



**KALINGA INSTITUTE OF DENTAL SCIENCES**

*Serving through Exemplary Oral Health Care, Education & Research*



**MASTER OF DENTAL SURGERY (MDS)  
ORAL PATHOLOGY AND MICROBIOLOGY**

### **PROGRAMME OUTCOMES:**

At the end of the program, graduates will be able to...

PO1 : Apply the basic knowledge of both general and oral pathology in dealing with the nature of oral diseases, their causes, processes and effects.

PO2 : Perform routine histopathological evaluation of specimens relating to oral and perioral tissues, including principles of histochemistry, Immunochemistry, applied and theoretical biochemical basis of histochemistry.

PO3 : study and administer the routine diagnostic procedures including hematological, cytological, basic oral microbiology , Immunological and ultrastructural investigations.

PO4 : Demonstrate the current research methodology, collection and interpretation of data, the ability to carry out research projects on clinical and or epidemiological aspects.

PO5 : Write scientific papers and Update knowledge on current databases, automated data retrieval systems and referencing and present it in conferences both as poster and verbal presentations

PO6 : Recognize the pathology of oral tissues as well as the relation of local pathologic and clinical findings to systemic conditions and critically evaluate the oral and maxillofacial pathology literature.

PO7 : Describe the basics in Forensic Odontology and ability to apply it in medicolegal issues.

PO8: Interpret pathologic cellular change microscopically and group of diseases of similar histologic patterns in order to arrive at a differential diagnosis and ultimately to a final diagnosis.

## **PAPER - 1**

### **COURSE OUTCOMES:**

#### **Part - 1**

- 1) Should have a broad overview of the current research and methods used in studying problems in dental anatomy and histology.
- 2) Knowledge of the regional anatomy, histology, embryology and osteology of head and neck with general disposition of thorax, abdominal and pelvic organs and translating this knowledge in the specialty related diagnosis
- 3) Should have an understanding of the clinical and biological factors to be considered in the appropriate use of antimicrobial drugs and its pharmacokinetics.
- 4) Be aware of the contemporary principles and practices of microbiological laboratory diagnostic techniques and interpretation of laboratory reports.
- 5) Basic knowledge about medical genetics and emphasis on topics of dental importance
- 6) Should have a basic knowledge on research methodology, biostatistics and be able to apply it in various research projects as well as dissertations.

### Mapping of COs to POs

**Program:** MDS in oral pathology and microbiology

**Course:** Part I – Applied Basic sciences

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	✓	✓	✓					
CO2	✓	✓	✓					
CO3	✓	✓	✓					
CO4		✓	✓			✓		
CO5	✓	✓	✓					
CO6				✓	✓			

PO = Program Outcome

CO = Course Outcome

Name of the Course	Employability	Entrepreneurship	Skill development
Part I – Applied basic sciences			Y

### COURSE OUTCOMES:

#### Part – 2

1. Knowledge and skill to identify and diagnose basic diseases and lesions affecting oral tissues through microscopic slides.
2. Knowledge of clinical, radiologic and pathologic features of oral diseases facilitating their diagnosis.
3. Knowledge of principles of certain basic aspects of forensic odontology.
4. Skill of diagnosing basic hematological abnormalities through interpretation of peripheral smear.

### Mapping of COs to POs

**Program:** MDS in Oral Pathology and Microbiology

**Course:** Part II- PAPER 1

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	✓	✓	✓					
CO2	✓	✓	✓			✓		
CO3							✓	
CO4			✓	✓		✓		

Name of the Course	Employability	Entrepreneurship	Skill development
Part II- paper 1	Y		Y

## PAPER – 2

### COURSE OUTCOMES:

#### Part – 2

- 1) Knowledge and skill development on the various laboratory procedures like Basic knowledge and skill of preparation of paraffin embedded sections of human oral biopsied tissue.
- 2) Basic knowledge of laboratory chemicals, equipments. and skill of preparation of paraffin embedded sections of human oral biopsied tissue
- 3) Knowledge on special stain techniques and their applications in diagnosis of oral disease

#### Mapping of COs to POs

**Program:** MDS in Oral Pathology and microbiology

**Course:** Part II- paper 2– Laboratory techniques

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1		✓	✓			✓		
CO2	✓	✓				✓		
CO3		✓	✓			✓		✓

**PO** = Program Outcome

**CO** = Course Outcome

Name of the Course	Employability	Entrepreneurship	Skill development
Part II –paper2 Laboratory techniques	Y		Y

**PO** = Program Outcome

**CO** = Course Outcome

## PAPER – 3

### COURSE OUTCOMES:

#### Part – 2

- 1) Should have a broad overview of the current research and methods used in studying problems in oral pathology.
- 2) Be aware of the contemporary principles and practices of microbiological and histological laboratory diagnostic techniques and interpretation of laboratory reports.
- 3) Knowledge about various oral pathological diseases and it's genetics and emphasis on topics of dental importance.
- 4) Should have an overall knowledge on research methodology, biostatistics and be able to apply it in various research projects as well as dissertations.
- 5) Knowledge on special stain techniques and their application in diagnosis of oral diseases
- 6) Overall student should have comprehensive knowledge on oral and paraoral structures and related pathologies.

### Mapping of COs to POs

**Program:** MDS in oral pathology and microbiology

**Course:** Part II- paper 3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1				✓	✓			
CO2		✓	✓			✓		✓
CO3		✓	✓			✓		
CO4				✓	✓			
CO5			✓			✓		
CO6		✓			✓	✓		✓

Name of the Course	Employability	Entrepreneurship	Skill development
Part II –paper 3, Essay			Y