



| <b>Semester 1</b>                         |   |
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| <b>Course Title</b>                       | <b>Course Description</b>   |
| <b>Oral biology and Embryology I</b>      | This course will provide the student with an introduction to oral soft and hard tissue histology and embryology.  |
| <b>Oral and Maxillofacial Pathology I</b> | This course will provide the student with knowledge and skills necessary for reaching a definitive diagnosis through the microscopic picture of oral and dental pathological lesions and correlate it to the clinical data and radiographic picture of the different types of oral and dental lesions.  |
| <b>Dental Biomaterials</b>                | This course will provide the student with an introduction to the basic knowledge of different dental biomaterials compositions, properties setting reactions and different techniques of fabrication.   |
| <b>Endodontic Technology</b>              | This course will provide the student with the knowledge and skills to perform root canal treatment by knowing the root canal morphology, principles of access cavity preparation, root canal preparation and obturation. The students have to practice root canal treatment on different types of permanent extracted teeth.  |
| <b>Oral and Maxillofacial Radiology</b>   | This course introduces basic principles of radiology and different techniques used in dentistry. Indications, contraindications and uses of each technique are also discussed. Additionally, it provides the student with necessary knowledge, skills and practice related to intra-oral and extra-oral radiography and radiological appearance of normal tissues to facilitate diagnosis of different pathological oral lesions. |

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| <p><b>Anatomy of Head and Neck</b></p>            | <p>This course aims at providing students with a thorough understanding of head and neck anatomy with emphasis on those structures associated with the oral and maxillofacial surgery. The course focuses on the anatomy, design and function of structures in the head and neck as they pertain to oral health.</p>   |
| <p><b>Semester 2</b></p>                          |  |
| <p><b>Course Title</b></p>                        | <p><b>Course Description</b></p>   |
| <p><b>Oral biology and Embryology II</b></p>      | <p>This course will provide the student with detailed knowledge about the structure and function of hard and soft dental tissues. Moreover, it discusses the cranio-facial development and embryological process of each dental structure.</p>   |
| <p><b>Oral and Maxillofacial Pathology II</b></p> | <p>This course will provide the student with Knowledge and skills necessary for reaching a definitive diagnosis through the microscopic picture of oral lesions and head and neck tumours. Diseases of salivary glands, white lesions, red lesions, manifestations of syndromes are discussed.</p>   |
| <p><b>Clinical Endodontics I</b></p>              | <p>This course will provide the student with the knowledge and skills to perform root canal treatment by knowing and differentiation between the various pulp and periapical diseases, recent diagnostic aids, conservative endodontic treatment. Moreover, the student will consolidate all data retrieved from subjective symptoms and objective findings in differential diagnosis of pulp and periapical pathosis and provide endodontic treatment for patients with mature permanent single rooted teeth.</p> |

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| <p><b>Advanced Clinical Oral Diagnosis</b></p> | <p>This Course includes assessment and examination of the patient for proper treatment planning. An overview of the patient information is mandatory as personal data, medical history and clinical examination of caries, non-carious lesions, existing restorations, periodontium, occlusion and patients in pain. Also it aims to explain the diagnostic investigations of pulp and periapical diseases</p>  |
| <p><b>Pharmacology</b></p>                     | <p>Students become acquainted with the most common drugs used in oral and maxillofacial practice, their mode of delivery, mode of action, side effects and dosage. The course also stresses drugs interaction.</p>  |
| <p><b>Semester 3</b></p>                       |   |
| <p><b>Course Title</b></p>                     | <p><b>Course Description</b></p>  |
| <p><b>Clinical Endodontics II</b></p>          | <p>This course will provide the student with the knowledge and skills to perform root canal treatment by knowing and differentiation between the various pulp and periapical diseases, recent diagnostic aids, conservative endodontic treatment. Moreover, the student will consolidate all data retrieved from subjective symptoms and objective findings in differential diagnosis of pulp and periapical pathosis and provide endodontic treatment for patients with mature permanent multi rooted teeth.</p> |
| <p><b>Fixed Prosthodontics Minor I</b></p>     | <p>This course will provide the candidate with knowledge about the main concept and basic clinical principles of fixed prosthodontics with coverage.</p>  |
| <p><b>Operative Dentistry Minor I</b></p>      | <p>This course is designed to provide basic knowledge regarding management of dental</p>  |

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|                                    | caries starting from diagnosis, cavity preparation, and selection of restorative material, restorative procedure and follow up.   |
| <b>Microbiology and Immunology</b> | The course helps students identify the most common oral pathogens and the immune mechanisms the body uses to defend itself against them. This course handles details of the immune mechanism and the different immunoglobulins and their role in pulp and periapical diseases. It also discusses the role of these pathogens in spreading infection and how this can be used to structure infection control programs in the dental setting. |
| <b>Dental Cariology</b>            | This course gives full description of mechanism of dental caries development, types of dental caries, dental wear, and dental mineralization disorders with an emphasis on caries risk assessment and recent classifications of dental carious lesions.   |

#### Semester 4

| Course Title                        | Course Description  |
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| <b>Advanced Endodontics Major I</b> | Provide an in-depth level of knowledge in contemporary endodontic treatment modalities that are developing at a pace which is not reflected in the current endodontic literature. Invited guests who are recognized leaders in their respective fields present lectures, seminars, interactive group discussions and hands-on experiences for the most up to date clinically relevant topics. Subject areas covered include: 1) rotary endodontics; 2) instrument design and fabrication; 3) obturation materials and techniques; 4) irrigation to canal debridement and disinfection; 5) dental material science |

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|  | and novel alloy development; 6) restorative aspects of returning the endodontically treated tooth to function.  |
| <b>Fixed Prosthodontics Minor II</b>                         | The aim of this course is to clarify all the advanced recent materials, techniques and treatment options in fixed prosthodontics especially for the endodontically treated teeth. <u>The student will practice clinically</u>   |
| <b>Operative Dentistry Minor II</b>                          | This course is designed to provide basic knowledge about aesthetic cavity preparation and restorative techniques for direct aesthetic restorative materials together with preparing the student with knowledge and skills in the diagnosis and treatment of aesthetic dental problems.  |
| <b>Contemporary Evidence-Based Endodontic Journal Club I</b> | Ongoing review of current, pertinent, professional literature is fundamental to the successful practice of endodontics. The assessment of current literature for its evidence-based value is critical. This course has a basic journal club format, and involves surveying major dental periodicals to identify important articles, reviewing those articles, and discussing each article in an open face to face format about rotary endodontics; 2) instrument design and fabrication; 3) obturation materials and techniques; 4) irrigation to canal debridement and disinfection; 5) dental material science and novel alloy development; 6) restorative aspects of returning the endodontically treated tooth to function. Journal Club provides a mechanism for surveying dental periodicals with high impact factors to identify important articles, reviewing |



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|                                      | those articles, and discussing each article in an open seminar format.   |
| <b>Semester 5</b>                    |  |
| <b>Course Title</b>                  | <b>Course Description</b>  |
| <b>Advanced Endodontics Major II</b> | Provide an in-depth level of knowledge in contemporary endodontic treatment modalities that are developing at a pace which is not reflected in the current endodontic literature. Invited guests who are recognized leaders in their respective fields present lectures, seminars, interactive group discussions and hands-on experiences for the most up to date clinically relevant topics. Subject areas covered include: dental traumatology; pulpal and periapical pathosis; differential diagnosis of facial pain. |
| <b>Applied Endodontics I</b>         | Aims to provide each participant with a comprehensive experience and training in the assessment, diagnosis and treatment planning of endodontic disease. Furthermore, the assessment and treatment planning elements will incorporate aspects of other relevant dental disciplines like periodontics and oral surgery. The unit will also aim to not only develop clinical abilities but also to stimulate critical and analytical thinking in both the clinical and research environment.                               |
| <b>Endodontic Micro surgery I</b>    | Provide an in-depth level of knowledge in contemporary endodontic treatment modalities that are developing at a pace which is not reflected in the current endodontic literature. Invited guests who   |

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|  | <p>are recognized leaders in their respective fields present lectures, seminars, interactive group discussions and hands-on experiences for the most up to date clinically relevant topics. Subject areas covered include: microsurgical endodontic procedures and other subjects pertinent to the practice of endodontics. A variety of approaches to treatment and the different local anaesthesia techniques, haemostatic agents, and flap designs for treated patients are emphasized.</p>  |
| <p><b>Contemporary Evidence-Based Endodontic Journal Club II</b></p> | <p>Ongoing review of current, pertinent, professional literature is fundamental to the successful practice of endodontics. The assessment of current literature for its evidence-based value is critical. This course has a basic journal club format, and involves surveying major dental periodicals to identify important articles, reviewing those articles, and discussing each article in an open face to face format in dental traumatology; pulpal and periapical pathosis; differential diagnosis of facial pain. Journal Club provides a mechanism for surveying dental periodicals with high impact factors to identify important articles, reviewing those articles, and discussing each article in an open seminar format.</p> |
| <p><b>Case Presentation Seminar I</b></p>                            | <p>The purpose of this seminar is to provide a forum in which clinical experiences can be shared and in which discussion of clinical cases presented will benefit not only the presenter, but also all of the attendance.</p>   |

| Semester 6                            |  |
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| Course Title                          | Course Description   |
| <b>Advanced Endodontics Major III</b> | Provide an in-depth level of knowledge in contemporary endodontic treatment modalities that are developing at a pace which is not reflected in the current endodontic literature. Invited guests who are recognized leaders in their respective fields present lectures, seminars, interactive group discussions and hands-on experiences for the most up to date clinically relevant topics in bioengineering, including stem cell therapy; for pulpal regeneration; revascularization of immature permanent teeth and the pediatric component of endodontic care, prognosis of endodontic surgical and non-surgical retreatment vs. implants. A variety of approaches to treatment and the importance of supportive therapy for treated patients are emphasized. The interrelationship between basic sciences and clinical aspects of endodontics is emphasized. |
| Applied Endodontics II                | Aims to provide each participant with a comprehensive experience and training in the assessment, diagnosis and treatment planning of endodontic disease. Furthermore, the assessment and treatment planning elements will incorporate aspects of other relevant dental disciplines like orthodontics and removable prosthodontics. The unit will also aim to not only develop clinical abilities but also to stimulate critical and analytical thinking in both the clinical   |

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|  | and research environment.  |
| <b>Endodontic Microsurgery II</b>                              | Provide an in-depth level of knowledge in contemporary endodontic treatment modalities that are developing at a pace which is not reflected in the current endodontic literature. Invited guests who are recognized leaders in their respective fields present lectures, seminars, interactive group discussions and hands-on experiences for the most up to date clinically relevant topics. Subject areas covered include: microsurgical endodontic procedures and other subjects pertinent to the practice of endodontics. A variety of approaches to treatment and the different retrograde filling materials, corrective surgery approaches and post-operative care and medication for treated patients are emphasized. |
| <b>Contemporary Evidence-Based Endodontic Journal Club III</b> | Ongoing review of current, pertinent, professional literature is fundamental to the successful practice of endodontics. The assessment of current literature for its evidence-based value is critical. This course has a basic journal club format, and involves surveying major dental periodicals to identify important articles, reviewing those articles, and discussing each article in an open face to face format in bioengineering, including stem cell therapy; for pulpal regeneration; revascularization of immature permanent teeth and the pediatric component of endodontic care, prognosis of endodontic surgical and non-surgical retreatment vs. implants. .  |



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|                                     | Journal Club provides a mechanism for surveying dental periodicals with high impact factors to identify important articles, reviewing those articles, and discussing each article in an open seminar format.           |
| <b>Case Presentation Seminar II</b> | The purpose of this seminar is to provide a forum in which clinical experiences can be shared and in which discussion of clinical cases presented will benefit not only the presenter, but also all of the attendance. |

