

# **Program Structure Template**

**School of Dental Sciences**

**MDS**

**(Oral Pathology & Microbiology)**

**SDS0104**

**2018-21**

## 1. Standard Structure of the Program at University Level

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### 1.1 Vision, Mission and Core Values of the University

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#### **Vision of the University**

To serve the society by being a global University of higher learning in pursuit of academic excellence, innovation and nurturing entrepreneurship.

#### **Mission of the University**

1. Transformative educational experience
2. Enrichment by educational initiatives that encourage global outlook
3. Develop research, support disruptive innovations and accelerate entrepreneurship
4. Seeking beyond boundaries

#### **Core Values**

1. Integrity
2. Leadership
3. Diversity
4. Community

## 1.2 Vision, Mission and Core Values of the School

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### **Vision of the School**

To serve the society by being a global center in pursuit of academic and professional excellence in the field of dentistry.

### **Mission of the School**

1. Creating a stimulating and flexible learning environment amongst the faculty and students
2. Strongly promoting research, innovation, clinical excellence
3. Promote and inculcate ethical values and continued betterment in the dental profession and in all facets of life.

### **Core Values**

1. Integrity
2. Leadership
3. Diversity
4. Community

### 1.3 Programme Educational Objectives (PEO)

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#### 1.3.1 Writing Programme Educational Objectives (PEO)

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Program educational objectives are broad statements that describe the career and professional accomplishments that the program is preparing graduates to achieve.

**PEO1:** To train a post-graduate student to ensure higher competence in both general and special pathology dealing with nature of oral diseases, their cause, processes and effects.

**PEO2:** Routine and special technique used for histopathology including principle of histochemistry, immunochemistry related to oral pathology.

**PEO3:** Concepts of oral premalignancy and management of oral oncology.

**PEO4:** Oral microbiology and their relationship to various branches of dentistry.

**PEO5:** Working knowledge on current databases, automated data retrieval systems, referring and skill in writing scientific papers.

### 1.3.3 Program Outcomes (PO's)

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- PO1: An oral pathologist is expected to perform routine histopathological evaluation of specimens relating to oral and peri-oral tissues.
- PO2: An oral pathologist should acquire skill to identify oral disease through microscopic slides.
- PO3: To carry out routine diagnostic procedures including hematological, cytological, microbiological, immunological and ultra-structural investigations.
- PO4: Understanding of current research methodology, collection and interpretation of data.
- PO5: Ability to carry out research projects on clinical and / or epidemiological aspects.
- PO6: Skills in age estimation and identification during forensic investigation.
- PO7: Professional honesty and integrity to be fostered.
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- PSO1: Competency in diagnosis of oral precancer and cancerous lesions
- PSO2: Competent to carry out exfoliate cytology and its interpretation
- PSO3: Able to do mass screening of oral cancer patients
- PSO4: Competency to analyze and interpret routine blood investigations

**Program Structure Template  
 School of Dental Sciences  
 Master of Dental Surgery (MDS)  
 Batch: 2018-2021**

S. No.	Paper ID	Subject Code	Subjects	Teaching Load			
				L	T	P	
<b>THEORY SUBJECTS</b>							
1.	MDS306	MDS306	Oral Pathology & Microbiology	134-	-	-	CC
<b>Practical/Viva-Voce/Jury</b>							
2.	MDS306	MDS306	Oral Pathology & Microbiology	-	-	4187	CC
<b>TOTAL CREDITS</b>							<b>NA</b>

## 2.1 Template A1: Syllabus

<b>School:</b>	<b>School of Dental sciences</b>	
<b>Program:</b>	<b>Master of Dental Surgery- Oral &amp; Maxillofacial Pathology and Oral Microbiology</b>	
<b>Batch</b>	<b>2018-2021</b>	
<b>Course Code</b>	<b>MDS306</b>	
<b>Credits</b>	<b>NA</b>	
<b>Contact Hours (L-T-P)</b>	<b>134-0-4187</b>	
<b>1</b>	<b>Course Type</b>	Compulsory (CORE)
<b>2</b>	Course Objective	<p>1.1 To train a post graduate student in the field of basic principles of biostatistics and study as applied to dentistry and research</p> <p>1.2 To develop a basic understanding of gross anatomy of head &amp; neck, including histology, biology, biochemistry and physiology</p> <p>1.3 Basic understanding of pathologies affecting head and neck region</p> <p>1.4 Basic knowledge of oral microbiology and immunology</p> <p>2.1 To make post graduate student learn about pathologies of oral and maxillofacial region.</p> <p>2. 2 Knowledge of manifestations of common diseases, their diagnosis &amp; pathogenesis.</p> <p>2.3 Student should know some basic aspects of Forensic Odontology.</p> <p>3.1 To make post graduate students learn about routine and special histological techniques</p> <p>3.2 To make student diagnose cancer cases by interpreting histopathological slides</p> <p>4.1 To train a post graduate dental surgeon so as to ensure higher competence in both general and special pathology dealing with the nature of oral diseases, their causes, processes and effects.</p> <p>4.2 He/ She is expected to present a scientific data pertaining to the field in the conferences both as poster and verbal presentations and to take part in group discussions.</p>
<b>3</b>	Course Outcomes	<p>The student will be able to:</p> <p><b>CO306.1.1</b> Understanding of research methodology</p> <p><b>CO306.1.2</b> Appreciate the normal development, morphology, structure and function of oral tissues.</p> <p><b>CO306.1.3</b> Understanding of pathologies affecting head and neck</p> <p><b>CO306.1.4</b> Professional honesty and integrity are to be fostered</p> <p><b>CO306.2.1</b> At the end of the course, student is expected to appreciate the normal development, morphology, structure and function of oral tissues &amp; variations in different pathological/non-pathological states.</p> <p><b>CO306.2.2</b> Cytopathological, histopathological and microbiological diagnosis and interpretation of oral diseases.</p> <p><b>CO306.2.3</b> Screening and diagnosis of precancer and oral cancer</p> <p><b>CO306.3.1</b> At the end of the course, student is expected to have knowledge</p>

		<p>about all the special stains and advanced laboratory techniques.</p> <p><b>CO306.3.2</b> At the conclusion of course, student should be confident of diagnosing the histopathological slides.</p> <p><b>CO306.3.3</b> At the end of the course, student should be confident to diagnose oral cancer and precancer diseases.</p> <p><b>CO306.4.1</b> To make the student sound in diagnosing and treatment planning of challenging cases of oral precancer and cancer.</p> <p><b>CO306.4.2</b> To make the student develop communication skills to explain various treatment modalities to the patient.</p>	
4	Course Description	Under this course we teach students about basic anatomy and histology of oral cavity, a brief of research methodology, biochemistry and physiology of human body. We teach students a detailed description of all the oral precancerous, cancerous, vesiculobullous lesions, and all the lesions affecting the oral cavity. We ensure that post graduate students learn about routine staining techniques as well as special laboratory procedures which helps in arriving at diagnosis of various precancer and cancerous lesions.	
5		Outline syllabus	
	<b>MDS306.A</b>	<b>Unit A</b>	<b>APPLIED BASIC SCIENCES</b>
	<b>MDS306.A1</b>	Unit A Topic1	Bio-Statistics and Research Methodology
	<b>MDS306.A2</b>	Unit A Topic 2	Applied Gross Anatomy of Head and Neck including Histology, Cell Biology, General Histology, Applied physiology, Applied Biochemistry
	<b>MDS306.A3</b>	Unit A Topic3	Applied General Pathology and General and Systemic Microbiology, Pathogenic mechanism at molecular level, Basic Immunology
	<b>MDS306.A4</b>	Unit A Topic 4	Oral Biology (Oral and Dental Histology including Embryology and Oral Physiology)
	<b>MDS306.A5</b>	Unit A Topic 5	Basic Molecular Biology and Genetics.
	<b>MDS306.A6</b>	Unit A Topic 6	Basic Histology techniques and Microscopy
	<b>MDS306.B</b>	<b>Unit B</b>	<b>ORAL PATHOLOGY, MICROBIOLOGY, IMMUNOLOGY AND FORENSIC Odontology</b>
	<b>MDS306.B1</b>	Unit B Topic 1	Basic Oral Pathology Development disturbances of oral and para oral structures, Dental caries, Pulp and periapical pathology, Osteomyelitis, Periodontal diseases, Salivary gland diseases, Cysts of the oral and para oral region, Traumatic, reactive and regressive lesions of oral cavity, Pigmentation of oral and para oral



			region and discoloration of teeth, Microbial infections of oral soft tissues, Diseases of the bone and TMJ.			
	<b>MDS306.B2</b>	Unit B Topic 2	Biopsy, Exfoliative cytology			
	<b>MDS306.B3</b>	Unit B Topic 3	Principles of Basic Forensic Odontology			
	<b>MDS306.B4</b>	Unit B Topic 4	Oral Microbiology			
	<b>MDS306.B5</b>	Unit B Topic 5	Immunology			
	<b>MDS306.C</b>	<b>Unit C</b>	<b>LABORATORY TECHNIQUES, DIAGNOSIS AND ONCOLOGY</b>			
	<b>MDS306.C1</b>	Unit C Topic 1	Basic Histology techniques and Microscopy			
	<b>MDS306.C2</b>	Unit C Topic 2	Oral Oncology			
	<b>MDS306.C3</b>	Unit C Topic 3	Basic laboratory equipment's and lab maintenance			
	<b>MDS306.C4</b>	Unit C Topic 4	Recent Advances in Oral Pathology			
	<b>MDS306.C5</b>	Unit C Topic 5	Histopathology slide discussions			
	<b>MDS306.D</b>	<b>Unit D</b>	<b>ESSAY</b>			
	<b>MDS306.D1</b>	Unit D Topic 1	Benign and malignant tumors of oral cavity			
	<b>MDS306.D2</b>	Unit D Topic 2	Developmental disorders of oral and paraoral structures			
	<b>MDS306.D3</b>	Unit D Topic 3	Potentially malignant disorders, Bone pathology			
	<b>MDS306.D4</b>	Unit D Topic 4	Odontogenic cysts and tumors			
	<b>MDS306.D5</b>	Unit D Topic 5	Pathology of salivary glands			
	<b>MDS306.D6</b>	Unit D Topic 6	Genodermatosis, Giant cell lesions			
	<b>MDS306.D7</b>	Unit D Topic 7	Molecular pathology			
<b>1</b>	Course evaluation	Attendance	Minimum 75% is needed for both theory and clinical/practical			
		Quizzes	Taken every 2 months			
		Presentations	Seminars, Journal Clubs, Case presentations, Thesis and Library Dissertation presentations			
		Any Other	Project based learning, flip learning, Assignments			
		End Term Examinations	700 Marks	Theory	1 <sup>st</sup> year - 100 Marks	3 <sup>rd</sup> year-300 marks
			Practical		3 <sup>rd</sup> year-300 Marks	
<b>2</b>	Text book/s*	Orbans, Tencate, Berkowitz, Robin's and Cotran's, Wheelers, Bancroft, Shafers, Neville, Regezi and Scuba, Fletcher, Cullings				
<b>3</b>	Other References	TED learning EBSCOHOST Various scientific articles from various sources				