

# M.S. Ramaiah University of Applied Sciences

New BEL Road, MSR Nagar, Bangalore – 560054



**RAMAIAH  
UNIVERSITY**  
OF APPLIED SCIENCES

## PO, PSO, PEO & CO

Programme: MDS in Oral Pathology and Microbiology

Programme Code: 070

Programme Outcome (PO)

Programme Specific Outcome (PSO)

Program Educational Objectives (PEO)

Course Outcomes (CO)



Registrar

M.S. Ramaiah University of Applied Sciences  
Bangalore - 560 054

Approved in 23<sup>rd</sup> ACM (Resolution 23.05) held on 15<sup>th</sup> July 2021

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## **Programme Name: MDS (Mater of Dental Surgery)**

### **Programme Outcomes (POs)**

**M.D.S. (Oral Pathology and Microbiology) graduates will be able to:**

- PO1.** Ensure higher understanding in both general and special pathology dealing with the nature of oral diseases, their causes, processes and effects.
- PO2.** Enable the students to operate the diagnostic and investigative devices and interpret the observations.
- PO3.** Enable the students in the performance of routine histopathological evaluation of specimens relating to oral and perioral tissues, to carry out routine diagnostic procedures including hematological, cytological, microbiological, Immunological and ultra-structural investigations.
- PO4.** Ensure in depth understanding in Oral oncology, nature of oral oncological diseases, their causes, processes and effects.
- PO5.** Develop research skills to identify a scientific problem and address independently and as a team.
- PO6.** Function as a competent Oral Pathologist and Forensic Odontologist in any given situation

### **Programme Specific Outcomes (PSOs)**

**At the end of the M.D.S (Oral Pathology and Microbiology) program, the graduate will be able to:**

- PSO-1.** Analyse the clinical features, etiopathogenesis, oral manifestations and laboratory investigations of head and neck pathologies to arrive at a definitive diagnosis
- PSO-2.** Perform routine and advanced laboratory diagnostic techniques for head and neck pathologies
- PSO-3.** Function as a competent Oral Pathologist and Forensic Odontologist in an academic and hospital-based set-up.
- PSO-4.** Conduct quality research and disseminate the inferences to the stakeholders of the

### **Program Educational Objectives (PEOs)**

**The objectives of the M.D.S. (Oral Pathology and Microbiology) Programme are to:**

- PEO-1.** Provide students with a strong foundation in basic and applied medical and dental sciences to address oral health issues to enable them to devise and deliver efficient solutions to challenging problems pertaining to oral and maxillofacial region in infants and children through adolescence including those with special health care needs
- PEO-2.** Impart analytic and cognitive skills required to develop innovative solutions for R&D, Industry, and societal requirements as related to pediatric dentistry
- PEO-3.** Provide sound theoretical and practical knowledge of oral health sciences, managerial and entrepreneurial skills to enable students to contribute to the well-being and welfare of the society



**PEO-4.** Inculcate strong human values and social, interpersonal and leadership skills required for professional success in evolving global professional environments

### Course Outcomes (COs)

**Course Title & Code: Preclinical and Clinical Phase Basics (PMC501A)**

**After the successful completion of this Course, the student will be able to:**

- CO-1. Review concepts of basic medical sciences with emphasis on oral tissues.
- CO-2. Diagnose oral hematological disorders based on appropriate investigations
- CO-3. Prepare and analyse hard and soft tissue sections and microbiological smears using routine and special stains.
- CO-4. Demonstrate carving of permanent teeth morphology on wax blocks.
- CO-5. Distinguish the operating mechanisms and applications of various light microscopes.
- CO-6. Appraise recent laboratory modalities involved in histopathology.

### Course Outcomes (COs)

**Course Title & Code: Oral Pathology and Oral Oncology (PMC502A)**

**After the successful completion of this Course, the student will be able to:**

- CO-1. Distinguish infections, mucocutaneous lesions and developmental disturbances affecting oral and maxillofacial structures
- CO-2. Diagnose potentially malignant disorders, benign and malignant neoplasms affecting oral and maxillofacial structures.
- CO-3. Explore recent concepts and advanced investigative procedures in pathological diagnosis.
- CO-4. Provide comprehensive histopathological report of archived and prospective oral pathology specimens.
- CO-5. Justify the diagnosis of oncological cases based on clinic pathologic correlation with empathy.
- CO-6. Compile schematic representation of histopathology in laboratory records and exhibit mounted specimens using museum techniques.

### Course Outcomes (COs)

**Course Title & Code: Advanced Diagnostics and Comprehensive Oral Pathology and Microbiology (OMC503A)**

**After the successful completion of this Course, the student will be able to:**

- CO-1. Demonstrate the mechanisms of optics in advanced microscopy.
- CO-2. Exhibit competency in the diagnosis of oral and maxillofacial pathology.
- CO-3. Develop a pathology report of head and neck specimens.
- CO-4. Conduct forensic odontology-based academic and medico-legal case examination.
- CO-5. Perform immunohistochemically procedure on tissue specimens
- CO-6. Exhibit competency in usage of advanced diagnostic aids.



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## Course Outcomes (COs)

Course Title & Code: Clinical Photography (MF501A)

After the successful completion of this Module, the student will be able to:

- CO-1. Describe the basic parts and functions of the camera, Principles behind the working of a camera, types of camera and components of a SLR camera.
- CO-2. Demonstrate on how to use a DSLR.
- CO-3. Perform the skills of taking both intraoral and extraoral photographs of the module.

## Course Outcomes (COs)

Course Title & Code: Basic and Advanced Life Support (MF502A)

- CO-1. Describe and demonstrate effective cardio pulmonary resuscitation with automatic External Defibrillator use for adults and children with 1 rescuer and 2 rescuers.
- CO-2. Describe and demonstrate effective cardio pulmonary resuscitation for infants with 1 rescuer and 2 rescuers.
- CO-3. Differentiate between adult, child and infant rescue techniques.
- CO-4. Demonstrate rescue breathing for adult, child and infant
- CO-5. Demonstrate bag mask technique for adult, child and infant
- CO-6. Demonstrate relief of choking for adult, child and infant

## Course Outcomes (COs)

Course Title & Code: Personality Development and Communication Skills (MF503A)

After the successful completion of this Module, the student will be able to:

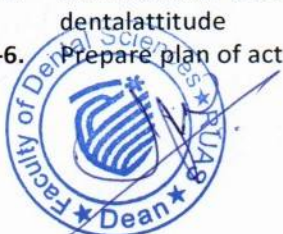
- CO-1. Explain the concept of interpersonal effectiveness
- CO-2. Identify the nuances of working in teams, conflict handling, and time management
- CO-3. Apply the principles of interpersonal communication towards professional betterment
- CO-4. Apply time management tools for optimal usage of time

## Course Outcomes (COs)

Course Title & Code: Law for Dental Professionals (BDF101A)

After the successful completion of this course, the student will be able to:

- CO-1. Describe the structure and functioning of legal system of India
- CO-2. Differentiate between various laws relevant to dentistry
- CO-3. Identify clinical situations that pose ethical dilemma to be resolved with sound ethical principles
- CO-4. Apply principles of professionalism in the practice of dentistry
- CO-5. Communicate effectively with patients, colleagues and public to instill a positive dental attitude
- CO-6. Prepare plan of action in case of litigation against the doctor



## Course Outcomes (COs)

Course Title & Code: Teacher Training Module (MF505A)

After the successful completion of this Module, the student will be able to:

- CO-1. Develop teaching notes on the allotted topic
- CO-2. Deliver lecture to a group of students
- CO-3. Submit questions for assessment relevant to the allotted topic
- CO-4. Analyze student feedback to initiate corrective actions.

## Course Outcomes (COs)

Course Title & Code: Research Methodology (MR501A)

After the successful completion of this Module, the student will be able to:

- CO-1. Describe the value, scope, relevance and mandatory steps of research as well as principles of effective research
- CO-2. Apply the procedures outlined for systematic literature review
- CO-3. Develop and present well structured research proposal and research paper invoking clearly outlined principles
- CO-4. Identify and apply the essential skills desirable for an effective technical presentation

## Course Outcomes (COs)

Course Title & Code: Short Term Project/ Group Project (MR502A)

After the successful completion of this Module, the student will be able to:

- CO-1. Work in a team and undertake a project in their area of specialization
- CO-2. Apply the design methods and techniques for executing the project
- CO-3. Apply appropriate methodology while formulating a project

## Course Outcomes (COs)

Course Title & Code: Library Dissertation (MR503A)

After the successful completion of this Module, the student will be able to:

- CO-1. Differentiate types of scientific literature, search strategies and research designs
- CO-2. Select topic relevant to the field of study
- CO-3. Select literature utilising different search engines
- CO-4. Review the selected literature and compile it
- CO-5. Formulate a research question based on the outcome of literature review
- CO-6. Prepare scientific manuscript for publication



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## Course Outcomes (COs)

Course Title & Code: Dissertation (MR504A)

After the successful completion of this Module, the student will be able to:

- CO-1. Critically review scholarly literature collected from various sources for the dissertation purpose and formulate a research problem
- CO-2. Prepare and present a research proposal
- CO-3. Conduct research to achieve research objectives
- CO-4. Propose new ideas/methodologies or procedures for further improvement of the research undertaken
- CO-5. Create research document and write research papers for publications
- CO-6. Defend the research findings in front of scholarly audience

## Course Outcomes (COs)

Course Title & Code: Conference Presentation (PMR505A)

After the successful completion of this Module, the student will be able to:

- CO-1. Choose a contemporary topic in his/her area of study for research
- CO-2. Write a conference paper based on research and present in the conference

## Course Outcomes (COs)

Course Title & Code: Journal Publication (MR506A)

After the successful completion of this Module, the student will be able to:

- CO-1. Choose a contemporary topic in his/her area of study for research
- CO-2. Write a research paper based on research and publish in a journal

## Course Outcomes (COs)

Course Title & Code: Interuniversity Module (MG501A)

After the successful completion of this Module, the student will be able to:

- CO-1. Apply tools and techniques proficiently in the area of the training undergone for efficient execution of the stated objective
- CO-2. Make presentation on training obtained



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