



# Programme Specifications

## MDS Programme

Programme:  
Oral Medicine and Radiology

Department:  
Oral Medicine and Radiology

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

**Programme Specifications: Oral Medicine and Radiology**

<b>Faculty</b>	Dental Sciences
<b>Department</b>	Oral Medicine and Radiology
<b>Programme</b>	Master of Dental Surgery
<b>Dean of Faculty</b>	Dr B V Sreenivasa Murthy
<b>Head of Department</b>	Dr Sujatha S

**1 Title of The Award**

MDS in Oral Medicine and Radiology

**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**

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**10 Grade Awarded by the Accreditation Body**

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**11 Programme Accreditation Validity Duration**

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**12 Programme Benchmark**

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

### 13 **Rationale for the Programme**

Although Oral medicine and Oral Radiology are distinct specialties in many parts of the world, it is a combined specialty in India. Oral Medicine and Maxillofacial Radiology deals with the diagnosis and management of oral disorders and production and interpretation of radiographic images of the oral and maxillofacial region.

Oral cavity is the major portal of entry to the body and is equipped with formidable mechanisms for sensing the environment and defending against various pathogens. It serves as a window to the body because many important systemic disorders manifest here. The oral physician is the first medical person to encounter such disorders. Poor oral health has been linked with various systemic disorders like cardiovascular disorders, malignancies, low birth weight preterm babies, hematological disorders and osteoporosis which have certain oral manifestations. These oral manifestations must be properly diagnosed if the patient is to receive appropriate treatment.

In India, Iron deficiency anemia is the most commonly encountered hematological disorder, especially among females and children. Pallor of oral mucosa, atrophy of the tongue, angular cheilitis, etc. are some of the early and first oral manifestations of this disorder. Here, an oral physician plays a very important role in early diagnosis and management. Oral Medicine and Radiology is one such specialty which provides the missing link between Medicine and Dentistry.

Department of Oral medicine and radiology has a curriculum that deals with oral mucosal lesions, tumors, oral manifestations of systemic diseases, radiographic imaging principles and techniques and its interpretation, palliative care and treatment modalities. With recent advances and modernization of imaging techniques this specialty serves as a promising career and research option for aspiring graduates

### 14 **Educational Aims of the Programme**

Master's degree programme in Oral medicine and radiology is a 3 year residency programme. It is mainly associated with training in Oral Medicine, Diagnosis, craniofacial radiology and applied sciences. The Programme aim is to promote academic growth with utmost importance towards research in the field of molecular advancements, and radio diagnosis. The primary educational aim is to nurture post graduates to attain excellence in education, research and patient care in the field of oral and cranio facial diagnosis.

The specialty aims to train the postgraduates to acquire good diagnostic acumen and unique skills required in terms of image interpretation, pattern recognition, deduction diagnosis and patient focused care. It provides a platform for maximum learning opportunities and enables them to disseminate the knowledge learnt through the Programme

### 15 **Programme Aims and Objectives**

The Programme aims to prepare the students for a career in Oral Medicine and Radiology with an emphasis on diagnosis and oral disease management. It enables the students to hone their diagnostic and practical skills opening opportunities in academic, diagnostic and research centers.

The specific Programme aims are to:

1. Formulate a diagnosis of orofacial disorders by applying knowledge of basic sciences
2. Orient students towards principles and applications of basic and advanced radiology.
3. Manage medically compromised patients and medical emergencies in dental set up
4. Develop expertise in personal identification procedures using forensic evidence.
5. Develop research skills for handling scientific problems independently and as a team.
6. Develop clinical and didactic skills enabling them to become a proficient diagnostician and academician.

## 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 the Programme, a student will be able to

KU1: Describe the etiopathogenesis & clinical features of various orofacial disorders.

KU2: Discuss the differential diagnosis of various hard and soft tissue pathologies.

KU3: Identify the normal anatomy and pathology on radiographs.

KU4: Select appropriate investigative procedures which aids in the diagnosis.

### **COGNITIVE SKILLS:**

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

CS1: Diagnose oral conditions and associated systemic disorders.

CS2: Interpret radiographic findings and report.

CS3: Develop appropriate treatment plan for various oral conditions.

CS4: Propose appropriate medical and dental referrals for holistic patient management.

### **CLINICAL SKILLS:**

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

PS1: Record a comprehensive case history.

PS2: Perform biopsy and appropriate investigative procedures.

PS3: Employ appropriate imaging techniques to aid in diagnosis.

PS4: Administer appropriate therapy for oral mucosal lesions

### **Transferable Skills**

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

TS1: Develop a compassionate and empathetic attitude towards management of patients

TS2: Able to deal with difficult clinical scenarios

TS3: Develop research skills in handling scientific problems pertaining to oral care

TS4: Clinical and didactic skills for pursuing a career in academics

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

	<b>Module Title</b>	<b>Module code</b>	<b>Credits</b>
<b>Programme specialization modules</b>			
1	Preclinical phase	PGOMDR01	24
2	Clinical Phase Basics – 1	PGOMDR02	24
3	Clinical Phase Basics – 2	PGOMDR03	24
4	Clinical Phase Advanced - 1	PGOMDR04	24
5	Clinical Phase Advanced - 2	PGOMDR05	24
6	Clinical Phase Advanced - 3	PGOMDR06	20
<b>Research modules</b>			
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
<b>Faculty Common Modules</b>			
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
<b>Elective module</b>			
1	Training in any other institution in India or Abroad	PGEM01	3
2	Teacher training Module	PGTTM	1
	<b>TOTAL</b>		<b>180</b>

**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 Programme 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

**b. 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 Programme. Part-II Examination shall be conducted at the end of Third year of MDS Programme. 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

**Part-II**

Paper-I : Oral and Maxillofacial Radiology

Paper-II : Oral Medicine, therapeutics and laboratory investigations

Paper-III : Descriptive and analyzing type question



**Clinical Component**

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

- i. Assessment based on OSCE for 6 stations - 30 marks
- ii. Case discussion - 2 short cases – 30 marks
- iii. Detailed case discussion with appropriate investigative procedures – 70 marks
- iv. Performing and interpretation of Radiographs – 70 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
PGOMDR01	X	-	-	-	-	-	-	X	X	-	-	-
PGOMDR02	X	X	X	X	X	X	X	X	X	X	X	X
PGOMDR03	X	X	X	X	X	X	X	X	X	X	X	X
PGOMDR04	X	X	X	X	X	X	X	X	X	X	X	X
PGOMDR05	X	X	X	X	X	X	X	X	X	X	X	X
PGOMDR06	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			
PGFCM04								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
PGOMDR01	X	X	X	X	X	X	X	X	
PGOMDR02	X	X	X	X	X	X	X	X	X
PGOMDR03	X	X	X	X	X	X	X	X	X

PGOMDR04	X	X	X	X	X	X	X	X	X
PGOMDR05	X	X	X	X	X	X	X	X	X
PGOMDR06	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

### 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 organize 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.

