



COLLEGE OF DENTISTRY (COD)

BACHELOR OF DENTAL SURGERY (BDS)

ACADEMIC CURRICULUM

BACHELOR OF DENTAL SURGERY (BDS) – 189 credits

AUIB offers a 5-year Bachelor of Dental Surgery program for a total of (189) credits.

<i>Type of Credit</i>	<i>Contact Hours/Week</i>	<i>Contact Hours/Semester</i>
<i>Regular</i>	1	15
<i>Laboratory</i>	2	30
<i>Clinical / Practical</i>	3	45

The first and second years of the Bachelor of Dental Surgery (BDS) curriculum are dedicated to general and medical sciences and practical knowledge of dentistry.

The third, fourth, and fifth years have mainly dentistry courses and laboratory work. Clinical internships are done during the fourth and fifth years.

The Core Liberal Arts Program includes 42 credits. Students may choose from a list of offered CLA courses in different categories: Communication skills, Humanities, Social sciences, Natural sciences, Computer science, Mathematics.

Clinics will be available on campus, and the students will have direct experience with patients of various ages and backgrounds. A high-tech simulation laboratory prepares the students to avoid making mistakes with live patients.

Experienced instructors and faculty members provide early introductions into clinical settings.

Upon completion of the program, each predoctoral student will have demonstrated competency in providing quality oral healthcare within the scope of general dentistry.

At the end of this program, the student will be able to:

- Establish an accurate diagnosis; draw up and initiate a treatment plan in harmony with the patient's needs and requirements.
- Demonstrate effective communication with patients, respective families, employees, and all caretakers irrespective of age and social and cultural backgrounds.
- Recognize case complexity, including when referrals may be needed.
- Practice dentistry ethically and professionally, consistent with the expectations of the profession.
- Elicit and write the patient's complete medical, dental, and oral history.
- Demonstrate adequate computer literacy in acquiring and using scientific data to develop analytical and critical skills.
- Promote and improve the oral and dental health of individuals, families, and populations.

The teaching methods offered relies on:

- Lecture courses
- Tutorial classes (reading reports, bibliographic researches, surveys, posters, etc.)
- Practical work and training (laboratory work, simulator units, etc.)
- Clinical training, case studies and problem-based learning



YEAR I – 38 credits

Course Requirement	# Credits
UNI 101 First Year University Experience	3
MAT 101 College Algebra	3
CSC 101 Intro to Computer Science	3
BIO 101 Introductory Biology	3
CHE 105 General Chemistry for Healthcare Professions	3
CHE 105L General Chem for Healthcare Professions Lab	1
ENL 101 Expository Writing	3
BIO 211 General Biology I	3
BIO 211L General Biology I Lab	1
BDS 105 Medical Physics	3
BIO 217 Human Anatomy & Physiology	3
HCT 101 Fundamentals of Healthcare Professions	3
Core Liberal Arts Elective*	3
Core Liberal Arts Elective*	3
Total	38



YEAR II – 38 credits

Course Requirement	# credits
ENL 201 Academic Writing	3
CHE 210 Organic Chemistry for Health Sciences	3
CHE 210L Organic Chemistry for Health Sciences Lab	1
BIO 220 General Histology	3
BDS 200 Dental Anatomy and Occlusion	3
BDS 200L Dental Anatomy and Occlusion Lab	1
BDS 220 Dental Material	2
BDS 240 Introduction to Dentistry and Scientific Evidence	2
BIO 219 Medical Microbiology	3
BDS 217 Head and Neck Anatomy	2
BDS 217L Head and Neck Anatomy Lab	1
BIO 218 Pathophysiology	3
BDS 230 Oral Histology	2
BDS 230L Oral Histology Lab	1
BDS 260 Cariology	1
BDS 270 Biochemistry for Dentistry	1
BDS 250 Dental Material II (with lab component)	3
ENL 210 Introduction to Public Speaking	3
Total	38



YEAR III – 38 credits

Course Requirement	# credits
BDS 310 Fixed Prosthodontics I	2
BDS 310L Preclinical Fixed Prosthodontics I	1
BDS 360 Operative Dentistry I	1
BDS 360L Preclinical Operative Dentistry I	1
BDS 330 Removable Prosthodontics I	1
BDS 330L Preclinical Removable Prosthodontics I	1
BDS 340 Endodontics I	1
BDS 340L Preclinical Endodontics I	1
BDS 304 Pharmacotherapeutics	2
BDS 302 Dental Anesthesiology	1
BDS 372 Radiology and Radioprotection	2
Core Liberal Arts Elective*	3
BDS 311 Fixed Prosthodontics and Occlusion II	1
BDS 311L Preclinical Fixed Prosthodontics II	1
BDS 361 Operative Dentistry II	1
BDS 361L Preclinical Operative Dentistry II	1
BDS 320 Oral Surgery I	2
BDS 341 Endodontics II	1
BDS 341L Preclinical Endodontics II	1
BDS 380 Periodontology I	1
BDS 307 Sterilization and Infection Control	1
BDS 306 General Medicine and Dentistry	2
BDS 380L Preclinical Hygiene, Ergonomics & Periodontics	1
BDS 370 Oral Medicine I	2
Core Liberal Arts Elective*	3
Core Liberal Arts Elective*	3
Total	38



YEAR IV – 40 credits

Course Requirement	# credits
BDS 420 Oral Surgery II	1
BDS 480 Periodontology II	1
BDS 410 Implant Prosthodontics	2
BDS 410L Preclinical Fixed Prosthodontics III	2
BDS 406 Implant Dentistry	2
BDS 470 Oral Medicine II	1
BDS 440 Endodontics III	1
BDS 440L Preclinical Endodontics III	1
BDS 472 Radiology	1
BDS 410C Clinical Operative & Prosthodontics	2
BDS 440C Clinical Endodontics I	2
BDS 480C Clinical Periodontics I	2
BDS 420C Clinical Oral Surgery I	2
BDS 470C Clinical Oral Diagnosis, Oral Medicine & Radiology	1
BDS 412L Preclinical Implant Prosthodontics	1
BDS 430 Removable Prosthodontics II	1
BDS 430L Preclinical Removable Prosthodontics II	1
BDS 490 Pediatric Dentistry	2
BDS 495 Orthodontics	2
BDS 490L Preclinical Pediatric - Orthodontic Dentistry	2
BDS 402 Evidence Based Dentistry	1
BDS 404 Medical Emergencies in Dentistry	1
BDS 450C Comprehensive Care & General Dentistry I	2
Core Liberal Arts Elective *	3
Core Liberal Arts Elective*	3
Total	40



YEAR V – 35 Credits

Course Requirement	# credits
BDS 590C Clinical Pediatric Dentistry I	2
BDS 595C Clinical Orthodontics I	1
BDS 540C Clinical Endodontics II	2
BDS 520 Current Development in Oral and Maxillofacial Surgery	1
BDS 502 Ethics in Dentistry	1
BDS 504 Geriatric Dentistry	1
BDS 550C Comprehensive Care & General Dentistry II	7
BDS 552C Community dental practice	2
BDS 554C Treatment Plan & Case Presentation	3
BDS 570 Oral Medicine III	2
BDS 592C Clinical Pediatric Dentistry II	2
BDS 597C Clinical Orthodontics II	1
BDS 542C Clinical Endodontics III	1
BDS 556C Comprehensive Care & General Dentistry III	7
BDS 570C Radiology and Digital Dentistry	2
Total	35

Course Description

UNI 101: First-Year University Experience

3 Credits

This course acclimates and prepares students for university life. It introduces students to academic practices such as critical reading and thinking, study and research skills, information literacy, cultural diversity, and collaborative learning within an “American-Style” liberal arts educational environment. Course Prerequisite or Corequisite: None

MAT 101 College Algebra

3 Credits

Introduces the idea of multiple representations of linear and non-linear functions. Includes mathematical concepts for understanding rational numbers, various expressions, analyzing and solving linear equations & inequalities, data analysis, probability, statistics, and polynomials. Has hands-on material providing the student with problem-solving skills where algebra concepts are applied. Course Prerequisite or Corequisite: None

CSC 101: Introduction to Computer Science

3 Credits

This course covers the fundamentals of computers and computer nomenclature, particularly with respect to personal computer hardware and software used in today's business environment. Students will survey and use business applications programs utilizing pre-written programs that include word processing, spreadsheets, databases, presentation graphics, and web browsers. Students completing the course will have a solid understanding of computer concepts, how to use computers in today's business world, and how to access information on the World Wide Web. Course Prerequisite or Corequisite: None

BIO 101: Introductory Biology

3 Credits

This introductory course covers basic concepts in biology. It includes an introduction to the basis of life, structure and function of cells and systems, forms and functions of plants and animals, as well as genetics, evolution, and ecology. Course Prerequisite or Corequisite: None.

CHE 105: General Chemistry for Healthcare Professions

3 Credits

This course deals with the study of general chemical principles, including stoichiometry, atomic structure, chemical bonds and molecular geometry, chemical reactions and equilibria, thermochemistry, gases, solutions, with emphasis on the practical aspects of chemistry in numerous healthcare-related situations. Course Prerequisites or Co-requisites: None.

CHE 105 L: General Chemistry for Healthcare Professions Laboratory

1 Credit

A laboratory course to accompany CHE 105. At least 10-12 laboratory experiments related to topics covered in the theory part of CHE 105. Course Prerequisite or Corequisite: CHE 105.

ENL 101: Expository Writing

3 Credits

This course enables students to practice writing in several contexts and forms (from personal narrative to inquiry and argument). They will develop increasingly complex essays incorporating the ideas and language of other writers in placing their voice within academic or public debates. Course Prerequisite or Corequisite: None

BIO 211 General Biology I

3 Credits

Topics include the molecular basis of life, cell structure and function, energy and metabolism, essential genetics and molecular biology, evolution, and diversity of life. Prerequisite: BIO 101.

BIO 211L General Biology I Laboratory

1 Credit

Laboratory sessions to cover the General Biology course. Course Prerequisite or Corequisite: BIO 211.

BDS 105 Medical Physics

3 Credits

This course provides introductory physics for health science professionals. The course material includes topics related to mechanics, waves, fluids and thermodynamics, vibrations and waves, and atomic and nuclear physics. The course aims as well to provide a basic understanding of physical processes and techniques needed for the further understanding of complex concepts in advanced health sciences courses. Course Prerequisite: MAT 101.

BIO 217 Human Anatomy and Physiology

3 Credits

This course introduces students to the anatomy and physiology of the human body with an emphasis on the skeletal, muscular, cardiovascular, renal, immune, nervous, endocrine, gastrointestinal, respiratory, and reproductive systems. A comprehensive knowledge of homeostatic regulation in the body's functions and a discussion of imbalances to homeostasis will be covered. Congenital abnormalities, as well as their physiological effects and clinical implications, will be described. Course Prerequisite: BIO 101.

HCT 101 Fundamentals of Healthcare Professions

3 Credits

This course provides students with an overview of the various healthcare professions by covering and discussing fundamental aspects of the healthcare system. It includes an overview of healthcare development, how health delivery systems are structured, legal and ethical

considerations of healthcare delivery, and an overview of various healthcare professions. Students are encouraged to discover health professions through assignments, observations, and interviews. Course Prerequisites or Corequisites: None.

ENL 201: Academic Writing

3 Credits

This course enables students to demonstrate critical reading, interdisciplinary investigations, and research skills practiced in their core courses by investigating more deeply a question or idea raised in their core coursework and exploring topics in their proposed major.

Course Prerequisite or Corequisite: ENL 101.

CHE 210 Organic Chemistry for Health Sciences

3 Credits

Topics included are chemistry of saturated and unsaturated hydrocarbons, aromatic compounds, ethers, and thiols, alcohols, phenols, aldehydes and ketones, carboxylic acids and esters groups. Amines and amides are also covered. The use of IUPAC nomenclature for all functional groups will be taught. Course Prerequisite: CHE 105.

CHE 210L Organic Chemistry for Health Sciences Laboratory

1 Credit

A laboratory course to accompany CHE 210. Students shall perform experiments on qualitative and quantitative chemistry, the synthesis and extraction of the most important functional groups. Purification and separation techniques will also be introduced. Course Prerequisite or corequisite: CHE 210.

BIO 220 General histology

3 Credits

This subject can help dental students gain a better understanding of cell behavior and reproduction, making cellular biology more understandable. Likewise, because tissues are the building blocks of virtually everything in the body, understanding histology enables students to predict and understand organ behavior and function. Course Pre-requisite: BIO 211.

BDS 200 Dental Anatomy and Occlusion

3 credits

This course acquaints the student with the morphologic components of the natural dentition and related anatomic structures. Course Prerequisite BIO 217.

BDS 200L Dental Anatomy and Occlusion Laboratory

1 credit

This lab-based course provides students with demonstrations, training, and guidance to carve teeth models using wax materials. The students will reinforce their knowledge of basic dental anatomy and will be provided with the training and experience required to shape and carve teeth models with varying anatomical differences. During the practice process, students will learn how to perform an accurate self-assessment based on a rubric system, they will gain manual dexterity.

They will improve their control over the dental instruments. Course Prerequisite or Corequisite: BDS 200

[BDS 220 Dental Material](#)

2 credits

The present course is designed for students to define and recite an appropriate overview of the basic knowledge of the physical, chemical, and mechanical properties of materials used in different branches of dentistry. Also, the students can determine all fundamentals knowledge of polymer, metals, and ceramics to bridge the gap between the obtained basic knowledge and the clinical dental operator. Course Prerequisite: CHE 105.

[BDS 240 Introduction to Dentistry and Scientific Evidence](#)

2 credits

This course introduces students to dental practice. An overview of the basic concepts, principles, and procedures of various specialties in dentistry and historical and evolution developments. This course focuses on specific and easy-to-understand steps for understanding scientific evidence and how it can be used in medical and dental practice. Course Prerequisite or Corequisite: BDS 200.

[BIO 219: Medical Microbiology](#)

3 Credits

This course introduces students to the basis of microbiology with an emphasis on infectious diseases. The student will learn about the numerous characteristics of microorganisms in general, as well as the specific properties of pathogenic bacteria, fungi, viruses, and parasites. Various elements of medical microbiology are discussed, as well as pathogen detection and control, disease transmission, host resistance, immunity, infection control, and the latest advancements in microbiological techniques. Course Pre-requisite: BIO 211.

[BDS 217 Head and Neck Anatomy](#)

2 credits

This course is an overview of the development and anatomy of the head and neck. The head and neck osteogeny will be described, and bone components will be identified. Muscles, vasculature, and neural innervation will be addressed in detail and associated with clinical correlations. The anatomy of the oral cavity, tongue, and pharynx will also be described. Course material will be supplemented with 3D images and videos. Course Prerequisite: BIO 217.

[BDS 217L Head and Neck Anatomy Lab](#)

1 credit

This laboratory course will follow the theoretical course BDS 217 Head and Neck Anatomy. The sessions will allow the student a better understanding and memorize the 3D anatomy of the head and neck. Course Prerequisite or Corequisite: BDS 217.



BIO 218 Pathophysiology

3 Credits

This course is designed to provide common medical disorders. The medical problems are organized to provide a brief overview of the basic disease process, etiology, incidence, prevalence, and medications and oral manifestations commonly presented by the dental patients. Course Prerequisite: BIO 217.

BDS 230 Oral Histology

2 credits

This course will help dental students to study oral and dental tissue structures under a microscope. This is one of the most essential topics for dental students to understand oral tissue microanatomy to recognize oral structures, and follow disease pathogenesis. This course will emphasize the histology of enamel, dentin, pulp, and cementum and the biology of the periodontium. This course will also cover the anatomy of salivary glands and the physiology of salivary secretion. Course Prerequisite: BIO 220.

BDS 230L Oral Histology Laboratory

1 credit

In the oral histology laboratory course, we will go through all the histological structures of the oral cavity. Students will work in groups and be guided by the laboratory instructor to identify the images and basic structures. Course Prerequisite or Corequisite: BDS 230.

BDS 260 Cariology

1 credit

This course will provide theoretical knowledge of the oral ecosystem and its importance for the development of diseases and injuries of the teeth. Etiology, progression, and diagnosis of diseases are discussed, as well as the activity, progression, and prevention. This course will help the students understand the importance of lifestyle, general health, and social and cultural circumstances on oral health. Course Prerequisite or Corequisite: BIO 219.

BDS 270 Biochemistry for Dentistry

1 Credit

This course presents students with a survey of basic concepts in modern biochemistry and molecular biology. The course emphasizes the application of biochemical concepts to human metabolism incorporated in the study of amino acids, carbohydrates, lipids, proteins, enzymes, and nucleotides. Course Pre-requisite: CHE 210.

BDS 250 Dental Material II (with lab component)

3 credits

This course is a blend of lectures and practical work. It is a continuity of Dental material. The students will acquire theoretical and practical data about restorative dental materials as regards to their presentation modes, compositions, manipulation, properties, and limitations in relation to clinical use. The course is also directed to enable students to make rational decisions

on properly selecting dental materials and their use in clinical practice relying on evidence-based dentistry. Course Prerequisite or Corequisite: BDS 220.

ENL 210 Introduction to Public Speaking

3 Credits

Introduction to Public Speaking strengthens student's reasoning skills and understanding of the various rhetorical strategies available to them in both the writing process and in speaking publicly. Students are required to practice ethical integration and documentation of sources into speeches. The course is designed to introduce students to extemporaneous and both planned and documented types of speaking. To this end, students will be required to do research on topics and give oral presentations to the class based on their research. This course strongly reinforces the connection between writing and speaking. Course Prerequisite or Corequisite: UNI 101

BDS 310 Fixed Prosthodontics I

2 credits

This lecture course provides a comprehensive introduction to extracoronary full-coverage tooth restoration systems. The conceptual basis for both single-tooth crowns and multiple-tooth bridgework is presented. Course Prerequisite or Corequisite: BDS 250.

BDS 310L Preclinical Fixed Prosthodontics I

1 credit

This hands-on simulated clinic course provides demonstrations, experience and skill development with the procedures related to fixed restorations. The students will work also on simulators. Course Prerequisite or Corequisite: BDS 310.

BDS 360 Operative Dentistry I

1 credit

This lecture courses will give foundation knowledge of operative instrumentation, operative dentistry terminology, principles of cavity preparations, and the basics of single tooth restorations and esthetic restoration. Course Prerequisite: BDS 200 and BDS 260.

BDS 360L Preclinical Operative Dentistry I

1 credit

This hands-on simulated clinic course provides demonstrations, experience and skill development with the procedures related to direct intracoronary, esthetic tooth restorations. The students will work also on simulators. Course Prerequisite: BDS 360.

BDS 330 Removable Prosthodontics I

1 credit

This lecture course address partial denture construction. They aim to introduce the student to treatment modalities unique to the partially edentulous patient, emphasizing removable dentures. The didactic course content includes diagnosis and treatment planning for partial dentures (including Provisional and Transitional). Design of these prostheses, including an in-

depth discussion of denture occlusion. Fabrication, Insertion, adjustment, and correction of these prostheses. Course Prerequisite: BDS 250.

BDS 330L Preclinical Removable Prosthodontics

1 credit

This simulated preclinic course provides experience and skill development with the procedures related to partial denture construction. The course content includes the following: Fabrication of Upper and Lower dentures with lingualized occlusion (from preliminary impressions to processing and occlusal equilibration), Anatomical Set-up in Bilateral Balance, Fabrication of Partial Upper and Partial Lower dentures (from preliminary survey to abutment preparation), Laboratory communication which will be stressed in all phases of Partial dentures. Course Prerequisite or Corequisite: BDS 330.

BDS 340 Endodontics I

1 credit

This lecture course gives the student a clear understanding of the biological foundations of pulpal and periapical diseases and discusses the causes and progression of these problems. In addition, it introduces diagnostic and therapeutic modalities. Course Prerequisite: BDS 260.

BDS 340L Preclinical Endodontics I

1 credit

This preclinical course simulates clinical experience and skill development of therapeutic techniques already shown in the lecture course. Both extracted and artificial teeth mounted in simulated mannequin patients are used to prepare the student to apply endodontic care to the patients. Course Prerequisite or Corequisite: BDS 340

BDS 304: Pharmacotherapeutics

2 Credits

This course covers the general principles in pharmacology including pharmacokinetics and pharmacodynamics and their significance in dental practice. The course gives emphasis on pharmacological actions and therapeutic applications of drugs used or implicated in dentistry, including side effects in the oral cavity and drug interactions. Topics include drugs affecting the nervous system, antimicrobial agents, anti-inflammatory and analgesics.

Course Prerequisite: BIO 218.

BDS 302 Dental Anesthesiology

1 credit

This course will give the student the knowledge and skills to properly administer local anesthesia to patients requiring pain management during dental treatment. Special emphasis is given to the pharmacology of local anesthetics, injection fundamentals, clinical administration of local anesthesia, and selecting and evaluating anesthetic solution used in relation to the patient's overall health. Local and systemic complications are also presented. Course Prerequisite: BDS 217.



BDS 372 Radiology and Radioprotection

2 credits

This course introduces basic radiology concepts to undergraduate dental students. Students will gain knowledge of the basic concepts of how x-rays are created and interact, as well as a familiarity with dental radiographic techniques. In addition, this course includes training students to analyze the biological effects of ionizing radiation and to apply current radioprotection measures. Course Prerequisite: BDS 200.

BDS 311 Fixed Prosthodontics and Occlusion II

1 credit

Students will learn diagnosis, treatment planning, rehabilitation, maintenance of oral function, comfort, appearance, and health of patients with clinical conditions associated with missing or deficient teeth using biocompatible substitutes. These restorations must provide an improved state of oral health, function, and esthetics for patients. Course Prerequisite: BDS 310.

BDS 311L Preclinical Fixed Prosthodontics II

1 credit

This hands-on simulated clinic course provides demonstrations, experience and skill development with the procedures related fixed restorations, root anchorage, crown and bridges. The students will also work on simulators. Course Prerequisite or Corequisite: BDS 311.

BDS 361 Operative Dentistry II

1 credit

This lecture course is a continuity of Operative dentistry I, and give advanced knowledge on intracoronal and indirect esthetic restoration. Course Prerequisite: BDS 360.

BDS 361L Preclinical Operative Dentistry II

1 credit

This hands-on simulated clinic course is a continuity of BDS 360 L, it provides demonstrations, experience and skill development with the procedures related to indirect intracoronal, esthetic tooth restorations. The students will work also on simulators. Course Prerequisite or Corequisite: BDS 361.

BDS 320 Oral Surgery I

2 credits

This course introduces the basic concepts and techniques of tooth extraction and minor and major oral surgical procedures. Emphasis will be given to the pre-surgical patient evaluation, instrument selection, risk management, and basic surgical principles. Course Prerequisite: BDS 217.

BDS 341 Endodontics II

1 credit

This course is a continuity of BDS 340; it addresses endodontic treatment related to multirooted teeth, root canal preparation, disinfection, and obturation techniques. Course Prerequisite: BDS 340.

BDS 341L Preclinical Endodontics II

1 credit

This preclinical course simulates clinical experience and skill development of therapeutic techniques already shown in the lecture course. Multirooted both extracted and artificial teeth mounted in simulated mannequin patients are used to prepare the student to apply endodontic care to the patients. Course Prerequisite or Corequisite: BDS 341.

BDS 380 Periodontology I

1 credit

This course presents the clinical and microscopic characteristics of the periodontium in healthy and diseased states. Diagnosis, risk factors, non-surgical periodontal treatment, and outcomes assessment are discussed. Course Prerequisite: BDS 230.

BDS 307 Sterilization and Infection Control

1 credit

This course will present appropriate protocols for preventing infection spread from patient to patient, healthcare provider to patient, or patient to staff. Practical control of the environment is a multi-step process and must include a strict protocol that will help reduce the spread of infection. This lecture course presents the current sterilization methods, using physical or chemical agents to eliminate all viable microbes from dental instruments, surfaces, and dental treatment centers. Course Prerequisite: BIO 219.

BDS 306 General Medicine and Dentistry

2 credits

Lectures and case presentations are done to give knowledge to the student about common diseases, infectious diseases, cardiovascular diseases, diabetes to illustrate the relationships between the pathological processes of disease and their clinical manifestations. Emphasis is on the dental management of patients with medically complex conditions. Course Prerequisite: BDS 304.

BDS 380L Preclinical Hygiene, Ergonomics & Periodontics

1 credit

This course is designed to introduce students to basic concepts and skills necessary for the successful practice of dentistry. Concepts include didactic instruction in the following areas: infection control, bacterial plaque formation, etiology and prevention of both dental caries and periodontal disease and patient education for both individual and group instruction. Clinical instruction is provided in the Predoctoral Treatment Center and Simulation Learning Center. It focuses on instruction in infection control, patient evaluation, and basic instrumentation skills. Course Prerequisite or Corequisite: BDS 380.



BDS 370 Oral Medicine I

2 credits

Lectures and case presentations in this course illustrate methods of clinical diagnosis of oral and systemic diseases. Treating oral mucosal lesions, oral manifestations of systemic diseases and their effects on comprehensive oral health care is discussed according to each oral lesion or disease. It will stress on oro-facial pain and the concept of immunity as related to oro-facial lesions including AIDS. Course Prerequisite: BDS 230.

BDS 420 Oral Surgery II

1 credit

This course is a continuity of Oral surgery I. It stresses basic concepts of wound healing, hemostasis control, and postoperative care. Case presentations of major oral surgical procedures are shown and discussed. Course Prerequisite: BDS 320.

BDS 480 Periodontology II

1 credit

This course continues the discussion of concepts presented in the previous Periodontology I course. Emphasis is placed on the diagnosis and clinical management of periodontal disease, including the principles and techniques of periodontal surgery. Course Prerequisite: BDS 380.

BDS 410 Implant prosthodontics

2 credits

Students will gain knowledge of the principles of fixed and removable restorations over dental implants. Course Prerequisite: BDS 311.

BDS 410L Preclinical Fixed Prosthodontics III

2 credits

This simulated preclinical course provides practical experience and skill development for restoring missing and/or badly broken-down teeth by fabricating non-removable prostheses. Students will work on single-tooth crowns and multiple-tooth bridgework on plastic tooth models and simulating phantom heads.

Students will gain hands-on experience in fixed prosthodontics and occlusion's clinical and technical aspects. Course Prerequisite or Corequisite: BDS 410.

BDS 406 Implant dentistry

2 credits

This course presents the scientific basis for diagnosis, treatment planning, surgical protocol, and prosthetic options in modern dental Implantology. Course Prerequisite: BDS 380 and BDS 320.

BDS 470 Oral Medicine II

1 credit

This lecture course is a continuity of Oral Medicine I; it emphasizes congenital and hereditary disorders involving tissues of the orofacial region, salivary glands disorders, and tongue in oral and systemic diseases. This course aims to develop students' competency using critical thinking

and problem-solving related to the comprehensive care of patients with oral diseases. Course Prerequisite: BDS 370.

BDS 440 Endodontics III

1 credit

This lecture course address main endodontic treatment management, pain control, pharmacotherapeutics, treatment of trauma cases and uncompleted roots, and advanced therapeutic endodontic treatment. Course Prerequisite: BDS 341.

BDS 440L Preclinical Endodontics III

1 credit

This preclinical course simulates clinical experience and skill development of therapeutic techniques already shown in BDS 440. Both extracted and artificial teeth mounted in simulated mannequin patients are used to prepare the student to apply endodontic care to the patients. Course Prerequisite or Corequisite: BDS 440.

BDS 472 Radiology

1 credit

This course presents advanced imaging techniques including extraoral imaging, panoramic imaging and digital imaging. Lectures and case presentations will prepare the students to analyze radiographs and be proficient in interpretation of caries, periodontal disease and periapical pathology. The students will also gain knowledge of the radiographic features of various jaw diseases including cysts, tumors, fibro-osseous lesions, systemic disease, infections and developmental diseases affecting the oral tissues. Course Prerequisite: BDS 372.

BDS 410C Clinical Operative & Prosthodontics

2 credits

During this clinical course students will perform examination and diagnostic procedures, comprehensive treatment planning, all restorative dental procedures, fixed and removable prosthodontic procedures. Course Prerequisite: BDS 311.

BDS 440C Clinical Endodontics I

2 credits

This course is a clinical training dedicated to root canal treatment on monoradicular teeth. Course Prerequisite or Corequisite: BDS 341.

BDS 480C Clinical Periodontics I

2 credits

This clinical course emphasizes the non-surgical treatment of the patient's existing gum disease and the maintenance of healthy periodontium through patient education. Course Prerequisite: BDS 480.



BDS 420C Clinical Oral Surgery I

2 credits

Students perform uncomplicated exodontia and minor pre-prosthetic surgical procedures that the clinical instructors approve. They will assist the instructors in complicated surgical procedures. Student's clinical experience will be delivered in recurrent 2-week blocks during the semester. This type of experience will give students a better understanding of delivering surgical care by having more hands-on experience, as they will be able to follow up on the recovery of individual patients. Course Prerequisite: BDS 420.

BDS 470C Clinical Oral Diagnosis & Oral Medicine & Radiology

1 credit

This clinical course will allow the students to assist in diagnosing oral conditions and discuss treatment options and strategies. Course Prerequisite: BDS 470.

BDS 412L Preclinical Implant prosthodontics

1 credit

The course is a combination of didactic classroom learning and simulated lab exercises. The course will prepare the students to restore patients in a clinical setting using dental implants as a treatment option. They will perform digital impressions of the dentition, learn how to fabricate an accurate surgical guide for its use in guided surgery, restore dental implants on a model, and restore overdentures supported by dental implants. Course Prerequisite: BDS 410.

BDS 430 Removable Prosthodontics II

1 credit

This lecture course addresses complete denture construction. It aims to introduce the student to treatment modalities unique to the fully edentulous patient, emphasizing removable dentures. The didactic course content includes diagnosis and treatment planning for complete dentures (including immediate treatment dentures and attachments). Design of these prostheses including an in-depth discussion of denture occlusion. Fabrication, Insertion, adjustment, and correction of these prostheses. Course Prerequisite: BDS 330.

BDS 430L Preclinical Removable Prosthodontics II

1 credit

This simulated preclinic course provides experience and skill development with the procedures related to complete denture construction. The course content includes the following: Fabrication of Complete Upper and Lower dentures with lingualized occlusion (from preliminary impressions to processing and occlusal equilibration), Anatomical Set-up in Bilateral Balance, Fabrication of Upper and Lower dentures (from preliminary survey to abutment preparation), Laboratory communication which will be stressed in all phases of Complete dentures. Course Prerequisite or Corequisite: BDS 430.



BDS 490 Pediatric Dentistry

2 credits

The course focuses on training in patient management, preventive and restorative dentistry, diagnosis and management of common pediatric problems, and treatment of traumatic dental injuries. This course also discusses the development and growth of the orofacial structures of the child and adolescent. Course Prerequisite: BDS 361.

BDS 495 Orthodontics

2 credits

This lecture course discusses concepts in the growth and development of the craniofacial complex, the diagnosis, etiology, and development of malocclusions with a special focus on their diagnosis and multidisciplinary treatment planning. Intervention in growth problems for children and minor tooth movement for adults are included, as well as access to Invisalign and aligners technology. Course Prerequisite: BDS 472.

BDS 490L Preclinical Pediatric-Orthodontic dentistry

2 credits

This course is a comprehensive simulated clinic introduction to the techniques of pediatric dentistry and orthodontic techniques. It includes the technical aspects of restorative dentistry and space maintenance. Course Prerequisite or Corequisite: BDS 490 - BDS 495.

BDS 402 Evidence-Based Dentistry

1 credit

This course will allow the students to assess and evaluate published scientific and dental literature. Students learn to examine the general concepts in experimental design, scientific methodology, and the appropriateness of statistical methods used to evaluate the conclusions of studies. Some sessions are dedicated to help the students develop sound reasoning and critical thinking skills, the student will work in small groups and led by faculty members. Students will analyze scientific literature and learn about general patterns of clinical judgment, critical thinking, decision-making, and application of scientific evidence into everyday practice. Course Prerequisite: BDS 240.

BDS 404 Medical Emergencies in Dentistry

1 credit

Patient history and physical examination are described, along with the prevention and management of medical emergencies in the dental office. Course Prerequisite: BDS 302.

BDS 450C Comprehensive Care and General Dentistry I

2 credits

Comprehensive care is defined as the overall patient care delivery system that includes all dental services, including emergency care, treatment planning, general dentistry, specialty care, implant-supported restorations, non-surgical periodontal procedures, and maintenance therapy. Under supervision, the student will perform clinical general dental practice for adult patients. Patients and case discussions in the form of seminars are included. The student's knowledge and

practical skills will be assessed by the supervisors during clinical practice. To "Pass" this course, the students must have done a number of required clinical work.

Course Prerequisite or Corequisite: BDS 410C.

[BDS 590C Clinical Pediatric Dentistry I](#)

2 credits

This course includes Pediatric Dentistry, where students receive preventive and restorative dentistry training, treatment planning, and behavior management. Course Prerequisite or Corequisite: BDS 490.

[BDS 595C Clinical Orthodontics I](#)

1 credit

The student will have clinical experience in assisting Faculty providing patients with orthodontic treatment. This clinical training will focus on clinical diagnosis and radiographic evaluation of patients seeking orthodontic treatment. Course Prerequisite: BDS 495.

[BDS 540C Clinical Endodontics II](#)

2 credits

This course is a clinical training dedicated to root canal treatment on monoradicular and biradicular teeth. Course Prerequisite: BDS 440C.

[BDS 520 Current Development in Oral and Maxillofacial Surgery](#)

1 credit

This lecture-based course is designed to give the student exposure to all aspects of the wide and varied scope of oral and maxillofacial surgery. The course also promotes the integration of the basic sciences and medicine into the daily practice of oral and maxillofacial surgery and dentistry. Course Prerequisite: BDS 420C.

[BDS 502 Ethics in Dentistry](#)

1 credit

This course builds the student's understanding and consideration of ethical issues in dental practice and introduces related legal principles. Through lecture and case discussion, the student will focus on ethical problem-solving in more complex patient-based cases and introduces legal concepts affecting the practice of dentistry including licensure, malpractice, informed consent and refusal, mandatory reporting laws, patient confidentiality and prudent behavior, diversity and discrimination laws. Course Prerequisite: BDS 404.

[BDS 504 Geriatric Dentistry](#)

1 credit

This course integrates biomedical, clinical, and behavioral science principles into the evaluation and treatment planning of older adults and adults with special needs. This course focuses on patient-centered ways to promote, improve, maintain, and modify oral health care. This course also provides opportunities for critical thinking and foundational knowledge regarding interprofessional care and referrals, the social and behavioral implications of aging,

polypharmacy, and management of oral health and quality of life for medically compromised older adults and adults living with special needs. Course Prerequisite: BDS 430.

BDS 550C Comprehensive Care and General Dentistry II

7 credits

This clinical training is a continuity of Comprehensive care and general dentistry I. The student will have to manage more complex treatment cases. The students' knowledge and practical skills will be assessed by the supervisors during clinical practice. To "Pass" this course the students must have done a number of required clinical work. Course Prerequisite: BDS 450C.

BDS 552C Community Dental Practice

2 credits

Clinical experiences allow students to apply knowledge and develop competencies related to oral health promotion and disease prevention activities with individual patients. This course also provides the students with experience in treating diverse patient populations. Students might be assigned to alternative treatment settings such as Community Health Centers or Hospital-based dental clinics. Course Prerequisite or Corequisite: BDS 450C.

BDS 554C Treatment Planning and Case Presentations

3 credits

This Faculty supervised course comprises clinical case presentations, case-based learning, and treatment planning seminars. Through these activities, students learn skills to evaluate a patient's needs and develop an orderly, prioritized, and sequential course of problem-based treatment. The student learns to present this information in a way that enables the patient to conceptualize what treatment he or she requires and to co-participate in an informed fashion in developing their treatment plan. Students should develop realistic goals and expectations for patients and dentists through participation in this course. The seminar presentation requires a conversation about the patient's medical or physical condition demonstrating the student's knowledge of biomedical science. The students are required to support a treatment concept, procedure, or material choice proposed in their patient's therapy and support their decisions based on the available evidence in the dental literature. Students will prepare case presentations delivered via PowerPoint to other students and subjected to questions and debate; they will demonstrate their communication skills and comprehensive understanding of the presented material before peers and Faculty. Course Prerequisite: BDS 550C.

BDS 570 Oral Medicine III

2 credits

This lecture course is a continuity of Oral Medicine II, it emphasizes on congenital and hereditary disorders involving tissues of orofacial region, cysts, neoplasms, odontomes and fibro-osseous lesions, forensic odontology, premalignant and malignant lesion of orofacial region. This course aims to develop students' competency using critical thinking and problem-solving related to the comprehensive care of patients with oral diseases. Course Prerequisite: BDS 470C.

BDS 592C Clinical Pediatric Dentistry II



2 credits

This clinical training is a continuity course of Clinical Pediatric Dentistry I. Students will be trained under supervision for treating pediatric Special Needs patients for preventive and restorative dentistry, treatment planning, and behavior management. They will do rotation training to treat traumatic dental injuries at the children's dentistry clinics. Course Prerequisite: BDS 590C.

BDS 597C Clinical Orthodontics II

1 credit

This clinical course is a continuity of clinical orthodontics I, it allows the student to gain more experience in diagnosis, and referral of orthodontic patients. Course Prerequisite: BDS 595C.

BDS 542C Clinical Endodontics III

1 credit

Student's clinical experiences consist of diagnosing and treating pulpal and periapical dental pathology requiring endodontic intervention. This course focuses on case selection, specialty referral, non-surgical root canal therapy, emergency endodontic treatment, and clinical endodontic procedures of monoradicular and multiradicular teeth. Course Prerequisite: BDS 540C.

BDS 556C Comprehensive care and general dentistry III

7 credits

This clinical training is a continuity of Comprehensive care and general dentistry II. The student will have to manage more complex treatment cases. The students' knowledge and practical skills will be assessed by the supervisors during clinical practice. To "Pass" this course the students must have done a number of required clinical work. Course Prerequisite: BDS 550C

BDS 570C Radiology and Digital Dentistry

2 credits

Based on current literature, this course will review current techniques for incorporating intraoral scanners, 3D CBCT imaging, and CAD/CAM Technology into your everyday practice. Students will rotate between the radiology and the planning rooms; they will be asked to read CBCT scans and treatment plans and, in some cases, do digital smile design. Course Prerequisite: BDS 472.