to avoid prejudice against certain patients e.g. patients with ADIS by doing interview with

these patients and their family members. Students are encouraged to develop team spirit by

working on group projects and presentations

Mode of Delivery

The contact hours are different for individual selective as each has its own structure and method of delivery. There is no rule regarding the minimum and maximum contact hours required. The course may consist of one or more of these methods: lectures, workshop, practical, project and /or site / field visits. As individual selective would have its own structure, it would vary in the number of contact hours.

Methods of Assessment

Evaluation of a written report / paper and its presentation to the class. A certificate of completion will be awarded to student / students based on the quality of presentation and work carried out.

SYLLABUS / COURSE DETAILS FOR:

5th YEAR BDS SUBJECTS: COMPREHENSIVE DENTAL CARE Total Contact Hours: 1250 Hours

Comprehensive Dental Care (CDC):

It pertains to the coordinated delivery of the total dental care (Integrated total patient care for elderly, adults, adolescent and children including those with disabilities) patients. Students are motivated, directed, guided and exposed to patients dental treatment activities by planning and preferably completing full courses of care for each patient in the relevant department in which they will be attached during their rotation period. Patients will receive, under the supervision of his / her tutor / supervisor, from the trainee student most or all of his comprehensive dental care. The student will also be responsible for coordinating any specialist work that may be necessary. In this way, the CDC strategy in 5th year will be simulating general dental practice. Student in a concerned department / discipline will be working on a full-time basis with diagnosis and treatment planning and treatment sessions and group discussions and review meetings with the supervisor. Students will be, also exposed to the management activities of children and special patients of all categories including elderly, those with physical disability, medical conditions and learning disability.

To make them familiar with real environment of general dental practice, students will be introduced to the roles and responsibilities of the dentist and safe practice in the dental clinic. Training shall also include interpretation of oral radiology and detection of caries and periodontal disease from radiographs. Knowledge of dental materials and techniques utilized in restoring carious and defective primar & permanent teeth and in fabricating dentures and other indirect restorations, moisture control, endodontic therapy, management of periodontal diseases and fabrication of partial and complete dentures shall also be advanced. Common aesthetic problems and their management, basic principles of surgery and exodontias and an introduction to the management of the child patient are also included. Students will also gain more advanced knowledge and skills in the comprehensive dental care of patients. In addition, students will learn how and when to integrate knowledge and skills derived from behavioural science, communication skills and professional and personal development in the provision of dental care.

Objectives:

Knowledge shall be further improved regarding the following:

Role, responsibilities and activities of a dentist in the provision of healthcare to the community

Inter-professional relationships that exist in provision of the oral care.

Responsibilities of consent, duty of care and confidentiality

Patients' rights.

Regulatory function of the Pakistan Medical & Dental Council

Philosophy underpinning the prevention and treatment of oral diseases

Basic clinical activities, procedures and regulations of the dental clinic

Risks and hazards to health of dentists and oral care team

Infection control procedures and concepts of universal precautions

Emergencies in dental practice

Case notes and record keeping

Underlying principles of dental radiography

Hazards of ionizing radiation and safety regulations

Indications and techniques of intra oral and extra oral dental radiographic views

Interpretation of radiographs and report writing

Other imaging techniques

Detection and diagnosis of the carious lesion

Detection and diagnosis of periodontal diseases

Practice of close-support dentistry

Concepts of minimal intervention and tests for caries risk assessment

Management strategies for early carious lesions

Wear of the dentition

Scientific concepts and principles related to Dental Material Science

Properties and handling characteristics of dental restorative materials

Properties and handling characteristics of materials used in the fabrication of dentures

Selection of appropriate material and technique for

restoration of small and medium sized tooth lesions / defects

Methods of assessing quality of restorations

Aetiology, diagnosis and management of secondary caries

Prevention of periodontal diseases

Non-surgical management of periodontal diseases

Causes and sequelae of tooth loss

Principles governing the replacement of missing teeth and oral structures

Anatomy of denture bearing area

Principles of occlusion

Materials and technology involved in the fabrication of full denture.

Denture duplication and repair

Properties and handling of investment materials, alloys, ceramics

Indirect restorations - resin-based, ceramic and metal alloys

Maintenance of restorations

Factors influencing repair or replacement of existing restorations

Restoration of the primary dentition

Isolation and moisture control

Principles, clinical investigations and techniques of vital pulp therapy of primary and

permanent dentition

Principles, clinical investigations and techniques of root canal therapy of primary and

permanent dentition

Clinical features of periodontal diseases

Indices used in measuring periodontal disease

Principles and procedures in non-surgical treatment of periodontal disease

Principles and procedures in surgical treatment of periodontal disease

Designing partial dentures

Fabrication of partial dentures

Principles of dental aesthetics

Causes and management of aesthetic problems

Bleaching of teeth

Direct and indirect veneer restorations

Indications and techniques for tooth extraction and management of common complications

Principles of surgery and basic surgical techniques including the removal of impacted teeth

Dental management of medically compromised patients

Gingival and periodontal diseases in children

Caries pattern in children

Problems in tooth eruption and exfoliation

Child management in the dental setting

Diet counselling for children

Fluoride therapy and fissure sealing for children

Development of occlusion and space management

Role of clinical photography to patient management and the associated consent issues

The difference between ethics and jurisprudence

Ethics of treating patients with debilitating disease and carriers of infectious disease

Adverse events in the dental clinic and processes of litigation

Essential business principles of Dental Practice

Dental practice management

Building practice relationships with the patient

Aspects of dental team building

Integrated dental treatment planning

Technical aspects related to simple and more advanced restorative techniques

The diagnosis and management of simple periodontal cases and patients presenting soft tissue lesions

The diagnosis and management of simple prosthodontic cases

The diagnosis and management of simple orthodontic cases

The scientific basis for common preventive protocols

The scientific basis for dental materials applications in tooth restorations

Skills relating to the following shall be further improved:

Professional and safe conduct in the dental clinic.

Familiar with procedures and processes of the dental clinic

History taking

Extra oral and intraoral examination of the oral cavity

Correct handling of basic clinical instruments

Familiar with X-ray facilities of dental clinic, selection of required accessories and setting of exposure factors

Familiar with intraoral, panoramic and cephalometric radiographic techniques

Differentiate between sound and carious teeth

Differentiate the clinical appearance sound and diseased periodontal tissues

Technical skills in the handling of filling materials.

Explaining the significance of the major components in the composition and properties of dental materials used for restoring tooth structure or for fabrication of dentures.

Technical skills in the restoration of small and medium sized carious lesions.

Technical skills in the conservative treatment of root caries and tooth defects caused by abrasion/erosion/abfraction with glass ionomer cement, composite resin and amalgam

Master technical skills in the restoration of angle fracture of teeth.

Technical skills in the fabrication of full denture denture and denture repair.

Recognition the ideal arrangement, alignment and occlusal relationships of teeth and their roles in function and aesthetics

Recognition of wear of the dentition and tooth defects.

Ability to provide individualized oral hygiene instructions

Clinical skills in oral prophylaxis and caries risk assessment.

Explaining factors that contribute to long term success of restorations and dental prostheses.

Explaining reasons for failure of restorations and denture prostheses and understand the remedial actions to be taken.

Isolating teeth with rubber dam

Technical skills in the restoration of medium-sized to large restorations with indirect restorations – resin, ceramic and cast restorations

Technical skills in the restoration of primary teeth with amalgam and tooth-coloured materials

Technical skills in root canal therapy

Clinical skills in examining and diagnosing active caries, planning and delivery of appropriate non-invasive and restorative care

Clinical skills in examining and diagnosing periodontal disease and appropriate treatment planning

Technical skills in the fabrication of partial dentures

Clinical skills in the non-surgical management of periodontal disease.

Clinical skills in the treatment of children

Maintaining full dental records

Treatment planning

Diagnosis of incipient, active and arrested caries

Clinical treatment of carious lesions using a variety of restorative materials

Infection control protocol maintenance

Identification and removal of calculus and tooth stains

All phases of removable denture case management

All phases of orthodontic case management

<u>Attitude</u>

Appreciate the importance of professional behaviour and safety precautions in the dental clinic

Appreciate the dynamics of patient/dentist relationship

Appreciate the importance of practising universal precautions in the delivery of dental care

Appreciate the collaborative teamwork of dental team and the implications of behaviour in the delivery of oral health care

Punctually, dress code, initiative, self-directed learning

Cooperative team work

Appreciate the importance of proper isolation and moisture control for the successful outcome of restorative dental care.

Use cooperative learning and self-reflection to improve performance.

Work effectively as a team member

Appreciate the psychological impact of dental aesthetics on patients well-being.

Increasing professionalism in relation to execution of clinical work

Increasing professionalism in relation to clinic staff and other members of the oral health team

Increasing professionalism in relation to patients

Increasing ability to interact with patients and deal with patient concerns

The student is required to do comprehensive dental treatment but each student must cover the prescribed Lectures and Clinical Hours as described below:

Teaching Course Contents Distribution	Sugges ted Lecture Hours
Prosthodontics : Lectures, Tutorials, Group discussion	30
Operative Dentistry including Pedodontics :	30

Lectures, Tutorials, Group discussion	
Oral and Maxillofacial Surgery: Lectures,	30
Tutorials, Group discussion	
Orthodontics: Lectures, Tutorials, Group	30
discussion	
Periodontology: Lectures, Tutorials, Group	10
discussion	
Oral Medicine and Oral Diagnosis: Lectures,	10
Tutorials, Group discussion	
Special Care Dentistry: Lectures, Tutorials,	10
Group discussion	

Clinical Practical Work Contents Distribution	Sugges ted Lecture Hours
Prosthodontics	220
Operative Dentistry including Pedodontics	220
Oral and Maxillofacial Surgery	220
Orthodontics	220
Periodontology	75
Oral Medicine and Oral Diagnosis	75
Special Care Dentistry	75

Specialty Related Clinical Assignments:

Description of Clinical Assignments	Minimum Clinical Quota / No. of Cases
Prosthodontics clinical assignments: Records of patients treated with Removable Partial dentures (RPDS). Records of patients treated with Crowns & Bridges / Fixed partial dentures (FPDs). Records of patients treated with Complete Dentures (CDs).	06 06 06
Operative Dentistry Including Pedodontics clinical assignments: Records of patients treated with simple fillings Records of patients treated with root canal therapy Records of children treated with various conservative dental and surgical treatments	30 10 05
Oral and Maxillofacial Surgery clinical assignments: Records of simple exodontia work performed for patients. Records of impacted teeth surgical removal. Records with treatment for fractured	50 15 01 05

mandible (IMF)	
Records with treatments including	
frenectomy, operculectomy, tongue tie,	
alveolectomy, alveloplasty, dry socket,	
Orthodontics clinical assignments:	
Records of Treatment planning for	06
orthodontic patients	
Periodontology clinical assignments:	
Records of patients treated with non-surgical	10
periodontal therapeutic approaches.	
Records of patients treated with surgical	02
periodontal therapeutic approaches.	
Oral Medicine / Oral Diagnosis & Oral	
Radiology clinical assignments:	10
Records of planning & Treatment of patients	
presenting various clinical conditions related	
to the specialty	
Special Care Dentistry clinical	
assignments *:	12
Dental treatment records of special patients.	

• There will be no separate university examination in the discipline of "Special Care Dentistry (SDS) and the electives and selective projects. The relevant clinical quota for the treatment of special patients will be carried out in the major clinical dental departments during rotation.

The 5th year CDC training of each student shall be assessed and examined by the university. This shall comprise of both Written / Theory and Practical & Clinical Examination and shall be done either at the end of the term or end of the year. The Theory examination shall comprise of a written paper of 100 marks with 30 Marks for MCQs and 70 for SEQs (Problem solving & Interpretation skills assessment). The distribution of the 100 marks for the Clinical and Practical Examination will be; 70 marks for OSCE and 30 marks for Internal Assessment (based on consideration of of; quality of completed clinical quota, behaviours and ethics and morality including regularity & punctuality, patients management & care, and professional inter-relationships). The examination subjects shall include the following disciplines; Prosthodontics.

Operative Dentistry including Pedodontics.

Orthodontics.

Oral & Maxillofacial Surgery.

Oral Medicine / Oral Diagnosis / Oral Radiology.

Periodontology.

Note: There will be no separate university examination in the discipline of "Special Care Dentistry (SDS) as mentioned in the syllabus of 5th year BDS. The relevant clinical quota for the treatment of special patients will be carried out in the major clinical dental departments during rotation. This shall comprise of treating at least 2 special patients in each of the major clinical departments of dentistry (Prosthodontics, Operative Dentistry including Pedodontics, Orthodontics, Oral & Maxillofacial Surgery, Periodontology and Oral Medicine/Oral Diagnosis / Oral

Radiology. Similarly, there will be no separate university examination in the the electives and selective projects (mentioned below) as performed by students.

ELECTIVE & SELECTIVE PROJECTS:

Details of these given in the Syllabii and courses for Fourth Year BDS.

Suggested Teaching, Reading & Learning Material for 5th Year BDS Studies: Main References:

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Fissure Caries Quintessence Publishing Co Inc Summit JB, Robbins JW., HiltonTJ & Schwartz RS. Fundamentals of Operative Dentistry – A Contemporary Approach, 3rd edition, Quintessence Publishing Co. Inc. Dawson PE (2006) Functional Occlusion: From TMJ to Smile Design Mosby McCord JF, Smith P & Grey N (2004) Treatment of Edentulous Patients Churchill Livingstone Basker RM, Davenport JC. (2002) Prosthetic Treatment of the Edentulous Patient. 4th edition. Blackwell Publishing Holm-Pedersen P & Walls A Textbook on Geriatric Dentistry 2nd edition Blackwell Publishing Allen PF Quintessentials 7 – Teeth for Life for Older Adults Quintessence Publishing Co Inc Bird DL & Robinson DS (2005) Torres and Ehrlich Modern Dental Assisting. 8th edition, Saunders D'Cruz L (2006) Legal Aspects of General Dental Practice. Churchill Livingstone. Finkbeiner BL & Finkbeiner CA (2005) Practice Management for the Dental Team. 6th edition, Mosby Haring JI & Howerton LJ (2005) Dental Radiography: Principles and Techniques. 3rd edition, Saunders Scannapieco FA (2005) Periodontics, An Issue of Dental Clinics, Volume 49-3, Saunders Adams, C.P. Kerr, W.J. (1995) The Design and Construction and Use of Removable Orthodontic Appliances. 6th ed. Wright, Oxford. Cozzani G Garden Of Orthodontics Quintessence Publishing Co Inc Heintze SD, Finke C, Jost-Brinkman PG & Miethke RR Oral Health for the Orthodontic Patient Quintessence Publishing Co Inc Nanda R (2005) Biomechanics and Esthetic Strategies in **Clinical Orthodontics Saunders** Orton HS Functional Appliances in Orthodontic Treatment:

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Axelsson P Diagnosis and Risk Prediction of Periodontal

Diseases (Volume 3) Quintessence Publishing Co Inc

Axelsson P Diagnosis and Risk: Prediction of Dental Caries

(Volume 2) Quintessence Publishing Co Inc

Axelsson P Preventive Materials, Methods, and Programs,

Vol 4 Quintessence Publishing Co Inc

Bengel W (2006) Mastering Digital Dental Photography Quintessence Publishing Co Inc

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edition Churchill Livingstone

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Patti A & D'Arc GP Clinical Success in Early Orthodontic
Treatment Quintessence Publishing Co Inc
Romano R (ed) The Art of the Smile: Integrating
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Technology, and Plastic Surgery in Esthetic Dental
Treatment Quintessence Publishing Co Inc
Tuncay OC The Invisalign System Quintessence Publishing Co Inc
Wray APM & Rodd HD. Treatment Planning for the
Developing Dentition Quintessence Publishing Co Inc