

ORAL MEDICINE AND RADIOLOGY

Goal

To train the dental graduates, to acquire adequate knowledge, necessary skills attitudes required for appropriate diagnosis, investigation and management of patients.

Objectives

At the end of three years of training the candidate should be thorough in.

a) Knowledge

Theoretical, clinical and practical knowledge of all mucosal lesions, diagnostic procedures pertaining to them and latest information of imaging modalities.

b) Skills

1. Diagnosing oral lesions their management.
2. Making, interpreting radiographs and giving appropriate radiographic diagnosis.
3. Research and scientific skills in handling problems pertaining to oral treatment.
4. Attain learning objectives through didactic lecturers.

COURSE CONTENT

First Year

I. Applied Anatomy

1. Development of
 - a. Temporomandibular joint.
 - b. Salivary glands.
 - c. Tongue.
 - d. Maxilla.
 - e. Mandible.
 - f. Maxillary sinus.
2. Osteology and histology of Bone.
3. Muscles of mastication.
4. Lymphatic drainage of head and neck.
5. Trigeminal, Glossopharyngeal and Facial nerve.

II. Applied Physiology

1. Saliva.
2. Blood and clotting mechanism.
3. Endocrine system.

III. Applied Microbiology

1. Oral microbial flora.
2. Sterilization and disinfection.

IV. Applied Pathology

1. Inflammation.
2. Repair.
3. Basic immunology.

V. Applied Biochemistry

1. Calcium metabolism.
2. Nutritional and metabolic disorders.

VI. Applied Pharmacology

1. Analgesics.
2. Antibiotics.
3. Corticosteroids.
4. Anti fungal and anti viral agents.
5. Chemotherapeutic agents.

VII. Oral Biology

1. Odontogenesis and developmental anomalies.
2. Oral mucous membrane.
3. Gingiva and Periodontium.

VIII. Oral Medicine

1. Case history recording with investigations.
2. Gingival diseases.
3. Periodontal diseases.
4. Pulpal and periapical pathologies.
5. Osteomyelitis.
6. Space infections.

VIII. Basic Radiology

1. History of radiation.
2. Radiation physics.
3. Radiation biology.
4. Health physics.
5. X-ray film and accessories.
6. Projection geometry.
7. Processing of X-ray film.
8. Radiation quality assurance and infection control.
9. Intra oral radiographic examination.
10. Normal anatomical landmarks.

This is basic minimum requirement, however a student needs to know all the related aspects of the above mentioned topics.

Approach

1. Attending lecture classes.
2. Attending and presenting seminars.
3. Discussions.
4. Demonstration, making and interpretation of radiographs.

ACADEMIC ACTIVITIES OF FIRST YEAR

SL NO	PARTICULARS OF ACTIVITIES	QUOTA
1	Attending lectures.	
2	Attending theory classes for basic sciences.	
3	Attending Presenting seminars/discussions.	5 each
4	Observing and assisting case history recording.	10
5	Selection of topic for library dissertation	
6	Selection and submission of synopsis of main dissertation to the university	
5	Case history discussion.	10
6	Observing and Assisting :- - Fine Needle Aspiration Cytology (FNAC). - Toluidine blue Staining. - Biopsy procedures.	5 each
7	Making and interpreting radiographs :- - IOPA. - Bitewing. - Occlusal.	100 20 20
8	Clinical duty-As per time table : - - Observe. - History taking.	
9	Attending the dental education, check up and treatment camps.	
10	Participating and Presenting Paper / Poster.	
11	Observe and assist in diagnosis and management : - - Leukoplakia. - Lichen Planus. - Oral submucous fibrosis (OSMF). - Aphthous ulcer. - MPDS - TENS therapy. - Trigeminal Neuralgia.	5 each
12	Sialography assisting.	01
13	Interdepartmental activities : - - Attending seminar of other department. - Discussing cases with other department.	
14	Exam for basic sciences (theory)	

SECOND YEAR

Oral Medicine

1. Laboratory investigations and recent diagnostic techniques.
2. Premalignant lesions.
3. Premalignant conditions.
4. Red and white lesions.
5. Oral ulcers.
6. Vesiculobullous lesions.
7. Oral pigmentation.
8. Infections
 - a. Bacterial.
 - b. Viral.
 - c. Fungal.
 - d. Protozoal.
9. Cysts of orofacial region.
10. Tumors of orofacial region.
11. Sexually transmitted diseases.
12. HIV and AIDS.
13. Management of medically compromised patients and medical emergencies.

Radiology

1. Extraoral radiographic examination.
2. Principles of radiographic interpretation.
3. Panoramic radiography.

This is basic minimum requirement, however a student needs to know all the related aspects of the above mentioned topics.

Approach

1. Attending lecture classes.
2. Attending and presenting seminars.
3. Discussions.
4. Demonstration, making and interpretation of radiographs.

ACADEMIC ACTIVITIES OF SECOND YEAR

SL NO	PARTICULARS OF ACTIVITIES	QUOTA
1	Continuation of the dissertation work	
2	Seminars and Journal Clubs presentation	5 each
3	Attend the Postings : - - General Medicine. - General Surgery. - ENT. - Dermatology. - General Radiology. - Cancer hospital.	15 days each
4	Submission of library dissertation by 18 months after commencement of post graduate programme.	
5	Conducting lectures for undergraduates.	02
6	<ul style="list-style-type: none"> ▪ Making and interpreting extra oral radiographs. ▪ Postero Anterior view [modified]. ▪ Cephalogram. ▪ TMJ [each view]. <ul style="list-style-type: none"> - Transcranial. - Trans-pharyngeal. - Infra orbital view. ▪ Paranasal sinus view. ▪ Orthopantomograph. ▪ Lateral oblique body / ramus mandible. ▪ Submentovertex view. ▪ Reverse Towne's view. 	05 each
7	Recording case history.	10
8	Carry out the investigative procedures : - - Biopsy. - Fine Needle Aspiration Cytology. - Vital staining - Lugols Iodine and Toluidine Blue.	05 05 05
9	Undertake research project / study.	01
10	Presenting Research Project, Paper / Poster.	

THIRD YEAR

Oral Medicine

1. Orofacial pain.
2. Forensic odontology.
3. Oral cancer.
4. Disorders of salivary glands and imaging.
5. Disorders of temporomandibular joint and views.
6. Psychosomatic aspects of oral diseases.
7. Immunological disorders.
8. Neuromuscular diseases affecting Orofacial region.
9. Geriatric dentistry.
10. Genetics.

Radiology

1. Specialized Radiology
 - a) Computerized tomography.
 - b) Magnetic resonance imaging.
 - c) Ultrasonography.
 - d) Scintigraphy.
 - e) Sialography.
 - f) Arthrography.
 - g) Radio visiography.
 - h) Xeroradiography.
2. Radiographic appearances of
 - a) Cysts.
 - b) Benign tumors.
 - c) Malignant tumors.
 - d) Fibro osseous diseases of jaws.
 - e) Systemic diseases.
 - f) Developmental anomalies.
3. Orofacial Implants.

This is basic minimum requirement, however a student needs to know all the related aspects of the above mentioned topics.

Approach

1. Attending lecture classes.
2. Attending and presenting seminars.
3. Discussions.
4. Demonstration, making and interpretation of radiographs.

ACADEMIC ACTIVITIES OF THIRD YEAR

SL NO	PARTICULARS OF ACTIVITIES	QUOTA
1.	Continuation of seminars, journal club and case presentations.	
2.	Practicing intra oral, extra oral and specialized radiographic techniques (sialography). [C.T, MRI, scintigraphy, U.S.G, interpretation].	
3.	Submission of Main Dissertation : 6 months before university examination.	
4.	Submission of records of special cases (with photographs, radiographs, biopsy reports, treatment and follow-up details 4 months before university examination.	40
5.	Submission of cases treated as per quota:- - Leukoplakia. - Lichen planus. - Oral submucous fibrosis (OSMF). - Myofacial pain dysfunction syndrome (MPDS) - [TENS]. - Aphthous ulcer. - Herpes infection. - Mucocutaneous lesions.	05 each
6.	Paper / poster presentations	01
7.	Submission of seminars to the department	05
8.	Preliminary Exam (Theory and practical and viva voce)	01

Dissertations

a) Synopsis

1. Identifying and selection of topic.
2. Synopsis writing.
3. Presentation of synopsis to the department, institute review board and ethical committee.
4. Submission to university (End of first 6 months after commencement of post graduate programme).

b) Library Dissertation: Submission by 18 months after commencement of post graduate programme.

c) Main Dissertation submission 6 months before university examination.

Assessment and monitoring

1. Maintaining log books.
2. Scheme of exams (Institutional level).
 - a. First Internal assessment on basic sciences at the end of first year (Theory).
 - b. Second internal assessment at the end of second year (Theory and Practical / Clinical).
 - c. Preliminary exam in the last six months (Theory and practical / clinical and viva voce).

SCHEME OF UNIVERSITY EXAMINATION

A. THEORY : 300 MARKS

Written examination shall consist of four question papers each of three hours duration. Total marks of each paper will be 100. paper I, II and III shall consist two long questions carrying 20 marks each and 6 short essay questions each carrying 10 marks. Paper IV will be on Essay. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows *

Paper I: Applied Basic Sciences: Applied Anatomy, Physiology, Biochemistry, Pathology, and Pharmacology.

Paper II: Oral and Maxillofacial Radiology.

Paper III: Oral Medicine, Therapeutics and laboratory investigations.

Paper IV: Essay

* The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.

B. PRACTICAL / CLINICAL EXAMINATION: 200 MARKS

1st Day

Clinical Case Presentation:

2 Spotters	2 × 10 =	020 Marks
1 Short Cases	1 × 30 =	030 Marks
1 Long CASE	1 × 50 =	<u>050 Marks</u>
TOTAL:		<u>100 MARKS</u>

2nd Day

Radiology Exercise: Including technique and interpretation

- I. A) One Intra Oral Radiograph : 10Marks
 B) One Occlusal Radiograph : 30 Marks
- II. Two Extra Oral Radiographs : 2×30= 60 Marks

C. VIVA VOCE EXAMINATION : 100 MARKS

a) Viva voce 80 Marks

b) Dissertation 20 Marks

- All examiners will conduct viva voce conjointly to assess a candidate for comprehension, analytical approach, expression, interpretation of data and communication skills. It includes all components of course contents, presentations and discussion of dissertation.

A. Theory 300 MARKS

B. Practical And Clinical Examination 200 MARKS

C. Viva voce 100 MARKS

Total (A+B+C) 600 MARKS