

M.D.S
SUBJECT: CONSERVATIVE DENTISTRY AND ENDODONTICS

Teaching Scheme(Hours)				Credits	Examination Scheme				
Lec (L)	Prac (P)	Clinical(C)	Total		External		Internal		Total
					Theory	Pract	Theory	Pract	
936	936	4860	6732		2	1	1	1	5

A. COURSE OVERVIEW

Conservative dentistry deals with prevention and treatment of the diseases and injuries of the hard tissues and the pulp of the tooth and associated periapical lesions, along with restoration of those teeth to normal form function and aesthetics. Knowledge about aetiology, pathophysiology, periapical diagnosis and management of common restorative situations, endodontic situations that will include contemporary management of dental caries, management of trauma and pulpal pathosis including periodontal situations.

B. COURSE CONTENT

NO	TOPIC	L+P+C (hrs)	CLs
1	Applied Anatomy of Head and Neck	18+0+0	CL1
2	Anatomy and Development of Teeth	6+0+0	CL1
3	Applied Physiology	12+0+0	CL1
4	Pathology	12+0+0	CL1
5	Microbiology	12+0+0	CL1
6	Pharmacology	12+0+0	CL1
7	Biostatistics	30+0+0	CL1
8	Research Methodology	15+0+0	CL1
9	Applied Dental Materials	30+3+10	CL1,5,6
10	Introduction to Conservative Dentistry	18+30+60	CL1,2,3,4,5,6
11	Examination, diagnosis and treatment planning	30+60+180	CL1,2,3,4,5,6
12	Occlusion	18+30+90	CL1,2,3,4,5
13	Dental caries	18+30+120	CL1,2,3,4,5,6
14	Hand instruments in operative dentistry	18+30+90	CL1,2,4,3,5
15	Operative Rotary instruments	18+30+90	CL1,2,3,5
16	Infection control procedures	18+0+090	CL1,5
17	Direct concepts in tooth preparation for amalgam, GIC and other materials, restorative techniques, failures and management.	60+120+240	CL1,2,3,4,5,6
18	Biologic response of pulp to various material and procedures	12+0+120	CL1,2,3,4,5,6
19	Direct and indirect composite restorations	18+30+90	CL1,2,3,5,6
20	Indirect tooth colored restorations	18+30+120	CL1,2,3,5,6
21	Impression procedures used for indirect restorations	12+24+60	CL1,5
22	Cast metal restorations	24+30+120	CL1,5
23	Direct gold restorations	6+18+30	CL1,5
24	Recent advances in restorative materials	6+18+30	CL,1,5

25	Esthetics including smile design	12+18+120	CL1,4,5,6
26	Management of non-carious lesions.	6+0+90	CL1,2,3,4,5,6
27	Management of discolored tooth	12+0+60	CL1,4,5,6,
28	Minimal intervention dentistry	6+18+60	CL1,5
29	Recent advances in restoration of endodontically treated teeth and grossly mutilated teeth	40+90+150	CL1,4,5,6
30	Hypersensitivity	6+0+30	CL1,4,5,6
31	Lasers	6+0+30	CL1,4,5,6
32	CAD-CAM in restorative dentistry	6+0+30	CL1,5
33	Digital imaging and its applications in restorative dentistry and endodontics	12+0+30	CL1,2,3,4,6
34	Rationale of endodontic therapy	6+0+60	CL1,5
35	Pulp and periapical lesions	12+0+60	CL1,2,3
36	Pathobiology of periapex	12+0+60	CL1,2,3
37	Diagnostic procedures	24+0+120	CL1,2,3,4
38	Case selection and treatment planning in endodontics	12+0+90	CL1,2,3,4
39	Principles of endodontic therapy	6+0+60	CL1,5
40	Infection control procedures used in Endodontics	6+0+90	CL1,5
41	Endodontic emergencies and management	12+0+90	CL,1,5
42	Access cavity preparation	18+60+150	CL1,5,6
43	Endodontic instruments and instrumentation	18+60+150	CL1,5,6
44	Working length determination, cleaning and shaping technique	40+60+150	CL1,5,6
45	Root canal irrigants and intra canal medicaments.	18+60+150	CL1,5,6
46	Obturation materials, techniques and recent advances	40+60+150	CL1,5,6
47	Traumatic injuries and management	30+0+180	CL1,2,3,4,5,6
48	Endodontic surgeries, recent developments in technique and devices and wound healing	21+0+120	CL1,6
49	Endoperio interrelationship and management	18+0+90	CL1,2,3,4,5,6
50	Geriatric Endodontics.	6+0+30	CL1,4
51	Multidisciplinary approach to endodontic situations.	6+0+120	CL1,2,3,4,5,6
52	Radiology and CBCT in endodontic practice.	18+0+30	CL1,2,3
53	Procedural errors in endodontics and their management.	18+0+120	CL1,2,3,4,5,6
54	Endodontic failures and retreatment.	12+0+120	CL1,4,5
55	Resorptions and its management.	6+0+30	CL1,2,3,4,5,6
56	Microscopes and Microsurgery in endodontics.	6+0+180	CL1,4,5,6
57	Single visit endodontics, current concepts and controversies.	12+0+180	CL1,5,6
58	Regenerative Endodontics	12+0+60	CL1,5,6

C. TEXT BOOKS

D. REFERENCE BOOKS

1. Scharer & others; Esthetic guidelines for restorative dentistry, 1st edition, Quintessence Publishing Co Inc., 1982.
2. Chiche & Pinault; Esthetics of anterior fixed prosthodontics, 1st edition, Quintessence Publishing Co Inc., 1994.
3. Mc Namara; Esthetic & the treatment of facial form, Vol 28, Centre for human growth and development, University of Michigan, 1992.
1. Scharer & others; Esthetic guidelines for restorative dentistry, 1st edition, Quintessence Publishing Co Inc., 1982.

2. Chiche & Pinault; Esthetics of anterior fixed prosthodontics, 1st edition, Quintessence Publishing Co Inc., 1994.
3. Mc Namara; Esthetic & the treatment of facial form, Vol 28, Centre for human growth and development, University of Michigan, 1992

E. COMPETENCY LEVEL

CL Number	Skill	Statement
CL1	Knowledge	<ul style="list-style-type: none"> • knowledge of basic sciences as relevant to conservative / restorative dentistry and Endodontics • proper knowledge of sterilization procedures • Understand the principles of aesthetic dental procedures.
CL2	Investigations	<ul style="list-style-type: none"> • Competent to take intra-oral radiographs and interpret the radiographic findings and adequate knowledge about common laboratory investigations and interpretation of their results
CL3	Patient Care: Diagnosis	<ul style="list-style-type: none"> • Take proper chair side history, examine the patient and perform medical and dental diagnostic procedures as well as perform relevant tests and interpret to them to come to a reasonable diagnosis about the dental condition in general and Conservative Dentistry – Endodontics in particular
CL4	Patient Care: Treatment planning	<ul style="list-style-type: none"> • Ethically Integrate multiple disciplines into an individual comprehensive sequence treatment plan using diagnostic and prognostic information
CL5	Patient Care: Treatment	<ul style="list-style-type: none"> • Perform all levels of restorative work, surgical and non-surgical Endodontics as well as endodontic-periodontal surgical procedures as part of multidisciplinary approach to clinical condition. • Provide basic life saving support in emergency situations. • Manage acute pulpal and pulpo periodontal situations
CL6	Research and Innovation	<ul style="list-style-type: none"> • Upgradation of knowledge and skill from time to time, familiarize with new concept and equipment in conservative dentistry and endodontics.
CL 7	Evidence Based Learning	<ul style="list-style-type: none"> • Consolidate all the above mentioned major competencies acquired during the course and integrate newer evidence based knowledge in displaying expertise in the science of CONSERVATIVE DENTISTRY AND ENDODONTICS

PROGRAM SPECIFIC OUTCOME (PSO)

PSO1	KNOWLEDGE	<ul style="list-style-type: none"> Gain knowledge about restorative and endodontic material and treatment.
PSO2	INVESTIGATIONS	<ul style="list-style-type: none"> Competent to take intra-oral radiographs and interpret the radiographic findings and adequate knowledge about common laboratory investigations and interpretation of their results.
PSO3	TREATMENT	<ul style="list-style-type: none"> Ethically Manage treatment of restorative, endodontic and esthetic treatment.

F. COURSE MATRIX

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PO 13	PO 14	PO 15	PS O1	PS O2	PS O3
CL1	2	3	3	3	2	2	2	3	3	3	3	2	2	3	3	3	2	2
CL2	3	3	3	3	2	2	2	3	3	3	2	2	2	3	3	3	3	2
CL3	2	3	3	3	2	2	2	3	3	3	3	3	2	3	3	3	2	2
CL4	2	3	3	3	2	2	3	3	3	3	3	2	3	3	3	3	3	3
CL5	2	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	3
CL6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
CL7	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Avg	2.4	3.0	3.0	3.0	2.4	2.4	2.4	3.0	3.0	3.0	2.9	2.4	2.6	3.0	3.0	3.0	2.6	2.4