitis, tooth mobility, splinting, periodontal resective and plastic surgery, mucogingival problems and interdisciplinary cases. The students will learn the importance of maintenance protocols for periodontal patients.

Community Dentistry II	This course discusses the various activities carried out in the field of community dentistry which includes health promotion, dental health education, communication along with environment and health. This course also emphasizes ethical and legal responsibilities, the dentist's obligation to patients, professions, and the community. It also explains the possible occupational hazards in dental practice and survey procedures used in dentistry as well as the principles of teamwork & group practice, also the role of health agency around the world and the MOH & DHA regulation in dental practice.
Periodontics V	This course is designed to discuss various recent advances of periodontal diagnostic aids and various treatment modalities, including concepts related to implantology, peri-implant diseases, maintenance protocol of dental implants and prescribing antibiotics.
Forensic Odontology	Forensic dentistry (odontology) is the field within the greater disciplines of dentistry and forensic science that evaluates, manages, and presents dental evidence in legal proceedings in the interest of justice. The course covers a wide variety of topics including individual identification, mass identification, bite and lip mark analysis. In addition, forensic odontology course may also help general dentists to assist in determining age, race, occupation, previous dental history and socioeconomic status of unidentified human beings. The course trains dentists to use dental records including radiographs, ante-mortem (prior to death) and post-mortem (after death) photographs and DNA in the field of Forensic Medicine.