



Programme Specifications

MDS Programme

Programme:
Conservative Dentistry and
Endodontics

Department:
Conservative Dentistry and
Endodontics

Faculty of Dental Sciences
M.S. Ramaiah University of Applied Sciences

University House, New BEL Road, MSR Nagar, Bangalore – 560 054

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Programme Specifications: Conservative Dentistry & Endodontics

Faculty	Dental Sciences
Department	Conservative Dentistry & Endodontics
Programme	Master of Dental Surgery
Dean of Faculty	Dr B V Sreenivasa Murthy
Head of Department	Dr Sylvia Mathew

1 Title of The Award

MDS in Conservative Dentistry & Endodontics

2 Modes of Study

Full Time

3 Awarding Institution /Body

M.S. Ramaiah University of Applied Sciences

4 Joint Award

Not Applicable

5 Teaching Institution

Faculty of Dental Sciences, M.S. Ramaiah University of Applied Sciences

6 Programme Approved date by the Academic Council of the University

February 2015

7 Next Review Date:

January 2018

8 Programme Approving Regulating Body and Date of Approval

Dental Council of India(DCI)

9 Programme Accredited Body and Date of Accreditation

10 Grade Awarded by the Accreditation Body

11 Programme Accreditation Validity Duration

12 Programme Benchmark

DCI - New Delhi: Conservative Dentistry & Endodontics

13 Date of Programme Specifications

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14 Rationale for the Programme

Oral health is considered as the window to overall health. Teeth and gums hold important clues to well-being in many ways. Dental caries being the most common infectious disorder affecting the teeth, loss of tooth structure due to caries, trauma or any other cause can affect the self-esteem of patients. An improved awareness and access to information has led to an increased demand for retaining one's own teeth. Globalization and modernization in the growing population has brought a surge in the demand for esthetic treatment options as well. Research in material science technology and on the disease process has made improved patient care delivery a reality. The need of the hour is prevention, interception as well as treatment of the disease at the most appropriate time.

In Indian scenario dental caries affects significant number of the population ranging from 31.5% to as high as 89%. Conservative dentists and Endodontists thus share the responsibility of tackling the burden of dental caries and related dental disorders to help retain and restore the smiles of the population. Hence, there is global demand for dental surgeons who are highly skilled in this field. The need of the hour is hence to train specialists with sound scientific knowledge and skills to tackle ethically varied challenging clinical scenarios affecting the teeth with ease and proficiency.

15 Programme Mission

Masters degree programme in Conservative Dentistry & Endodontics aims to develop specialists who will restore and maintain natural dentition in an optimal state of health, function and esthetics. The objective is to train a candidate to ensure higher competence in the field of restorative Dentistry & Endodontics and prepare them for a career in teaching, research or specialty practice.

16 Programme Goal

The Programme goal is to produce graduates with critical, analytical and problem solving skills and ability to think independently in pursue in Conservative Dentistry & Endodontics

17. Programme Objectives

Conservative Dentistry and Endodontics deals with prevention and treatment of the diseases and injuries of the hard tissues, the pulp and associated peri apex. This intensive MDS programme has a strong clinical basis and aims to develop the cognitive, psychomotor, research and interpersonal skills required to enable a postgraduate to undertake the independent practice of endodontics at a specialist level. They gain the ability to analyse problems, discuss available options, select appropriate treatment, and develop the clinical and surgical skills to execute the treatment with a high degree of competence.

The aims and objectives are to :

1. Impart knowledge on theoretical sciences relevant to restorative dentistry and Endodontics
2. Plan multidisciplinary treatment and preventive strategies specific to the needs of the patient
3. Train students in all levels of restorative work, non-surgical and Surgical Endodontics
4. Incorporate advanced diagnostics and technology in patient management
5. Instill in students aptitude for research
6. Inculcate leadership skills

18. Programme Intended Learning Outcomes

The intended learning outcomes are listed under four headings

1. Knowledge & Understanding
2. Cognitive Skills
3. Clinical Skills
4. Transferable/Capability skills

Knowledge & Understanding

After undergoing this programme, a student will be able to:

KU1: Demonstrate understanding of the basic sciences related to the oro-facial tissues

KU2: Discuss etiology , pathophysiology and clinical presentation of diseases of the tooth and periapical tissues

KU3: Understand biomaterial science related to the specialty

KU4: Demonstrate knowledge of prevention and management of diseases of the tooth and periapical tissues

Cognitive Skills

After undergoing this programme, a student will be able to:

CS1: Predict prognosis using clinical and radiographic data

CS2: Implement a preventive strategy

CS3: Justify a multidisciplinary treatment plan

CS4: Critically assess scientific literature

Clinical skills

After undergoing this programme, a student will be able to: PS1:

Perform appropriate dental diagnostic procedures

PS2: Demonstrate proficiency in preventive and interventional care

PS3: Perform restorative care including esthetic challenges

PS4: Execute non-surgical and surgical Endodontics

Transferable Skills

After undergoing the programme, a student will be able to

TS1: Manage information, develop technical reports and make presentations

TS2: Build, Manage and Lead a team to successfully complete a project and communicate across teams and organizations to achieve professional objectives

TS3: Work under various constraints to meet project targets

TS4: Adopt to the chosen profession by continuously upgrading his/her knowledge and understanding through Life-long Learning philosophy

Programme Structure

Entire postgraduate program is a 3-year program comprising of 6 terms of 26 weeks each. Every term can be a combination of modules including programme Specialization Module, Research Module, Faculty Common Module and an Elective Module. Each Programme specialization module will be followed by one week of assessment and assignment. Every student can avail 2 weeks of vacation once a year during the assignment subject to approval of the head of the department. Every module will also have one- week duration allotted for National Conference and Post Graduate Convention. The following are the modules a student is required to successfully complete for the award of the degree

	Module type	Module code	Module Title	Credits
Term 1				
1	Programme specialization modules	PGCONS01	Preclinical phase	24
2	Faculty-Common Modules	PGFCM01	Clinical photography	1
3	Faculty-Common Modules	PGFCM02	Basic and advanced life support	1
4	Faculty-Common Modules	PGFCM03	Personality Development and Soft Skills	1
5	Faculty-Common Modules	PGFCM04	Ethics and Professionalism	1
6	Research modules	PGRM01	Research Methodology	2
Term 2				
1	Programme specialization modules	PGCONS02	Clinical Phase Basics – 1	24
2	Research modules	PGRM03	Library Dissertation	4
Term 3				
1	Programme specialization modules	PGCONS03	Clinical Phase Basics – 2	24
2	Elective module	PGEM01	Training in MSRUAS	1
3	Research modules	PGRM02	Short term project/Group project	6
4	Research modules	PGRM05	Conference presentation	1
Term 4				
1	Programme specialization modules	PGCONS04	Clinical Phase Advanced - 1	24
2	Elective module	PGEM02	Training in any other institution in India or Abroad	3
3	Research modules	PGRM04	Dissertation	8
Term 5				
1	Programme specialization modules	PGCONS05	Clinical Phase Advanced - 2	24
2	Research modules	PGRM04	Dissertation	10
3	Research modules	PGRM06	Journal publication	1
Term 6				
1	Programme specialization	PGCONS06	Clinical Phase Advanced - 3	20
TOTAL				180

Programme Delivery Structure

The following table explains the Programme time table

Week	Teaching Learning Activity	Research Activity	Supporting Activity
Term 1			
1-22	PGCONS01-Preclinical phase		National Conference
23	Assessment & Assignments		
24-25			PGFCM01 - Clinical photography
			PGFCM02 -Basic and advanced life support
			PGFCM03 -Personality Development and Soft Skills
			PGFCM04 – Ethics and professionalism
26		PGRM01 - Research Methodology	
Term 2			
1-22	PGCONS02 - Clinical Phase Basics – 1	Start of Library dissertation Submission of synopsis for Short term project /Group project	Postgraduate Convention
24	Assessment & Assignments		
25-26		PGRM03 – Submission of Library Dissertation PGRM04 - Submission of synopsis for Dissertation	
Term 3			
1-22	PGCONS03 - Clinical Phase Basics – 2	PGRM05 - Conference presentation	National Conference
23	Assessment & Assignments		
24		PGEM01 - Training in MSRUAS	
25-26		PGRM02 - Submission of Short term project /Group project	
Term 4			
1-22	PGCONS04 - Clinical Phase Advanced – 1		Postgraduate Convention
23		PGRM04 - Review of Dissertation	
24	Assessment & Assignments		
25- 26		PGEM02 - Training in any other institution in India or Abroad	
Term 5			
1-22	PGCONS05 - Clinical Phase Advanced – 2	PGRM06- Journal Publication	National Conference
23	Assessment & Assignments		
24-26		PGRM04 - Submission of Dissertation	
Term 6			
1-18	PGCONS06 - Clinical Phase Advanced – 3		
19 -24	Study Leave		
25-26	Assessment		

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20. Module Delivery Structure

The module is delivered Monday to Saturday of the week according to time table including mandated library/laboratory time towards self-directed learning.

21 Teaching Learning Methods

Teaching and Learning Methods

1. Interactive Teaching Learning methods
2. Team Teaching/ Integrated Teaching
3. Case Based Discussions
4. Face to Face Lectures using Audio-Visuals
5. Seminars/journal clubs/e-lectures
6. Group Discussions, Debates, Presentations
7. Interdepartmental meets
8. Continuing dental education programs/symposiums/workshops
9. Clinical / Practicals
10. Mini Clinical Exercise, Direct Observation of Procedural skills
11. Laboratory-work Demonstrations
12. Case Discussions
13. School visits/Outreach center visits
14. Project work
15. State/National/International conferences and conventions

22 Research modules

Research modules are

1. Research Methodology

Every student shall be trained in Research Methodology in a workshop prior to starting any research project.

2. Library dissertation

Each student is expected to submit a report on literature review to arrive at a research question for the dissertation.

3. Short term or Group Project

Each student is expected to carry out either a short term project in their own specialty or conduct an interdisciplinary research project as a group project. The students can choose a project from the priority areas of research of the concerned department or the Faculty and submit the synopsis of the intended project for review. A group will not have more than 5 students. The purpose of group project is that the group should be able to design a multidisciplinary research project. The students are required to develop a report for assessment and also finalise the report in form of a manuscript and submit to the constituted committee. A committee constituted by the Academic Registrar of the Faculty shall review the synopsis of the intended research project and progress of the research project till completion. The detail procedure and evaluation procedure will be provided in student handbook.

4. Dissertation

A student should choose a project from the priority areas of research for the department and submit the finding in the form of a dissertation. The detailed procedure of executing and assessing individual project is specified in student handbook.

5. Conference presentation

Each student is expected to present the findings of the short-term project/group project or dissertation at the National conference of the specialty or at related disciplines. During the course of MDS in three years, a student is mandatorily required to present a minimum of one poster/ table clinic and one paper.

6. Journal Publication

Each student shall have submitted at least one publication at the time of appearing at CEE. The publication can be a review, original research or case report in a peer reviewed, indexed journal.

23 Elective Module

Elective modules are

1. Training in any other university

A student can undergo training in any other university or any other organisation in a specific subject area that falls under the broad category of his specialization either in India or abroad for two weeks. He/she need to submit a complete report on the training undergone and also make a presentation to a team of examiners.

2. Training in MSRUAS

A student can undergo training in any other Faculty of the University for one week to hone skills necessary for career. He/she need to submit a complete report on the training undergone and also make a presentation to a team of examiners.

24 Faculty common modules

Each student is expected to undergo training in the following modules as an value added skill for his/her post-graduation

- a. Basic and Advanced Life Support
- b. Personality Development and Soft Skills
- c. Clinical Photography
- d. Ethics and Professionalism

Module specifications will contain details of aim and summary, intended learning outcomes, contents, delivery and assessment.

25 Assessment and Grading**Programme specialization Teaching Module (PSTM) 1 - 6**

There are two components-

Component 1 (Continuous Evaluation of Module CEM) for CSTM 1-5

Component 2 (Course End Exam CEE) for CSTM 6,

1. Component 1 (Continuous Evaluation of Module CEM): 600 marks for module 1 to 5

- ii. Every module will be assessed for 120 marks; assessment in theory for 40 marks, in

practicals /clinical for 40 marks and an assignment for 40 marks

- a. Component 1A will be as assessment in theory for 20 marks conducted at the end of module while 20 marks will be assigned for seminars, journal clubs, or any other such academic activity conducted during the module.
- b. Component 1B will be assessments in regular chair side discussions of practicals/clinical for 20 marks and viva voce marks for 20 marks.
- c. Component 1C will be an Assignment that will be submitted as a report followed by presentation for 40 marks.

2. Component 2 (Course End Exam CEE): 600 marks

At the end of the 6th module, a course end exam will be held as per the norms of the University/DCI for Assessment.

a. Assessment for theory will for 300 marks consisting of 4 papers as specified by DCI.

Paper 1: Applied Anatomy, Physiology, Pathology, Oral Microbiology, Pharmacology,
Applied Dental Materials, Biostatistics and Research
Methodology

Paper 2: Restorative dentistry

Paper 3: Endodontics

Paper 4: Essay -Advances in Restorative dentistry and Endodontics

b. A structured Viva Voce exam for 80 marks and pedagogy for 20 marks will be conducted during clinical exam.

c. Structured clinical exam for different exercises will be assessed for 200 marks.

- i. Case discussion and performing an anterior cast post and core, casting, cementation retraction and rubber base impression– 50 marks
- ii. Case discussion and performing of posterior Class II cast inlay preparation with wax pattern fabrication or ceramic inlay preparation with rubber base impression/– 50 marks
- iii. Case discussion and performance of molar RCT up to master cone selection – 100 marks

Research, Faculty common, elective modules : 600 Marks

These modules will be assessed as per the assessment norms as specified in the module specification. The assessment for these modules is through tests, presentations or any other method as specified in the module specification.

26 Eligibility, Failure and Readmissions

In case of Programme specialization teaching modules 1 – 5, the student is eligible for the next course specialization module on satisfaction of attendance requirement and obtaining 40% in Component 1. If a student fails in component 1, he/she is required to take up the resit examination in theory and viva for the module when offered prior to the next Course specialization teaching module by paying the requisite fees. In case, the student is unable to submit assignment and attend assessment at the end of the Programme specialization module, with due considerations (on a case to case basis) to the underlying circumstances, the student may be

permitted to appear for the Resit examination in assignment, theory and Viva Voce with the permission of the Dean of the Faculty and Academic Registrar of the University. Assessment and pass criteria for Research, Faculty common, Elective modules is set in the module specifications and followed accordingly

27 Attendance

A student is required to have a minimum of 85% attendance to be eligible to write the examination. Less than 85% attendance is considered to be FAIL; such a student is required to follow the same procedure as that of a failed student.

28 Award of Class

As per the Programme regulations

29 Student support for Learning

1. Module Notes
2. Reference Books in the Library
3. Magazines and Journals
4. Internet Facility
5. Computing Facility
6. Laboratory Facility
7. Staff support
8. Lounges for Discussions
9. Any other support that enhances their learning

30 Quality Control Measures

1. Review of Subject Notes
2. Review of Question Papers and Assignment Questions
3. Student Feedback
4. Moderation of assessed work
5. Opportunities for students to see their assessed work
6. Review by external examiners and external examiners reports
7. Staff Student consultative committee meetings
8. Student exit feedback
9. Subject Assessment Board(SAB)
10. Programme Assessment Board(PAB)

31 Curriculum Map

Module Code	Knowledge & Understanding				Cognitive Skills				Clinical Skills			
	KU1	KU2	KU3	KU4	CS1	CS2	CS3	CS4	PS1	PS2	PS3	PS4
PGCONS01	X	-	-	-	-	-	-	X	X	-	-	-
PGCONS02	X	X	X	X	X	X	X	X	X	X	X	X
PGCONS03	X	X	X	X	X	X	X	X	X	X	X	X
PGCONS04	X	X	X	X	X	X	X	X	X	X	X	X
PGCONS05	X	X	X	X	X	X	X	X	X	X	X	X
PGCONS06	X	X	X	X	X	X	X	X	X	X	X	X
PGRM01	-	-	-	X	-	-	-	X	-	-	-	-
PGRM02	X	X	X	X	X	X	X	X	X	X	X	X
PGRM03	X	X	X	X	X	X	X	X	X	X	X	X
PGRM04	X	X	X	X	X	X	X	X	X	X	X	X
PGRM05	X	X	X	X	X	X	X	X	X	X	X	X
PGRM06	X	X	X	X	X	X	X	X	X	X	X	X
PGFCM01	X				X							
PGFCM02					X	X	X	X	X	X	X	X
PGFCM03		X		X	X	X	X	X	X	X	X	X
PGFCM04				X	X	X	X	X	X	X	X	X
PGEM01				X	X	X	X	X	X	X	X	X
PGEM02					X	X	X	X	X	X	X	X

32 Capability Map

Module Code	Group work	Self-learning	Research Skills	Written Communication Skills	Verbal Communication Skills	Presentation Skills	Behavioral Skills	Information Management	Personal management/ Leadership Skills
PGCONS01	X	X	X	X	X	X	X	X	
PGCONS02	X	X	X	X	X	X	X	X	X
PGCONS03	X	X	X	X	X	X	X	X	X
PGCONS04	X	X	X	X	X	X	X	X	X
PGCONS05	X	X	X	X	X	X	X	X	X
PGCONS06	X	X	X	X	X	X	X	X	X
PGRM01	X	X	X	X	X	X	X	X	X
PGRM02	X	X	X	X	X	X	X	X	X
PGRM03	X	X	X	X	X	X	X	X	X
PGRM04	X	X	X	X	X	X	X	X	X
PGRM05	X	X	X	X	X	X	X	X	X
PGRM06	X	X	X	X	X	X	X	X	X
PGFCM01	X	X	X	X	X	X	X	X	X
PGFCM02	X	X	X	X	X	X	X	X	X
PGFCM03	X	X	X	X	X	X	X	X	X
PGFCM04	X	X	X	X	X	X	X	X	X
PGEM01	X	X	X	X	X	X	X	X	X
PGEM02	X	X	X	X	X	X	X	X	X

33 Co-curricular Activities

Students are encouraged to take part in co-curricular activities like seminars, conferences, symposium, paper writing, attending industry exhibitions, project competitions and related activities to enhance their knowledge and network.

34 Cultural and Literary Activities

To remind and ignite the creative endeavors, annual cultural festivals are held and the students are made to plan and organise the activities

35 Sports and Athletics

Students are encouraged to engage in routine physical activities and also take part in annual sports and athletic events.

