



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

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

May 2018

7 Next Review Date:

April 2021

8 Programme Approving Regulating Body and Date of Approval

Dental Council of India (DCI) MDS Regulations dated September 5, 2017 vide No. DE-87-2017

9 Programme Accredited Body and Date of Accreditation

10 Grade Awarded by the Accreditation Body

11 Programme Accreditation Validity Duration

12 Programme Benchmark

Dental Council of India (DCI) MDS Regulations dated September 5, 2017 vide No. DE-87-2017

13 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.

14 Educational Aims of the Programme

Master's 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 and/or specialty practice.

15. Programme Aims and Objectives

Conservative Dentistry and Endodontics deals with prevention and treatment of the diseases and injuries of the hard tissues, the pulp and associated periapex. This intensive MDS programme has a strong clinical basis with sound knowledge base 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 with empathetic attitude.

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

16. **Intended Learning Outcomes of the Programme**

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: Describe basic sciences related to the oro-facial tissues

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

KU3: Review biomaterial science related to the specialty

KU4: Prevent and manage 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 and develop a research project

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 procedures of non-surgical and surgical endodontics

Transferable Skills

After undergoing the Programme, a student will be able to

TS1: Communicate effectively with patients and professionals

TS2: Explain the treatment plan in an empathetic approach

TS3: Work as an effective leader in a multidisciplinary clinical care set up

TS4: Value best practices in management and administration

17. 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 include one week of assessment. The following are the modules a student is required to successfully complete for the award of the degree

	Module Title	Module code	Credits
Programme specialization modules			
1	Preclinical phase	PGCONS01	24
2	Clinical Phase Basics – 1	PGCONS02	24
3	Clinical Phase Basics – 2	PGCONS03	24
4	Clinical Phase Advanced - 1	PGCONS04	24
5	Clinical Phase Advanced - 2	PGCONS05	24
6	Clinical Phase Advanced - 3	PGCONS06	20
Research modules			
1	Research Methodology	PGRM01	2
2	Short term project/Group project	PGRM02	6
3	Library Dissertation	PGRM03	4
4	Dissertation	PGRM04	18
5	Conference presentation	PGRM05	1
6	Journal publication	PGRM06	1
Faculty Common Modules			
1	Clinical photography	PGFCM01	1
2	Basic and advanced life support	PGFCM02	1
3	Personality Development and Soft Skills	PGFCM03	1
4	Law for Dental Professionals	PGFCM04	1
Elective module			
1	Training in any other institution in India or Abroad	PGEM01	3
2	Teacher training Module	PGTTM	1
	TOTAL		180

18. 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.

19 Teaching Learning Methods

Teaching and Learning Methods

1. Team Teaching/ Integrated Teaching
2. Face to Face Lectures using Audio-Visuals
3. Seminars/journal clubs/e-lectures
4. Case Based Discussions
5. Group Discussions, Debates, Presentations
6. Demonstrations on videos, computers and models
7. Clinical based learning
8. Hospital based learning
9. Laboratory work
10. Dissertation/ Group Project work
11. School visits/Outreach center visits
12. Interdepartmental meets
13. Continuing dental education programs/symposiums/workshops
14. State/National/International conferences and conventions

20 Research modules

Research modules are

i. Research Methodology

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

ii. Library dissertation

Each student is expected to survey, review and critically appraise scientific literature. The students will be able to use various search engines to identify and select literature with good scientific value. This module emphasizes the student to apply good practices and guidelines of a systematic and structured literature review to collect, comprehend, sort and document the available information in open literature. In the context of reviewed contemporary research work, student acquires wider breadth of knowledge and will be able to formulate research question to be addressed in the main dissertation. The module insists on the preparation and submission of manuscript for publication..

iii. 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.

iv. 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.

v. 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 Programme of MDS in three years, a student is mandatorily required to present a minimum of two poster/ table clinic and two paper.

vi. Journal Publication

Each student shall have submitted the manuscript of the dissertation by the end of the MDS programme before component 2.

21 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 course 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 as per the guidelines laid by the University.

2. Teacher Training Module

A student can undergo training in principles of pedagogy and Health profession education to prepare for a career in academics. He/she need to submit a complete report on the training undergone and also make a presentation to a team of examiners as per the guidelines laid by the University.

22 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. Law for Dental Professionals

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

23 Assessment and Grading

Programme specialization Teaching Module (PSTM) 1 - 6

There are two components-

Component 1 (Continuous Evaluation of Module CEM) for PSTM 1-6

Component 2 (Programme End Exam CEE),

a. Component 1 (Continuous Evaluation of Module - CEM) for PSTM 1-5 except 2: 200 marks

There are 2 components in this module

- i. Theory component consisting of
 - a. Assignment to be submitted as a word processed document for 50 marks
 - b. Assessment as a written examination for 50 marks
- ii. Clinical component consisting of
 - a. Clinical case discussion/clinical examination for 80 marks
 - b. Viva Voce for 20 marks on the module content including assignment.

b. Component 1 (Continuous Evaluation of Module - CEM) for PSTM 2: 200 marks

There are 2 components in this module

- i. Theory component consisting of
 - a. Assignment to be submitted as a word processed document for 100 marks
- ii. Clinical component consisting of
 - a. Clinical case discussion/clinical examination for 80 marks
 - b. Viva Voce for 20 marks on the module content including assignment.

c. Component 1 (Continuous Evaluation of Module – CEM) for PSTM 6: 600 marks

- i. Theory component consisting of 3 Papers same as Part II of component 2
- ii. Structured clinical exam for different exercises will be assessed for 200 marks same as component 2.
- iii. Structured Viva Voce exam for 80 marks and pedagogy for 20 marks will be conducted during clinical exam

2. Component 2 (Programme End Exam): 700 marks

Component 2 shall have a theory component, Clinical Component, Pedagogy and Viva Voce.

Theory component

Written examination shall consist of Basic Sciences (Part-I) of three hours duration shall be conducted at the end of First year of MDS course. Part-II Examination shall be conducted at the end of Third year of MDS course. Part-II Examination shall consist of Paper-I, Paper-II and Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows:

Part-I

Paper-I : Applied Basic Sciences: Applied Anatomy, Physiology, Pathology including Oral Microbiology, Pharmacology, Biostatistics and Research Methodology and Applied Dental Materials.

Part-II

Paper-I : Conservative Dentistry

Paper-II : Endodontics

Paper-III : Descriptive and analyzing type questions

Clinical Component

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

- ii. Case discussion and performing an anterior cast post and core, casting, cementation retraction and rubber base impression– 50 marks
- iii. 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
- iv. Case discussion and performance of molar RCT upto master cone selection – 100 marks

Pedagogy and Viva voce Component

Structured Viva Voce exam for 80 marks and pedagogy for 20 marks will be conducted during clinical exam.

Research, Faculty common, elective modules :

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.

24 Eligibility, Failure and Readmissions

In case of Programme specialization teaching modules 1 – 5,

- The student is eligible for the next Programme specialization module on satisfaction of attendance requirement and obtaining 50% in Component 1.
- If a student fails in component 1, he/she is required to take up the re-sit examination in component 1 in the next opportunity with the permission of the HoD, Academic Registrar of the faculty and the Dean by paying the requisite fees.

Assessment and pass criteria for Research, Faculty common, Elective modules is set in the module specifications and followed accordingly.

25 Attendance

In case of Programme Specialization Teaching Module, a student is required to have a minimum attendance of 85% to be eligible to write the examination. However the Dean in consultation with HOD can condone up to 10% under special circumstances. Students who fail to achieve the minimum attendance is required to Re-Register, attend the module and take up all the components of assessment at the next offering. In case of Research modules, Faculty

common modules and electives, the attendance requirement is specified in the respective module specification document.

26 Award of Class

As per the Academic Regulations of MDS programme

27 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. Any other support that enhances their learning
- 9.

28 Quality Control Measures

1. Review of Module 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. Staff Student Consultative Committee Meetings
7. Student exit feedback
8. Subject Assessment Board(SAB)
9. Programme Assessment Board(PAB)

29 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

30 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 organize 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.

