



King Saud University, College of Dentistry
Department of Preventive Dental Sciences
Division of Pediatric Dentistry

441 PDS
Clinical Pediatric Dentistry I

Sunday, 2:00 – 5:00 pm [MUC]
Wednesday, 2:00 – 5:00 pm [DUC]

Course Directors	:	Dr. Lanre Bello [DUC] Dr. Nouf Al-Hammad [MUC]	
Contributors	:	Dr. Aljohara Al-Hussyeen Dr. Ebtissam Murshid Dr. Fares Al-Sehaibany Dr. Asma Al-Jobair Dr. Rabya Al-Yahya [R4] Dr. Rehab Allam [PG] Dr. Sawsan Khowaiter [PG] Dr. Latifa Al-Howaish Dr. Zain Hafiz	MUC
		Prof. Amani Khalil Dr. Ibrahim Al-Majed Dr. Amjad Wyne Dr. Fares Al-Sehaibany Dr. Thamer Al-Khadra Dr. Samia Darwish Dr. Thakib Al-Shalan	DUC

Course Number	:	441
Course Code	:	PDS
Credit Hour	:	Four (4) Credit Hours
Pre-requisite Course	:	341 PDS
Location in the Curriculum	:	Fourth Year
Required Textbooks	:	Dentistry for the Child and Adolescent By: Ralph E. McDonald 8 th Edition, 2004, Mosby Co., Inc.

Course Description:

This is a four-credit hour course with the duration of one academic year. The course consists of didactic and clinical components. The didactic component addresses the different aspects of diagnosing, managing and treating the dental problems of pre-school and school age children.

The clinical component is the first clinical course in Pediatric Dentistry. The course offers one session of 3 hours each week for one academic year. It is a clinical setting in which the student acquires the motor skills necessary to render care for children. The student should have an opportunity to perform the clinical procedures commonly associated with children’s dentistry. The concept of comprehensive care will be adapted so that the student develops an awareness of and appreciation for the total child. Patients with age ranging from 8 to 14 years will be selected according to course requirement.

Course Outline:

1. Assessment of the child which includes the medical and dental history, type of behavior, occlusion, oral habits, soft tissue, carious lesions, radiographic interpretation.
2. Practice of patient motivation, plaque control, topical fluoride therapy, fissure sealant.
3. Practice of operative dentistry for children, which include local anesthesia, rubber dam placement, amalgam and resin restorations, stainless crown, pulpal procedures for primary and young permanent teeth, extraction of primary teeth. Space management appliances and employment of behavior management aids.

Evaluation:

Didactic	-	50%	= 100%
Clinic	-	50%	

Didactic:

341 Based Review Exam	-	5%
Written Assessment No. 1	-	7.5%
Written Assessment No. 2	-	7.5% = 50%
Written Assessment No. 3	-	10%
Final Assessment	-	20%

Clinical

Quality	-	35%	= 50%
Effort	-	15%	

The evaluation of the clinical work will be based on:

1. Weekly assessment of the quality of work (35 pts).

A number of instructors are assigned for this course. Each one of them will work with a group of seven or eight students for three weeks then rotate with other groups. The final grade for the quality of work will be an average of the grades given by the all instructors.

The knowledge of the student on clinical procedure being performed or related topics will be tested on weekly basis by the instructor.

2. Satisfying the course requirements and efforts (15 pts).

Minimum course requirement for the year.

- 3 Acceptable treatment plan
- 4 Class I cavity preparation including OL
- 4 Class II cavity preparation
- 2 Anterior restoration (Class III, IV, V build up)
- 2 Extraction
- 8 Fissure sealant i.e. Minimum of 4 points
- 3 Pulpotomy
- 2 Space maintainer
- 3 Preventive resin restoration
- 3 Stainless steel crown
- 2 Complete cases
- 3 Recall visit

The above are the minimum requirements accepted for the course. It is expected that the students would use their time wisely and show more effort. Point system will be adopted to assess this effort. The final grade will be measured according to class performance. Students are expected to complete every case started.

Point Distribution:

	Procedure	Point
1.	Examination, Treatment Plan, Charting, Prophyl/Fl., etc.	3
2.	Sealant (per tooth)	½
3.	Class I / Preventive resin restoration	1
4.	Class II	2
5.	Class III / V	1
6.	Class IV / MOD / build up	3
7.	SSC / strip crown	3
8.	Pulpotomy	3
9.	I.P.C. / direct pulp cap.	1
10.	Temporary dressing for incomplete cavity prep	0
11.	Complete case (after polishing / prophyl / Fl)	2
12.	Exceptional cases (eg. Pulpectomy) to be determined by the instructor.	
13.	Extraction (not mobile tooth)	1
14.	Space maintainers	
	Band and Loop	2
	Nance Appliance, Lingual Arch	3
15.	Management problem patients	1 – 5
16.	Caries control (gross excavation of caries in 2 or more quadrants and IRM dressing)	1
17.	Recall visit (Prophy, Fluoride, OHI, X-ray etc.)	2

- NOTE:**
- * Punctuality, neatness, professional attitude and rapport with the instructors are variables to be considered in the final grade of the students.
 - * Traumatic pulp exposure or perforation of pulpal floor attracts a failure grade but the completed procedure will be awarded points.

Clinic Policy:

The student is required to:

First Visit:

1. Record personal data and case history – Dental / Medical.
2. Introduce the child to the clinic – apply the tell show and do technique.
3. Examine the child and record finding.
4. Take necessary radiographs and models if indicated.
5. Give oral hygiene instruction after disclosing the plaque and do rubber cup prophylaxis. Fluoride application (if indicated) should be done, following approval by the instructor.
6. Dispense a toothbrush for the patient, write his name over it and keep it in the cabinet for his use during subsequent appointment.
7. Formulate a treatment plan on a sheet of paper (if time allows).
8. Present treatment plan to the instructor. When approved, rewrite the treatment plan in the chart and have your instructor sign it.

Second Visit

9. Proceed with treatment as planned.
10. At each visit, the first ten minutes should be spent in teaching the patient the proper way of brushing, using disclosing solution or tablet and his/her own toothbrush.
11. If the patient has rampant caries or large cavities in two quadrants or more, gross excavation of caries should be done and I.R.M. is placed.

Student's Responsibilities:

1. Give appointment to the patient.
2. Make sure that the patient attends the clinic. Re-confirm the appointment with parent 24 hours before the appointment. If the patient is not attending, book another patient (**NO EXCUSE**).
3. Be on time for the clinic.

If the student fails to attend for any reason, it is his/her responsibility to:

- a. Cancel the patient.
- b. Notify the course director about it.
- c. Write a letter to the course director explaining the reason for his/her absence.
- d. Notify the booking staff and arrange for the next appointment.

If the student fails to follow the above steps, he/she would be considered absent without excuse and be given "F" grade for the session.

Attendance Policy:

- Any student who is absent for 25% or more in the clinics/lectures would not be allowed to take final examination.
- All the students must be in time for the lectures. Any student who is late for 5 minutes will be allowed to sit in the lecture but will be marked absent. Any student late by 10 minutes will not be allowed to enter the lecture room.

/Betchay. September 2, 2007



King Saud University, College of Dentistry
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LECTURE SCHEDULE First Half of Academic Year 2007-2008 Sunday, 1:00 – 2:00 pm Room 202

Course Director: **Dr. Nouf Al-Hammad [MUC]**

DATE	TOPIC	LECTURER
9 Sept.	Introduction to Clinical Pediatric Dentistry & Infection Control Considerations for Children	Dr. Al-Hammad / Dr. Bello
16 Sept.	Philosophy of Planning Dental Treatment for Children	Dr. Murshid
23 Sept.	NATIONAL DAY-OFF	
30 Sept.	341 LECTURE BASED EXAMINATION	
RAMADAN HOLIDAY (October 4 – 19, 2007)		
21 Oct.	Development of Occlusion	Dr. Al-Sehaibany
28 Oct.	Psychological Management of Children's Behaviors I	Dr. Al-Hussyeen
4 Nov.	Psychological Management of Children's Behaviors II	Dr. Al-Hussyeen
11 Nov.	Minor Oral Surgery in Children	Dr. Al-Hammad
18 Nov.	FIRST WRITTEN ASSESSMENT	
25 Nov.	Anomalies of Developing Dentition I	Dr. Al-Hammad
2 Dec.	Anomalies of Developing Dentition II	Dr. Al-Hammad
9 Dec.	Planning for Space Management in Mixed Dentition	Dr. Al-Sehaibany
HAJJ HOLIDAY (December 13 – 28, 2007)		
30 Dec.	Dental Caries in the Child and Adolescent I	Dr. Al-Hussyeen
6 Jan. 2008	Dental Caries in the Child and Adolescent II	Dr. Al-Hussyeen
13 Jan.	Pulp therapy for Young Permanent Teeth	Dr. Al-Yahya
20 Jan.	SECOND WRITTEN ASSESSMENT	
27 Jan.	Discussion of Clinical Requirements and Grades	Dr. Al-Hammad
3 Feb.	Review of Written Assessment	Dr. Al-Hammad

/Betchay. September 24, 2007 updated

Department of Preventive Dental Sciences
DIVISION OF PEDIATRIC DENTISTRY

441 PDS

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FIRST SEMESTER – ACADEMIC YEAR 2007 – 2008

- Week 1 : Lecture
**INTRODUCTION TO CLINICAL PEDIATRIC DENTISTRY
& INFECTION CONTROL CONSIDERATIONS FOR
CHILDREN**
- Lecture schedule, grading sheets, charting page, medical history sheet, treatment plan page, progress notes, infection control consideration for children.
- Week 2 : Lecture
**PHILOSOPHY OF PLANNING DENTAL TREATMENT IN
CHILDREN**
(Mathewson, Chapter 24)
- Treatment planning, important principles of treatment planning, factors considered in treatment planning, determination of treatment priorities, presentation of treatment plan to the parents, criteria for referral, medical and dental history, child's fear associated with infection control gear.
- Week 3 : **NATIONAL DAY-OFF**
- Week 4 : **341 LECTURE BASED EXAMINATION.**
- Weeks 5 & 6 : **RAMADAN HOLIDAYS**
- Week 7 : Lecture
DEVELOPMENT OF OCCLUSION
(McDonald, Chapter 5, Chapter 27, Handouts)
- Shape of dental arches at birth, types of spaces with their purpose and utilization, time and sequence of eruption of primary and permanent teeth, types of mesial shift of molar tooth, dental arch dimension and changes, pattern of occlusion.

- Week 8 & 9 : Lecture
PSYCHOLOGICAL MANAGEMENT OF CHILDREN'S BEHAVIOR I & II
(McDonald, chapter 3)
- Pediatric treatment triangle, age-related psychological traits and skills, variables influencing children's behavior, functional inquiry, strategies of the dental team, pre-appointment behavior modification, fundamentals of behavior management, communication with children, different behavior modification techniques and practical considerations, limitation of the dentist.
- Week 10 : Lecture
MINOR ORAL SURGERY IN CHILDREN
(Pinkham, Chapter 28)
- Introduction, medical pre-operative evaluation, dental pre-operative evaluation, tooth extractions, aspiration of swallowing of foreign objects during treatment, soft tissues surgical procedures, dento-alveolar surgery, facial injuries, odontogenic infections.
- Week 11 : **FIRST WRITTEN ASSESSMENT**
- Week 12 & 13 : Lecture
ANOMALIES OF DEVELOPING DENTITION I & II
(Pinkham, Chapter 3)
- Introduction, anomalies in number, anomalies of size, anomalies of size and shape, anomalies of shape, anomalies of structure (enamel, heritable defects, environmentally induced defects), enamel, hypocalcification, dentine (dentinogenesis imperfecta, dentine dysplasia, odontodysplasia, other dentine abnormalities), cementum, anomalies of color, anomalies of eruption and exfoliation.
- Week 14 : Lecture
PLANNING FOR SPACE MANAGEMENT IN MIXED DENTITION
(McDonald, Chapter 26, Pinkham, Chapter 35)
- Introduction, differences between primary and mixed dentition, space maintenance, a short review of different types of space maintainers, planning for space maintenance, space maintenance for permanent incisor area, premature loss of permanent first molar.

Week 15 & 16: **HAJJ HOLIDAY**

Week 17 & 18: Lecture
DENTAL CARIES IN THE CHILD AND ADOLESCENT I & II
(McDonald, Chapter 10)

Dental caries as major problem all over the world, caries in the primary dentition, sequence of caries, caries in young permanent dentition, secondary factors in caries, rampant caries, nursing caries, typical appearance and recommended treatment regimen, control of dental caries.

Week 19 : Lecture
PULP THERAPY FOR YOUNG PERMANENT TEETH
(Pinkham, Chapter 33)

Introduction, pulpal assessment, pulp treatment procedures (caries control, IPC, DPC, formocresol pulpotomy, apexogenesis, apexification).

Week 20 : **SECOND WRITTEN ASSESSMENT**

Week 21 : Discussion of Clinical Requirements and Grades

Week 22 : Review of Written Assessment

/Betchay. September 2, 2007



King Saud University, College of Dentistry
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**441 PDS
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**LECTURE SCHEDULE
 Second Half of Academic Year 2007-2008
 Sunday, 1:00 – 2:00 pm**

Course Director: **Dr. Nouf Al-Hammad [MUC, Room 202]**

DATE	TOPIC	LECTURER
17 Feb.	Antimicrobials in Pediatric Dentistry	Prof. Khalil
24 Feb.	Radiographic techniques for children	Dr. Murshid
2 March	Introduction to Dental Trauma I and II	Dr. Al-Jobair
9 March	Managing Traumatic Injuries in the Young Permanent Teeth	Dr. Al-Yahya
16 March	Pharmacological Management of Patient Behavior	Dr. Bello
23 March	Nitrous Oxide – Oxygen Inhalation	Dr. Murshid
30 March	THIRD WRITTEN ASSESSMENT	FACULTY
6 April	Discussion of clinical requirements and grade	Dr. Al-Hammad
13 April	MID-SEMESTER BREAK	
20 April	Gingivitis and Periodontal Diseases in Children	Dr. Al-Dlaigan
27 April	Dental Management of Disabled Children I	Dr. Al-Jobair
4 May	Dental Management of Disabled Children II	Dr. Al-Jobair
11 May	Oral Manifestations of Infectious Diseases in Children	Dr. Bello
18 May	Management of children with systemic diseases	Dr. Murshid
25 May	Medical Emergencies in Children	Dr. Al-Sehaibany
1 June	Hospital Dentistry	Dr. Al-Jobair

/Betchay. March 8, 2008 updated

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SECOND SEMESTER – ACADEMIC YEAR 2007 – 2008

- Week 1 : Lecture
ANTIMICROBIALS IN PEDIATRIC DENTISTRY
(Pinkham, Chapter 9)
- Introduction, what are antibiotics, indication for use, antibiotic classification, resistance, antibiotic agents, bacteria endocarditis prophylaxis, antifungal agents, antiviral agents.
- Week 2 : Lecture
RADIOGRAPHIC TECHNIQUES FOR CHILDREN
(McDonald, Chapter 5)
- Introduction to radiography, radiation safety and protection, selection criteria, radiographic examination, types of radiographic techniques (intra oral view, extra oral view, interpretation).
- Week 3 : Lecture
INTRODUCTION TO DENTAL TRAUMA I AND II
(Pinkham, Chapter 15)
- Managing traumatic injuries in the primary dentition etiology and epidemiology of trauma in the primary dentition classification of injuries to the teeth, history, clinical examination, treatment of traumatic injuries to the primary dentition, trauma to teeth, trauma to supporting structures.
- Pathological sequelae of traumatized teeth. (Reversible pulpitis, pulpal hemorrhage, pulp canal obliteration, irreversible pulpitis, pulpal necrosis, inflammatory resorption, replacement resorption, injuries to the developing permanent teeth.

- Week 4 : Lecture
MANAGING TRAUMATIC INJURIES IN THE YOUNG PERMANENT TEETH
(Pinkham, Chapter 34)
- Etiology of epidemiology of trauma in the young permanent dentition, classification of injuries to young permanent teeth, history, clinical examination, treatment of traumatic injuries, to the permanent dentition, managing sequelae to dental trauma, treating of luxation injuries in permanent dentition.
- Week 5 : Lecture
PHARMACOLOGICAL MANAGEMENT OF PATIENT BEHAVIOR
(McDonald, Chapter 14)
- Fundamental concepts, patient selections and preparation, documentation sedation techniques, combination methods and agents, common agents employed, patient monitoring.
- Week 6 : Lecture
NITROUS OXIDE – OXYGEN INHALATION
(Mathewson, Chapter 13; Pinkham, Chapter 8)
- Introduction, indications, mechanisms of action, contraindications, advantages, disadvantages, adverse effect, equipment, procedure for administration.
- Week 7 : **THIRD WRITTEN ASSESSMENT**
- Week 8 : **DISCUSSION OF CLINICAL GRADE & REQUIREMENTS**
- Week 9 : **MID-SEMESTER BREAK**
- Week 10 : Lecture
GINGIVITIS AND PERIODONTAL DISEASE IN CHILDREN
(McDonald, Chapter 20)
- Epidemiology, etiology, characteristic of healthy periodontium in the primary dentition, periodontal conditions in preschooler, periodontal condition in the school age children, acute gingival disease, chronic non-specific gingivitis, conditioned gingival enlargement.

- Week 11 & 12: Lecture
DENTAL MANAGEMENT OF DISABLED CHILDREN I & II
(McDonald, Chapter 23, Pinkham, Chapter 16)
- Introduction, mental retardation, convulsive disorders, down's syndrome, cerebral palsy, ectodermal dysplasia, visual impairments and blindness, hearing impairments and deafness, prevention in special children.
- Week 13 : Lecture
ORAL AND SKIN MANIFESTATION OF INFECTIOUS DISEASE IN CHILDREN
(Handouts)
- Classification of infectious diseases, bacterial (scarlet fever, impetigo, diphtheria, tuberculosis), viral (primary herpes, recurrent herpes, chicken pox, mumps, cat scratch disease, herpangina, hand and foot and mouth disease, rubeola measles, rubella, infectious mononucleosis, hepatitis) mycotic.
- Week 14 : Lecture
MANAGEMENT OF CHILDREN WITH SYSTEMIC DISEASES
(McDonald, Chapter 23)
- Review heart disease, prophylactic regimens for prevention of bacteria, endocarditic, relative risk rate for bacteremia, induced infection. Bacteremia-producing dental procedures, disorders of hemostasis, clinical/oral manifestation of thrombocytopenia, hemophilia A, hemophilia B, Von Willebrands disease.
- Week 15 : Lecture
MEDICAL EMERGENCIES IN CHILDREN
(Pinkham, Chapter 10)
- Introduction, dentist's responsibilities in medical emergencies, prevention of medical emergencies, preparation for emergencies, emergency equipments, emergency drugs, backup medical assistance management of medical emergencies, syncope, allergic reactions, grand-ma seizures, hyperventilation, asthma, diabetes mellitus.

Week 16 : Lecture
HOSPITAL DENTISTRY
(Mathewson, Chapter 11)

Introduction, indication of general anesthesia, ASA guidelines for classification of patient's status, hospital staff privileges, in-patient versus out-patient care, preoperative preparation, admittance note, laboratory/diagnosis tests, preoperative visit, general anesthesia, patient preparation before starting dental procedures, dental procedures during GA, postoperative orders, operative report, discharge orders, discharge summary, follow-up visit.

Week 17 : **REVISION OF THE COURSE (CLINICAL AND DIDACTIC)**

/Betchay. September 2, 2007