AL JOUF UNIVERSITY

COLLEGE OF DENTISTRY

Courses Description

Bachelor of Oral & Dental Surgery

(BDS)

Course Specification: DENT 111 – Dental Education			
Course Symbol	DENT 111	Year	1
Course Title	Dental Education	Units	2 Didactic
Prerequisite			

Course Outline:

The idea of the problem based learning [PBL] will be discussed in the beginning of this course to clarify the modality of its application in the medico-dental practice.

This course is designed to review the dental history & provide students with the basic rules and elements of a dental word, including word roots, prefixes, suffixes and combining forms. The student will be able to analyze, spell, pronounce and build dental terms according to word parts and descriptions.

In order to enhance the student's knowledge of dental science, various terminologies including dental & medical terms are introduced & also using of computerized & internet exercises.

Principles of Medical & Dental ethics are involved in this course; the dentist can evolve his duties & rights towards his profession & be able for decision making.

During this course a practical model for verbal & non- verbal communication will be introduced and induces advice for managing communication in everyday clinical situations, together with interactive workshops.

The ability to communicate information clearly & concisely to different audiences is an essential attribute of any good doctor. Poor communication can lead to patient dissatisfaction, a breakdown of the doctor-patient relationship and complaints.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the origin and history of dentistry including Arabic & Islamic contribution to medicine & dentistry.
2. Define the basic components of dental terms.
3. Describe the rules for using the combining vowels.
4. Pronounce dental terms.
5. Describe the meaning of some dental & medical terminologies.
6. Clarify the meaning and significance of key ethical concepts
7. Outline important types of ethical theory, and their relevance to medical ethics.
8. Offer a conceptual framework useful for ethical analysis of medico-moral problems in a variety of professional contexts.
9. Understand the duties & rights of the dentist towards his profession & ability of decision making.
10. Acquire communication skills.

Educational Methods:

1. Lectures.
2. PBL sessions.

Assessment of Students:

1. Continuous assessment.
2. Final exam.

References:

1. Azar SA: Problem based learning: a critical review of its educational objectives & the rational of its use. Saudi Med.j. 2001,22[4]:299-305.
2. Kathlin M. Glotti, David W. Drebus, Rebecca L. Reimer A: Ways of knowing as learning styles: Learning Magic. J. of research, April 01, 2001.
3. Dorland's illustrated medical dictionary, 30th edition, Saunders, 2003.

Course Specification: DENT 112 – Cell Structure & Function			
Course Symbol	DENT 112	Year	1
Course Title	Cell Structure & Function	Units	4 Didactic 1 Practical
Prerequisite			

Course Outline:

This course is designed to ensure that dental student acquire sound knowledge in various integrated areas of cell biology, biochemistry, physiology and general histology.

Some areas of the mentioned disciplines have been covered less extensively than others to suite the needs of a dental student.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the chemical composition of the cell & environment in which cells are living.
2. Describe the structure of connective tissue & bone.
3. Explain the role of enzymes & vitamins in body homeostasis.
4. Understand briefly the metabolism of different food staffs & the construction, storage, and utilizing of enzymes.
5. Explain the role of hormones in body homeostasis & their effects in bone & muscle structure.
6. Describe characteristic features of the cell.

Educational Methods:

1. Lectures.
2. PBL sessions.
3. Laboratory sessions.

Assessment of Students

1. Continuous assessment.
2. Laboratory exams.
3. Final exam.

References:

1. Sylvia S. Mader: Human Biology. 7th edition 2002. McGraw hill
2. Robert K, et al: Harper's Biochemistry; 2000 by Appleton & Lange.

Course Specification: DENT 113 – Head & Neck: Structure & Function			
Course Symbol	DENT 113	Year	1
Course Title	Head & Neck: Structure & Function	Units	4 Didactic 1 Practical
Prerequisite			

Course Outline:

This course is an entrance requirement for preclinical and clinical dental programs. Students study the anatomy, physiology of the head and neck, and occlusion of the teeth. The course includes introductions to basic terminology and tooth structure, and extends to a survey of all of the oral systems. All material discussed with direct relationship to a well-characterized dental clinical case.

Oral secretions and salivary glands function, TMJ and static occlusion will be included in this course.

Course Outcomes:

By the end of this course, student should be able to:

1. Familiar with and able to use common dental anatomy terminology,
2. Identify and locate gross anatomic structures of the head and neck,
3. Master the static occlusal contact relationships of the ideal occlusion,
4. Identify the gross anatomic structures of the TMJ and relate these structures to function,
5. Draw border movements of the mandible as seen in sagittal, frontal, and horizontal planes,
6. Describe gliding tooth contacts made in the ideal occlusion for anterior group function, canine guidance, posterior group function and bilaterally balanced type occlusions,
7. Understand the function of saliva, anatomy, development, histological feature and structure of the salivary glands & Clinical considerations, age changes, diseases of the salivary glands.

Educational Methods:

1. Lectures
2. PBL sessions.
3. Laboratory sessions.

Assessment of Students:

1. Continuous Assessment.
2. Laboratory exams.
3. Final Exam.

References:

1. Anne M. R. Agur, Ming J., M.D. Lee, J. C. Boileau Grant: Grant's Atlas of Anatomy. Lippincott Williams & Wilkins; 10th edition, 1999.
2. Scott & Dixon: Anatomy for Dental students. OUP Oxford; 3rd edition, 1996.
3. Antonio Nanci :TenCate, Oral Histology, Development, Structure and Function, 7th Ed, 2007.

Course Specification: DENT 114 – Genetics, Growth, and Development			
Course Symbol	DENT 114	Year	1
Course Title	Genetics, Growth, and Development	Units	5 Didactic 1 Practical
Prerequisite			

Course Outline:

The purpose of this course is to introduce the student to basic concepts of growth and development, maturational, aging processes of the tissues, systems within the craniofacial complex, and deviation and variation from the normal growth and development in order to prepare the student for the following Preclinical and Clinical stages.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the origin of the tissues associated with facial and dental development and growth
2. Realize the growth factors and cell to cell and to matrix signaling for the development and growth
3. Understand the development and growth of Cartilage and Bone
4. Identify the characteristics features and function of bone cells
5. Describe the major sites of growth and types of bone growth in the cranial base, nasomaxillary complex, and mandible and how differential growth of the craniofacial components contributes to changes in size, shape and proportions of craniofacial structures.
6. Understand the development of Bone/Teeth and effects of hormones and nutrition.
7. Recognize the stages of tooth development.
8. Understand the craniofacial Odontology, Myology and Osteology Development and growth
9. Recognize the etiology of congenital defects manifested in the Oral and Para oral regions
10. Describe age changes of the Craniofacial complex
11. Understand role of Nucleic acids and Gene expression in human growth and development

Educational Methods:

1. PBL sessions.
2. Lectures.
3. Microscopic laboratory sessions

Assessment of Students:

1. Continuous Assessment.
2. Practical Examinations including OSPE.
3. Final Exam.

References:

1. Antonio Nanci: TenCate, Oral Histology, Development, Structure and Function. Mosby; 7th edition, 2007.
2. Text book of Orthodontics, S. Bishara, SAUNDERS, 2004
3. Proffit: Contemporary of Orthodontics, 4th ed. 2007, MOSBY
4. Mary Bath-Balogh, Margaret J. Fehrenbach: Illustrated Dental Embryology, Histology, and Anatomy. W.B. Saunders Company; illustrated edition, 1997.

Course Specification: DENT 115 – Principles of Diseases			
Course Symbol	DENT 115	Year	1
Course Title	Principles of Diseases	Units	5 Didactic 1 Practical
Prerequisite			

Course Outline:

This course includes the basic principles of disease and relevant histopathology. Considerable emphasis is given to understanding mechanisms underlying alterations at the cell and subcellular levels. The parameter of cell injury, inflammation, immunopathology, repair and regeneration, carcinogenesis, hemodynamic disturbances, and nutritional diseases are studied. Correlations of systemic diseases of importance in dentistry are emphasized. This course will provide the student with a working understanding of pharmacology and pharmacotherapeutics as applied to dental practice.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the mechanisms underlying alterations at the cell and subcellular levels.
2. Know the parameter of cell injury, inflammation, immunopathology, repair and regeneration.
3. Understand the carcinogenesis.
4. Know the hemodynamic disturbances, and nutritional diseases.
5. Identify the correlations of systemic diseases of importance in dentistry.
6. Understand the principles of pharmacology.

Educational Methods:

1. PBL sessions
2. Lectures
3. Laboratory sessions.

Assessment of Students:

1. Continuous assessment
2. Final examination

References:

1. Robbins' Basic pathology, 7th edition, V. Kumar, R.S. Cotran, and S. Robbins, 2003 W.B.Saunders Company.
2. Wheater's Basic Histopathology, 4th ed., Stevens, A., Lowe, J.S., Young, B. 2002 Churchill Livingstone.
3. Pharmacology and Therapeutics for Dentistry; Yagiela, Dowd & Neidle; 5th ed. 2004 (recommended)
4. Principles of Medical Pharmacology, Kalant and Roschlau, 6th ed. 2007. (required).
5. Oral radiology: Principles and Interpretation, White & Pharoah, 4th ed., 2003. CV Mosby (required)

Course Specification: DENT 121 – Scientific Presentation Skills (1)			
Course Symbol	DENT 121	Year	1
Course Title	Scientific presentation skills (1)	Units	1 Practical
Prerequisite			

Course Outline:

In the field of dentistry, knowledge and technical skills are not the only prerequisites for good practice. An ability to communicate effectively, to use active listening, to gather and impart information effectively, and to demonstrate empathy, rapport, ethical awareness is crucial.

The aim of this course is improve skill and behavior that help the students to communicate more effectively, present with confidence and enhance personnel impact.

In this course, the students gain a comprehensive and proven set of skill that helps them to work effectively with colleagues and develop expertise.

Course Outcomes:

By the end of this course, student should be able to:

1. Provide opportunities for students to work independently and in team, maintain working relationship with internal organization, and learn how to receive feedback in a positive way.
2. Steer conservation, plan and structure presentation, develop a positive and assertive presentation style, and deliver clear and convincing oral presentation to individuals.
3. Develop leadership personality that maintains discipline and ethical rules in the meeting organization.
4. Develop a more persuasive and impressive speaking style through the use of language creatively to present a more powerful message.
5. Develop a writing skill in a clear, convincing and organized manner.
6. Learn time organization that allows the use of time to meet presentation objective.
7. Learn how to participate in meeting or conferences and what to do ahead of time, how to start meeting, role of clarification in meetings, facilitation, and how to work with difficult attendees topics and deadlines.
8. Handle conflicts, aggression and build a rapport.
9. Learn how to evaluate and judge the scientific article.

Educational Methods

1. Seminar
2. Poster session
3. Scientific article.

The presentations will be directed toward basic medical and dental sciences

Assessment of Students

1. Continuous assessment
2. Projects: will be in the form of Seminar, poster session and scientific article presentation.

References:

1. Dennis C Tanner. An advanced Course in Communication Sciences: Plural publishing. 2006
2. Gillam Ronald B, Marquardt Thomas P and Martin Fredrick: Communication Sciences and Disorders. Singular Publishing Group.USA. 2000

Course Specification: DENT 122 – Community Dentistry (1)			
Course Symbol	DENT 122	Year	1
Course Title	Community Dentistry (1)	Units	1 Didactic
Prerequisite			

Course Outline:

The course has been designed to introduce to the dental undergraduates the basic concepts about community dentistry, oral health promotion and education. The implications of the system of Primary Health Care to the provision of oral health care to communities are discussed.

Course Outcomes:

By the end of this course, student should be able to:

1. Discuss the concept of health and identify various factors affecting health.
2. Define community dentistry and specify its domains.
3. Define primary health care and discuss its implications to oral health care.
4. Distinguish between health education and health promotion.
5. State the principles of health promotion and discuss various oral health promotion strategies.
6. Recognize the basic methods of health education.
7. Discuss the role of mass media in oral health education.
8. Identify different priority groups for oral health education.
9. Discuss the barriers to effective oral health education.
10. Analyze the existing behavioral and health problems.

Educational Methods:

1. Didactic lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Burt A.B, Eklund S.A: Dental Practice and the Community Dentistry. 6th Ed 2005, W. B. Saunders Company.
2. Harris N O, Franklin G G.: Primary Preventive Dentistry. 6th Ed 2003, Prentice Hall.

Course Specification: DENT 123 – The Art of Sculpture in Dentistry			
Course Symbol	DENT 123	Year	1-5
Course Title	The Art of Sculpture in Dentistry	Units	1 Didactic
Prerequisite			

Course Outline:

The purpose of this course is to introduce the student to basic concepts of Perceptual Skills and Visual Arts Vocabulary and developed their ability and taste of the artistic skills in order to develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills. They also learn about careers in and related to the visual arts.

Course Outcomes:

By the end of this course, student should be able to:

1. Apply the terms and expressions used in Drawing, painting and sculpting skills with proficiency.
2. Expanding knowledge of art and creativity.
3. Improving hand-eye coordination and imagination to create beauty in two and three dimensions.
4. Understanding the cause and effect of surface contour on light reflection, deflection, and Absorption.
5. Improving color taste and sensitivity so that fabricated teeth become more life-like and undetectable as dentistry.
6. Drawing visual perception of outline form details, special proportions, and value differences in color.
7. Understanding sculpting skills of volume, weight, and texture in three dimensions and in all views and angles

Educational Methods:

1. Didactic lectures
2. Artistic Projects

Assessment of students:

1. Continuous assessment.
2. Assignments and projects.

References:

1. Arnason H: History of Modern Art: Painting, Sculpture, Architecture, Photography (5th Edition), 2003

Course Specification: DENT 124 – Development of Dental Students			
Course Symbol	DENT 124	Year	1-5
Course Title	Development of Dental Students	Units	1 Didactic
Prerequisite			

Course Outline:

Student Development is dedicated to ensuring students' college success and motivating their journey toward lifelong learning. It will enable students to develop their own plan for personal, academic and career success through self-evaluation, application of specific techniques, and classroom activities. These activities will help students acquire effective study strategies, increase critical and creative thinking skills, establish short-term and long-term goals, and learn to manage time more efficiently. This is a course about making choices, especially those about setting and meeting personal, academic and career goals.

The Mind Map is a dynamic and exciting tool to help all thinking and planning becomes a smarter and faster activity. The creation of a Mind Map is a revolutionary way to tap into the infinite resources in student's brain, to make appropriate decisions, and to understand their feelings.

Course Outcomes:

By the end of this course, student should be able to:

1. Acquire knowledge in retaining memory power.
2. Acquire speed reading skills.
3. Acquire mind mapping techniques.
4. Integrate memory training, speed reading and mind mapping.
5. Learn techniques to develop effective Mind Maps.
6. Practice ways to overcome blocks.
7. Experience ways to expand his creative ability.
8. Design a mind map to reach a goal.

Educational Methods:

1. Lectures.
2. Assignments

Assessment of students

1. Continuous assessment.
2. Final exams.

References:

1. Tony Buzan. Harper Thorsons: The Ultimate Book of Mind Maps. 2006

Course Specification: DENT 125 –Technology and Acquired Knowledge for Dental Students			
Course Symbol	DENT 125	Year	1-5
Course Title	Technology and Acquired Knowledge for Dental Students	Units	1 Didactic 1 Practical
Prerequisite			

Course Outline:

This course is an elective course, designed to equip the student with the integrated knowledge of dental advancements. Main aim is to educate the students with the basic and advanced theories and skills to improvise updated learning design in dentistry.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify key milestones in the use of Technology in Dental Education
2. Critically evaluate digital learning resources with reference to effective application of learning theory
3. Choose an appropriate learning solution within a given learning context and analyze its level of effectiveness
4. Describe the potential and limitations of e-learning in the overall context of learning
5. Identify the key components for the development of an effective e-learning solution
6. Use and critically select appropriate methods of working with learning technologies.
7. Research and evaluate the possibilities and constraints of past, present and emerging learning technologies.
8. Critically evaluate digital learning resources in the context of design principles

Educational Methods:

1. Lectures
2. Workshops
3. Assignments

Assessment of Students:

1. Continuous assessment.
2. Assignments and projects

References:

1. Littlejohn, Alison. Reusing Online Resources - a sustainable approach to e-learning. 2003. Kogan Page (London).
2. Watkins, Ryan. 75 e-Learning Activities: Making Online Learning Interactive. 2005. Pfeiffer Wiley.
3. Salmon, Gilly. E-activities - the key to active online learning. 2002.

Course Specification: DENT 126 – Dentist – Community Communication			
Course Symbol	DENT 126	Year	1-5
Course Title	Dentist – Community Communication	Units	1 Didactic
Prerequisite			

Course Outline:

It have been observed that; the tasks assigned to the dentists had a remarkable development during the past decades, Their roles is no longer confined only to the provision of treatment services, but the communication with the community through various media became one of the basic roles of the dentist, either print , audio or visible. And therefore there was an urgent need for the training of dental students on the basics of communication with the community through such means and trained skills.

Course Outcomes:

By the end of this course, student should be able to:

1. Know the foundations of radio interviews and television, as well as successful awareness programs.
2. Understand the controls that should be observed by the dentist when conducting an interview with him.
3. Prepare the intended messages and letters in the administrative health institutions with an indication of its importance in the organization or institution that will work with the dentist.
4. Demonstrate the importance of writing for awareness as a mean of communicating with the media and the community.
5. Know how to edit press releases issued by medical institutions.

Educational Methods:

1. Lectures.
2. Assignments.

Assessment of students

1. Continuous assessment.
2. Final Exam.

References:

1. Jaber Mohammed Tmaoy, Public Relations and its Practical Applications, Cairo, World Library Press, 2005.
2. Essam El-Din Faraj, The Art Editor of Advertising and Public Relations, Cairo Arab Renaissance Publishing House, 2007.
3. Ali Ajwa, The Scientific Basis for Public Relations, Cairo, Alam Elketab, 2000.
4. Farouk Abu Zeid, Press Release, Alam Elketab, Cairo, 2004.

Course Specification: DENT 131 – Dental Skills (1)			
Course Symbol	DENT 131	Year	1
Course Title	Dental Skills (1)	Units	2 Didactic 2 Practical
Prerequisite			

Course Outline:

The course layout the foundation for developing technical artistic skills by the dental student and related these skills to his clinical performance

Course Outcomes:

By the end of this course, student should be able to:

1. Develop artistic skills of grasping and using dental instruments.
2. Recognize the anatomy of the teeth.
3. Identify the different parts of the teeth.
4. Carve and draw accurate teeth models.

Educational Methods:

1. Lectures
2. Laboratory sessions

Assessment of Students:

1. Continuous assessment.
2. Final examination

References:

1. Major M. Ash, Stanley Nelson: Wheeler's Dental Anatomy, Physiology and Occlusion. Saunders; 8th edition, 2002

Course Specification: DENT 132 – Digital Editing of Dental Record			
Course Symbol	DENT 132	Year	1-5
Course Title	Digital Editing of Dental Record	Units	2 Practical
Prerequisite			

Course Outline:

In this course, the student gains knowledge and familiarize with the necessary tools in Adobe Photoshop software to transform average dental records photographs into professional quality photographs comparable to pictures used in publications and continuing education.

Student will be able to present their cases using Power Point presentations and scientific posters.

Course Outcomes:

By the end of this course, student should be able to:

1. Distinguish between different formats of saving digital photograph.
2. Manipulate, edit and create professional images with Photoshop for the primary purpose
3. Understand the main features available within PowerPoint, and to be able to create professional case presentations.

Educational Materials

1. Workshops

Assessment of students

1. Continuous assessment.
2. Assignments and projects.

References:

1. Humphreys, Joshua / Turner, E.: Adobe in Design Cs2 Basics, Course Technology, Inc. edition 7. 2006
2. Niess, Maggie / Lee, John: 2007 Microsoft Office System, John Wiley & Sons, Inc. edition 9.

Course Specification: DENT 133 – Management of Scientific Meeting			
Course Symbol	DENT 133	Year	1-5
Course Title	Management of Scientific Meeting	Units	1 Practical
Prerequisite			

Course Outline:

After graduating the dentist is subjected to the management of meetings and preparation, whether the meetings of the Board of Management department or hospital, even in private clinics he may need to hold scientific meetings to develop treatment plans for patients as well as the value of the scientific meeting as a mechanism for a unique form of personal interchange we aim from this course to explain how we can organize and gain experienced in the business of running a conference, symposium, workshop and tutorial sessions and eager for information, guidelines, and tips on running a scientific meeting smoothly and successfully.

Course Outcomes:

By the end of this course, student should be able to:

1. Share in preparing scientific meeting.
2. Marketing for the scientific meeting.
3. Know the duties of each committee.
4. How to contract with sponsors.
5. Register for the conference.
6. Know the financial of conference.

Educational Methods:

1. Lectures.
2. Work shop.
3. Project (e.g. conference organization)

Assessment of Students:

1. Continuous assessment.
2. Project.

References:

1. IEEE, Introduction to conference organization manual, IEEE webmaster, 2009.
2. IAPSS, How to organize a conference step by step manual, 2003

Course Specification: DENT 211 – Body Systems in Health & Disease			
Course Symbol	DENT 211	Year	2
Course Title	Body Systems in Health & Disease		
Prerequisite	DENT 112, DENT 115	Units	8 Didactic 3 Practical
Co-requisite	DENT 224		

Course Outline:

This course is designed to ensure that dental student acquire sound knowledge in various integrated areas of Anatomy, Histology, Pathology, Microbiology, Biochemistry, Pharmacology and Physiological basis of the human body systems, and the most common health problems that has a direct or indirect relation to his practice as a dentist. These will include the common Internal medicine, and the Dermatology.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize the normal anatomical, histological and physiological basis of the different systems of the body.
2. Describe the pathogenesis, pathological picture and clinical presentation of the common health problems in the different body systems.
3. Discuss the different diagnostic procedures of those common health problems.
4. Identify the different management plans for those common health problems.
5. Emphasize the relationship and the effects of various systemic diseases on the oral cavity
6. Recognize the common oro-facial clinical presentations and complications of these diseases
7. All these objectives will be acclaimed by stressing cognitive, skills and affective domains.
8. Measure body temperature
9. Measure blood pressure and heart beats
10. Perform different modalities of injection

Educational Materials:

1. PBL sessions.
2. Lectures
3. Laboratory sessions

Assessment of students:

1. Continuous Assessment.
2. Midterm and Final Exams
3. Final practical exam OSCE

References:

1. Davidson's Principles and Practice of Medicine. 19th edition, 2002
2. Review of Medical Physiology, By Williams Ganong; Lange Medical Books, 22 ed. 2007
3. Text Book of Medical Physiology, By Guyton & Hill; W B Saunders Co 2005
4. Wheater's Functional Histology, By Young and Heath; Churchil Livingstone. 5th ed. 2000
5. Harper's Biochemistry, By Robert K. et al; Appleton and Lange, 2000

Course Specification: DENT 212 – General Surgery			
Course Symbol	DENT 212	Year	2
Course Title	General Surgery	Units	2 Didactic
Prerequisite	DENT 112, DENT 115		

Course Outline:

This course is designed to ensure that dental student acquire sound knowledge in various integrated areas of Anatomy, Histology, Pathology, Microbiology, Biochemistry, Pharmacology and Physiological basis of the human body systems, and the most common health problems that has a direct or indirect relation to his practice as a dentist. These will include the General surgery, Ear Nose and throat, and Ophthalmology.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize the normal anatomical, histological and physiological basis of the ear, nose, throat and the eye.
2. Describe the pathogenesis, pathological picture and clinical presentation of the common health problems in the ear, nose, throat and the eye.
3. Discuss the different diagnostic procedures of the common problems in ENT & ophthalmology.
4. Identify the different management plans for the common problems in ENT & ophthalmology.
5. All these objectives will be acclaimed by stressing cognitive, skills and affective domains.

Educational Materials:

1. PBL sessions.
2. Lectures

Assessment of students:

1. Continuous Assessment.
2. Midterm and Final Exams

References:

1. Review of Medical Physiology, By Williams Ganong; Lange Medical Books, 22 ed. 2007
2. Text Book of Medical Physiology, By Guyton & Hill; W B Saunders Co 2005
3. Wheater's Functional Histology, By Young and Heath; Churchil Livingstone. 5th ed. 2000
4. Harper's Biochemistry, By Robert K. et al; Appleton and Lange, 2000

Course Specification: DENT 213 – Neuroscience			
Course Symbol	DENT 213	Year	2
Course Title	Neuroscience	Units	3 Didactic 1 Practical
Prerequisite	DENT 113		

Course Outline:

This comprehensive, multidisciplinary course is dedicated to the understanding of the main functions of the nervous system, the principles of sensory and motor functions and to understand pain and its management. Instruction includes training in local anesthesia and nitrous oxide administration. Lecture topics include pain transmission, neurotransmitters, theories of pain perception, and treatment procedures for patients suffering from acute or chronic pain. Consideration is given to the use of drugs, biofeedback, hypnosis, and surgery for treatment of pain.

Course Outcomes:

By the end of this course, student should be able to:

1. Describe histological features of nerve trunks, fascicles, myelinated and unmyelinated nerve fibers and identify them under the microscope
2. Describe microscopic features of sensory and motor nerve endings and mention histological features of the different types of receptors
3. Identify and describe structure of the nervous system and its components
4. Describe and explain various functions of the nervous system components and special senses
5. Describe pathological deviations that may affect the functions of nervous system components and consequences of these changes
6. Describe the cranial nerves (I-XII) regarding the origin, superficial attachment, course and, distribution.
7. Describe the formation of sympathetic trunk and effect of its derangement.
8. Describe the formation of cervical plexus and mention the nerves arising from it.
9. Mention the connections and branches of parasympathetic ganglia of head & neck.
10. Know the sensory pathways.
11. Identify the role of the cerebral cortex in sensation.
12. Understand the management of the pain.
13. Recognize psychological aspects of oral pain.
14. Describe local anesthesia, techniques and drugs.
15. Know complications of local anesthesia.

Educational Methods:

1. PBL sessions.
2. Lectures
3. Practice handling of armamentarium used in local anesthetic techniques and demonstrate the techniques on skull and mandible.

Assessment of Students:

1. Continuous Assessment.
2. Final Exams

References:

1. Liebgott,B.: The Anatomical Basis of Dentistry, Mosby; 2nd edition, 2001.
2. Stanley F. Malamed: Handbook of Local Anesthesia. Mosby, 5th ed. 2004

Course Specification: DENT 214 – Principles of Dental Sciences			
Course Symbol	DENT 214	Year	2
Course Title	Principles of Dental Sciences	Units	5 Didactic 1 Practical
Prerequisite	DENT 114 , DENT 115		

Course Outline:

This course is designed to assist in the transition from the didactic and preclinical portion of the curriculum to the clinical phase, with the ultimate goal of developing competent dentists. Competent dentists demonstrate appropriate patient management skills, professionalism and integrity in the delivery of dental care, and critical thinking necessary for life-long learning.

The students are introduced to basic concepts of clinical patient care and are provided opportunities to observe and model future behaviors as they observe faculty and student dentists deliver appropriate care in a compassionate manner.

Epidemiology of dental caries and periodontal disease and their indices will be discussed in the block.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify the basic principles in the treatment to restore teeth by restorative means.
2. Understand the relationship between clinical procedures and preventive aspects.
3. Know how to apply mechanical and biological principles in restorative design to improve or restore the form and function in tooth restoration.
4. Recognize the physical properties of the dental material used in this field.
5. Understand methods of performing extra and intraoral examinations.
6. Identify plaque and calculus causes and treatment.
7. Observe principles of pulp protection.
8. Understand glossary used to describe properties of dental materials and select best material for specific clinical application.
9. Aware about the high prevalence of dental diseases in Saudi Arabia.
10. Know principles of judiciously prescribing various pharmacological therapeutic agents wherever indicated
11. Identify the proper indices for evaluation of dental conditions.
12. Understand the uses of dental epidemiology.

Educational Methods:

1. PBL sessions.
2. Lectures.
3. Lab session.

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. 2014 ;Grossman's Endodontic Practice; 13th edition; Wolters Kluwer
2. Robbins and Hilton & Schwartz Summit: Fundamentals of Operating Dentistry - A Contemporary Approach, 3rd Edition, 2001
3. Anusavice: Phillips' Science of Dental Materials, 11th edition, Saunders, Elsevier Science 2003
4. Regezi & Scubba: Oral pathology/Clinical Pathologic correlations, 3rd ed, 2002.

5. Yagiela, Dowd & Neidle: Pharmacology and Therapeutics for Dentistry; 5th ed. 2004.

Course Specification: DENT 221 – Scientific Presentation Skills (2)			
Course Symbol	DENT 221	Year	2
Course Title	Scientific Presentation Skills (2)	Units	1 Practical
Prerequisite			

Course Outline:

In the field of dentistry, knowledge and technical skills are not the only prerequisites for good practice. An ability to communicate effectively, to use active listening, to gather and impart information effectively, and to demonstrate empathy, rapport, ethical awareness is crucial.

The aim of this course is improve skill and behavior that help the students to communicate more effectively, present with confidence and enhance personnel impact.

In this course, the students gain a comprehensive and proven set of skill that helps them to work effectively with colleagues and develop expertise.

Course Outcomes:

By the end of this course, student should be able to:

1. Provide opportunities for students to work independently and in team, maintain working relationship with internal organization, and learn how to receive feedback in a positive way.
2. Steer conservation, plan and structure presentation, develop a positive and assertive presentation style, and deliver clear and convincing oral presentation to individuals.
3. Develop leadership personality that maintains discipline and ethical rules in the meeting organization.
4. Develop a more persuasive and impressive speaking style through the use of language creatively to present a more powerful message.
5. Develop a writing skill in a clear, convincing and organized manner.
6. Learn time organization that allows the use of time to meet presentation objective.
7. Learn how to participate in meeting or conferences and what to do ahead of time, how to start meeting, role of clarification in meetings, facilitation, and how to work with difficult attendees topics and deadlines.
8. Handle conflicts, aggression and build a rapport.
9. Learn how to evaluate and judge the scientific article.

Educational Methods

1. Seminar
2. Poster session
3. Scientific article.

   The presentations will be directed toward basic medical, dental and preclinical dental sciences.

Assessment of Students

1. Continuous assessment
2. Projects: will be in the form of Seminar, poster session and scientific article presentation.

References:

1. Dennis C Tanner. An advanced Course in Communication Sciences. 2006
2. Gillam Ronald B, Marquardt Thomas P and Martin Fredrick. Communication Sciences and Disorders. Singular Publishing Group.USA. 2000

Course Specification: DENT 222 – Community Dentistry (2)			
Course Symbol	DENT 222	Year	2
Course Title	Community Dentistry (2)	Units	1 Didactic
Prerequisite			

Course Outline:

This course has been designed to introduce to undergraduates the basic concepts and methods of conducting research. The lectures will be supplemented by some practical exercises to enhance the ability of students to actually apply these concepts and methods.

Course Outcomes:

By the end of this course, student should be able to:

1. Define the basic terminologies used in the fields of epidemiology and research methodology.
2. Explain the basic principles and methods of conducting research.
3. Recommend appropriate study designs to match different objectives.
4. Develop tools for data collection.
5. Develop a research protocol.
6. Discuss the philosophy and principles of screening and disease prediction.
7. Give reasons for doing sampling and identify different sampling techniques.
8. Critique a published scientific paper.

Educational Methods:

1. Didactic lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Burt A.B, Eklund S.A: Dental Practice and the Community Dentistry. 6th Ed 2005, W. B. Saunders Company.
2. Harris N O, Franklin G G.: Primary Preventive Dentistry. 6th Ed 2003, Prentice Hall.
3. Epidemiology by Leon Gordis. 4th Ed 2008, W. B. Saunders Company.

Course Specification: DENT 223 – Community Dentistry (3)			
Course Symbol	DENT 223	Year	2
Course Title	Community Dentistry (3)	Units	1 Didactic
Prerequisite			

Course Outline:

The course has been designed to highlight the relevance of the basic concepts of biostatistics to oral epidemiology and dental research. It will include data coding, entry and analysis using SPSS (Statistical Package for Social Sciences).The course will facilitate students in acquiring skills of drawing inferences from data and of evaluating the statistics presented in scientific papers.

Course Outcomes:

By the end of this course, student should be able to:

1. Define biostatistics and discuss its importance.
2. Identify different types and sources of data.
3. Summarize and present data using various methods and techniques.
4. Discuss the concepts and practical application of probability and normal distribution.
5. Compute and interpret the test statistics and confidence intervals for different types of data.
6. Compute and interpret the Kappa statistic for assessing diagnostic consistency.
7. Analyze the association between two variables by applying correlation and regression analysis.
8. Critically appraise the statistics presented in scientific papers.

Educational Methods:

1. Didactic lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Kuzma JW: Basic statistics for the health sciences by. 5th Rev Ed Mayfield Publishing Company. 2005.

Course Specification: DENT 224–Emergency Medicine for Dental Students			
Course Symbol	DENT 224	Year	2
Course Title	Emergency Medicine for Dental Students	Units	1 Didactic 1 Practical
Co-requisite	DENT 211		

Course Outline:

Life-threatening emergencies can occur anytime, anywhere and to anyone. Such situations are somewhat more likely to occur within the confines of the dental office due to the increased level of stress which is so often present.
In this course the areas which are considered vital to a proper understanding of Emergency Medicine will be discussed. This will include a discussion of a thorough review of the office emergency kit (medications and equipment), basic life support including CPR and air way management. Additionally, it will include the recognition and management of specific emergency situations that may be faced in the dental clinic like altered consciousness, acute chest pain, seizures, shock, hypertensive crisis, acute severe asthma, hypo and hyperglycemia and local anesthetic toxicity.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize basic life support and acquire the skills of successful CPR.
2. Describe management and differential diagnosis of acute chest pain.
3. Discuss the process of airway management and be able to perform measures to open airway.
4. Identify shock and its treatment.
5. Emphasize types and management of hypertensive crisis and altered consciousness.
6. Acquire detailed knowledge of hypo and hyperglycemia.
7. Understand causes, clinical picture and management of local anesthetic toxicity.
8. Know first aid measures of severe oral bleeding.
9. Attain basic knowledge of management of seizures, maxillofacial trauma and acute severe asthma.
10. List and describe emergency equipment and supplies in the dental clinic.

Educational Methods:

1. Lectures
2. Laboratory training.

Evaluation of students

1. Continuous assessment.
2. Final examination.

References:

1. JP Wayatt, R.N. Illingrworth, C.E. Robertson, M.J. Clancy, P.T. Muunro. Oxford Handbook of Accident and Emergency Medicine. 2nd ed. 1998.
2. Emergency Medicine Recall. By: William A Woods, ,J. Scott Just and Jeffrey S. Young . 1st edition. 2000.

Course Specification: DENT 225 – Scientific Editing for Dental Periodicals			
Course Symbol	DENT 225	Year	2-5
Course Title	Scientific Editing for Dental Periodicals	Units	1 Didactic
Prerequisite			

Course Outline:

A critical aspect of the scientific process is the reporting of new research results in scientific journals in order to disseminate that information to the larger community of dentists. Communication of results contributes to the pool of knowledge within the discipline of dentistry and very often provides information that helps others interpret their own experimental results. Most journals accept papers for publication only after peer review by a group of scientists who work in the same field and who recommend the paper be published.

Scientific editing of dental periodicals course will provide students early with the basic principles needed to perform writing, editing, and reviewing of scientific publications. The students will also be expected and encouraged to demonstrate the maturity and judgment for research articles, as well as critical data evaluations that will increase the chances of publication.

Course Outcomes:

By the end of this course, student should be able to:

1. Differentiate between the variable types of scientific publications including primary, secondary, tertiary, and grey literature.
2. Understand the components of each type of scientific publication, (e.g. title, abstract, introduction, review of literature).
3. Criticize dental periodicals.
4. Perform peer reviewing of scientific publications.
5. Write bibliography in a proper scientific way.
6. Using endnote for searching of references.

Educational Materials:

1. Didactic lectures.

Assessment of students

1. Continuous assessment.
2. Assignments.

References:

1. Thomas F. Babor, Kerstin Stenius, Susan Savva, Jean O'Reilly. Publishing Addiction Science: A Guide for the Perplexed. Multi-Science Publishing Co. Ltd.; 2nd Ed, 2009.
2. Mahmoud F. Fathalla. A Practical Guide for Health Researchers. WHO Regional Publications Eastern Mediterranean Series 30. 2004

Course Specification: DENT 226 – Alternative Dentistry			
Course Symbol	DENT 226	Year	2-5
Course Title	Alternative Dentistry	Units	1 Didactic
Prerequisite			

Course Outline:

This Alternative Dentistry course is an approach to Dentistry that promotes health and wellness instead of the treatment of disease. This approach to Dentistry encompasses both modern science and knowledge drawn from the world's great traditions on natural healing. It is sometimes called **"Biological"** dentistry or **"Biocompatible"** dentistry. Alternative Dentistry acknowledges and deals with the mind, body, and spirit of the patient, not just his or her "Teeth".

Course Outcomes:

By the end of this course, student should be able to:

1. Know the Proper nutrition for the prevention and reversal of degenerative dental disease
2. Avoid and eliminate toxins from dental materials
3. Prevent and treat of dental malocclusion (bite problems=physical imbalance)
4. Prevent and treat gum disease at its biological basis
5. Understand the differences between the two primary medical philosophies being practiced today: allopathic (conventional) medicine, and natural medicine (also known as Alternative medicine, or complementary and alternative medicine (CAM)). The conventional allopathic system focuses on disease management, whereas the older, more established natural system focuses on treating the root cause(s) of disease in order to reestablish health.
6. Provide scientific bases for Alternative medicine such as: Allopathic and Homeopathic medicine, Acupuncture, Chelation andOriental Medicine.

Educational Materials:

1. Didactic lectures

Assessment of students

1. Continuous assessment.
2. Assignments.

References:

1. Sandra Senzon: Reversing Gum Disease Naturally: A Holistic Home Care Program. Publisher: Wiley 2003

Course Specification: DENT 227 – Laboratory Techniques in Oral and Maxillofacial Pathology			
Course Symbol	DENT 227	Year	2-5
Course Title	Laboratory Techniques in Oral and Maxillofacial Pathology	Units	1 Didactic 1 Practical
Prerequisite	DENT 115		

Course Outline:

This elective course will focus on the basic as well as the advanced laboratory techniques in the field of oral & maxillofacial pathology. Some techniques (Laser, Implants & Anutoradiography) will encourage students, dentists and oral surgeons to conduct research on human as well as on experimental animal models, and to use computer programs to analyze the microscopic findings in diagnosis and research. In addition, this course will shed a light on the methods of protection against infection, physical, chemical, biological and irradiation hazards in the dental clinics and the laboratory.

By the end of this course, student should be able to :

1. Orient himself with the laboratory facilities including equipments , biological hood , microtomes , histochem processor, ordinary & diamod knifes, fixatives, chemicals, paraffin wax routine &special stains, glass slides, microscope, incubators ,oven …etc.
2. Understand the biological alterations at the cellular and tissue level from the starting of obtaining the surgical biopsy / smear from the patient.
3. Preserve the biopsy / oral cytological smears in special chemicals
4. Know the histopathological processing including paraffin embedded specimens, sectioning, staining and microscopic examination.
5. Be familiar with the following techniques:
6. Conventional preparation of soft tissue, teeth ,bone and smears for light microscopic examination
7. Histochemical preparation of soft tissue, bone and smears for cryostat and paraffin sections.
8. Immunohistochemical preparation of sections by using specific markers (tumor markers) for both electron microscope (Transmission & Scanning) and light microscope.
9. Tissue culture preparation of soft tissue, bone and smears for light and electron microscopic studies.
10. Autoradiographic technique for studying and monitoring the isotopes in soft/ hard tissues for the purpose of diagnosis & research
11. Special preparation of soft /hard tissues for laser application and implants in the field of dentistry.
12. Generate a pathologic report
13. Correlate the clinical and the microscopic data in order to establish an accurate diagnosis.
14. Know the interpretation of radiographs regarding difficult oral lesion problems.
15. Discuss the available Clinical/Pathological Correlation (CPC) cases of oral lesions.
16. Careful handling of the oral lesions for fear of infection and contamination from hazard materials at the clinics.
17. Pay attention and to take great precaution during laboratory processing of the biopsies from the highly infected (Viral) and contamination (radioactive isotopes).

Educational Methods:

1. Lectures
2. Practical sessions

Assessment of Students:

1. Continuous assessment.
2. Final exam.

References:

1. Oral Pathology: Clinical/pathologic Correlation by Regezi and Sciubba, 2007
2. Bancroft J, Gamble M.: Theory and practice of histological techniques (Immunocytochemistry). 2002.

Course Specification: DENT 231 – Dental Skills (2)			
Course Symbol	DENT 231	Year	2
Course Title	Dental skills (2)	Units	2 Didactic 3 Practical
Prerequisite	DENT 131		

Course outline

This course will introduce the students to the field of operative dentistry and periodontology. The course will stress on maintaining the required hand skills regarding grasping techniques of the hand-piece, cavity preparation, filling materials and techniques.

The simulation of the human head will allow the student to apply these procedures clinically on the patients.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize the armamentarium and techniques of cavity preparation and filling of the posterior teeth and scaling and root planning.
2. Perform class I and II cavities for posterior teeth.
3. Perform amalgam fillings for these cavities.
4. Perform class III and IV cavities for anterior teeth.
5. Perform composite fillings for these teeth.
6. Perform basic periodontal treatment.
7. Recognize the armamentarium used for periodontal treatment.
8. Apply all these procedures in the clinic.

Educational Materials:

1. Lectures
2. Laboratory sessions

Assessment of Students:

1. Continuous assessment.
2. Practical exams.
3. OSPE exam as a part of comprehensive exam.

References:

1. Sturdevant's Art and Science of Operative Dentistry; Theodore M, Harald O, Edward J; 2012.
2. Summit's Fundamental of Operative Dentistry, A Contemporary Approach; James B Summit; 2013.
3. Essential of Dental Caries; Edwin Kidd; 2016.
4. Newman and Carranza's Clinical Periodontology;13th Edition; Michael Newman Henry Takei Perry Klokkevold, Fermin Carranza; 2018
5. Pre-Clinical Dental Skills at a Glance (At a Glance (Dentistry)1st Edition; James Field;2016.
6. Pickard Guide to Minimal Invasive Operative Dentistry; Avijit Banaerjee; 2015.

Course Specification: DENT 232 – Photography in Dentistry			
Course Symbol	DENT 232	Year	2-5
Course Title	Photography In Dentistry	Units	1 Practical
Prerequisite			

Course Outline:

The purpose of this course is to introduce the dental students to basic concepts of dental photography. Clinical photography has its greatest applications as a record-keeping system and as an aid in conveying information.

The slide projection of clinical materials is an indispensable tool for use in self-evaluation, patient education, and effective communication with colleagues. The documentation of patient management is a permanent record used not only by the resident during his training but also by the faculty on all levels of education. The use of photography as photo "magic" for calming the fearful child, and as dental newsletters and publications will be discussed.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand Why digital photography? Advantages of digital over 35-mm.
2. know Digital camera systems suitable for intra and extra-oral use
3. Selecting the appropriate macro lens for intra-oral use
4. Describe several methods for the taking of intra and extra-oral images and the use of mirrors, cheek retractors etc.
5. Describe the uses of digital images in tooth shade selection and recording
6. Describe other uses for dental photography such as wall hanging, patient and staff gifts, and as record keeping.
7. Demonstrate digital imaging for face contour and profiles, as well as to aid in full occlusal analysis and communication with patients.
8. Take necessary precautions in taking intraoral photography
9. Know terminology, file formats and software for digital images storage, retrieval, printing and distribution of digital images

Educational Materials:

1. Workshops.

Evaluation of students

1. Continuous assessment.
2. Assignments.
3. Final Exam

References:

1. Irfan Ahmad: Digital and Conventional Dental Photography: A Practical Clinical Manual. 2004.
2. Cary Behle: Portrait Photography for the Dentist, Journal of the California Dental Association. 2001-2002

Course Specification: DENT 311 – Introduction to Dental Practice			
Course Symbol	DENT 311	Year	3
Course Title	Introduction to Dental Practice	Units	1 Didactic 1 Practical
Prerequisite	DENT 214 , DENT 231		
Co-requisite	DENT 323, DENT 341		

Course outline:

This course is designed to ensure that the student acquired sound knowledge in various integrated areas of diagnosis and filling system, operative dentistry, periodontics, infection control, handling instruments and local anesthesia before real patient clinical work.

Some of these areas had been covered previously and needs to be integrated together.

Course Outcomes:

By the end of this course, student should be able to:

1. Apply the knowledge of examination and filing system.
2. Implement the infection control system in the clinic.
3. Recognize and use efficiently the instruments and machines in the clinic.
4. Apply the knowledge of local anesthesia and its techniques on simulator before using them in the clinic.
5. Reviewing the techniques and manipulation methods for cavity preparations and filling materials.
6. Demonstrate the techniques for periodontal examinations and treatment planning.

Educational Methods:

1. PBL sessions.
2. Lectures.

Assessment:

1. Continuous assessment
2. Final Exam

References:

1. S.R. Prabhu: Oral Diagnosis .1st edition 2007. Oxford
2. CDC, Morbidity and Mortality weekly report (MMWR) -Recommendation and reports - Dec.9th, 2003/52(RR17); 1-61. Guidelines for infection control in dental health.
3. James B. Summitt. Fundamentals of Operative dentistry. 2nd edition 2007.
4. Stanley, F. MALAMED, Hand Book of local anesthesia, 5th ed. 2004.
5. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004

Course Specification: DENT 312 – Restorative 1			
Course Symbol	DENT 312	Year	3
Course Title	Restorative 1	Units	5 Didactic
Co-requisite	DENT 313, DENT 331		

Course outline:

Dental restorative dentistry is among the most important branches of dentistry. The Restorative 1 course is didactic course. This course is intended to provide information to the students about the followed steps for patients asking a prosthetic treatment, starting from diagnosis up to preprosthetic preparation prior receiving final impression.

Epidemiology of dental caries and periodontal disease and their indices will be discussed in the block.

Course Outcomes:

By the end of this course, student should be able to:

1. Diagnose a patient seeking prosthesis.
2. Plan a suitable treatment for each prosthetic case.
3. Formulate a suitable design for each prosthetic case.
4. Recognize all the preprosthetic preparation necessary for prosthesis construction.
5. Have an understanding of the biology, pathology, diagnosis, treatment, and outcome of dentin-pulp complex and pulpal-related periradicular pathology.
6. Identify the proper indices for evaluation of dental conditions.
7. Understand the uses of dental epidemiology.

Educational Methods:

1. PBL sessions.
2. Lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Grossman's Endodontic Practice; 13th edition; Wolters Kluwer; 2014
2. Hassaballa M.A, Talic Y.A. Principles of complete denture prosthodontics. KSU, 1st ed, .
3. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis, 11th edition
4. Glen P. McGivney, Alan B. Carr, William L McCracken: McCracken's Removable Partial Prosthodontics, 10th Edition. Mosby Book, .
5. Rahn A.O, Heartwell C.M. Textbook of complete dentures. Lea & fibiger, Philadelphia , fifth edition.
6. Phoenix, Rodney D.Stewart's clinical removable partial prosthodontics. Quintessence Publishing Co, Inc.4th Edition.2008
7. Herbert T. Shillingburg,Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition
8. Rosenstiel et al: Contemporary Fixed Prosthodontic., 3rd ed., Mosby, Inc
9. Craige, G.R., C.V: Restorative Dental Material. Mosby, 11th ed.Phillips' Science of Dental Materials, Anusavice-11th edition, Saunders, Elsevier Science
10. Sturtevant's Art and Science of Operative Dentistry Seventh Edition Elsevier.

11. Kenneth M Hargreaves. Cohen's Pathways of Pulp. 1st South Asian edition; . Elsevier.
12. Mahmoud Torabinejad, Richard E Walton, Ashraf F Fouad. Endodontics- Principles & Practice. 5thedition; . Elsevier.
13. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; . Elsevier Mosby
14. Newman M.G., Takei A.H., Carranza F.A.: Carranza's Clinical Periodontology. 12th Edition .
15. Lindhe J, Lang NP, Karring T: Clinical Periodontology and Implant Dentistry. sixth Edition..
16. Wolf HE edited: Color Atlas of Dental Medicine: Periodontology. Georg Thieme Verlag. . 5th edition

Course Specification: DENT 313 – Restorative 2			
Course Symbol	DENT 313	Year	3
Course Title	Restorative 2	Units	6 Didactic
Co-requisite	DENT 312, DENT 331		

Course outline:

Restorative 2 is a didactic course which is proposed to expose the students to the modalities of the preparation & construction of the various restorations including operative dentistry, endodontics, fixed & removable prosthodontic restorations.

The presented course will introduce the student to the didactic background of the restorative treatment for dental patients; The management of these patients will be presented to the student. The course will stress on how the way of handling of the patient is very important for the clinical success of dental restorations.

Course Outcomes:

By the end of this course, student should be able to:

1. Be familiar with the application of different materials necessary for the use of various restorations.
2. Understand the modalities for preparation & construction of various restorations including operative dentistry, fixed & removable prosthodontics
3. Understand of the principles, concepts, and techniques employed in fixed prosthodontics.

Educational Methods:

1. PBL sessions.
2. Lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett, and Herbert T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition, 2006.
2. Hassaballa M.A, Talic Y.A. principles of complete denture prosthodontics. KSU, 2004.
3. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis 2004, eleventh edition.
4. Sturdevant,S & Edil Roberson Art & science of operative dentistry : Mosby 4th ed , 2002
5. Sephen, C, Pathways of the pulp : Mosby 8th ed , 2002

6. Glen P. McGivney, Alan B. Carr, William L McCracken: McCracken's Removable Partial Prosthodontics, 10th Edition. Mosby Book, 2000.
7. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004

Course Specification: DENT 321 – Scientific Presentation Skills (3)			
Course Symbol	DENT 321	Year	3
Course Title	Scientific presentation skills (3)	Units	1 Practical
Prerequisite			

Course Outline:

In the field of dentistry, knowledge and technical skills are not the only prerequisites for good practice. An ability to communicate effectively, to use active listening, to gather and impart information effectively, and to demonstrate empathy, rapport, ethical awareness is crucial.

The aim of this course is improve skill and behavior that help the students to communicate more effectively, present with confidence and enhance personnel impact.

In this course, the students gain a comprehensive and proven set of skill that helps them to work effectively with colleagues and develop expertise.

Course Outcomes:

By the end of this course, student should be able to:

1. Provide opportunities for students to work independently and in team, maintain working relationship with internal organization, and learn how to receive feedback in a positive way.
2. Steer conservation, plan and structure presentation, develop a positive and assertive presentation style, and deliver clear and convincing oral presentation to individuals.
3. Develop leadership personality that maintains discipline and ethical rules in the meeting organization.
4. Develop a more persuasive and impressive speaking style through the use of language creatively to present a more powerful message.
5. Develop a writing skill in a clear, convincing and organized manner.
6. Learn time organization that allows the use of time to meet presentation objective.
7. Learn how to participate in meeting or conferences and what to do ahead of time, how to start meeting, role of clarification in meetings, facilitation, and how to work with difficult attendees topics and deadlines.
8. Handle conflicts, aggression and build a rapport.
9. Learn how to evaluate and judge the scientific article.

Educational Methods

1. Seminar
2. Poster session
3. Scientific article.

The presentations will be directed toward basic, pre-clinical, and clinical dental sciences.

Assessment of Students

1. Continuous assessment
2. Projects: will be in the form of Seminar, poster session and scientific article presentation.

References:

1. Dennis C Tanner. An advanced Course in Communication Sciences. 2006
2. Gillam Ronald B, Marquardt Thomas P and Martin Fredrick. Communication Sciences and Disorders. Singular Publishing Group.USA. 2000

Course Specification: DENT 322 – Community Dentistry (4)			
Course Symbol	DENT 322	Year	3
Course Title	Community Dentistry (4)	Units	1 Didactic
Prerequisite			

Course Outline:

The preventive dentistry course introduces the students to the philosophy and methods of prevention of oral diseases that can be applied on an individual level and on a mass scale. The course emphasizes upon an understanding of the scientific basis of preventive measures and their rational use considering the patient's and community need as well as relative effectiveness and efficacy of these measures. During the course the students learn and practice different techniques involved in the application of preventive agents used in dental practice and community dental care.

Course Outcomes:

By the end of this course, student should be able to:

1. Know about different levels of prevention.
2. Differentiate between population-based and high risk preventive strategies.
3. Explain the role of fluoride in dental health and describe various ways of administering fluoride.
4. Describe the importance of diet and nutrition in oral health.
5. Justify the use of fissure sealants and professionally applied topical fluorides in caries prevention.
6. Describe mechanical and chemical methods of plaque control.
7. Apply fissure sealants and professionally applied fluorides.
8. Demonstrate various techniques of tooth brushing and method of using fluoride mouth rinses in school children.
9. Describe the prevention of oral cancer and dental trauma.

Educational Methods:

1. Didactic lectures

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Burt A.B, Eklund S.A: Dental Practice and the Community Dentistry. 6th Ed 2005, W. B. Saunders Company.
2. Harris N O, Franklin G G.: Primary Preventive Dentistry. 6th Ed 2003, Prentice Hall.

Course Specification: DENT 323 –Ethics in Dentistry			
Course Symbol	DENT 323	Year	3
Course Title	Ethics in Dentistry		
		Units	1 Didactic
Co-requisite	DENT 311 , DENT 341		

Course Outline:

The Ethics in Dentistry provides an introduction to the importance of the doctor-patient relationship and to the process of ethical decision-making. The topics of informed consent, assessment of patient competence, truth telling, confidentiality, and end-of-life decisions are examined in several clinical contexts such as acute care, pediatrics, geriatrics, and rehabilitation medicine.

The Ethics in Dentistry provides is central to the practice of dentistry and is essential for the delivery of high-quality health care in the diagnosis and treatment of disease. A patient must have confidence in the competence of their dentist and must feel that they can confide in him or her. For most dentists, the establishment of good rapport with a patient is important. The doctor-patient relationship forms one of the foundations of contemporary medical ethics. Most dental schools and universities teach dental students from the beginning, even before they start clinics, to maintain a professional rapport with patients, uphold patients' dignity, and respect their privacy.

Course Outcomes:

By the end of this course, student should be able to:

1. Communicate effectively with patients, their families and the community through verbal, written and other non-verbal means of communication, respecting the differences in beliefs and backgrounds among patients and students.
2. Establish professional relationships with patients, their families (when appropriate) and community that are characterized by understanding, trust, respect, empathy and confidentiality.
3. Deliver information to the patient and family (as appropriate) in a humane manner, and in such a way that it is easily understood.
4. Encourages discussion and promotes the patient's participation in decision-making.
5. Develop expertise in methodologies and approaches to doctor-patient communication.
6. Improve education in doctor-patient communication skills across all 3 years of clinical phase of dental school curriculum.

Educational Methods:

1. Lectures.

Assessment of students:

1. Continuous assessment.
2. Final exams.

References:

1. Jonathan Silvermann and Julie Draper: Skills for Communication with Patients. Radcliffe Medical press. 2nd edition, 2005.

Course Specification: DENT 324 – Management of Occupational Hazards			
Course Symbol	DENT 324	Year	3-5
Course Title	Management of Occupational Hazards	Units	1 Didactic
Prerequisite			

Course Outline:

Dentists, as well as dental personnel, are constantly exposed to a number of specific occupational hazards. These cause the appearance of various ailments, specific to the profession, which develop and intensify with years. Musculo–skeletal pain is the frequent complaint of dental personnel and is more frequently in the cervical area (neck and shoulders) with a significant association between the number of working hours per week and musculo–skeletal pain in all locations (back, upper limb, lower limb).

This didactic course is designed to teach the students how to avoid these professional hazards by applying specialized physical exercises.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize the specific hazards of the profession.
2. Understand the importance of physical exercises to avoid the occupational hazards.
3. Know how to perform the physical exercises to maintain the health of the musculo–skeletal and nervous systems.

Educational Methods:

1. Lectures.

Assessment of Students:

1. Continuous assessment.
2. Assignments.
3. Final exam.

References:

1. Vilberto Stocchi, Pierpaolo De Feo, and David A. Hood: Role of Physical Exercise in Preventing Disease and Improving the Quality of Life. Amazon Co. 2007
2. Susan B. O'Sullivan and Thomas J. Schmitz: Physical Rehabilitation. Amazon Co.5th ed. 2006.

Course Specification: DENT 325 – Nanodentistry			
Course Symbol	DENT 325	Year	3-5
Course Title	Nanodentistry	Units	1 Didactic
Prerequisite			

Course Outline:

Nanotechnology will have future medical applications leading to the emergence of nanomedicine and nanodentistry. Nanodentistry will make it possible to maintain a near perfect oral health through the use of nanomaterials, biotechnology, including tissue engineering and nanorobotics. The nanorobotic functions may be controlled by an onboard nanocomputer that executes preprogrammed instructions in response to local sensor stimuli.

The outline of this course is to familiarize the students with the current and prospective applications of nanotechnology in Dentistry.

Course Outcomes:

By the end of this course, student should be able to:

1. Define Nanotechnology, Nanomedicine and Nanodentistry.
2. Mention the history of Nanodentistry.
3. Recognise the nanostructures for dental applications like nanorods, nanospheres, nanofibers and nanotubes.
4. Recognise the basic knowledge of dental materials at the molecular level.
5. Define the tools and techniques being developed to make complete high performance products.
6. Identify the uses of nanotechnology in Restorative Dentistry including nanocomposites.
7. Discuss how to induce oral anesthesia in the era of Nanodentistry.
8. Understand the clinical implications of Nnanotechnology in the field of Orthodontics.
9. Recognize the treatment opportunities in Nanodentistry including tooth repair, tooth reneutralization and hypersensitivity cure.
10. Identify the role of nanorobotic dentifrice (dentifrobots) as an oral preventive measure.
11. Understand the clinical applications of Nanotechnology in Cosmetics Dentistry.

Educational Materials:

1. Lectures.

Assessment of students

1. Continuous assessment.
2. Assignments.

References:

1. Charles P. Poole and Frank J Owens :Introduction to Nanotechnology; A John Willey and Sons Inc. Publication. 2003.
2. Saunders A: Current practicality of nanotechnology in Dentistry. Part I: Focus on nanocomposite restoratives and biomemetics. J Clin Cosm Invest Dent 2009: 1.
3. Freites A :Nanodentistry. J Am Dent Assoc, Vol 131, No 11, 1559-1565.

Course Specification: DENT 326 – Comparative Dentistry			
Course Symbol	DENT 326	Year	3-5
Course Title	Comparative Dentistry	Units	1 Didactic
Prerequisite			

Course Outline:

This course is designed to provide the dental student with knowledge regarding the experimental animals which can be used in dental research, how to choose the animal and how to deal with them during surgery.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the primate dentition: introduction to the tooth of nonhuman primates.
2. Know the similarity between the anatomy of human and different animals (tooth, TMJ, alveolar bone, etc…).
3. Explain how to handle the experimental animals during surgery.
4. Describe how to care with the animal pre- and postoperative.

Educational Methods:

1. Lectures.

Assessment of students:

1. Continuous assessment
2. Assignments.

References:

1. A Manual of Dental Anatomy, Human and Comparative. By: Tomes Charles. 2010

Course Specification: DENT 327 – The Art of Dental Therapeutics			
Course Symbol	DENT 327	Year	3-5
Course Title	The art of Dental Therapeutics	Units	2 Didactic
Prerequisite			

Course Outline:

The purpose of this course is to review selected pharmacologic areas with potential clinical relevance in the practice of dentistry. The application of important pharmacologic concepts to therapeutic prescribing decisions will be discussed. Students will improve their general knowledge concerning the medications that they may prescribe, and those drugs known taken by their patients.

Drug specific topics will include mechanism of action, indication, dosing, drug interactions and prescribing concerns for dental patients. This course will also provide updates on analgesic and antibiotic selection and therapy, Over the Counter (OTC) drugs and their implications in dental practice,, pain and anxiety control and last trends in pharmacologic research.

Course Outcomes:

By the end of this course, student should be able to:

1. Discuss the principles of pharmacokinetics, pharmacodynamics and pharmacogenomics.
2. Know the three approaches to controlling aphthous ulcers, including prevention, palliative treatment, and pharmacologically reversing the lesions.
3. Learn the range of products and treatments for patients with dry mouth.
4. Learn about the range of "alternative" or "natural" oral health care products available to treat oral disease.
5. Learn about OTC pain medication and its ability to be used prophylactically to prevent pain before it starts.
6. Learn to match the right drug at the right dose to the right patient and the right procedure.
7. Describe the potential for drug-drug interactions and articulate strategies to avoid or manage them.
8. Recognize reputable databases and references and how to utilize these tools to evaluate drug therapies and interactions.
9. Describe the mechanism of action of popular pain medications and understand why some drugs work and some don't for postoperative dental pain.
10. Understand the principles of appropriate antibiotic prescribing.
11. Learn about the most recent research in Pharmacology and Dental Pharmacology.
12. Describe the medications used for safe and effective minimal and moderate sedation using oral and inhalational techniques.
13. Understand the range of compounds available in single-purpose and multi-purpose toothpastes.
14. Decide which mechanical or electric toothbrush designs would be best for which type of patient.

Educational Methods:

1. Lectures

Assessment of Students:

1. Continuous assessment.
2. Assignments

References:

1. J. A. YAGIELA, E. A. NEIDLE. Pharmacolgy and Therapeutics for Dentistry. 2004. MOSBY (London). 5th Edition.
2. Gage & Picket, Dental Drug Reference, 2001. MOSBY (Tenessee). 6th Edition.

Course Specification: DENT 328 – Dental Technology			
Course Symbol	DENT 328	Year	3-5
Course Title	Dental Technology	Units	2 Practical
Prerequisite	DENT 214		

Course Outline:

This is an introductory course that is suitable for dental students, dental assisting, and other dental health occupations.

The course emphasizes the knowledge of dental students about how to fabricate dental restorations, prostheses and appliances to a high standard of precision.

The course includes: Introductory techniques, Applied Dental Materials, Dental Anatomy & Physiology, Steps of fabricating Removable Complete & Partial Dentures, Cast Restorations, Removable Orthodontics, Ceramic Restorations, Bonded Restorations, Fixed and Functional Orthodontics, Advanced Dental Assignments, and Maxillofacial Prosthodontic appliances such as obturators.

During the last part of the course, the student will undertake periods of work placements normally at the dental clinics of Al-Jouf University. The placement periods will enable him to gain the necessary experience in producing appliances, restorations and prostheses for patients.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize different types of equipments of dental labs and understand the new and developing areas of dental technology.
2. Enhance relationships within the Dental Team.
3. Define steps of fabrication of different types of dental restorations, prostheses and appliances to a high standard of precision.
4. Define different technical errors and how to avoid them.
5. Gain the necessary experience in work placements.

Educational Methods:

1. Lab sessions.

Assessment of Students:

1. Continuous assessment.
2. Final Examination.

References:

1. Sillas J, Durate, Phark: Quintessence of Dental Technology. Quintessence. 1st edition. 2010.

Course Specification: DENT 329 – Dental Informatics			
Course Symbol	DENT 329	Year	3-5
Course Title	Dental Informatics	Units	1 Didactic
Prerequisite			

Course Outline:

Dental informatics is the application of computer and information sciences to improve dental practice, research, education, and management; it is a relatively new field with significant potential for supporting dentistry's many facets. This course has two primary objectives. The first one is will introduce students to basics of computers and the most common computer applications. Basic computer skills will help students use computer-aided instruction software in the basic sciences. The skills acquired through this course will be immediately useful in other parts of the curriculum.

The second course, "Dental Informatics," concentrates on using computers in the dental office and should be offered in the junior or senior year. Topics include components and functions of practice management programs; computer based oral health records, digital imaging, and buying and managing computer systems.

So participants will begin with conceiving an informatics course, continue to the development of a full course proposal, and explore implementation and evaluation issues.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand the basic components of computer systems, and be able to describe how hardware and software combine into functional systems
2. Operate computers using state-of-the-art operating systems, and perform routine tasks associated with computer use, such as data backup and information organization and management
3. Use social tools and electronic mail to communicate with fellow students, faculty at Temple Dental School, and colleagues around the world
4. Use generic graphics software to develop graphs and illustrations, and acquire, analyze, and manipulate digital images Participate in dentally-related internet discussion lists such as the dentistry mailing list, the dental list for students (DENTST-L), and newsgroups.
5. Understand, describe, select, and use computer applications that support clinical dentistry, such as computerized charting, computer supported diagnosis and treatment planning, electronic clinical devices, and data analysis tools
6. Understand and apply the concepts of the Computer-based Oral Health Record and their implications for patient care
7. Describe functions in practice management that can be supported by computer technology, and select and use appropriate computer applications to perform these functions
8. Evaluate practice management systems comparatively and develop a complete budget for computer systems purchases
9. Identify areas suitable for decision support, research available applications, and select and use them

Educational Methods:

1. Lectures.

Assessment of Students:

1. Continuous assessment.
2. Final Examination.

References:

1. Dental Informatics: Integrating Technology into the Dental Environment, L. M. Abbey, J. Zimmerman.1992, Springer-Verlag, New York.
2. Dental Informatics: Strategic Issues for the Dental Profession by J. J. Salley , O. Rienhoff, J. L. Zimmerman , D. A. Lindberg , M. J. Ball 1991, Springer-Verlag, New York.

Course Specification: DENT 331 – Dental Skills (3)			
Course Symbol	DENT 331	Year	3
Course Title	Dental skills (3)		
Prerequisite	DENT 231	Units	4 Didactic 7 Practical
Co-requisite	DENT 312 , DENT 313		

Course outline:

Dental Skill (3) is a preclinical course designed to familiarize the students with the theoretical and technical laboratory procedure which are required during treatment of patient who will receive removable prosthesis.

Regarding preclinical endodontic, the course will introduce the student, under simulated clinical conditions, to the skills necessary to perform successful root canal treatment of teeth.

Concerning fixed prosthodontics, the student will learn in the preclinical simulator to perform all types of preparation and the steps for performing crowns and bridges.

Course Outcomes:

By the end of this course, student should be able to:

1. Perform techniques and technology in removable complete and partial denture construction after understanding the edentulous anatomy and being competent with the uses of applicable materials and equipments.
2. Perform all the laboratory and pre-clinical steps required for fixed partial dentures preparation and construction.
3. Complete a root canal treatment for teeth after knowing endodontic armamentarium and composition of materials used.
4. Practice all the procedure of pins and posts, and apply principles of inlays, onlays, pinlays, Cast restoration with surface extensions and cast alloy based restorations.

Educational Methods:

1. Laboratory Session.
2. Lecture.

Assessment of Students:

1. Continuous assessment.
2. Final Theory & Practical Exam & OSPE
3. Final didactic and laboratory exam.

References:

4. V Gopikrishna, Subhash Chandra. Grossman's Endodontic Practice. 13th edition; 2014. Wolters Kluwer.
5. Kenneth M Hargreaves. Cohen's Pathways of Pulp. 1st South Asian edition; 2016. Elsevier.
6. Arvind Shenoy, Kundabala Mala. Endodontics- Principles & Practice. 1st edition; 2016. Elsevier.
7. Anil Kohli. Text book of Endodontics. 1st edition; 2009. Elsevier.
8. Mahmoud Torabinejad, Richard E Walton, Ashraf F Fouad. Endodontics- Principles & Practice. 5thedition; 2014. Elsevier.
9. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; 2011. Elsevier Mosby.
10. Enrique M Merino. Endodontic Microsurgery. 1st edition; 2009. Quintessence.
11. Ilan Rotstein. John I. Ingle. 7th edition;2016. PMPH-USA.
12. Ashraf F Fouad. Endodontic Microbiology. 1st edition; 2017. Quintessence. G Zarb, et al. Prosthodontic treatment for edentulous patients., Mosby; Elsevier inc. 2013

13. V Rangarjan, TV Padmanabhan. Textbook of prosthodontics. Elsevier, Mosby. 2013
14. R phoenix et al. Stewart's clinical removable partial denture. Fourth edition. Quintessence publishing Co. Inc. 2014
15. A Carr, D Brown. McCracken's removable partial prosthodontics. Twelfth edition. Elsevier, Mosby. 2011.
16. V Rangarjan, TV Padmanabhan. Textbook of prosthodontics. Elsevier, Mosby. 2013
17. Herbert T. Shillingburg et al., 2012. Fundamentals of Fixed Prosthodontics, 4th Ed. Quintessence Publisher.
18. Stephen Rosenstiel, Martin Land and Fujimoto. 2015. Contemporary Fixed Prosthodontics. 5th Ed. Elsevier publishing Co.
19. Malone W F P. 1997. Tylman's Theory and Practice of Fixed Prosthodontics, 8th ed. AIPD publishers.
20. Anusavice K.J, Chiayi Shen and Palph Rqwls. 2012. Phillips' Science of Dental materials. 12th ed. Saunders.

Course Specification: DENT 332 – Principles of Dental Equipment Maintenance			
Course Symbol	DENT 332	Year	3-5
Course Title	Principle of Dental Equipment Maintenance	Units	1 Practical
Prerequisite			

Course Outline:

In this course, the student gains knowledge of the principle of dental equipment maintenance, and learn some fundamental techniques and tricks used to optimize preventive maintenance programs in dental field. This is mainly achieved through recognition the major components of each piece, operate each piece of equipments and perform routine user maintenance on equipment.

Course Outcomes:

By the end of this course, student should be able to:

1. Know the standard of well-arranged dental clinic.
2. Recognize the infrastructure specification of dental equipments
3. Read carefully the manufacturer's instructions
4. Use of dental equipment sheet (preventive maintenance sheet)
5. Know the most common troubles encountering each part of equipment
6. Operate, maintain, and replace the most common part of equipments

Educational Materials:

1. Practical training.

Evaluation of students

1. Continuous assessment.
2. Assignments.
3. Final exam.

References:

1. The tool kit for dental risk management: Roy C. Lilley, Paul Lambden. 1st edition, 2002

Course Specification: DENT 333 – Recent Trends in Oral and Maxillofacial Pathology			
Course Symbol	DENT 333	Year	3-5
Course Title	Recent Trends in Oral and Maxillofacial Pathology	Units	1 Didactic 1 Practical
Prerequisite	DENT 114		

Course Outline:

This course is planned to teach and train the student the various advanced aspects of oral & maxillofacial pathology. It covers the basic and the most recent principles of pathologic processes in the form of lectures, and laboratory sessions on essential of both conventional & experimental pathology. Extensive studies will be based on current theories in the literature: nature & variations, in health and disease. Analysis and interpretation of clinical, radiographic and microscopic data of the studied oral lesions will be extensively discussed. Biopsy service, written report and the role of computers in clinical pathology are strongly emphasized in this elective course.

Course Outcomes:

By the end of this course, student should be able to:

1. Know the histopathologic service provides a diagnostic and consultation service in head & neck pathology.
2. Understand the consultative diagnostic service including radiographic interpretation, oral surgery, and oral medicine consultation are joint by weekly seminar and presentation of oral lesion cases through clinical/pathologic correlation sessions (CPC).
3. Apply the infection control standard by careful handling of the oral lesions during the surgical procedure and the laboratory preparation to avoid the contamination from blood, viral infections and from material hazards.
4. Know the diagnosis of oral & maxillofacial tissue biopsy types including needle and oral cytology smears.
5. Get educational programs that help him to do research for future post-graduate studies; master and doctor theses.
6. Gain knowledge regarding the following pathologic techniques: molecular biology, histochemistry, immunohistochemistry, electron microscopy (transmission & scanning), X-ray microanalysis, tissue culture, autoradiography, laser and implant technology.
7. Know that the oral & maxillofacial pathology computer system has access to the latest literatures pertaining to all aspects of oral lesions.
8. Practice the pathologic processing of the biopsy tissues; gross & microscopic examination including assessment of surgical margins for presence of disease, preparation and transmission of written report.
9. Learn the basic microscopic photography and computer programs for analysis of clinical data.

Educational Materials:

1. Lectures
2. Laboratory sessions.

Assessment of students:

1. Continuous Assessments.
2. Final exam

References:

1. Oral Pathology: Clinical/pathologic Correlation by Regezi and Sciubba, 2007
2. Bancroft J, Gamble M.: Theory and practice of histological techniques (Immunocytochemistry). 2002.
3. Molecular Biology of the Cell, by Albert et al, 2007.

Course Specification: DENT 341 – Dental Clinical Practice (1)			
Course Symbol	DENT 341	Year	3
Course Title	Dental Clinical Practice (1)	Units	5 Training
Prerequisite	DENT 214 , DENT 231		
Co-requisite	DENT 311 , DENT 323		

Course Outline:

The course involves dental clinics for operative, periodontics, endodontics, and, fixed and removable prosthesis and primary care. In this course, students should restore and treat cases for both first three specialties and in the same time dealing with the patients when they come to the clinic asking for primary care treatment. The student in this course is allowed to treat any carious lesions including anterior and posterior teeth. Regarding periodontics, the student is allowed to do scaling and root planning, and some advanced types of treatments. The course deals with the basic principles of complete denture fabrication as well as the diagnosis and treatment of a completely edentulous patient.

Course Outcomes:

By the end of this course, student should be able to:

1. Apply treatment plane and diagnosis.
2. Apply mechanical and biological principles in restoring teeth to improve the tooth function as well as improving occlusion of the teeth.
3. Know the basic principles in treatment for restoring teeth by different restorative techniques and materials.
4. Know the relationship between clinical procedures and what he learned on simulator.
5. Restoring teeth to improve the tooth function as well as improving occlusion of the teeth.
6. Perform the treatment planning for periodontal cases and get the skill of scaling the teeth as well as roots planning.
7. Discuss the follow up and maintenance of the filling and oral hygiene.
8. Describe and perform the clinical steps required to fabricate a complete denture.

Educational Methods:

1. Clinical application under supervision of the dental staff.

Assessment of Students:

1. Continuous assessment.
2. Comprehensive clinical examinations including OSCE.

References:

1. Sturdevant's Art and Science of Operative Dentistry; Theodore M, Harald O, Edward J; 2012.
2. Summit's Fundamental of Operative Dentistry, A Contemporary Approach; James B Summit; 2013.
3. Essential of Dental Caries; Edwin Kidd; 2016.
4. Newman and Carranza's Clinical Periodontology;13th Edition; Michael Newman Henry Takei Perry Klokkevold, Fermin Carranza; 2018
5. Pre-Clinical Dental Skills at a Glance (At a Glance (Dentistry)1st Edition; James Field;2016.
6. Pickard Guide to Minimal Invasive Operative Dentistry; Avijit Banaerjee; 2015.
7. Phillips' Science of Dental Materials, Anusavice-11th edition, Saunders, Elsevier Science 2003.
8. J.D. Strahan and I. M. Waite: A color atlas of Periodontology, 3rd edition, 2000.
9. Armitage, GC: Development of a classification system for periodontal diseases and condition. 1999.
10. Hassaballa M.A, Talic Y.A. principles of complete denture prosthodontics. KSU, 2004.
11. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis 2004, eleventh edition.

12. Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett, and Herbert T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition, 2006.

Course Specification: DENT 411 – Surgical Management			
Course Symbol	DENT 411	Year	4
Course Title	Surgical Management		
Prerequisite	DENT 113 , DENT 213	Units	1 Didactic 1 Practical
Co-requisite	DENT 441		

Course Outline:

This course is designed to serve the specialties of Oral and Maxillofacial Surgery, & Oral Radiology. The student will enhance his knowledge in patient evaluation &diagnosis, and explain how to perform simple & complicated extraction of erupted teeth as well as managing impacted teeth. The foundation knowledge and skills acquired through these experiences contribute to the development of a general dentist competent in basic oral surgery.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify the main surgical problem of the patient and obtain a history of the present illness.
2. Evaluate the health risks of each patient.
3. Prescribe, perform and interpret a radiographic examination appropriate for the patient undergoing surgical treatment.
4. Relate extra-oral and intra-oral clinical findings to the presence of systemic disease(s) and discuss how the disease(s) affect overall health, treatment planning and delivery of dental care.
5. Understand the technique of performing a simple & complicated extraction of an erupted tooth.
6. Classify the different impacted tooth.
7. Understand the techniques used for removing the impacted teeth.
8. Manage common intraoperative and postoperative surgical complications related to extraction.

Educational Methods:

1. PBL sessions.
2. Lectures.
3. Practical sessions.

Evaluation of students:

1. Continuous assessments.
2. Final Exam.
3. Practical exam.

References:

1. Neville, Damm, Allen and Bouquot: Oral and Maxillofacial Pathology, 1st ed., Saunders, 2009.
2. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004
3. Dr. Petersom, J. B.: Principles of Oral & Maxillofacial Surgery, Lippincott. 1992.
4. Little, J. W. and Falace, D. A: Dental Management of the Medically Compromised Patient. Mosby Co. 2002.

Course Specification: DENT 412 – Child & Adolescent Care			
Course Symbol	DENT 412	Year	4
Course Title	Child & Adolescent Care	Units	4 Didactic
Prerequisite	DENT 114 , DENT 214		
Co-requisite	DENT 431		

Course Outline:

Introduction to clinical pediatric dentistry, including behavior management, oral diagnosis, preventive dentistry, care of infants and toddlers, dental anomalies, radiography, anesthesia, restorative procedures, pulp therapy, space maintenance, oral surgery for the primary dentition, and traumatic injuries in the primary and permanent dentitions.

The course is structured so the student may gain experience in the skills necessary to integrate orthodontic treatment within the context of general dental practice. These include a comprehensive clinical evaluation, selecting the correct diagnostic records, developing a list of the patient's orthodontic problems, formulating treatment objectives and establishing a treatment plan that will include the integration of orthodontic treatment with other aspects of dental care when appropriate. The student will also gain familiarity with the biomechanical and patient management principles of orthodontic treatment so they may provide their patients with accurate information about the benefits, risks, practices and alternatives available to patients with both simple and complex malocclusions.

Course Outcomes:

By the end of this course, student should be able to:

1. Motivate the child and parent to maintain optimal oral health through the use of current preventive measures available in a modem dental practice.
2. Guide the child and parent in learning to accept the dental experience through an understanding of the normal physiological and sociological growth and development of the child and adolescent.
3. Develop the necessary knowledge and skills to complete restorative dental procedures during the primary, mixed, and young permanent dentition.
4. Recognize and guide of normal growth and development of the oral facial complex and interception of development abnormalities.
5. Have a basic understanding of orthodontic diagnosis and treatment.
6. Understand orthodontic diagnosis within the antero-posterior, vertical, and transverse dimensions
7. Know the basic etiology of malocclusion, and basic epidemiology of orthodontic problems.
8. Identify anatomic landmarks in cephalometric radiographs and be able to analyze cephalometric data.
9. Understand the planes of space used in orthodontic diagnosis.
10. Recognize the general and specific factors that may contribute to the development of a malocclusion.
11. Know the normal eruption patterns of teeth and be able to recognize abnormal eruption sequences.

Educational Methods:

1. PBL sessions.
2. Lectures:

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

1. Mc Donald, Avery, Dean: Dentistry for the child and Adolescent. 8th Ed., MOSBY, 2004.
2. S. Bishara: Text book of Orthodontics, SAUNDERS, 2004.
3. Proffit: Contemporary of Orthodontics, 4th Ed. 2007, MOSBY.

Course Specification: DENT 413 – Management of Oral & Maxillofacial Diseases (1)			
Course Symbol	DENT 413	Year	4
Course Title	Management of Oral & Maxillofacial Diseases (1)		
Prerequisite	DENT 113 , DENT 213	Units	2 Didactic 1 Practical
Co-requisite	DENT 441		

Course Outline:

This course is consists of a series of lectures in a more advanced aspects of Oral and Maxillofacial Surgery such as surgical extraction of impacted teeth, odontogenic cysts and tumors, diagnostic biopsy, early treatment of odontogenic infections, and surgical orthodontic treatment etc. The aim of this program is to provide the students with a basic understanding of and the diagnostic capability to approach these more advanced aspects, of surgery which customarily are dealt with by Oral and Maxillofacial Surgeons.

The pathology, clinical aspects, differential diagnosis and management of these conditions are discussed. In the laboratory sessions the histopathological appearances of the most significant lesions are used as an aid in understanding the biological aspects of oral disease. The seminar periods are used to integrate knowledge of the pathology with oral medicine and to impart a system of diagnosis and treatment based on the understanding of disease.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify the chief complaint of the patient and obtain a history of the present illness.
2. Perform a comprehensive extraoral, intraoral, and limited physical examination appropriate for the patient, including assessment of vital signs, and documentation of findings.
3. Prescribe, perform and interpret a radiographic examination appropriate for the patient.
4. Relate extra-oral and intra-oral clinical findings to the presence of systemic disease(s) and discuss how the disease(s) affect overall health, treatment planning and delivery of dental care.
5. Assess, manage, and/or promptly refer medical emergencies commonly encountered in dental practice.
6. Perform surgical extraction.
7. Diagnose and manage impacted teeth.
8. Assess and manage medically compromised patients.
9. Treat localized odontogenic infection.
10. Diagnosis and management of odontogenic cysts.
11. Diagnosis and management of odontogenic tumors

Educational Methods:

1. PBL sessions.
2. Lectures.
3. Laboratory sessions.

Evaluation of students:

1. Continuous Assessments.
2. Laboratory exams.
3. Final Exam.

References:

Update the references

1. Balaji, S. M. (2018). Textbook Of Oral & Maxillofacial Surgery. S.L.: Elsevier India
2. Malik, N. A. (2012). Textbook of oral and maxillofacial surgery.
3. Birn, H., &Winther, J. E. (1982). Manual of minor oral surgery: A step by step atlas. Copenhagen: Munksgaard
4. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; 2011. Elsevier Mosby.
5. Enrique M Merino. Endodontic Microsurgery. 1st edition; 2009. Quintessence.
6. Neville, Damm, Allen and Bouquot: Oral and Maxillofacial Pathology, 1st ed., Saunders, 2009.
7. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004
8. Little, J. W. and Falace, D. A: Dental Management of the Medically Compromised Patient. Mosby Co. 2002.

Course Specification: DENT 414 – Management of Oral & Maxillofacial Diseases (2)			
Course Symbol	DENT 414	Year	4
Course Title	Management of Oral & Maxillofacial Diseases (2)	Units	2 Didactic 1 Practical
Prerequisite	DENT 113 , DENT 213		
Co-requisite	DENT 441		

Course Outline:

The course has been designed to develop an understanding and introduce the students to more advanced aspects of Oral and Maxillofacial Surgery such as, maxillary sinus problems, tempromandibular joint disorders, preporsthetic surgery and non odontogenic tumours of the oral cavity. The foundation knowledge acquired through this course contribute to the development of diagnostic capability to approach these more advanced aspects of surgery which customarily is dealt with by Oral and Maxillofacial Surgeons.

The pathology, clinical aspects, differential diagnosis and management of these conditions are discussed. In the laboratory sessions the histopathological appearances of the most significant lesions are used as an aid in understanding the biological aspects of oral disease. The seminar periods are used to integrate knowledge of the pathology with oral medicine and to impart a system of diagnosis and treatment based on the understanding of disease.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify the chief complaint of the patient and obtain a history of the present illness.
2. Perform a comprehensive extraoral, intraoral, and limited physical examination appropriate for the patient, including assessment of vital signs, and documentation of findings.
3. Prescribe, perform and interpret a radiographic examination appropriate for the patient.
4. Relate extra-oral and intra-oral clinical findings to the presence of systemic disease(s) and discuss how the disease(s) affect overall health, treatment planning and delivery of dental care.
5. Assess and diagnose tempromandibular joint disorders.
6. Diagnose and manage cysts of the oral cavity.
7. Diagnose and assess maxillary sinus problems
8. Explain the indications, contraindications, and techniques for the management of tumours in the oral cavity.

Educational Methods:

1. PBL sessions.
2. Lectures.
3. Laboratory sessions.

Evaluation of students:

1. Continuous Assessments.
2. Laboratory exams.
3. Final Exam.

References:

Update references to –

1. Malik, N. A. (2012). Textbook of oral and maxillofacial surgery.
2. Laskin, D. M. (2009). Oral and maxillofacial surgery. Delhi, India: A.I.T.B.S. Pub
3. Kruger, G. O. (1984). Textbook of oral and maxillo-facial surgery. Saint-Louis: Mosby
4. BALAJI, S. M. (2018). TEXTBOOK OF ORAL & MAXILLOFACIAL SURGERY. S.l.: ELSEVIER INDIA
5. Scully, C. (2014). Scully's medical problems in dentistry
6. Neville, Damm, Allen and Bouquot: Oral and Maxillofacial Pathology, 1st ed., Saunders, 2009.
7. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004
8. Little, J. W. and Falace, D. A: Dental Management of the Medically Compromised Patient. Mosby Co. 2002.

Course Specification: DENT 415 – Dental Implantology			
Course Symbol	DENT 415	Year	5
Course Title	Dental Implantology	Units	1 Didactic
Prerequisite	DENT 312, DENT 313 DENT 411		

Course Outline:

This course is a didactic course, designed to introduce the students to the science of multidisciplinary implant dentistry. Emphasis is on patient evaluation, diagnosis and treatment planning, implant selection, surgical procedures, prosthodontic restorations, patient management, and follow-up care.

Course Outcomes:

By the end of this course, student should be able to:

1. Recognize the different implants types and their uses.
2. Understand how to evaluate and select the implant patient.
3. Apply a multidisciplinary approach to the management of the implant patient.
4. Identify the different prosthetic options for the implant patient.
5. Recognize the surgical preparations, stages and techniques for implant placement.
6. Understand the implant loading conditions.
7. Know the follow-up protocols for the implants patient.

Educational Methods:

1. Lectures
2. PBL

Assessment of Students:

1. Continuous assessment.
2. Final assessment.

References:

1. Misch CE: Contemporary Implant Dentistry. St Louis: Mosby Co. 2007.
2. Cranin N: Atlas of Oral Implantology. St Louis: Mosby Co. 1999.

Course Specification: DENT 416 – Maxillofacial Surgery & Rehabilitation			
Course Symbol	DENT 416	Year	5
Course Title	Maxillofacial Surgery and Rehabilitation	Units	2 Didactic 1 Practical
Prerequisite	DENT 312, DENT 411 DENT 412, DENT 413 DENT 414		

Course Outline:

This course is a didactic course, designed to introduce the students to the science of multidisciplinary Maxillo-facial dentistry. It provide a basic theory background, to assist the development of skills in diagnosis, treatment planning, active surgical care and postoperative management. It is also dedicated to prosthetic correction and management of maxillofacial defects acquired from the surgical ablation of cancer, traumatic injuries or congenital birth defects and alterations in growth and development.

It focuses on the prosthodontic rehabilitation of patients with loss and compromise of facial anatomy, i.e., ocular, orbital, nasal, auricular, combined intraoral/extraoral and other related facial deformities.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand what maxillofacial team.
2. Reach a reliable diagnosis.
3. Select cases for treatment.
4. Determine the urgency for treatment.
5. Determine who has the skills to perform the treatment.
6. Advice the patient on options, success rates, & complications.
7. Recognize Classification of congenital and acquired maxillofacial defects.
8. Know different modalities of surgical interventions
9. Know different modalities of maxillofacial prosthetic rehabilitation.
10. Identify materials used in maxillofacial prosthetics.
11. Recognize radiation therapy.

Educational Methods:

1. Lectures
2. PBL
3. Laboratory sessions.

Assessment of Students:

1. Continuous assessment.
2. Final examination.

References:

Update references to –

1. Malik, N. A. (2012). Textbook of oral and maxillofacial surgery.
2. Laskin, d. M. (2009). Oral and maxillofacial surgery. Delhi, india: a.i.t.b.s. pub
3. Hupp, j. (2019). Contemporary oral and maxillofacial surgery. S.l.: mosby
4. In Bagheri, S. C. (2014). Clinical review of oral and maxillofacial surgery: A case-based approach

5. Fonseca, R. J., Marciani, R. D., &Turvey, T. A. (2009). Oral and maxillofacial surgery. St. Louis, Mo: Saunders/Elsevier
6. Oral and Maxillofacial Surgery: An objective-based textbook. Jonathan Pedlar & John W. Frame. 2007.
7. Clinical Maxillofacial Prosthetics: Thomas Taylor. Maxillofacial Rehabilitation: Beumer, Curtis & Fritell. 2000.

Course Specification: DENT 421 – Scientific Presentation Skills (4)			
Course Symbol	DENT 421	Year	4
Course Title	Scientific presentation skills (4)	Units	1 Practical
Prerequisite			

Course Outline:

In the field of dentistry, knowledge and technical skills are not the only prerequisites for good practice. An ability to communicate effectively, to use active listening, to gather and impart information effectively, and to demonstrate empathy, rapport, ethical awareness is crucial.

The aim of this course is improve skill and behavior that help the students to communicate more effectively, present with confidence and enhance personnel impact.

In this course, the students gain a comprehensive and proven set of skill that helps them to work effectively with colleagues and develop expertise.

Course Outcomes:

By the end of this course, student should be able to:

1. Provide opportunities for students to work independently and in team, maintain working relationship with internal organization, and learn how to receive feedback in a positive way.
2. Steer conservation, plan and structure presentation, develop a positive and assertive presentation style, and deliver clear and convincing oral presentation to individuals.
3. Develop leadership personality that maintains discipline and ethical rules in the meeting organization.
4. Develop a more persuasive and impressive speaking style through the use of language creatively to present a more powerful message.
5. Develop a writing skill in a clear, convincing and organized manner.
6. Learn time organization that allows the use of time to meet presentation objective.
7. Learn how to participate in meeting or conferences and what to do ahead of time, how to start meeting, role of clarification in meetings, facilitation, and how to work with difficult attendees topics and deadlines.
8. Handle conflicts, aggression and build a rapport.
9. Learn how to evaluate and judge the scientific article.

Educational Methods

1. Seminar
2. Poster session
3. Scientific article.

The presentations will be directed toward clinical dental sciences.

Assessment of Students

1. Continuous assessment
2. Projects: will be in the form of Seminar, poster session and scientific article presentation.

References:

1. Dennis C Tanner. An advanced Course in Communication Sciences. Plural publishing. 2006
2. Gillam Ronald B, Marquardt Thomas P and Martin Fredrick . Communication Sciences and Disorders. Singular Publishing Group.USA. 2000

Course Specification: DENT 422 – Community Dentistry (5)			
Course Symbol	DENT 422	Year	4
Course Title	Community Dentistry (5)	Units	1 Didactic 1 Practical
Prerequisite	DENT 122 , DENT 222 DENT 223 , DENT 322		

Course Outline:

The course has been designed to develop an understanding and give an exercise to the students about the practical implications of the basic concepts of research methodology, oral health education and promotion; and preventive care of individual patients. It will discuss the significance and application of evidence-based dentistry, ethics, geriatric and forensic dentistry. The course will improve critical thinking and organizational skills of dental undergraduates. The course will also enhance the ability of students to work as a viable member of a health team.

Course Outcomes:

By the end of this course, student should be able to:

1. Develop a proposal for a community project/ clinical or field research.
2. Give a critical appraisal of dental literature related to a particular topic.
3. Plan and conduct a survey based on the WHO methodology to assess the oral health need of a community group.
4. Design a questionnaire and check its validity.
5. Discuss the importance and relevance of evidence-based dentistry to the patients' dental care.
6. Describe the basic principles and techniques used in forensic dentistry.
7. Design and evaluate oral health education material appropriate to the need of a target population.
8. Describe the basic components of a health care system including structure, financing and manpower organization.
9. Make a preventive plan tailored to the oral health needs of selected patients, impart relevant information, demonstrate preventive skills, motivate and conduct a follow up.
10. Identify the oral and general health problems of the geriatric patients; and discuss their implications in repairing a treatment plan for such patients.
11. Describe the ethical principles to be applied in dental practice.
12. Understand the role of dentistry in disasters and child abuse.

Educational Methods:

1. Didactic lectures
2. Individual and group assignments
3. Practical training

Assessment of Students:

1. Continuous assessment
2. Final examination.

References:

1. Burt A.B, Eklund S.A: Dental Practice and the Community Dentistry. 6th Ed 2005, W. B. Saunders Company.
2. Harris N O, Franklin G G.: Primary Preventive Dentistry. 6th Ed 2003, Prentice Hall..

Course Specification: DENT 423 – Restorative 3			
Course Symbol	DENT 423	Year	4
Course Title	Restorative (3)	Units	1 Didactic
Prerequisite	DENT 313		

Course Outline:

This didactic course is designed to prepare the students for the management of the patients with various restorations including operative dentistry, endodontics, removable & fixed prosthodontic restorations in addition to periodontal treatment.

The student will gain didactic knowledge for the management of dental patients with each of the previously mentioned discipline. The course will concentrate on the various treatment modalities with the proper handling of the dental patients.

Course Outcomes:

By the end of this course, student should be able to:

1. Define and explain the procedures used to construct fixed and removable dental prostheses.
2. Identify and describe the diagnostic tests used to determine pulpal conditions.
3. List and explain the equipment and materials necessary for endodontic treatment.
4. Compile a list of and explain the instruments commonly used in the periodontal treatment and explain their use.
5. Describe the different types of tooth restorations & their applications.
6. Discuss classifications of cavity preparations and the methods of treatment for each.
7. Name and discuss various methods used to care for periodontal conditions.

Educational Methods:

1. Lectures

Assessment of Students:

1. Continuous assessment
2. Final examination

References:

1. Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett, and Herbert T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition, 2006.
2. Hassaballa M.A, Talic Y.A. principles of complete denture prosthodontics. KSU, 2004.
3. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis 2004, eleventh edition.
4. Sturdevant,S & Edil Roberson Art & science of operative dentistry : Mosby 4th ed , 2002
5. Sephen, C, Pathways of the pulp : Mosby 8th ed , 2002
6. Walton, R.E. and Torabinejad, M., Principles and Practice of Endodontics, 3rd Ed., 2002;
7. Glen P. McGivney, Alan B. Carr, William L McCracken: McCracken's Removable Partial Prosthodontics, 10th Edition. Mosby Book, 2000.
8. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004

Course Specification: DENT 424 – Biotechnology in Dentistry			
Course Symbol	DENT 424	Year	4-5
Course Title	Biotechnology in Dentistry	Units	1 Didactic
Prerequisite	DENT 313		

Course Outline:

Tissue Biotechnology in Dentistry course is concerned with the application of principles of tissue engineering and regenerative medicine, especially those of bioengineered bone, the designing and characterization of oral and extraoral oseeointegrated devices , characterization of the interface between the bone and such devices using destructive and non-destructive testing methods and biomechanics and methods of stress analysis

This course will provide a general view for future applications of tissue engineering and computer guided surgeries in dentistry

Course Outcomes:

By the end of this course, student should be able to:

1. Discuss general perspective and background on tissue engineering.
2. Recognize basic concepts of designing oral and extraoral osseointegrated devices
3. Identify various characterization techniques of oral and extraoral osseointegrated devices
4. Recognize different imaging techniques
5. Recognize different stress analysis techniques
6. Obtain an idea about the impact of tissue engineering on the practice of dentistry during the next 10 years.

Educational Methods:

1. Lectures.

Assessment of Students:

1. Continuous assessment
2. Final Examination.

References:

1. Regenerative Dentistry (Synthesis Lectures on Tissue Engineering) Morgan and Claypool Publishers, ISBN-10: 1608452131 , ISBN-13: 978-1608452132
2. Biomaterials Science:
3. http//www.fishpond.com.au/Books/Biomaterials-Science-BD-Ratner-Alan-S-Hoffman/9780125824637

Course Specification: DENT 425 – Scientific Presentation Skills (5)			
Course Symbol	DENT 425	Year	5
Course Title	Scientific presentation skills (5)	Units	1 Practical
Prerequisite			

Course Outline:

1. In the field of dentistry, knowledge and technical skills are not the only prerequisites for good practice. An ability to communicate effectively, to use active listening, to gather and impart information effectively, and to demonstrate empathy, rapport, ethical awareness is crucial.
2. The aim of this course is improve skill and behavior that help the students to communicate more effectively, present with confidence and enhance personnel impact.
3. In this course, the students gain a comprehensive and proven set of skill that helps them to work effectively with colleagues and develop expertise.

Course Outcomes:

By the end of this course, student should be able to:

4. Provide opportunities for students to work independently and in team, maintain working relationship with internal organization, and learn how to receive feedback in a positive way.
5. Steer conservation, plan and structure presentation, develop a positive and assertive presentation style, and deliver clear and convincing oral presentation to individuals.
6. Develop leadership personality that maintains discipline and ethical rules in the meeting organization.
7. Develop a more persuasive and impressive speaking style through the use of language creatively to present a more powerful message.
8. Develop a writing skill in a clear, convincing and organized manner.
9. Learn time organization that allows the use of time to meet presentation objective.
10. Learn how to participate in meeting or conferences and what to do ahead of time, how to start meeting, role of clarification in meetings, facilitation, and how to work with difficult attendees topics and deadlines.
11. Handle conflicts, aggression and build a rapport.
12. Learn how to evaluate and judge the scientific article.

Educational Methods

1. Seminar
2. Poster session
3. Scientific article.

The presentations will be directed toward advanced clinical dental sciences.

Assessment of Students

1. Continuous assessment
2. Projects: will be in the form of Seminar, poster session and scientific article presentation.

References:

Dennis C Tanner. An advanced Course in Communication Sciences. Plural publishing. 2006

Gillam Ronald B, Marquardt Thomas P and Martin Fredrick . Communication Sciences and Disorders. Singular Publishing Group.USA. 2000

Course Specification: DENT 426 – Problem Solving in Dentistry			
Course Symbol	DENT 426	Year	5
Course Title	Problem Solving in Dentistry	Units	1 Didactic
Co-requisite	DENT 445		

Course Outline:

Our college use the problem based learning (PBL) as a learning method in the curriculum, and now we are going to introduce the problem solving course as a method to increase the student's skill in both diagnosis and dental treatment. A problem based approach also help the students recognize knowledge in their minds and link between different areas and constructing a knowledge matrix which can be more readily recalled and applied.

Course Outcomes:

By the end of this course, student should be able to:

1. Identify the chief complaint of the patient and obtain a history of the chief complain.
2. Reach a definite diagnosis using all the diagnostic methods.
3. Recall all his previous knowledge and put a complete treatment plan.

Educational Methods:

1. PBL sessions.
2. Lectures.

Assessment of students:

1. Continuous assessments.
2. Final Exam.

References:

1. Clinical problem solving in dentistry, Edward W. Odell. 2004.
2. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; 2011. Elsevier Mosby.
3. In Bagheri, S. C. (2014). Clinical review of oral and maxillofacial surgery: A case-based approach

Course Specification: DENT 427 – Orthodontic Treatment for Adults			
Course Symbol	DENT 427	Year	5
Course Title	Orthodontic Treatment for Adults	Units	1 Didactic
Prerequisite	DENT 412, DENT 431		

Course Outline:

This is a didactic course include a comprehensive clinical evaluation, selecting the correct diagnostic records, developing a list of the patient's orthodontic problems, formulating treatment objectives and establishing a treatment plan that will include the integration of orthodontic treatment with other aspects of dental care when appropriate.

Course Outcomes:

By the end of this course, student should be able to:

1. Understand adjunctive treatment and how orthodontics can enhance prosthetic, endodontic, and periodontal treatment.
2. Describe the role of surgery in orthodontic treatment for non-growing individuals.
3. Recognize occlusal problems, which are suitable for treatment in a general practice, as well as severe occlusal problems requiring complex orthodontic and/or orthognathic surgical treatments that should be referred.
4. Have general idea about new treatment modalities in orthodontic e.g. invesalign and lingual orthodontic.

Educational Methods:

1. PBL sessions.
2. Lectures.

Assessment of Students:

1. Continuous assessment
2. Final examination

References:

1. Text book of Orthodontics, S. Bishara, SAUNDERS, 2004.
2. Contemporary of Orthodontics, Proffit, 4th ed. 2007, MOSBY.

Course Specification: DENT 428 – Practice Management			
Course Symbol	DENT 428	Year	5
Course Title	Practice Management	Units	1 Didactic
Co-requisite	DENT 445		

Course Outline:

This course in practice management is designed to teach the fundamentals of developing and running a successful dental practice. The course is taught by dentists and practice management consultants to insure that up-to-date and practical material is presented. Special subject areas of concentration are used in preparing students for residency programs, fees, and third-party payment, collections, associate ships and partnerships, hiring, and retaining a five-star dental team. The classes are taught in a relaxed atmosphere for maximum student enjoyment and learning. The overall goal is to make the information as relevant to the student today as it will be in the future.

Course Outcomes:

By the end of this course, student should be able to:

1. Advanced scheduling
2. How to manage difficult people
3. All aspects of the business of dentistry
4. How to monitor the financial health of a practice
5. Customer service
6. How to reduce no-shows and cancellations
7. Daily operating procedures
8. How to show initiative in the receptionist role
9. Economic model of the dental practice
10. Marketing strategies for growth
11. Enhance leadership skills
12. Positive and productive problem solving
13. How to be a high performing team member
14. Proactive approach to goal setting
15. How to communicate for results
16. State-of-the-art recall systems
17. How to make dentistry affordable

Educational Methods:

1. Lectures.

Assessment of Students:

1. Continuous assessment
2. Final examinations.

References:

1. Geraldine S Irlbacher-Girtel MEd and Guy Girtel: Dental Office Administration. Lippincott Williams & Wilkins; 1st edition, 2009.
2. Ellen Roberta Dietz: Dental Office Management. Delmar Learning. 1999.

Course Specification: DENT 431 – Dental Skills (4)			
Course Symbol	DENT 431	Year	4
Course Title	Dental Skills (4)		
Prerequisite	DENT 331	Units	1 Didactic 2 Practical
Co-requisite	DENT 412		

Course Outline:

The laboratory exercises in this course emphasize the fabrication and utilization of contemporary orthodontic and pedodontic appliances.

Course Outcomes:

By the end of this course, student should be able to:

1. Describe instruments used in the laboratory.
2. Fabricate Nance arch, transpalatal arch.
3. Fabricate Lingual arch, Quadhelix.
4. Fabricate Labial Bow.
5. Know how to fabricate Functional Appliances.
6. Fabricate Z -Spring & Finger Spring.
7. Fabricate Adams Clasp.
8. Construct Hawley Retainer.
9. Do Finishing and Polishing.
10. Describe uses of band and loop as a space maintainer.
11. Perform class I, II, III, and V cavity preparations for deciduous teeth.
12. Perform pulpotomy, strip crowns, and stainless steel crowns for deciduous teeth.

Educational Methods:

1. Lectures.
2. Laboratory sessions.

Assessment of Students:

1. Continuous assessment.
2. Mid-term and final practical exam.

References:

1. Ralph E. McDonald, MS, David R. Avery, Jeffrey A. Dean: Dentistry for the Child and Adolescent. Mosby; 8th edition, 2004.
2. Bench-Top Orthodontics by Harvey W. Lawson (Paperback - Aug 1990)

Course Specification: DENT 432 – Recent Modalities in Dental Radiology			
Course Symbol	DENT 432	Year	5
Course Title	Recent Modalities in Dental Radiology	Units	1 Didactic 1 Practical
Prerequisite	DENT 411		

Course Outline:

A number of medical imaging modalities have been developed in recent years and these continue to be developed at a great rate. With these advanced imaging techniques as computed tomography (CT) scanning, Cone beam CT (CBCT), magnetic resonance imaging (MRI), Ultrasonography, and digital imaging, the field of dental radiology has greatly expanded. The dental professional should have some familiarity with these newer imaging systems because patients may have to be referred for such imaging or copies of the images may be brought to the office by the patient for opinions and interpretation. Therefore an overview of these imaging systems is included in this course.

Course Outcomes:

By the end of this course, student should be able to:

1. Know the different image-generating equipment (either those producing ionizing radiation, or other energy).
2. Know the Digital image receptors, and there types.
3. Describe the computer software's developed to manipulate the images produced by the generating equipment.
4. Have a basic understand of the basic concepts of computed tomography and magnetic imaging.
5. Have a basic understand of the basic concepts of Con beam CT (CBCT).
6. Know the roles of the new imaging techniques in dentistry.

Educational Methods:

1. Lectures.
2. Laboratory sessions.

Assessment of students

1. Continuous assessment
2. Final exam

References:

1. Herbert H. Frommer; and Jeanine J. Stabulas-Savage: RADIOLOGY FOR THE DENTAL PROFESSIONAL. Published. by ELSEVIER 8th ed., 2005.
2. Whaites, E.: Essentials of Dental Radiography and Radiology. Published by ELSEVIER 4th ed., 2007.

Course Specification: DENT 441 – Dental Clinical Practice (2)			
Course Symbol	DENT 441	Year	4
Course Title	Dental Clinical Practice (2)	Units	12 Training
Prerequisite	DENT 313 , DENT 331 DENT 341		
Co-requisite	DENT 411, DENT 413 DENT 414		

Course Outline:

The purpose of this clinical course is to reinforce and refine the student's knowledge and skills required for the clinical practice of dentistry in the following subjects: Operative, Periodontics, Endodontics, Fixed and removable Prosthesis, Oral Surgery.

As part of their educational experience, dental students must demonstrate competence in behavioral and patient management skills, in addition to the technical skills and knowledge that will be required of a graduated, licensed dental practitioner.

This course is designed to observe, evaluate, and subsequently assist students in understanding and practicing proper comprehensive patient care and management. The course focuses, in particular, on refinement and integration of the following skills introduced in the first, second, and third years:

1. Ethical and professional behavior
2. Patient management, including comprehensive and timely care
3. Proper infection control techniques before, during, and following patient treatment
4. Appropriate record keeping and management of patient records

Course Outcomes:

By the end of this course, student should be able to:

1. Comprehensive Care
    a. Demonstrate that patients are treated in a comprehensive manner
    b. Demonstrate that patient treatment follows the sequential treatment plan
2. Treatment Planning
    a. Demonstrate that patients are treatment planned in a timely manner following assignment
    b. Understand the need for and process of treatment plan consultations and obtaining appropriate signatures
    c. Demonstrate the ability to sequence a treatment plan in a logical, professionally accepted order, including treatment additions or deletions
3. Timeliness of Care
    a. Demonstrate that all patients are seen in a timely fashion
    b. Document reasons for postponement or termination of patient treatment in patient record.
4. Organization Skills
    a. Demonstrate preparedness for clinic appointments with respect to operatory set-up and knowledge of procedure(s) to be performed
    b. Demonstrate that clinic time is used effectively and efficiently
    c. Exhibit proficiency in patient record documentation and completion of treatment during allotted clinic hours
5. Record Keeping
    a. Maintain appropriately documented patient records,
    b. Perform patient record documentation in a well-written and legible manner

6. Standards of Care
    a. Demonstrate the "universal" standards of patient care outlined in the Clinic Manual
    b. Demonstrate professional behavior with patients, faculty, staff, and fellow students
    c. Demonstrate an understanding of and compliance with clinic policies and procedures.
    d. Demonstrate the knowledge and application of effective infection control procedures expected of all health professionals ("standard" precautions).

Educational Methods:

1. Clinical application under supervision of the dental staff.

Assessment of Students:

1. Continuous assessment.
2. Mentor, case presentation evaluations.
3. Comprehensive clinical examinations including OSCE.

References:

1. 1.Sturdevant's Art and Science of Operative Dentistry; Theodore M, Harald O, Edward J; 2012.
2. 2.Summit's Fundamental of Operative Dentistry, A Contemporary Approach; James B Summit; 2013.
3. 3.Essential of Dental Caries; Edwin Kidd; 2016.
4. 4.Pre-Clinical Dental Skills at a Glance (At a Glance (Dentistry)1st Edition; James Field;2016.
5. 5.Pickard Guide to Minimal Invasive Operative Dentistry; Avijit Banaerjee; 2015.
6. V Gopikrishna, Subhash Chandra. Grossman's Endodontic Practice. 13th edition; 2014. Wolters Kluwer.
7. Kenneth M Hargreaves. Cohen's Pathways of Pulp. 1st South Asian edition; 2016. Elsevier.
8. Arvind Shenoy, Kundabala Mala. Endodontics- Principles & Practice. 1st edition; 2016. Elsevier.
9. Anil Kohli. Text book of Endodontics. 1st edition; 2009. Elsevier.
10. Mahmoud Torabinejad, Richard E Walton, Ashraf F Fouad. Endodontics- Principles & Practice. 5thedition; 2014. Elsevier.
11. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; 2011. Elsevier Mosby.
12. Enrique M Merino. Endodontic Microsurgery. 1st edition; 2009. Quintessence.
13. Ilan Rotstein. John I. Ingle. 7th edition;2016. PMPH-USA.
14. Ashraf F Fouad. Endodontic Microbiology. 1st edition; 2017. Quintessence. G Zarb, et al. Prosthodontic treatment for edentulous patients., Mosby; Elsevier inc. 2013
15. Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett, and Herbert T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition, 2006.
16. Hassaballa M.A, Talic Y.A. principles of complete denture prosthodontics. KSU, 2004.
17. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis 2004, eleventh edition.
18. Glen P. McGivney, Alan B. Carr, William L McCracken: McCracken's Removable Partial Prosthodontics, 10th Edition. Mosby Book, 2000.
19. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004
20. Contemporary of oral and maxillofacial Peterson L, Ellis III E ,Hupy GR, Truker MR, surgery , Mospy co 2ed 2003

Course Specification: DENT 442 – Advanced Periodontics Clinics			
Course Symbol	DENT 442	Year	4-5
Course Title	Advanced Periodontics Clinics	Units	2 Training
Prerequisite	DENT 313		

Course Outline:

The course is planned so that the student will be exposed to various surgical periodontal approaches.

This course will particularly focus on the increasingly requested aesthetic procedures; make sure that the dental student will attain a pragmatic approach to mucogingival plastic surgery through imparting knowledge and expertise.

Course Outcomes:

By the end of this course, student should be able to:

1. Classify and design various flap techniques for different periodontal cases.
2. Recognize the periodontal–restorative relationship as in cases of crown lengthening and recession.
3. Plan and practice regenerative periodontal therapies including various guided tissue regeneration techniques.
4. Identify mucogingival problems and design the appropriate periodontal plastic and esthetic surgery.
5. Observe and perform various suturing techniques.
6. Achieve clinical experience in most aspects of periodontal surgery by assisting residents and faculty in Periodontics.

Educational Materials:

1. Clinical training.

Evaluation of students:

1. Continuous assessment
2. Assessment of clinical cases.

References:

1. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004

Course Specification: DENT 443 – Advanced Endodontics Clinics			
Course Symbol	DENT 443	Year	4-5
Course Title	Advanced Endodontics Clinics	Units	2 Training
Prerequisite	DENT 313		

Course Outline:

This course is designed in a way that the students will acquire knowledge to understand the implication of microsurgery in endodontics. At this level, emphasis will be more on didactic teaching than developing psychomotor skills or problem solving attitude. The course will provide comprehensive knowledge about premedication, presurgical preparation and soft tissue management and apical resection in cases where conventional root canal therapy has fail

Course Outcomes:

By the end of this course, student should be able to:

1. Describe advantages of endodontic microsurgery
2. Explain the indications and contra-indications of microsurgery in endodontics
3. Classify endodontic microsurgical cases
4. Evaluate patient medically and radiographically for the microsurgery
5. Know the extent of apical resection

Educational Methods:

1. Clinical training

Assessment of Students:

1. Continuous assessment
2. Assessment of clinical cases

References:

1. Sephen, C Pathways of the Pulp : Mosby 8th ed , 2002

Course Specification: DENT 444 – Advanced Cosmetics Clinics			
Course Symbol	DENT 444	Year	4-5
Course Title	Advanced Cosmetics Clinics	Units	2 Training
Prerequisite	DENT 313		

Course Outline:

In modern day living, esthetics is a prime demand of dental patients. With advent of new materials and modern technology, many options have become available to practicing dentists to satisfy their patients' genuine demand.

This course is designed to teach the students current treatment modalities available to bring dental esthetics through bleaching. It has a didactic component along with clinical observation of under-treatment patients in operative dentistry department of the Al-Jouf University Dental Hospital.

Course Outcomes:

By the end of this course, student should be able to:

1. Explain the mode of action of various bleaching agents
2. Know various types of bleaching therapy
3. Identify the factors that affect bleaching process
4. Recognize indications and contra-indications of bleaching therapy
5. Describe In-office and At-home bleaching techniques

Educational Methods:

1. Clinical training

Assessment of Students:

1. Continuous assessment
2. Assessment of clinical cases.

References:

1. Sumiya Hobo, Lowell D. Whitsett , Richard Jacobi, Susan E. Brackett, and Herbert T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publishing (IL); 3rd edition, 2006.
2. Sturdevant,S & Edil Roberson Art & Science of Operative Dentistry : Mosby 4th ed , 2002

Course Specification: DENT 445 – Total Patient Care			
Course Symbol	DENT 445	Year	5
Course Title	Total Patient Care	Units	15 Training
Prerequisite	DENT 441		
Co-requisite	DENT 426, DENT 428		

Course Outline

Total patient care course is a comprehensive clinical course concerning the patients' management with all various dental clinical disciplines including endodontics, fixed & removable prosthodontics, oral surgery, oral medicine & pathology, pedodontics, orthodontics & special dental care. The student will be trained to propose the treatment plan & treat the dental patients from A to Z utilizing infection control program. The student will be able to treat & follow up the advanced dental cases under the supervision of interdisciplinary staff members.

Course Outcomes:

By the end of this course, student should be able to:

1. Diagnose & discuss related signs, symptoms and sources related to various oro-dental diseases
2. Propose the treatment plan of the dental cases.
3. Implement the infection control program during the course of treatment of the patients.
4. Able to use the equipment and materials needed in prevention of emergencies and emergency treatment.
5. Interpret the dental radiographs.
6. Do different types of tooth extractions and tooth impactions.
7. Treat advanced dental cases under the supervision of interdisciplinary faculty members.
8. Prepare case presentation after completion of the comprehensive care dental case.

Educational Methods:

1. Clinical application under supervision of the dental staff.

Assessment of Students:

1. Continuous assessment.
2. Comprehensive clinical examinations including OSCE.

References:

1. Sturdevant's Art and Science of Operative Dentistry; Theodore M, Harald O, Edward J; 2012.
2. Summit's Fundamental of Operative Dentistry, A Contemporary Approach; James B Summit; 2013.
3. Essential of Dental Caries; Edwin Kidd; 2016.
4. Pre-Clinical Dental Skills at a Glance (At a Glance (Dentistry)1st Edition; James Field;2016.
5. Pickard Guide to Minimal Invasive Operative Dentistry; Avijit Banaerjee; 2015.
6. V Gopikrishna, Subhash Chandra. Grossman's Endodontic Practice. 13th edition; 2014. Wolters Kluwer.
7. Kenneth M Hargreaves. Cohen's Pathways of Pulp. 1st South Asian edition; 2016. Elsevier.
8. Arvind Shenoy, Kundabala Mala. Endodontics- Principles & Practice. 1st edition; 2016. Elsevier.
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11. James L. Gutmann, Paul E Lovdahl. Problem Solving in Endodontics. 5th edition; 2011. Elsevier Mosby.
12. Enrique M Merino. Endodontic Microsurgery. 1st edition; 2009. Quintessence.
13. Ilan Rotstein. John I. Ingle. 7th edition;2016. PMPH-USA.
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17. Zarb G.A, Bolender C.L, Carlsson G.E. Boucher's prosthodontic treatment for edentulous patients. CV mosby co., St. Louis 2004, eleventh edition.
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19. Michael G. Newman, Henry Takei, Fermin A. Carranza: Carranza's clinical Periodontology, 10th edition, 2004
20. Contemporary of oral and maxillofacial Peterson L, Ellis III E ,Hupy GR, Truker MR, surgery , Mospy co 2ed 2003

Course Specification: DENT 446 – Advanced Orthodontics Clinics			
Course Symbol	DENT 446	Year	5
Course Title	Advanced Orthodontics Clinics	Units	2 Training
Prerequisite	DENT 441		

Course Outline:

This is a two-hour credit seminar course offered at the graduate level within the specialty program in orthodontics. The course provides in-depth information concerning methods and rationale for gathering a comprehensive data base for orthodontic patients. Analysis and interpretation of the database is approached by using the orthogonal analysis technique and from interdisciplinary perspectives, such as orthognathic surgery and facial pain, as well. The process of developing a treatment plan from the database will be thoroughly explored.

Course Outcomes:

By the end of this course, student should be able to:

1. Evaluate the need for orthodontic treatment.
2. Conduct an interview and examination of the orthodontic patient.
3. Collect and analyze a set of orthodontic diagnostic records.
4. Develop appropriate goals for a patient consistent with achieving and maintaining long-term health stability, and facial esthetics.
5. Develop a prioritized problem list for the orthodontic patient as dictated by the stated goals.
6. Generate a treatment plan for the orthodontic patient.
7. Develop an appreciation for the history of clinical orthodontics and its influence on our current standard of care.
8. Develop an understanding of the important scientific issues such as epidemiology and evidence based decision making that will import orthodontic diagnosis and treatment planning.
9. Recognize the normal and abnormal in the development of the dentofacial complex including conditions which interfere with the patients' ability to function.
10. Recognize predisposing conditions and must recognize which require intervention and/or active treatment to prevent disease.
11. Analyze and treat minor orthodontic problems.
12. Recognize those complex problems which are beyond his ability to treat and must know when to refer to a competent and qualified orthodontic specialist.

Educational Materials:

1. Clinical training.

Assessments of students

1. Continuous assessment.
2. Assessment of clinical cases.

References:

1. Contemporary Orthodontics, By William R. Proffit, Henry W. Fields Jr., David M. Sarver. Mosby; 4 edition:2006.

Course Specification: DENT 447 – Advanced Implant Dentistry Clinics			
Course Symbol	DENT 447	Year	5
Course Title	Advanced Implant Dentistry Clinics	Units	2 Training
Prerequisite	DENT 441		

Course Outline:

This course is a clinical course, designed to introduce the students to the clinical skill of multidisciplinary implant dentistry. Emphasis is on patient evaluation and selection, diagnosis and treatment planning, implant selection, surgical procedures for implant placement, prosthodontic restorations, patient management, and follow-up care.

Course Outcomes:

By the end of this course, student should be able to:

1. Evaluate, select, and manage the implant patient.
2. Place implants for selected partially edentulous patients.
3. Select and restore the placed implants with the proper prosthesis.
4. Follow-up of the implant patient.

Educational Materials:

1. Clinical training.

Assessments of students

1. Continuous assessment.
2. Assessment of clinical cases.

References:

1. Misch CE: Contemporary Implant Dentistry. St Louis: Mosby Co. 2007
2. Cranin N: Atlas of Oral Implantology. St Louis: Mosby Co. 1999

Course Specification: DENT 448 – Advanced Oral & Maxillofacial Surgery Clinics			
Course Symbol	DENT 448	Year	5
Course Title	Advanced Oral and Maxillofacial Surgery Clinics	Units	2 Training
Prerequisite	DENT 441		

Course Outline:

This course is a clinical course, designed to introduce the students to the clinical skill of the advanced oral and maxillofacial surgery cases. Emphasis is on surgical techniques (fractures, orthognathic surgery, distraction osteogenesis, and reconstruction……etc), patient management, and follow-up care.

Course Outcomes:

By the end of this course, student should be able to:

1. Assess and examine the patient with a scientific identification of the surgical problems
2. Recognize the appropriate sequence of surgical care in the overall treatment plan
3. Refer patients to a specialist when needed.
4. Interpret the results of the physical evaluation and understand the findings that will alter and influence treatment
5. Discuss findings, diagnosis, and treatment plan options with the patient and to obtain informed consent to carry the treatment.
6. Control patients' pain and anxiety through surgical procedures.
7. Assist in advanced surgical procedures.
8. Perform some advanced surgical procedures under complete supervision.

Educational Methods:

1. Clinical training.

Assessments of students

1. Continuous assessment.
2. Assessment of clinical cases.

References:

1. Text book of general and oral surgery Wray D ,Stenhouse D, Lee D ,Clarck E, Churchill livingsone co,2003
2. Peterson principle of oral and maxillofacial surgery Peterson L,Ellis III E ,Hupy GR, Truker MR ,Mospy co 2ed ,2004
3. Principle of oral and maxillofacial surgery ,Moore UJ, blackwell sciences 5 ed 2001
4. Contemporary of oral and maxillofacial Peterson L, Ellis III E ,Hupy GR, Truker MR, surgery , Mospy co 2ed 2003
5. Oral surgery Fragiskos SD , ,springer, 2007

Course Specification: DENT 449 – Advanced Pedodontics Clinics			
Course Symbol	DENT 449	Year	5
Course Title	Advanced Pedodontics Clinics	Units	2 Training
Prerequisite	DENT 441		

Course Outline:

This course is designed to give the student advanced knowledge about different types of preventive and interceptive appliances, and ensure that they acquire knowledge about different management techniques to control difficult, physically and medically compromised children.

Course Outcomes:

By the end of this course, student should be able to:

1. Describe the problems of premature loss of primary teeth and how to use the suitable appliances.
2. Explain the harmful effect of bad oral habits on teeth, occlusion and soft tissue with references to effective appliances used to stop the habit.
3. Understand why and how to apply the different behavioral management techniques for children.
4. Be aware of the different physical restrain used to control unmanageable children.
5. Illustrate the role of premeditations in controlling defiant children.
6. Elicit the importance of using conscious sedations and general anesthesia in pedodontics.

Educational Materials:

1. Clinical training.

Assessments of students

1. Continuous assessment.
2. Assessment of clinical cases

References:

1. Dentistry for the child and Adolescent, Mc Donald, Avery, Dean, 8th ed., MOSBY, 2004.