**King Saud University**

**College of Dentistry**

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| **Course Specification** | | |
| Course Title: | **Comprehensive Clinical Dentistry** | |
| Course Code: | **493 DEN** | |
| Course Director(s): | **Dr. Abdulaziz M. Albaker (BUC)**  **Prof. Nahid Y. Ashri (GUC)** | |
| Department: | **College of Dentistry** | |
| Academic Year | **1437-1438 H, 2016-2017G** | |

**Course Specification**

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| Institution | King Saud University |
| College/Department | College of Dentistry |

**A. Course Identification and General Information**

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| 1. Course title and code: | Comprehensive Clinical Dentistry 493 DEN |
| 2. Credit hours | Ten (10) credit hours |
| 3. Program(s) in which the course is offered.(If general elective available in many programs indicate this rather than list programs) | Bachelor of Dental Surgery (BDS) |
| 4. Name of faculty member responsible for the course | Prof. Nahid Y. Ashri (GUC)  Dr. Abdulaziz M. Albaker(BUC) |
| 5. Level/year at which this course is offered | Fifth Year |
| 6. Pre-requisites for this course (if any) | 413 RDS, 423 RDS, 413 PCS, 423 SDS, 433 SDS |
| 7. Co-requisites for this course (if any) | N/A |
| 8. Location if not on main campus | N/A |

**B. Objectives of 493DEN**

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| 1. Summary of the main learning outcomes for students enrolled in the course.  This one-year clinical and didactic course is offered to the final year students to improve their clinical skills and knowledge in all disciplines. It is a conjoint course by the six dental Departments of the School where contributors from all dental disciplines participate in both the lectures and the clinical sessions.  The curriculum exposes students to a variety of comprehensive dentistry techniques and new modalities of treatments. The course is organized to augment the clinical experience of the students, thereby, providing them with an excellent foundation for patient care and clinical management.  By the end of the course   1. The students will be able to diagnose conditions of the oral cavity and its related structures, using proper diagnostic tools. (2.1)(2.2) 2. The students will be able to construct a comprehensive treatment plan for the prevention and treatment of oral conditions so that each patient can be maintained in, or restored to, a healthy, functioning aesthetic condition. (2.2) 3. The students should be able to discuss various treatment modalities and convey the selected treatment plan. (2.2) 4. The students should be able to perform competently preventive and therapeutic procedures, which are used by general dentists in the treatment of patients. (2.3)(5.1)(5.2) 5. The students should be able to communicate and interact professionally and effectively with patients, colleagues and members of the health care team. (3.1)(4.1) 6. The students should be able to practice dentistry in the best interest of patients observing professional standards of oral health and the rules and regulations of the health care system in Saudi Arabia. (3.2) 7. The students should be able to apply evidence-based reasoning and practices to provide comprehensive dental care to patients. (2.3) 8. The students should be able to practice effective self- management and planning. (3.3) |
| **Specific Competencies**  By the end of the course, the students should be competent at:   1. Performing extra- and intra-oral examination. 2. Synthesizing a comprehensive diagnosis and treatment plan and/or referral plan for the proper management of patients. 3. Prescribing appropriate pharmacological agent for the patient’s oral health care. 4. Applying universal infection control guidelines for all clinical procedures. 5. Communicating the risks and benefits of the proposed oral care and alternative treatment strategies available. 6. Obtaining and documenting proper treatment consent form from the patient 7. Discussing treatment-related ethical issues with the patient. 8. Delivering oral hygiene instructions to the patient. |
| 1. Briefly describe any plans for developing and improving the course that are being implemented. (E.g.: increased use of IT or web based reference material, changes in content as a result of new research in the field)  * Introduction of rubrics in evaluation of case presentations. * Topic review and updating the didactic topics and content. * Addition of treatment planning sessions and rotary endodontics training. |

**C**. **Course Description** (Note: General description in the form to be used for the Bulletin or Handbook should be attached)

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| **TOPICS TO BE COVERED** | **No. of Weeks** | **Contact Hours** |
| 1. Course introduction and orientation | 1 | 1 |
| 1. Inter-disciplinary treatment planning | 1 | 1 |
| 1. Cone beam ct and its applications in dentistry | 1 | 1 |
| 1. Medically complex dental patients | 1 | 1 |
| 1. Differential diagnosis and management of head and neck swellings | 1 | 1 |
| 1. Oral digital photography | 1 | 1 |
| 1. Diagnosis and differential diagnosis of oral lesions | 1 | 1 |
| 1. When to extract or save a tooth | 1 | 1 |
| 1. Crown lengthening patient assessment & management | 1 | 1 |
| 1. Immediate or delayed single tooth implants | 1 | 1 |
| 1. Management of failing implant | 1 | 1 |
| 1. Advanced endodontic techniques | 1 | 1 |
| 1. Pulp dentine complex | 1 | 1 |
| 1. Endodontic emergencies | 1 | 1 |
| 1. Restoration of endodontically treated teeth | 1 | 1 |
| 1. Review & exam | 1 | 1 |
| 1. Management of medical emergencies in the dental office | 1 | 1 |
| 1. Medical ethics | 1 | 1 |
| 1. Occlusion in prosthodontics | 1 | 1 |
| 1. Scientific writing and presentation of a case | 1 | 1 |
| 1. Construction of a professional case presentaion | 1 | 1 |
| 1. Labial veneers | 1 | 1 |
| 1. Bonded ceramic restorations | 1 | 1 |
| 1. Digital ceramic restorations | 1 | 1 |
| 1. Searching dental e- sources | 1 | 1 |
| 1. Synopsis of research methods for dental students | 1 | 1 |
| 1. Dental bleaching | 1 | 1 |
| 1. Denture adhesives: an overview | 1 | 1 |
| 1. Forensic dentistry | 1 | 1 |
| 1. Regulations of practicing health profession | 1 | 1 |
| 1. Review and course evaluation | 1 | 1 |

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| 2. Course components (total contact hours per semester): | | | |
| Lecture: 14/ semester | Tutorial: | Practical/Fieldwork/Internship: 60clinical sessions/semester (150 hours) | Other: |
| 3. Additional private study/learning hours expected for students per week. (This should be an average: for the semester not a specific requirement in each week):  Students should spend a minimum of 5 hours per week. | | | |
| 4. Development of Learning Outcomes in Domains of Learning  For each of the domains of learning shown below indicate:   * A brief summary of the knowledge or skill the course is intended to develop; * A description of the teaching strategies to be used in the course to develop that knowledge or skill; * The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned: | | | |

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| **a. Knowledge** |
| * + 1. Description of the knowledge to be acquired     By the end of the course students should be able to:   * Define correctly the principles of moral and ethical standards involved in the provision of care to patients and current laws applicable to the practice of dentistry in Saudi Arabia. (1.6). * Demonstrate sound knowledge of collecting and recording a comprehensive medical and dental history, in addition to identifying medically compromised patients. (1.2) * Recognize the advances in dental materials and dental treating modality as well as the management of special cases i.e., occlusal problems, TMD, surveyed crowns. (1.3)(1.8) * Demonstrate sound knowledge of the basics of dental implant sciences. (1.3) * Identify competently, the bases of research conducting, scientific writing and methods of searching dental E- sources. (1.8) |
| (ii) Teaching strategies to be used to develop that knowledge A brief summary of the knowledge or skill the course is intended to develop;   * Formal lectures and assigned readings such as textbooks, articles and handout * Specially-designed crush course (pre-clinical implant prosthetics training, rotary endodontics and CPR course) * Discussion of various aspects of the comprehensive clinical cases * Treatment planning and case presentation sessions |
| (iii) Methods of assessment of knowledge acquired   * Witten examination (MCQs) held during the course (mid-course examinations) and at the end of the course (final examination). * (OSCE) Objectively Structured Clinical Examination will be conducted at the end of the academic year to assess the students’ clinical reasoning skills and his/her ability to draw together knowledge from all areas of the dental program. * Assessment of the knowledge and scientific background of the student before conducting any clinical procedures. * Assessment of the accuracy of the information provided in the case presentations. |
| **b. Cognitive Skills** |
| (i) Cognitive skills to be developed  By the end of the course, the students should be able to:   * Perform competently a comprehensive patient evaluation by collecting patient history (medical, chief complaint, dental), performing a thorough examination (clinical and radiographical) and other needed diagnostic procedure. (2.1) * Utilize problem solving, critical thinking and decision making competently to interpret and correlate the findings to develop a differential and definitive diagnosis then to generate sequenced definitive and alternative treatment plans. (2.2) * Apply evidence-based reasoning and practices to provide comprehensive dental care to patients.(2.3) |
| (ii) Teaching strategies to be used to develop these cognitive skills   * Appropriate management of comprehensive clinical cases with varying levels of difficulty, gives the students the opportunity to integrate and apply their acquired knowledge gained throughout the program. * Close supervision supported by faculty-student interaction and feedback during the clinical sessions to make sound clinical judgments. * Case-based discussion in the case presentation sessions and treatment planning sessions utilizing critical thinking and information gathering to formulate an appropriate diagnosis and treatment. |
| (iii) Methods of assessment of students cognitive skills   * Continuous assessment in the clinical sessions to evaluate students’ ability to apply their acquired knowledge and cognitive skills to make suitable clinical judgments. * Evaluated observation of students’ participation and involvement in case discussions and problem solving sessions through rubrics to assess students’ problem solving and critical thinking skills to identify oral disease leading to sound treatment planning. * Assessment of students using evaluation criteria during case presentations to evaluate their ability to integrate knowledge and utilize cognitive skills in developing proper diagnosis and comprehensive treatment plans. * Objective structured clinical examination (OSCE) is conducted to assess the breadth of integrated knowledge gained by the students throughout years. |
| **c. Interpersonal Skills and Responsibility** |
| (i) Description of the interpersonal skills and capacity to carry responsibility to be developed  By the end of this course the students should be able to:   * Interact professionally and effectively with patients, colleagues and members of the health care team.( 3.1) * Practice dentistry in the best interest of patients observing professional standards of oral health and the rules and regulations of the health care system in Saudi Arabia.(3.2) * Apply evidence-based reasoning and practices to provide comprehensive dental care to patients. (2.3) * Illustrate their appreciation to the professional self-development process. (3.5) * Practice effective self- management and planning and to evaluate the level of difficulty they can manage and their own limitation. (3.3) |
| (ii) Teaching strategies to be used to develop these skills and abilities   * Role modeling and instructional guidance by the teaching staff on how to interact with patients, staff and professional colleagues. * Use of clinical manual in which the course rules and regulations are stated * Assignment of the different course activities to be performed in a timely manner where time management is part of the evaluation criteria. * Strict application of the course rules and regulations |
| (iii) Methods of assessment of students interpersonal skills and capacity to carry responsibility   * Objective evaluation of students’ behavior, interaction with others, time management and the compliance with the course rules and regulations is part of the continuous assessment in clinical courses. * Assessment of the student capability to finish all assigned cases within the course time. * Regular clinical rounds to observe and record violations of codes of conduct and compliance with infection control measures. |
| **d. Communication, Information Technology and Numerical Skills** |
| (i) Description of the skills to be developed in this domain.  By the end of the course students should be able to   * Communicate effectively with patients, health care providers and other society members using appropriate communication media. (4.1) * Identify and effectively utilize reliable IT resources and e-health practice (4.2) * Use audio-visual communication technology effectively to present data and reports. (4.3) |
| (ii) Teaching strategies to be used to develop these skills   * Clinical activities encourage the students to develop and practice effective communication skills with patients and professional colleagues. * Specially-designed lecture for concept of Health Informatics and searching dental E-sources. |
| (iii) Methods of assessment of students numerical and communication skills   * Assessment of students’ ability to communicate effectively with patients and professional colleagues forms a significant component in the continuous formal and informal assessment within the clinical courses. |

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| **e. Psychomotor Skills (if applicable)** | | | |
| (i) Description of the psychomotor skills to be developed and the level of performance required  By the end of the course, students should be able to:   * Demonstrate manual dexterity, eye-hand coordination and tactile sensation to perform clinical dental procedures with precision.(5.1) * Demonstrate a high level of performance of different dental skills. (5.1) * Student should be competent in handling the instrument, equipment and materials to diagnose and treat patient safely with minimal supervision.(5.2) | | | |
| 1. Teaching strategies to be used to develop these skills  * Assignment of a number of comprehensive cases of different level of difficulty under supervision for all aspects of each case management. * Demonstration of the new techniques and the use of new equipments (see and do) | | | |
| 1. Methods of assessment of students psychomotor skills  * Completion of a minimum number of comprehensive cases with continuous assessment of the treatment procedures to evaluate the treatment outcome performed by the students in compliance with recognized safety measures. | | | |
| 5. Schedule of Assessment Tasks for Students During the Semester | | | |
| Assessment | Assessment task (eg. essay, test, group project, examination etc.) | Week due | Proportion of Final Assessment |
| 1 | Clinical evaluation   * Clinical Procedure Points * Procedure evaluation (P XE) * On spot Clinical Evaluation | 15th week of second semester | **60**  20  30  10 |
| 2 | Mid-year exam | 15th week of the first semester | **10** |
| 3 | Oral exam (Competency Exam)\* | 14th week of second semester | **10** |
| 4 | Final written exam | 15th week of the second semester | **10** |
| 5 | Case presentation | Through the 2nd semester | **10** |

**D. Student Support**

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| 1. Arrangements for availability of faculty for individual student consultations and academic advice. (include amount of time faculty are available each week)  The course directors provide academic concealing during specific academic hours. In addition, e-communication with the course director is available through email and WhatsApp. |

##### E. Learning Resources

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| 1. Required Textbook(s) |
| * 1. **Essential References**   **Treatment planning:**  **Inter-disciplinary Treatment Planning: principles, design, implementation.**  Michael Cohen.  Quintessence publishing co; 2nd Edition, 2011  **ISBN** 978-0-86715-501-3  **Periodontics:**  **Carranza's Clinical Periodontology** Michael G. Newman, Henry Takei, Fermin A. Carranza, [Perry R. Klokkevold](http://www.amazon.com/exec/obidos/search-handle-url/103-0238451-7457405?%5Fencoding=UTF8&search-type=ss&index=books&field-author=Perry%20R.%20Klokkevold).  W.B. Saunders Company; 12th Edition, 2015  ISBN: 978-0-323-18824-1  **Operative Dentistry:**  **Fundamentals of Operative Dentistry: A Contemporary Approach** James B. Summitt.  Quintessence Publishing; 4th Edition, 2013  ISBN-13: 978-0867155280  ISBN-10: 0867155280  **Endodontics:**  **Pathways of the Pulp**  Stephen Cohen, Kenneth M. Hargreaves  C.V. Mosby; 10th Edition, 2011  **ISBN:** 9780323094733  **Oral Surgery:**  **Contemporary Oral and Maxillofacial Surgery** Larry J. Peterson, Edward Ellis, James R. Hupp, and Myron R. Tucker  Mosby; 6th Edition, 2013  ISBN-13: 978-0323091770  ISBN-10: 0323091776  **Prosthodontics:**  **Fixed partial denture**  **Contemporary Fixed Prosthodontics** Stephen F. Rosenstiel, Martin F. Land, Junhei Fujimoto  C.V. Mosby; 5th edition  ISBN-13: 978-0323080118  ISBN-10: 0323080111  **Removable partial denture**  **Stewart's Clinical Removable Partial Prosthodontics** Rodney D. Phoenix, David R. Cagna, Charles F. DeFreest  Quintessence Publishing; 4th Edition, 2008  **ISBN** 978-0-86715-485-6  **Removable complete denture**  **Clinical complete denture prosthodontics**  Moustafa A. Hassaballa  King Saud University, Academic publishing& pres, 2004 |
| 3- Recommended Books and Reference Material (Journals, Reports, etc) (Attach List):  Selected articles and handouts |
| 4- Electronic Materials, Web Sites etc.:  Medline and the course directors' web pages |
| 5- Other learning material such as computer-based programs/CD, professional standards/regulations   * Infection control manual * 493 clinical manual * NobelBiocare Product Catalog 2014 * Medical ethics by the Saudi Commission for Health Specialties * Rules and Regulations of dental practice in Saudi Arabia |

**F. Facilities Required**

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| Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access etc.) |
| 1. Accommodation (Lecture room, laboratories, etc.)   * + One lecture room (80 seats in BUC), (50 seats in GUC)   + Dental clinic for each student (93 clinics in BUC), (41 clinics in GUC) |
| 2. Computing resources   * Computer / Each students (BUC) * Computer/ Each student 41(GUC) |
| 3. Other resources (specify --e.g. If specific laboratory equipment is required, list requirements or attach list)   * Prosthetic laboratory * Radiographic department * Medical laboratory |

**G. Course Evaluation and Improvement Processes**

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| 1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching   * Students' course evaluation * Regular meetings with students * Personal communication |
| 2. Other Strategies for Evaluation of Teaching by the Instructor or by the Department   * Instructors' course evaluation * Course evaluation meeting by the college vice dean for academic affairs |
| 3. Processes for Improvement of Teaching   * Annual reviewing of the course outcome with the vice deans and the course directors. * Consultation and feedback from the course contributors and the dental staff members. * Reviewing the difficulties encountered in conducting the course. |
| 4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent faculty member of a sample of student work, periodic exchange |
| 5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement.   * Evaluation of the clinical performance of the students every seven weeks, in term of collected clinical points and the availability of different cases. * Evaluation of the learning outcome of the students at the end of the academic year by the course directors. * SWAT Analysis at the end of the year, and reinforcement of strong aspects and discussion of the possible effective solutions for the weak points. |