Course Name	Introduction to Oral Health and the Dental Profession			مقدمة في صحة الفم ومهنة طب الأسنان			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401101	46456	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students begin their preparation to become dentists by learning what constitutes good oral health and how it is maintained throughout the life cycle with focus on personal hygiene including brushing, flossing and use of fluorides. Principles types of dental diseases and abnormalities are reviewed with emphasis on their causes and strategies for prevention and treatment. Students learn the principle modalities of dental treatment. Students learn the types of oral health problems that are treated by each of the dental specialties and are introduced to the concept of primary care dentistry. The relationship between dentistry and medicine is described and dentists' scope of medical practice is compared to that of physicians. Students learn the history, traditions and values of the profession of dentistry within Saudi Arabia and internationally, and the missions and unique features of The KFU College of Dentistry. Students interview dental faculty to learn about their careers and why they decided to be dentists.

Grading	☒ **Mid-term**	**20%**	☒ **Project**	**30%**	☐ **Quizzes**	
	☒ **Final**	**30%**	☒ **Lab**	**20%**	☐ **Participation**	

Textbook:

Burt and Eklund. Dentistry, Dental Practice and the Community. 6th edition. 2005. W.B. Saunders

Reference Book:

i. Bresch, et al. Today's threat is tomorrow's crisis: advocating for dental education, dental and biomedical research, and oral health. Journal of Dental Education. 2006. 70(6): 601-606.

ii. Hendricson and Cohen. Oral health care in the 21st century: implications for dental and medical Education. Academic Medicine. 2001; 77(12): 1181-1206.

Course Name	Ethical and Professional Practice: Foundations of Ethical Decision-Making			**الممارسة المهنية والأخلاقية**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401102	46457	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

During the first year course, small-group discussions focus on ethical issues commonly experienced by dental students, with exploration of behavioral expectations and academic integrity. Students learn and use a process for analyzing ethical dilemmas and making ethically defensible decisions. Additional topics during the first year ethical and professional practice course include patient, student and employee privacy/confidentiality, HIPAA, patient records, informed consent and ethical issues relating to providing health care for patients with diverse cultural backgrounds. Students explore health belief systems embraced by people from diverse cultures and analyze scenarios where patients' beliefs influenced health behaviors.

Grading	☐ **Mid-term**		☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**100%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. American College of Dentists (ACD) Online Dental Ethics Course https://www.dentalethics.org/index.shtml
ii. Williams JR. Dental Ethics Manual. 2007. Ferney-Voltaire, France: FDI World Dental Federation.
iii. Saudi Commission for Health Specialties. Code of Ethics for Healthcare Practitioners. 2014.
iv. Rule and Veach. Ethical Questions in Dentistry. 2nd edition. 2007. Quintessence.
v. Ozar and Sokal. Ethics at Chairside: Professional Principles and Practical Applications. 2nd edition. 2001. Georgetown University Press.

Reference Book:

Course Name	Biochemistry and Nutrition for Dentists			**الكيمياء الحيوية السنية والتغذية**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401103	47092	4		4	0	4
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

The course goal is to provide students with a basic knowledge of the major metabolic pathways, their regulation and interrelationships, with focus on processes relevant to the oral cavity, dental disease, and nutrition. Students explore cellular components and macromolecules, such as proteins and nucleic acids; metabolism of carbohydrates, proteins, and lipids; elementary processes such as DNA replication, transcription, translation, and energy transduction; and biochemistry of processes relevant to the oral cavity such as blood coagulation, caries formation and calcium homeostasis. The course includes clinical correlations to provide a clinical perspective on diseases with known biochemical mechanisms. The importance of nutrition in the dental health and development of humans is emphasized with focus on digestion, absorption, biosynthesis and metabolism of carbohydrates, lipids and proteins/amino acids, and therapeutic potentials of foodstuffs and their constituents. Edentulism, caries, oral surgery, chemotherapy and radiotherapy are explored in the context of special nutritional needs.

Grading	☒ **Mid-term**	**40%**	☐ **Project**		☒ **Quizzes**	**20%**
	☒ **Final**	**40%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Berg, Tymoczko, and Stryer. Biochemistry. 6th edition. 2006. WH Freeman.

Reference Book:

Course Name	Gross Anatomy for Dentists			**التشريح العام لأطباء الأسنان**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401104	47093	7		4	7	11
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the general anatomical and functional features of the major systems of the human body: skeletal system, muscular system, peripheral nervous system, respiratory system, cardiovascular system, digestive system and urogenital system. The latter part of the course focuses exclusively on the anatomical and functional features of the head and neck region. At the conclusion of this course, students will be able to:

- Identify the gross anatomical structures comprising the major body systems and explain functional features of these systems.
- Identify gross anatomical structures of the head and neck, and explain the functional features of this region.
- Comprehend the anatomical relationships between structures in the head and neck region, and locate structures for physical exam inspection and emergency procedure.
- Identify normal anatomical structures on radiographic and other images of the human body.

Grading	☒ **Mid-term**	**20%**	☐ **Project**		☒ **Quizzes**	**10%**
	☒ **Final**	**25%**	☒ **Lab**	**45%**	☐ **Participation**	

Textbook:

i. Moore & Agur. Essential Clinical Anatomy. 3rd edition. 2006. Lippincott, Williams & Wilkins.
ii. Agur. Grant's Atlas of Anatomy. 12th edition. 2007. Williams & Wilkins.
iii. Abrahams, Spratt, Loukas. McMinn & Abrahams Clinical Atlas of Human Anatomy. 7th edition. 2013. Mosby.

Reference Book:

i. Netter. Atlas of Human Anatomy. 3rd edition. 2003. ICON Learning Systems.
ii. Dorland's Illustrated Medical Dictionary. 31st edition. 2011. W.B. Saunders.

Course Name	Microscopic Anatomy (Histology)			**التشريح المجهري (علم النسيج)**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401105	47094	4		3	3	6
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the normal microscopic anatomy of cells, tissues, and organs and their function, and then focus on the oral cavity. Students learn the histology of enamel, dentin, pulp and cementum; periodontal ligament and bone. Students learn the development of the face and oral cavity; dentin matrix formation; calcification; oral mucosa; molecular anatomy; epithelial and connective tissue interactivity; epithelial attachment; gingival sulcus; and study root and cementum formation as well as histology of the salivary glands. The information acquired in this course enhances student understanding of histological changes arising from pathological changes in the oral cavity, as well as the histological basis for wounding healing and repair, and bonding compounds for dental restorations.

Grading	☒ **Mid-term**	**60%**	☐ **Project**		☒ **Quizzes**	**10%**
	☒ **Final**	**30%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Mescher. Junqueira's Basic Histology Text and Atlas. 13th edition. 2013. McGraw-Hill Medical.
ii. Chiego. Avery's Essentials of Oral histology and Embryology, A Clinical Approach. 4th edition . 2013. Elsevier

Reference Book:

Course Name	Dental Anatomy and Occlusion			**التشريح السني**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401106	47095	5		4	6	10
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the anatomical, morphological and functional aspects of the oral cavity, and are introduced to terminology used by dentists and other health professionals. Students acquire detailed knowledge of the dentition, supporting structures, and study normal occlusal relationships in the various jaw positions. In the laboratory component of the course, students begin to develop the manual dexterity and eye-hand coordination necessary to perform laboratory and clinical tasks that will be required to restore defective teeth to proper form, function, and esthetics. Concepts of occlusion are integrated throughout the course.

Grading	☒ **Mid-term**	**20%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**20%**	☒ **Lab**	**60%**	☐ **Participation**	

Textbook:

i. Nelson and Ash. Wheeler's Dental Anatomy, Physiology and Occlusion. 9th edition. 2010. W.B. Saunders

Reference Book:

Course Name	Introduction to Patient Care (IPC): Basic Clinical Skills			**مقدمة في عناية المرضى: المهارات السريرية الأساسية**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401107	47096	2		1	2	3
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	1st Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

IPC is implemented in the First and Second semesters of year two and year three. The course goal is to enable students to acquire foundational skills needed to participate in patient care in the clinic early in the curriculum. Dental students learn a variety of non-invasive clinical skills that support the delivery of dental treatment, with focus on patient examination. During the four semester sequence of IPC, students learn cubicle preparation, infection control and environmental safety, seating and positioning of the patient, positioning of dentist and assistant, transfer of dental instruments, monitoring and recording vital signs, recording medical history and dental charting, evacuation and retraction, and providing preventive therapy for patients including oral hygiene and risk prevention instruction. Students also acquire skills needed for application of sealants and fluoride varnish, digital photography, preparing diagnostic casts, taking impressions and bite registration, applying rubber dams, mixing cements, constructing a stabilizing appliance, providing patient education and complete basic life support training. Students acquire skills in small group demonstrations by faculty and by higher-level dental students. After acquiring basic skills, students function as assistants for upper classmen during weekly clinical rotations.

Grading	☒ **Mid-term**	**10%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**30%**	☒ **Lab**	**60%**	☐ **Participation**	

Textbook:

i. BLS for Health Professionals; American Heart Association. 2012. American Heart Association.

Reference Book:

Course Name	Professional Development and Practice Management: Career Planning			**التطور المهني وتنظيم الممارسة: التخطيط للحياة المهنية**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401108	53790	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students develop a strategic plan for achieving personal and professional goals during their dental careers. Students learn goal setting, developing vision and mission statements, and strategic planning, and use these skills to develop near and long-term career goals as well as plans for achieving these goals. Students also explore principles and methods of personal financial planning including accounting principles, cash flow management, and use of balance sheets. Students learn how to develop a budget and prepare one to address financial needs for the remainder of their dental education.

Grading	☐ **Mid-term**		☒ **Project**	**20%**	☐ **Quizzes**	
	☒ **Final**	**30%**	☒ **Lab**	**50%**	☐ **Participation**	

Textbook:

i. Practice Options for the New Dentist, American Dental Association. 2002. Selected portions of handout materials assembled by members of the American Dental Education Association's Section on Practice Administration.

Reference Book:

Course Name	Dental Public Health: Oral Health Promotion & Risk Assessment			**الصحة العامة السنية: تحسين الصحة الفموية وتقييم المخاطر**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401109	53791	2		1	1	2
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the fundamentals of public health and common dental indices of disease with emphasis on assessment, promotion and risk prevention. Students review the range of oral diseases and disorders that effect the population of Saudi Arabia. Students explore strategies for prevention of periodontal diseases, oral cancer and caries. In a laboratory, students learn to apply pit-and-fissure sealants and fluoride varnishes on models. Student teams go to elementary schools where they provide oral health education to children, perform dental screenings, and apply sealants and fluoride varnish.

Grading	☐ **Mid-term**		☐ **Project**		☒ **Quizzes**	**10%**
	☒ **Final**	**70%**	☒ **Lab**	**10%**	☒ **Participation**	**10%**

Textbook:

i. Cappelli and Mobley. Prevention in Clinical Oral Health Care. 2008. Mosby / Elsevier.
ii. Burt and Eklund. Dentistry, Dental Practice and the Community. 6th edition. 2005. W.B. Saunders.
iii. Gluck and Morganstein. Jong's Community Dental Health. 5th edition. 2005. Mosby.

Reference Book:

Course Name	Physiology of Human Organ Systems			**علم وظائف الأعضاء**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401110	53793	5		5	0	5
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

The purpose of this course is to provide students with knowledge of the physical and chemical factors and processes responsible for the development, progression and procreation of life. The course is conducted with an organ systems approach. Students learn basic cellular physiology followed by skeletal muscle physiology. Students then learn physiology of the cardiovascular system, the nervous system, the renal system, the respiratory system, the gastrointestinal system and the endocrine system.

Grading	☒ **Mid-term**	**35%**	☐ **Project**		☒ **Quizzes**	**30%**
	☒ **Final**	**35%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Levy, Koeppen and Stanton. Berne and Levy Principles of Physiology, 4th ed. 2005. Elsevier Mosby.

Reference Book:

Course Name	Dental Neuroscience			**علم الأعصاب للأسنان**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401111	53792	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the basics of neuroanatomy underlying somatosensory perception, special senses, orofacial reflexes, and common neurological disorders. Emphasis is on neuroanatomical pathways relevant to the head and neck, especially those mediated by the trigeminal system. The course also includes exploration of motor pathways and the special senses, disorders that often influence treatment plans developed by dentists. Students' understanding of the neuroanatomical pathways is reinforced by laboratory sessions with representative images of brain and spinal cord sections. At the conclusion of the course, students are able to:

- identify surface and internal features of the cerebrum, cerebellum, brain stem and spinal cord،
- identify the cranial nerves and the arteries of the central nervous system،
- describe the formation and function of the cranial nerves,
- describe neurological deficits resulting from injury or disease to the nervous system ،
- identify normal neuroanatomical structures on CAT and MRI scans, and،
- relate nervous system development to normal adult morphology and congenital defects.

Grading	☐ **Mid-term**		☐ **Project**		☒ **Quizzes**	**25%**
	☒ **Final**	**75%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Haines. Fundamental Neuroscience for Basic and Clinical Application. 3rd edition. 2006. Elsevier.

Reference Book:

Course Name	Microbiology and Immunology			**علم الأحياء والمناعة**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401112	53794	4		4	0	4
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn the nature of infectious microorganisms with emphasis on medical aspects of diseases of the oral cavity. Oral ecology and normal flora of the oral cavity are also emphasized. Topics covered are bacteriology, virology and mycology. Clinical case studies are used to illustrate infectious processes in oral and systemic diseases, with emphasis on infections of the oral cavity. At the conclusion of this course, students will be able to: describe the microbial ecology of the oral cavity, including acquisition of the oral microflora, identify the bacterial genera of the oral cavity, compare microbial pathogens of the oral cavity with respect to morphology and pathogenesis and describe the evolution of plaque and development of dental caries and periodontal disease. During the immunology component, students learn the two basic types of immunity and their components and functions. Students learn various ways in which immune systems protect against infection and learn dysfunctions and diseases associated with the immune system. Immunology of the oral cavity and the immune system's role in health and disease is emphasized.

Grading	☒ **Mid-term**	**75%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**25%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Murray. Medical Microbiology. 7th edition. 2012. Saunders / Elsevier.Agur. Grant's Atlas of Anatomy. 12th edition. 2007. Williams & Wilkins.
ii. Abbas and Lichtman. Basic Immunology. 3rd edition. 2010. Saunders / Elsevier.
iii. Samaranayake. Essential Microbiology for Dentistry. 4th edition. 2011. Churchill Livingstone/Elsevier.

Reference Book:

Course Name	Introduction to Patient Care (IPC): Basic Patient Examination			**مقدمة في عناية المرضى: الفحص الأساسي للمريض**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401113	53795	2		2	2	4
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students learn how to conduct a patient examination including interviewing the patient to elicit medical, dental, social and medication history and the patient's chief complaint, extra-oral examination of the head and neck, measuring and recording vital signs and documenting findings in the patient's electronic patient record (EPR). Students participate in labs to observe demonstrations of interviewing and examination techniques and then practice patient assessment skills, with focus on conducting the medical and dental interview and the extraoral exam. The final exam is an OSCE (Objective Structured Clinical Examination) using Standardized Patients to assess students' ability to perform patient examination skills with focus on interviewing and extraoral examination.

Grading	☐ **Mid-term**		☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**50%**	☒ **Lab**	**50%**	☐ **Participation**	

Textbook:

i. Terezhalmy, Huber and Jones. Physical Evaluation in Dental Practice. 1st edition. 2009. Wiley-Blackwell.

Reference Book:

Course Name	Radiological Technique			تقنية علم الأشعة			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401114	53796	2		1.5	0.5	2
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

This course prepares students for clinical oral and maxillofacial imaging. Students learn use of images in dentistry, physical properties of x-rays, image receptors, technique principles, selection criteria, normal anatomy, biological and therapeutic effects and radiation safety. In labs, students develop skills in placing, exposing, processing, and mounting dental radiographs using a technique mannequin (DXTTR), and gain experience with digital imaging technology and the photostimulable phosphor system (PSP). Students assess radiographs for normal anatomic structures, radiographic technique errors, caries, periodontal disease, and other common dental anomalies.

Grading	☒ **Mid-term**	**20%**	☐ **Project**		☒ **Quizzes**	**20%**
	☒ **Final**	**20%**	☒ **Lab**	**40%**	☐ **Participation**	

Textbook:

i. White and Pharoah. Oral Radiology. 6th edition. 2009. Mosby.

Reference Book:

Course Name	Foundations of Restorative Dentistry			**أسس طب الأسنان الترميمي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401115	53797	4		2	4	6
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

Students develop the skills needed for tooth preparation and restoration of tooth structure, function and esthetics in a longitudinal course, spanning years two and three. The students' learning process starts in the first year with fundamentals of cariology, disease prevention, risk management and strategies for non-surgical treatment of dental caries. Also during the first year, students' experience in preclinical technique labs begins with use of rotary instruments and development of the eye-hand coordination needed for execution of dental surgical techniques, skills that are also developed in the dental anatomy course. Throughout the course in years one and two, students learn biomaterials used in different types of restorative therapy as each technique is introduced and learn a process for making rational and evidence-based selection of restorative materials. Throughout the course, technical skill is developed through progressively complex pre - clinical simulations where students learn to restore tooth structure with amalgam, composite resins, laminates and veneers. Students also learn to assess interarch (occlusal) relationships. The continuum of skills acquired by students in the Foundations of Restorative Dentistry course through years two and three is outlined below.

- Fundamentals of disease prevention and risk management
- Biologic and chemical etiology of dental caries, clinical presentation, prevention, control, and non-surgical management
- Classification of cavities and restorations
- Instruments used in tooth preparation & restoration; instrument grasps & operating considerations
- Rotary instrument skill development
- Tooth preparation process and procedures – cavity preparation exercises
- Composite restorations – physical characteristics and visible light-curing units
- Direct anterior resin composite and other tooth-colored restorations: Classes III, IV, and V direct composite restorations
- Direct posterior resin composite restorations: preventive resin restorations and Classes I, II, and VI direct composite restorations
- Classes I, II, V and VI amalgam restorations
- Treatment of root caries
- Basic concepts of restoring esthetics in anterior teeth: bleaching and color matching, skills which are enhanced in the esthetics dentistry course later in the curriculum
- Complex amalgam restorations – retention, amalgam bonding, restoring endodontically treated teeth
- Evaluation of occlusion using diagnostic models and casts

Grading	☒ **Mid-term**	**20%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**20%**	☒ **Lab**	**54%**	☒ **Participation**	**6%**

Textbook:

i. Hilton, Ferracane, Broome. Fundamentals of Operative Dentistry: A Contemporary Approach, 4th edition. 2014. Quintessence.
ii. Heymann, Swift, Ritter. Sturdevant's Art & Science of Operative Dentistry. 6th edition. 2013. Mosby.
iii.Pitts. Detection, Assessment, Diagnosis and Monitoring of Caries. Monographs in Oral Science. Volume 21. 2009. Karger.
iv. Powers and Sakaguchi. Craig's Restorative Materials. 13th edition. 2012. Elsevier.

Reference Book:

Course Name	Foundations of Prosthodontic Treatment			**أسس طب الأسنان التعويضي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401116	53905	5		2	6	8
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	2nd Semester			**Prerequisite**	Preparatory Year Program		

Course Description:

During this longitudinal course that spans three semesters, students learn skills that enable them to: 1) provide complete dentures for fully edentulous patients, (2) restore function with fixed partial dentures including crown restorations, (3) provide removable partial dentures for treatment of partially edentulous patients, and (4) provide implant-supported prostheses. The course begins in year two with the complete denture component by introducing students to the diagnostic, treatment, and maintenance phases in the rehabilitation of endentulous patients with focus on the biomechanics of the endentulous state, clinical examinations and diagnosis, endentulous impressions, maxillomandibular relations, denture esthetics, denture occlusion, initial placement of complete dentures, and post-placement care and maintenance of endentulous patients. In the simulation lab, students learn the laboratory phases of the fabrication and repair of complete dentures. During the second component, students learn the principles of fixed prosthodontics, involving single and multiple restorations; the rationale and methodology for full and partial veneer preparations; the fabrication of restorations and the restoration of endodontically treated teeth. In labs, students acquire the skills to fabricate crowns and short span, fixed partial dentures. Lab projects include metal ceramic technique, use of conventional Type III dental gold alloy, and development of natural-appearing tooth contours with restorative material systems. Major emphasis is placed on restoration design and the phases of restoration planning and construction. The third component addresses removable partial dentures (RPD) where students learn the association of biological and mechanical principles in planning and constructing RPDs .

In RPD labs, students develop skills in diagnosis, treatment planning, survey and design, and RPD construction technique. In the final course component, students explore implant dentistry, with focus on biology and biomaterials of dental implants, patient selection and treatment planning, restorative capacities of dental implants, nomenclature and components of implant systems, prosthetic and surgical considerations for implant placement, and implant maintenance.

Grading	☐ **Mid-term**		☒ **Project**	**20%**	☐ **Quizzes**	
	☒ **Final**	**25%**	☒ **Lab**	**50%**	☒ **Participation**	**5%**

Textbook:

Reference Book:

Course Name	Dental Public Health: Epidemiology and Biostatistics			**الصحة العامة السنية: علم الوبائيات والاحصاء الحيوي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401201	47101	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

This course focuses on the role of data in public health assessment and planning. Students learn commonly used statistical concepts by analyzing research and epidemiological reports: organization and presentation of data, data summary by means of frequency distribution, and central tendency, probability, central limit theorem, hypothesis testing, parametric tests, non-parametric tests, and regression analysis. Students also review frequently used statistical tests reported in the dental and public health literature. As outcomes of this course, students will be able to explain basic statistical techniques and methods of analysis used in dental public health, identify commonly used public health databases and describe basic types of epidemiological studies to investigate public health issues.

Grading	☐ **Mid-term**		☒ **Project**	**30%**	☒ **Quizzes**	**10%**
	☒ **Final**	**60%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Wasserthell-Smoller. Biostatistics and Epidemiology: A Primer for Health and Biomedical Professionals. 3rd edition. 2004. Seconder-Verlag.

Reference Book:

i. Norman and Streiner. Biostatistics: The Bare Essentials. 2nd edition. 2000. B.C. Decker.

Course Name	Evidence-Based Dental Practice			**الممارسة المعتمدة على الدليل العلمي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401202	47102	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

This course prepares students to ask questions, think critically and to make sound judgments regarding the acceptance of new knowledge, products, and procedures in private practice. Students acquire a basic understanding of clinical research methods, epidemiology, and statistical procedures with focus on the knowledge and skills associated with evidence-based practice. Students learn how to identify uncertainties in patient care, formulate focused questions in the PICO format, conduct searches of electronic databases, and critically appraise research reported in articles. Students write PICO questions to guide exploration of the literature, conduct searches of electronic databases, appraise found information and then develop and present Critically Appraised Topic Summaries (CATs).

Grading	☐ **Mid-term**		☒ **Project**	**60%**	☐ **Quizzes**	
	☒ **Final**	**40%**	☐ **Lab**		☐ **Participation**	

Textbook:

vi. Evidence-based Dentistry- Journal of Canadian Dental Association Series (2001)
vii. Evidence-Based Decision Making in Action: Part 1 and Part 2- The Journal of Contemporary Dental Practice (2002)

Reference Book:

Course Name	Systemic Pathology					علم الامراض العام	
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401203	47103	5		5	0	5
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

This course provides students with a scientific foundation in the etiology, pathogenesis, morphologic alterations and effects of diseases. Knowledge of pathologic processes of disease provides a logical explanation for symptoms, signs and biochemical changes, and thus aids in attaining correct diagnosis, prognosis and treatment of diseases. During this course, students learn fundamental concepts of pathology (general pathology) and systemic pathology (i.e. consideration of specific organ systems such as cardiovascular diseases, pulmonary diseases, etc. Emphasis is placed on bone pathology and diseases that affect craniofacial region. At the completion of this course, students are able to:

- Describe structural and functional changes in tissues and organs in disease processes.
- Explain basic pathologic processes in cell injury, inflammation and repair.
- Describe pathologic processes in disorders of vascular flow and shock.
- Describe pathologic aspects of genetic diseases and disorders of the immune system.
- Describe etiology and pathologic features of neoplastic diseases.
- Describe pathologic features, etiology, clinical correlation and complications in selected aspects of systemic pathology of the hematological, respiratory and renal / urinary systems

Grading	☒ **Mid-term**	**60%**	☒ **Project**	**10%**	☐ **Quizzes**	
	☒ **Final**	**30%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Kumar, Abbas, Fausto and Mitchell. Robbin's Basic Pathology. 8th edition. 2007. Elsevier Saunders.
ii. Damjanov. Pathology for the Health Professions, 3rd edition. 2006. Elsevier Saunders.

Reference Book:

Course Name	Radiographic Interpretation			**التقييم الإشعاعي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401204	47104	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

Students gain experience in recognizing normal anatomic landmarks and learn common dental diseases that can be detected on intraoral and extraoral images. Panoramic anatomy and interpretation is emphasized. Students also participate in simulations devoted to lesion recognition and characterization, and develop a differential diagnosis for pathologic entities. Key topics include intraoral anatomy, caries recognition, bone loss, tooth and jaw inflammation, inflammation sequela, radiographic imaging for implants and TMJ analysis, and detection of trauma, musculoskeletal disorders, cysts, and tumors.

Grading	☒ **Mid-term**	**25%**	☐ **Project**		☒ **Quizzes**	**10%**
	☒ **Final**	**25%**	☒ **Lab**	**40%**	☐ **Participation**	

Textbook:

i. White and Pharoah. Oral Radiology. 6th edition. 2009. Mosby.

Reference Book:

Course Name	Introduction to Patient Care (IPC): Advanced Patient Examination and Clinical Assisting			**مقدمة في عناية المرضى: الفحص المتقدم للمريض والمساعدة السريرية**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401205	47105	3		2	4	6
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

IPC builds upon basic patient examination in the preceding semester, where students learned to elicit patients' chief complaints, medical, dental, social and medication history, measure vital signs, conduct an extraoral exam and document findings in the electronic patient record (EPR). In this semester, IPC focuses on intraoral exams, where students learn how to exam the oral soft tissues and document abnormal findings in the patient's EPR. Students learn how to select appropriate radiographic procedures for appraisal and diagnosis of potential oral disease. An important outcome is for students to learn how to determine the patient's ASA risk status classification and document in the EPR. Strategies for initiating consultations with, and / or referrals to, other health care providers are practiced in simulations. As a component of IPC throughout year three, students serve ½ day (i.e., one clinic period) weekly in the clinic as assistants for upper-class students.

Grading	☒ **Mid-term**	**30%**	☐ **Project**		☒ **Quizzes**	**10%**
	☒ **Final**	**30%**	☒ **Lab**	**30%**	☐ **Participation**	

Textbook:

i. Terezhalmy, Huber and Jones. Physical Evaluation in Dental Practice. 1st edition. 2009. Wiley-Blackwell.

Reference Book:

Course Name	Gingival and Periodontal Disease			مرض اللثة والانسجة الداعمة للسن			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401206	47106	2		1	1	2
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

Students learn to identify and manage gingival and periodontal diseases. Students explore the etiology and clinical manifestations of periodontal diseases, how these diseases destroy tooth-supporting tissues, and how these diseases are associated with the systemic health of patients. Students acquire skills to clinically and radiographically evaluate the periodontal status of patients. In labs, students learn how to perform periodontal examinations, conduct risk assessment, evaluate patients' oral hygiene and how to perform dental prophylaxis, scaling and root planing.

Grading	☒ **Mid-term**	**35%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**35%**	☒ **Lab**	**30%**	☐ **Participation**	

Textbook:

i. Wilson and Kornman. Fundamentals of Periodontics. 2nd edition. 2005. Quintessence.

Reference Book:

Course Name	Craniofacial Growth and Development			**نمو وتطور الجهاز القحفي الوجهي**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401207	47107	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

During this course, students learn a comprehensive approach to the morphologic, biochemical, and physiologic aspects of human growth and development. Students review the control and influence of genetic, hormonal, and environmental factors on tissues and organ systems, from the embryonic period to maturity, with emphasis on the functional development of the oral and perioral structures. Etiology of orofacial abnormalities is addressed and students also explore the social and behavioral development of the child and adolescent.

Grading	☒ **Mid-term**	**50%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**50%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Proffit, Fields & Sarver. Contemporary Orthodontics, 5th edition. 2012. Mosby/Elsevier.

Reference Book:

Course Name	Ethical and Professional Practice Year 3: Doctor-Patient Relationship			**الممارسة المهنية والاخلاقية: علاقة الطبيب بالمريض**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401208	47108	1		1	0	1
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

In this course, students explore issues pertaining to the doctor-patient relationship, interpersonal boundaries, patient autonomy and informed consent as they relate to treatment planning, clinical decision-making, and professional judgment. Students analyze cases depicting ethical dilemmas in dentist-patient relationships and interactions. Professional roles and societal responsibilities of the dental practitioner are explored.

Grading	☐ **Mid-term**		☒ **Project**	**30%**	☒ **Quizzes**	**10%**
	☒ **Final**	**60%**	☐ **Lab**		☐ **Participation**	

Textbook:

i. Rule and Veach. Ethical Questions in Dentistry. 2nd edition. 2007. Quintessence.
ii. Ozar and Sokal. Ethics at Chairside: Professional Principles and Practical Applications. 2nd edition.
2001. Georgetown University Press.

Reference Book:

Course Name	Foundations of Restorative Dentistry			**اسس طب الاسنان الترميمي (يشمل علم النخر السني والمواد الحيوية)**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401209	47109	4		2	5	7
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

Continuation; see previous course description

Grading	☒ **Mid-term**	**20%**	☐ **Project**		☐ **Quizzes**	
	☒ **Final**	**20%**	☒ **Lab**	**50%**	☒ **Participation**	**10%**

Textbook:

i. Summitt, Robbins and Schwartz. Fundamentals of Operative Dentistry: A Contemporary Approach. 3rd edition. 2006. Quintessence.
ii. Heymann, Swift, Ritter. Sturdevant's Art & Science of Operative Dentistry. 6th edition. 2013. Mosby.
iii. Powers and Sakaguchi. Craig's Restorative Materials. 13th edition. 2012. Elsevier.

Reference Book:

Course Name	Foundations of Prosthodontic Treatment			**اسس طب الاسنان التعويضي (يشمل متحرك، ثابت، تعويضات كاملة، زرعات سنية، مواد حيوية)**			
Course Information	**Course Code**	**CRN**	**Credit Hours**	**Contact Hours**	**Lecture**	**Lab**	**Total**
	3401210	47110	4		2	5	7
Track	☐ **University Requirement** ☒ **College Requirement** ☒ **Core** ☐ **Elective**						
Level	3rd Semester			**Prerequisite**	Completion of Second Year		

Course Description:

Continuation; see previous course description

Grading	☒ **Mid-term**	**10%**	☒ **Project**	**25%**	☐ **Quizzes**	
	☒ **Final**	**15%**	☒ **Lab**	**45%**	☒ **Participation**	**5%**

Textbook:

i. Shillingburg, et al. Fundamentals of Fixed Prosthodontics. 4th edition. 2012. Quintessence.

Reference Book: