



Programme Specifications

MDS Programme

Programme:
Pedodontics and Preventive Dentistry

Department:
Pedodontics and Preventive
Dentistry

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

Programme Specifications: Pedodontics and Preventive Dentistry

Faculty	Dental Sciences
Department	Pedodontics and Preventive Dentistry
Programme	Master of Dental Surgery
Dean of Faculty	Dr B V Sreenivasa Murthy
Head of Department	Dr Latha Anandakrishna

1 **Title of The Award**

MDS in Pedodontics and Preventive Dentistry

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 diseases especially dental caries is a significant health problem among children that can affect general health of the child. Infancy and childhood represents a growing phase with constant change that requires specialized training to provide comprehensive oral care. In the Indian scenario, often oral health is the most neglected aspect of health care with prevalence of dental diseases crossing more 40-50% of the children. The proportion assumes greater importance especially in rural sector due to multiple barriers including lack of awareness, access to dental care or unaffordability.

According American Academy of pediatric dentistry, Pedodontics and Preventive dentistry is an age-defined specialty that provides primary and comprehensive, preventive and therapeutic oral health care for infants and children through adolescence including those with special health care needs. The definitions implies that the pedodontist is primarily involved in the oral health care of infants and children and therefore has to be contributory to scientific research that can alleviate the oral health problems. It is also a very professionally satisfying experience to bring about positive oral health behavior in children that will enrich the professional learning.

Considering that the children constitute a major chunk of population and that at present we have dearth of pedodontists in the country, it is imperative to train more specialists to address the oral health care needs of the children.

14 **Educational Aims of the Programme**

Masters degree programme in Pedodontics and Preventive Dentistry is designed to impart training in clinical diagnosis and management of oral health problems in infants, children through adolescence including children with special health care needs. Postgraduates are expected to possess advanced knowledge and understanding in all facets of Pedodontics and preventive dentistry; high order skills in analysis, critical evaluation and diagnosis, professional clinical application; and the ability to solve complex oral health problems in children and those with special health care needs and think rigorously and independently. The postgraduates are expected to meet the human resources requirements in the area of Pedodontics and also a few them may take the path of oral health research for future, a few them may prefer to be in academics while few may take up to exclusive clinical practice.

15 **Programme Aims and Objectives**

The Programme aims to prepare the dental surgeons for a career in Pedodontics with an emphasis on prevention. The Programme will impart the knowledge of the growth and development of a child in terms of physical, mental, emotional, intelligence, as well as the stomatognathic system in conjunction with the entire body; oral diseases that commonly affecting them including its etiology, clinical manifestations and treatment options. The Programme also emphasizes the behavior management for dental treatment of a child and instilling a positive dental attitude. The Programme also encourages the student to develop a scientific temper and conduct scientific research into various aspects of Pedodontics at both fundamental and applied aspects. The Programme also strengthens the clinical decision making ability of the student. It also trains students on personal development and interactive skills with professionals and feel for society.

The specific Programme aims are to:

1. Impart knowledge on growth and development of stomatognathic system as well overall aspects of the child
2. Enhance the understanding of the common oral diseases affecting the teeth and the supporting tissues of children through adolescence including the etiology, clinical manifestations and differential diagnosis
3. Evaluate treatment options and deliver it with most efficient manner based on evidence based dentistry
4. Analyze the behavior of the children both in the clinical setup and otherwise to inculcate good dental behavior
5. Impart training on instruments and techniques for various procedures for oral rehabilitation
6. Provide a general perspective and opportunities for a career in pediatric dentistry

16 **Intended Learning Outcomes of the Programme**

The intended learning outcomes are listed under five 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 the growth and development of a child in terms of physical, mental, emotion and intelligence
- KU2: Explain the underlying diagnostic and treatment principles that govern the management of oral health problems in infants, children and adolescence including those with special health care needs
- KU3: Distinguish between various stages of common oral diseases such as dental caries, malocclusion, periodontal problem, genetic disorders and describe the clinical signs and symptoms
- KU4: Discuss the principles of preventive and community dentistry to common oral diseases in children

Cognitive Skills

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

- CS1: Formulate a preventive treatment strategy for common oral diseases
- CS2: Select the appropriate options for effective and efficient treatment
- CS3: Assess the dental treatment needs in special children
- CS4: Relate the findings of scientific oral health research to clinical situations

Clinical skills

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

- PS1: Design appliance for orthodontic procedures in children
- PS2: Provide appropriate behavior management techniques for infants, children and adolescence including those with special health care needs
- PS3: Provide treatment options to the parents of pediatric patients for an informed choice
- PS4: Perform various treatment procedures of varying complexity in all age groups of children including those with special health care needs

Transferable Skills

After undergoing the Programme, a student will be able to:

- TS1: Assume responsibilities to overcome difficult situations

TS2: Develop a research project and make presentations

TS3: Work in a team to treat children in exclusive pediatric dental setup with child friendly ambience.

TS4: Work in a hospital based setup in liaison with medical setup and in an academic Institution

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	PGOPM01	24
2	Clinical Phase Basics – 1	PGOPM02	24
3	Clinical Phase Basics – 2	PGOPM03	24
4	Clinical Phase Advanced - 1	PGOPM04	24
5	Clinical Phase Advanced - 2	PGOPM05	24
6	Clinical Phase Advanced - 3	PGOPM06	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

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 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..

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.

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.

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

6. 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 (CSTM) 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, and Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics Growth and Development and Dental plaque, Genetics

Part-II

Paper-I : Clinical Pedodontics

Paper-II : Preventive and Community Dentistry as applied to pediatric dentistry

Paper-III : Descriptive and analysing type question

Clinical Component

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

- i. Case discussion and performing a paediatric restorative therapy – 70 mark
- ii. Case discussion and performing of paediatric endodontic therapy – 70 marks
- iii. Case discussion and performance of preventive/interceptive orthodontics – 60 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

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
PGPEDO01	X	-	-	-	-	-	-	X	X	-	-	-
PGPEDO02	X	X	X	X	X	X	X	X	X	X	X	X
PGPEDO03	X	X	X	X	X	X	X	X	X	X	X	X
PGPEDO04	X	X	X	X	X	X	X	X	X	X	X	X
PGPEDO05	X	X	X	X	X	X	X	X	X	X	X	X
PGPEDO06	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		X							
PGFCM02					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	X
PGEM01				X	X	X	X	X	X	X	X	X
PGEM02					X	X	X	X	X	X	X	X

Module Code	Group work	Self learning	Research Skills	Written Communication skills	Verbal Communication Skills	Presentation Skills	Behavioral Skills	Information Management	Personal management/ Leadership Skills
PGPEDO01	X	X	X	X	X	X	X	X	
PGPEDO02	X	X	X	X	X	X	X	X	X
PGPEDO03	X	X	X	X	X	X	X	X	X
PGPEDO04	X	X	X	X	X	X	X	X	X
PGPEDO05	X	X	X	X	X	X	X	X	X
PGPEDO06	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									
PGFCM01									
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

31 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.

32 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

33 Sports and Athletics

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

