



SRM

UNIVERSITY

(Under section 3 of UGC Act 1956)

MASTER OF DENTAL SURGERY (M.D.S.) DEGREE

REGULATIONS -2011

(For students admitted from 2011 - 2012 onwards)

**FACULTY OF MEDICAL AND HEALTH SCIENCES
SRM UNIVERSITY
KATTANKULATHUR – 603 203**

REGULATIONS -2011
MASTER OF DENAL SURGERY (M.D.S.)

REGULATIONS

1. **Title of the Course:** It shall be called Master of Dental Surgery
2. **Branches of Study:** The following are the subjects of speciality for the MDS degree:
 - I. Public Health Dentistry
 - II. Paediatric and Preventive Dentistry
 - III. Oral Medicine and Radiology

3. Eligibility

A candidate for admission to the MDS course (Master of Dental Surgery) must have a degree of BDS (Bachelor of Dental Surgery) from a college and University recognized by Dental Council of India or an equivalent qualification recognized by MGR University, Tamil Nadu and the Dental Council of India. Candidates not possessing a recognized Dental qualification for the above purpose should secure the prior approval of his/her qualifications by the Dental Council of India before admission to the MDS course.

No candidate shall be admitted to any Postgraduate MDS course unless the candidate has obtained and produced eligibility certificate issued by University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

- a. BDS pass / degree certificate issued by the University.
- b. Marks cards of all the university examinations passed (I to IV BDS year course).
- c. Attempt Certificate issued by the Principal.
- d. Certificate regarding the recognition of the Dental college by the Dental Council of India.
- e. Completion of paid rotatory internship certificate from a recognized college.
- f. Registration by any State Dental Council and
- g. Proof of SC/ ST or Category I, as the case may be.

Candidates should obtain the Eligibility Certificate before the last date for admission as notified by the University.

A candidate who has been admitted to postgraduate course should register his / her name in the University within a month of admission after paying the registration fee.

3. Recognition Fee

Candidates who have passed the BDS Degree / Post Graduate Diploma from any other University shall remit a recognition fee as prescribed along with the regular fees.

4. Commencement of Course

The classes for the course shall commence from 1st week of May. Cut-off date for admission shall be 31st of May.

5. Duration of the Course

The course shall be of 3 years duration.

All the candidates for the degree of MDS are required to pursue the recommended course for at least three academic years as full time candidates in an institution affiliated to and approved for Postgraduate studies by MGR University, Tamil Nadu, and recognized by the Dental Council India.

6. Method of training

The training of postgraduate for degree shall be full time with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies.

7. Attendance, Progress and Conduct

A candidate pursuing degree / diploma course should work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic / work in clinic / laboratory / nursing home while studying postgraduate course.

No candidate shall join any other course of study or appear for any other examination conducted by this university or any other university in India or abroad during the period of registration.

Each year shall be taken as a unit for the purpose of calculating attendance. Every candidate shall have not less than 80 percent of attendance in each year of the course. However, candidates should not be absent continuously as the course is a full time one.

Every candidate shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

8. Monitoring Progress of Studies

Work diary / Log Book :

- Every Post Graduate candidate shall maintain a record of skills [Log Book] he has acquired during the three years training period, certified by the various Heads of Departments he has undergone training.
- The candidate should record of his / her participation in the training programme conducted by the department such as journal reviews, seminars, etc. in the Log book.
- Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.
- The Head of the Department shall scrutinize the Log Book every 3 months.
- At the end of the course, the candidate should summarise the contents and the Log Book certified by the Head of the Department and Head of the Institution.
- The Log Book should be submitted at the time of University practical / Clinical examination for the scrutiny of the board of Examiners.

Periodic tests:

In case of degree courses of three years duration, the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practical/clinical and viva voce. Records and marks obtained in such tests will be maintained by the Head of the Department and sent to the University, when called for.

Records:

Records and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University when called for.

9. Dissertation

Every candidate pursuing MDS degree course is required to carry out work on a selected research project under the guidance of a recognized post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within **six months** from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

The dissertation should be written under the following headings:

- i. Introduction
- ii. Aims or Objectives of study
- iii. Review of Literature
- iv. Material and Methods
- v. Results
- vi. Discussion
- vii. Conclusion
- viii. Summary

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

The completed dissertation should be submitted six months before the final examination as per calendar of events.

The dissertation shall be valued by examiners appointed by the University. Approval of dissertation work is an essential precondition for a candidate to appear in the University examination.

Guide: The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as laid down by Dental Council of India.

Co-guide: A co-guide may be included provided the work requires substantial contribution from a sister department or from another institution recognised for teaching/training by the Dental Council of India. The co-guide shall be a recognised postgraduate teacher of the University.

Change of guide: In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the university.

10. Scheme of Examination

Eligibility: The following requirements shall be fulfilled by every candidate to become eligible to appear for the final examination.

a) Attendance: Every candidate shall have fulfilled the attendance prescribed by the University during each academic year of the postgraduate course.

b) Progress and conduct: Every candidate shall have participated in seminars, journal review meetings, symposia, conferences, case presentations, clinics and didactic lectures during each year as designed by the concerned department.

Work diary and Logbook: Every candidate shall maintain a work diary and logbook for recording his/her participation in the training programmes conducted by the department. The work diary and logbook shall be verified and certified by the Head of the Department and Head of the institution.

The certification of satisfactory progress by the head of the department and head of the institution shall be based on (a), (b) as mentioned above.

Schedule of Examination: The University examination for M.D.S. courses will be held at the end of the first academic year (Two papers as mentioned below) and at the end of the third academic year (4 papers).The university shall conduct two examinations in a year, a Regular and a Arrear Examinations in the month of April and October respectively.

The Final year MDS year examination (Theory and Practical) should not be conducted before April of each academic year.

11. University Examination

A. Part I M.D.S. examination will have 2 papers.

- i. Paper 1 is common to all branches and consists of Applied Anatomy, Applied Physiology and Applied Pathology.
- ii. Paper 2 will have 3 subjects in which Biostatistics and Research Methodology is common to all the branches where as the other 2 subjects are optional for different branches.

Branch : Public Health Dentistry

- a) Nutrition
- b) Basic Epidemiology

Branch : Paediatric and Preventive Dentistry

- a) Dental Materials
- b) Pharmacology

Branch : Oral medicine and Radiology

- a) Pharmacology
- b) Genetics, Growth and Development

The written examination for Paper 1 will be as follows :

- The Paper will be for 120 marks, 3 hours duration consisting of 4 sections
- [A,B, C, D].
- Section A will be of M.C.Q. - 45 questions, 15 questions from each of the three subjects = 45 marks.
- Section B, C, & D [each section representing one subject] will be of 25 marks, each comprising of 5 short notes of 5 marks each – $3 \times 25 = 75$ marks.
- The written examination for paper 2 will be as follows :
- The Paper will be for 120 marks, 3 hours duration consisting of 3 sections [A, B, C], each section representing one subject.
- Each section will be for 40 marks consisting of 5 short answers, 6 marks each [$5 \times 6 = 30$ marks] and 5 short notes, 2 marks each [$5 \times 2 = 10$ marks].

Marks distribution :

M.D.S. Part I	Total marks : 300
Theory	- 240 Marks
Paper 1	- 120 Marks
Paper 2	- 120 Marks
Internal Assessment	- 60 Marks [10 Marks for each subject]

Total	- 300 Marks

* A candidate shall secure 50% [150 marks out of 300 marks] for a pass.

SRM UNIVERSITY
MASTER OF DENTAL SURGERY (M.D.S.) DEGREE
MARKS DISTRIBUTION WITH PASSING MINIMUM

M.D.S. PART - I

SUBJECT CODE	SUBJECT TITLE	INTERNAL	THEORY U.E.	AGGREGATE	
				MIN	MAX
M.D.S - PUBLIC HEALTH DENTISTRY					
MDS101	APPLIED BASIC SCIENCES	30	120	-	150
MDS102	BIostatISTICS AND RESEARCH METHODOLOGY, NUTRITION, BASIC EPIDEMIOLOGY	30	120	-	150
TOTAL IN WRITTEN				150	300
M.D.S - PAEDODONTICS AND PREVENTIVE DENTISTRY					
MDS101	APPLIED BASIC SCIENCES	30	120	-	150
MDS102	BIostatISTICS AND RESEARCH METHODOLOGY, PHARMACOLOGY, DENTAL MATERIALS	30	120	-	150
TOTAL IN WRITTEN				150	300
M.D.S - ORAL MEDICINE AND RADIOLOGY					
MDS101	APPLIED BASIC SCIENCES	30	120	-	150
MDS102	BIostatISTICS AND RESEARCH METHODOLOGY, PHARMACOLOGY, GENETICS, GROWTH AND DEVELOPMENT	30	120	-	150
TOTAL IN WRITTEN				150	300

*** U.E. – University Examinations**

M.D.S. PART - II

SUBJECT CODE	SUBJECT TITLE	THEORY U.E.	AGGREGATE	
			MIN	MAX
M.D.S - PUBLIC HEALTH DENTISTRY				
MDS271A	PUBLIC HEALTH	75	-	-
MDS272A	DENTAL PUBLIC HEALTH	75	-	-
MDS273A	PREVENTIVE DENTISTRY	75	-	-
MDS274A	ESSAY WITH EMPHASIS ON RECENT ADVANCES	75	-	-
	TOTAL MARKS IN THEORY SUBJECTS		150	300
MDS275A	PRACTICAL	200	-	-
MDS276A	VIVA VOCE	100	-	-
OVERALL (THEORY, PRACTICAL, VIVA VOCE)			300	600
M.D.S - PAEDODONTICS AND PREVENTIVE DENTISTRY				
MDS281A	GENERAL PEDODONTICS	75	-	-
MDS282A	CLINICAL PEDODONTICS	75	-	-
MDS283A	PUBLIC AND PREVENTIVE DENTISTRY	75	-	-
MDS284A	ESSAY WITH EMPHASIS ON RECENT ADVANCES	75	-	-
	TOTAL MARKS IN THEORY SUBJECTS		150	300
MDS285A	PRACTICAL	200	-	-
MDS286A	VIVA VOCE	100	-	-
OVERALL (THEORY, PRACTICAL, VIVA VOCE)			300	600
M.D.S - ORAL MEDICINE AND RADIOLOGY				
MDS291A	DIAGNOSTIC METHODS, DENTAL RADIOLOGY AND IMAGING	75	-	-
MDS292A	ORAL MEDICINE, THERAPEUTICS AND APPLIED ORAL PATHOLOGY	75	-	-
MDS293A	DIFFERENTIAL DIAGNOSIS IN ORAL MEDICINE AND RADIOLOGY	75	-	-
MDS294A	ESSAY WITH EMPHASIS ON RECENT ADVANCES	75	-	-
	TOTAL MARKS IN THEORY SUBJECTS		150	300
MDS295A	PRACTICAL	200	-	-
MDS296A	VIVA VOCE	100	-	-
OVERALL (THEORY, PRACTICAL, VIVA VOCE)			300	600

*** U.E. – University Examinations**

B. Part II M.D.S. Degree examinations in any branch of study shall consist of dissertation, written paper (Theory), Practical/Clinical and Viva voce.

a) Dissertation: Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

b) Written Examination (Theory): The written examination shall consists of four question papers of 3 hours duration ,total marks for each paper will be 75.Paper I,II,III shall consists of two long essays of 20 marks each and five short essays of 7 marks each. Paper IV will have one essay(either or) for 75 marks.

c) Practical Clinical Examination:

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures. It should also aim at testing student's ability to make relevant and valid observations, interpretation and inference of laboratory or experimental or clinical work relating to his / her subject for undertaking independent work as a specialist.

The total marks for practical / clinical examination shall be 200 marks.

d) Viva Voce:

Viva-Voce examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 100 and the distribution of marks shall be as under:

Duration of viva voce for each candidate	-	1hr
i. Viva voce examination	-	80 marks
ii. Dissertation/ Pedagogy	-	20 marks

		100 marks

e) Examiners:

There shall be at least four examiners in each branch of study. Out of four, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the University and Dental Council of India from time to time.

f) Qualification & Experience for examiners:

1. He should possess qualification and experience not less than that recommended for a teacher for Post graduate degree programme.
2. No person who is not an active postgraduate teacher in the subject can be appointed as examiner
3. 50% of the external examiners shall be from outside the state.
4. Reciprocal arrangement of examiners should be discouraged, in that, the internal examiner in a subject should not be accepted external examinership for a college from which external examiner is appointed in his subject.
5. No person shall be an external examiner for the same institution for more than two consecutive years. However if there is a break of one year the person can be re-appointed.

(MODEL QUESTION PATTERN)
M.D.S. (PART – I) DEGREE EXAMINATIONS

Time : 3 Hours

Max. Marks : 120

PAPER – I
SECTION – A
PART – A (5 x 2 = 25 Marks)
ANATOMY

Answer All the Questions

1. -----
2. -----
3. -----
4. -----
5. -----

PART – B (5 x 6 =25 Marks)
PHYSIOLOGY

Answer All the Questions

6. -----
7. -----
8. -----
9. -----
10. -----

PART – C (5 x 5 = 25 Marks)
PATHOLOGY

Answer All the Questions

11. -----
12. -----
13. -----
14. -----
15. -----

PART – D (45 x 1 = 45 Marks)

Answer All the Questions

MULTIPLE CHOICE QUESTIONS

(45 QUESTIONS – 15 FROM EACH - ANATOMY, PHYSIOLOGY AND PATHOLOGY)

**(MODEL QUESTION PATTERN)
M.D.S. (PART – I) DEGREE EXAMINATIONS**

Time : 3 Hours

Max. Marks : 120

PAPER – II

**SECTION – A, SECTION – B AND SECTION – C OPTIONAL SUBJECTS FOR EACH
BRANCH**

SECTION – A

BIOSTATISTICS AND RESEARCH METHODOLOGY

PART – A (5 x 2 = 10 Marks)

Answer All the Questions

- 16. -----
- 17. -----
- 18. -----
- 19. -----
- 20. -----

PART – B (5 x 6 = 30 Marks)

Answer All the Questions

- 21. -----
- 22. -----
- 23. -----
- 24. -----
- 25. -----

SECTION – B

MATERIALS USED IN PROSTHODONTIA

PART – A (5 x 2 = 10 Marks)

Answer All the Questions

- 1. -----
- 2. -----
- 3. -----
- 4. -----
- 5. -----

PART – B (5 x 6 = 30 Marks)

Answer All the Questions

6. -----.
7. -----.
8. -----.
9. -----.
10. -----.

**SECTION – C
NUTRITION**

PART – A (5 x 2 = 10 Marks)

Answer All the Questions

1. -----.
2. -----.
3. -----.
4. -----.
5. -----.

PART – B (5 x 6 = 30 Marks)

Answer All the Questions

6. -----.
7. -----.
8. -----.
9. -----.
10. -----.

**MDS PAPER I , II, AND III
(MODEL QUESTION PATTERN)
M.D.S. (PART –II) DEGREE EXAMINATIONS
SRM UNIVERSITY**

Time : 3 Hours

Max. Marks : 75

PART – A (2 x 20 = 40 Marks)

Answer All the Questions

- 1. -----.
- 2. -----.

PART – B (5 x 7 = 35 Marks)

Answer All the Questions

- 3. -----.
- 4. -----.
- 5. -----.
- 6. -----.
- 7. -----.
- 8. -----.
- 9. -----.
- 10. -----.

**FOR MDS PAPER IV
(MODEL QUESTION PATTERN)
M.D.S. (PART –II) DEGREE EXAMINATIONS
SRM UNIVERSITY**

Time : 3 Hours

Max. Marks : 75

PART – A (1 x 75 = 75 Marks)

Answer All the Questions

1. -----

[OR]

2. -----

a) Criteria for declaring as Pass:

To pass in the university examination, a candidate shall secure in both theory examination and in the practical / clinical including viva voce independently an aggregate of 50% of total marks allotted [150 marks out of 300 marks for theory and 150 marks out of 200 marks for clinical + 100 marks for viva voce together].

A candidate who scores 360 marks & more out of the total 600 marks will be declared as passed with First class. A candidate who scores 450 marks and more out of the total 600 marks will be declared as pass in first class with distinction.

b) Number of passes:

- i. A candidate registered for 3 years MDS Post Graduate dental course must qualify in the examinations within five years of the date of his / her admission.
- ii. However, a candidate shall be permitted to undergo a further period of study and training of minimum six months duration in a recognised Post Graduate department in the speciality in an Institution approved by Dental Council of India for every subsequent appearance beyond five years up to a maximum of 2 appearances.
- iii. The candidate should submit a certificate of study and training from the Head of the Institution to Controller of Examinations of this University along with his / her application for admission to every subsequent examination.
- iv. The candidates will not be, however, permitted to appear for more than 7 attempts in the final examination and shall be discharged from the course if he / she fail to pass in such attempts.

SYLLABUS**M.D.S. PART – I**

MDS101	PAPER – I - APPLIED BASIC SCIENCES
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Applied Anatomy, Applied physiology, Applied pathology : (common to all branches).

APPLIED ANATOMY

- Development and growth of face, teeth and jaws, Age changes and evaluation of mandible in detail.
- Congenital abnormality of orofacial regions
- Paranasal sinuses and associated structures and their anomalies
- Surgical anatomy of scalp , temple and face
- Anatomy and its applied aspects of triangles of neck
- Deep structures of neck
- Cranial facial bones and surrounding soft tissues
- Cranial nerves
- Tongue
- Temporal and infratemporal region and Temporomandibular joint in detail
- Orbits and its contents
- Muscles of face and neck
- Thyroid and parathyroid glands
- Larynx, Trachea and oesophagus
- General consideration of the structure and function of brain and applied anatomy of intracranial venous sinuses
- Cavernous sinus and superior sagittal sinus
- Brief consideration of autonomous nervous system of head and neck
- Functional anatomy of mastication
- Deglutition, Speech
- Respiration and circulation
- Histology of skin, oral mucosa, connective tissue, bone, cartilage, cellular elements of blood vessels, Lymphatic , Nerves, Muscles

- Tooth and its surrounding structures
- Cross – sectional Anatomy of the head and neck, as applied in CT, MRI Interpretation.
- Salivary glands – Anatomy, Embryology and Histology

APPLIED PHYSIOLOGY

- Nervous system – physiology of nerve conduction, pain pathway, sympathetic and parasympathetic nervous system, hypothalamus and mechanism of controlling body temperature.
- Blood - its composition hemostasis, blood dyscrasias and its management, hemorrhage and its control, blood grouping, cross matching, blood component therapy, complications of blood transfusion, blood substitutes, auto transfusion, cell savers.
- Digestive system - composition and functions of saliva, mastication, deglutition, digestion, assimilation, urine formation, normal and abnormal constituents.
- Respiratory system – respiration control of ventilation, anoxia, asphyxia, artificial respiration, hypoxia – type and management
- CVS - cardiac cycle, shock, heart sounds, blood pressure, hypertension
- Endocrinology - metabolism of calcium , endocranial activity and disorder relating to thyroid gland, parathyroid gland, adrenal gland, pituitary gland, pancreas and gonads.
- Nutrition – general principles balanced diet, effect of dietary deficiency, protein energy malnutrition, kwashiorkor, marasmus, nutritional assessment, metabolic responses to stress, need for nutritional support , enteral nutrition, routes of access to GIT, parenteral nutrition, access to central veins, nutritional support
- Fluid and electrolytic balance / acid base metabolism – the body fluid compartment, metabolism of water and electrolytes, factors maintaining hemostasis causes for treatment of acidosis and alkalosis.

APPLIED PATHOLOGY

- Inflammation – acute and chronic inflammation, repair and regeneration, necrosis and gangrene and role of component system in acute inflammation, role of arachidonic acid and its metabolites in acute inflammation, growth factors in acute inflammation role of NSAIDS in inflammation, cellular changes in radiation injury and its manifestations.
- Wound management - wound healing factors influencing healing, properties of suture materials, and appropriate uses of sutures.

- Hemostasis - role of endothelium in thrombogenesis, arterial and venous thrombi, disseminated intravascular coagulation.
- Hypersensitivity - shock and pulmonary failure, types of shock, diagnosis, resuscitation, pharmacological support , ARDS and its causes and prevention, ventilation and support
- Neoplasia - classification of tumours, carcinogens and carcinogenesis, spread of tumors, characteristics of benign and malignant tumors, grading and staging of tumours various laboratory investigation.
- Chromosomal abnormalities with oro-facial manifestations.
- Basics of immunology – primary and acquired immunodeficiencies.

MDS102

BIostatistics and Research Methodology and Electives

BIostatistics and Research Methodologies:**Over all Objectives:**

To enable the students to apply the basic concepts of statistics and principles of scientific enquiry in planning and evaluating the results of dental practice and participate in and conduct descriptive exploratory and survey students in dental and evaluate apply results of research studies in health, dental medicine and related fields in the practice of dental.

Behavioural Objectives:

The student is able to

- Design a study, identifying a population and methods of selection of the sample required
- Present data in appropriate tables, graphs and diagrams.
- Calculate averages, variations, linear correlation and regression.
- Calculate the confidence intervals and simple tests of significance using normal “t” and chi-square distributions.
- Compute commonly used vital and health statistical and estimate population using arithmetic progression methods
- Construct instruments for eliciting data through questioning observation and measurement methods and techniques.
- Quantify, analyze, describe and interpret data.
- Critique dental studies.
- Select and write clear statement of a researchable problem.
- Search and analyze the literature for facts and theory relating to problem.
- Identify and state relevant assumptions and hypothesis.
- Make recommendations on the findings for application to nursing and further research.
- Prepare and write a scientific report of the study

Units	Description
I	Introduction and overview of Biostatistics Scope of biostatistics Biostatistics in Dentistry Applying study results to patient care
II	2.1 Review of descriptive statistics (Central tendency, dispersion, plotting) 2.2 Correlation and regression
III	3.1 Testing of statistical Hypothesis 3.2 Statistical interference with mean proportion and normal deviate 3.3 Sampling distributions
IV	4.1 ANOVO (one way & Two way Classification) 4.2 Non-parametric tests a) Sign test b) Wilcoxon signed rank tests c) Main Whitney Run Test d) Wald Wolfwith Run test e) Krushl Wallis test
V	5.1 Concept of research & Research process 5.2 Principles and various Methods of research process 5.3 Utilization of research, result section of a research report & Conclusions 5.4 The Checklist for the reading literature

NUTRITION

Course Description : The course is designated to assist the students to acquire knowledge of nutrition for maintenance of optimal health at different stages of life and its application for practise of nursing.

Learning Objectives :

- Describe the relation between nutrition and health care.
- Describe the classification, functions, sources and recommended daily allowances [RDA] of carbohydrates.
- Describe the classification, functions, sources and recommended daily allowances [RDA] of proteins.
- Describe the classification, functions, sources and recommended daily allowances [RDA] of fats.

- Describe the daily calorie requirement for different categories of people.
- Describe the classification, functions, sources and recommended daily allowances [RDA] of vitamins.
- Describe the classification, functions, sources and recommended daily allowances [RDA] of minerals.
- Describe the sources, functions and requirements of water and electrolytes.
- Describe the cookery rules and preservation of nutrients.
- Prepare and serve simple beverages and different types of people.
- Describe and plan balanced diet for different categories of people.
- Describe various national programmes related to nutrition.
- Describe the role of nurse in assessment of nutritional status and nutrition education.

Unit I : Introduction

- Role Of Nutrition In Maintaining Health
- Role Of Food & Its Medicinal Value
- Classification Of Food
- Calorie, BMR

Unit II : Carbohydrates

- Classification
- Caloric Value
- Dietary Sources
- Digestion, Absorption & Storage, Metabolism Of Carbohydrates
- Malnutrition : Deficiencies & Over Consumption

Unit III : Fats

- Classification
- Caloric Value
- Dietary Sources
- Functions
- Malnutrition : Deficiencies & Over Consumption

Unit IV : Proteins

- Classification
- Caloric Value
- Recommended Daily Allowances
- Dietary Sources
- Functions
- Digestion, Absorption, Metabolism & Storage
- Malnutrition : Deficiencies & Over Consumption

Unit V : Energy

- Energy Requirements Of Different Categories Of People
- Body Mass Index [Bmi] & Basic Metabolism
- Basal Metabolic Rate [Bmr] – Determination & Factors Affecting

Unit VI : Vitamins

- Classification
- Recommended Daily Allowances
- Dietary Sources
- Functions
- Absorption, Synthesis, Metabolism, Storage & Excretion
- Deficiencies
- Hypervitaminosis

Unit VII : Minerals

- Classification
- Recommended Daily Allowances
 - Dietary Sources
 - Functions
 - Absorption, Synthesis, Metabolism, Storage & Excretion
 - Deficiencies
- Over Consumption And Toxicity

Unit VIII : Water & Electrolytes

- Water : Daily Requirement, Regulation Of Water Metabolism, Distribution of Body Water
- Electrolytes : Types, Sources, Composition Of Body Fluids
- Maintenance Of Fluid & Electrolyte Balance
- Over-Hydration, De-Hydration & Water Intoxication
- Electrolyte Imbalances

PHARMACOLOGY

TOPICS

Definition of terminologies used.

Dosage and mode of administration of drugs

Action and fate of drugs in the body

Drug addiction, tolerance and hypersensitive reactions.

I. Chemotherapy of Microbial diseases:

1. Beta-Lactam Antibiotics
2. Quinolones
3. Tetracyclines and Chloramphenicol
4. Amino-Glycosides
5. Nitroimidazoles
6. Macrolide Antibiotics
7. Cotrimoxazole
8. Miscellaneous anti-microbial drugs
 - a) Clindamycin
 - b) Linezolid
9. Probiotics
10. Anti-Fungal agents
11. Anti-Viral Agents – with specific emphasis on treatment of viral infections affecting the oral cavity and anti-retroviral therapy
12. Chemotherapy of Tuberculosis
13. Chemotherapy of Leprosy

II. Drugs acting on Central nervous System

1. Non-steroidal anti-inflammatory drugs
2. Opioid Analgesics and antagonists
3. Sedative Hypnotics
4. Skeletal Muscle relaxants – Centrally and peripherally acting agents
5. Local Anaesthetics
6. Pre-Anaesthetic Medication and intravenous anaesthetics
7. Drug Therapy of Neuralgias
8. Drug Therapy of Migrane

III. Drugs acting on Endocrine system

1. Adreno-corticosteroids
2. Anti Diabetic drugs

3. Drugs affecting Calcium Homeostasis

IV. Drugs acting on the cardio-vascular system

1. Anti-Hypertensive drugs
2. Drug Therapy of shock

V. Drugs acting on blood

1. Coagulants, Styptics and Anti-coagulants
2. Anti-Platelets drugs

VI. Drugs acting on Gastro-Intestinal System

1. Drugs used in the treatment of Peptic Ulcer disease
2. Anti-Emetics

VII. Autocoids

1. Anti Histamines – H1 receptor blockers

VIII. Adverse Drug Effects – Oral Manifestations

IX. Medical Emergencies

1. Status Asthmaticus
2. Status Epilepticus
3. Hypertensive emergencies
4. Acute Myocardial Infarction
5. Acute attack of Angina pectoris

X. Miscellaneous Agents

1. Enzymes in dentistry
2. Immuno-Modulator drugs in dentistry
3. Antiseptics and disinfectants
4. Vitamins B complex , C, A, D, E & K
5. Anti-Oxidants
6. Fluorides
7. Haematinics
8. Sialogogues and Anti-sialogogues

GENETICS, GROWTH AND DEVELOPMENT:

Genetics

- Principle of Oro – Facial genetics
- Molecular basis of genetics
- Counseling
- Dento – Facial anomalies
- Anatomical, Physiological and Pathological characteristics of major groups of development defects of the oro – facial structures

Growth and Development

- Pre – natal and Post natal development of cranium, face and jaws
- Teeth and supporting structures
- Chronology of dental development and development of occlusion
- Dimensional changes in dental arches
- Cephalometric evaluation of growth

BASIC EPIDEMIOLOGY (PUBLIC HEALTH DENTISTRY)

- Definition and aims, general principles.
- Multifactorial causation, natural history, risk factors.
- Methods in epidemiology, descriptive, analytical, experimental and classic epidemiology of specific diseases, uses of epidemiology.
- Duties of epidemiologist.
- General idea of method of investigating chronic diseases, mostly noninfectious nature, epidemic, endemic, and pandemic.
- Ethical consideration in any study requirement.
- New knowledge regarding ethical subjects.
- Screening of diseases and standard procedures used.

MATERIALS IN PEDODONTICS AND PREVENTIVE DENTISTRY

- Introduction, Characteristics & ideal requirements of Dental materials
- Classification, structure, physical mechanical chemical & biological characters of Dental materials.
- Classification of metals (structure, composition, properties)
- Impression materials (classification, composition, mixing & handling disinfection, application of impression material)
- Gypsum products:- objectives, composition, types, handling, characteristics & application of gypsum products.
- Resins, abrasive & polishing agents / luting cement

M.D.S - PUBLIC HEALTH DENTISTRY**OBJECTIVES**

At the end of 3 years of training, the candidate should be able to

1) Knowledge:

- Apply basic sciences knowledge regarding etiology, diagnosis and management of the prevention, promotion and treatment of all the oral conditions at the individual and community level.
- Identify social, economic, environmental and emotional determinants in a given individual patient or a community for the purpose of planning and execution of Community Oral Health Programme.
- Ability to conduct Oral Health Surveys in order to identify all the oral health problems affecting the community and find solutions using multi – disciplinary approach.
- Ability to act as a consultant in Community Oral Health, teach, guide and take part in research (both basic and clinical), present and publish the outcome at various scientific conferences and journals, both national and international.

2) Skills and Attitude:

- Take history, conduct clinical examination including all diagnostic procedures to arrive at diagnosis at the individual level and conduct survey of the community at state and national level of all conditions related to oral health to arrive at community diagnosis.
- Plan and perform all necessary treatment, prevention and promotion of Oral Health at the individual and community level.
- Plan appropriate Community Oral Health Programme, conduct the programme and evaluate, at the community level.
- Ability to make use of knowledge of epidemiology to identify causes and plan appropriate preventive and control measures.
- Develop appropriate person power at various levels and their effective utilization.
- Conduct survey and use appropriate methods to impart Oral Health Education.
- Develop ways of helping the community towards easy payment plan, followed by evaluation for their oral health care needs.
- Develop the planning, implementation, evaluation and administrative skills to carry out successful Community Oral Health Programmes.

3) Values:

- Adopt ethical principles in all aspects of Community Oral Health Activities.
- To apply ethical and moral standards while carrying out epidemiological research.
- Develop communication skills, in particular to explain the causes and prevention of oral diseases to the patient.
- Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed and promote teamwork approach.
- Respect patient's rights and privileges including patient's right to information and right to seek a second opinion

4) Communication abilities:

- At the conclusion of the course, the student should be able to communicate the needs of the community efficiently, inform the society, policy makers and government of all the recent methodologies in preventing oral disease.

MDS ACADEMIC QUOTA

S.No	Details	Quantity (per student)
1	Seminars	15
2	Journal clubs and critical evaluation	30
3	Pedagogy	10
4	Main dissertation	1
5	Short term papers	2
6	Library dissertation	2
7	Paper and poster presentation at National Conference (atleast one in IAPHD)	2
8	Attempt to publish scientific paper	1
9	Attending national conference	2

MDS CLINICAL QUOTA

S.No	Details	Quantity (per student)
1	Long cases	75
2	Short cases	50
3	Comprehensive cases	30
4	Preventive procedures	10 cases each procedure
5	Indices	5 cases each index

Structured Training Schedule**First Year**

S.no	Details	Quantity (per student)
1	Seminars (Basic Science)	5
2	Journal clubs	10
3	Library dissertation	1

- Submission of synopsis for main dissertation – within 12 months.
- Periodic review of main dissertation at two monthly intervals.

Clinical Training:

- 1) Clinical assessment of patient.
- 2) Learning different criteria and instruments used in various oral indices -5 case each

- Oral Hygiene Index – Greene and Vermillion
- Oral Hygiene Index – Simplified
- DMF – DMF (T), DMF (S), def
- Fluorosis Indices –

Dean's Fluorosis Index,

Tooth Surface Index for Fluorosis,

Thylstrup and Fejerskov Index

- Community Periodontal Index (C.P.I) and CPITN
- Plaque Index and Gingival index
- Silness and Loe
- W.H.O. Oral Health Assessment Form – 1997
- Comprehensive oral health care treatment and Maintaining complete records for 10 patients.
- Learning other relevant indices as per the case.

Field Programme:

1) Carrying out preventive programmes and health education for school children of the adopted school.

2) Learning school based preventive programmes –

- Topical Fluoride application –

Sodium Fluoride,

Stannous Fluoride,

Acidulated Phosphate Fluoride preparations and Fluoride varnishes,

Fluoride mouth rinses.

- Pit and Fissure Sealant –

Chemically cured (G.I.C.) and light cured.

- Minimal Invasive Treatment –

Preventive Resin Restorations (PRR),

Atraumatic Restorative Treatment (A.R.T.).

3) Organizing and carrying out dental camps in both urban and rural areas.

4) Visit to slum, water treatment plant, sewage treatment plant, and Milk dairy, Public Health Institute, Anti-Tobacco Cell, Primary Health Center and submitting reports.

5) In addition, the postgraduate shall guide the under graduate students in their clinical and field programmes.

6) Attending posting at dental satellite centers / nodal centers.

Second Year

S.no	Details	Quantity (per student)
1	Seminars (Public Health and Dental Public Health)	5
2	Journal clubs and critical evaluation	10
3	Short term research projects	2
4	Pedagogy	5

- Submission of library dissertation
- Periodic review of main dissertation at monthly intervals.

Clinical Training –

1) Clinical assessment of patient. 10 cases , along with treatment planning
 2) Learning different criteria and instruments used in various oral indices ---- 5 cases each

- Oral Hygiene Index – Greene and Vermillion.
- Oral Hygiene Index – Simplified.
- DMF – DMF (T), DMF (S) and def .
- Fluorosis Indices –

Dean's Fluorosis Index,

Tooth Surface Index for Fluorosis,

Thylstrup and Fejerskov Index.

- Community Periodontal Index (CPI) and CPITN
- Plaque Index and Gingival index
- Silness and Loe.
- W.H.O. Oral Health Assessment Form – 1997.
- Comprehensive oral health care treatment and Maintaining complete records-----10 patients.
- Learning about all preventive procedures.

Field Programme

1) Carrying out school dental health education and School based preventive programmes •
 Topical Fluoride application –
 Sodium Fluoride,
 Stannous Fluoride,

Acidulated Phosphate Fluoride preparations and Fluoride varnishes,
Fluoride mouth rinses.

- Pit and Fissure Sealant –
Chemically cured (GIC) and light cured.

- Minimal Invasive Treatment –
Preventive Resin Restorations (PRR),
Atraumatic Restorative Treatment (ART).

3) Organizing and carrying out dental camps in both urban and rural areas.

4) Assessing oral health status of various target groups like School children, Expectant mothers handicapped, Underprivileged and Geriatric populations. Planning dental manpower and financing dental health care for the above group.

5) Planning total health care for school children in an adopted school:

a) Periodic surveying of school children.

b) Incremental dental care.

c) Comprehensive dental care.

6) Organizing and conduction community oral health surveys for all oral conditions – 3 surveys.

7) In addition, the post graduate shall guide the under graduate students in their clinical and field programmes.

8) Attending posting at dental satellite centers / nodal centers

Third Year

S.no	Details	Quantity (per student)
1	Seminars (recent advances in preventive dentistry)	5
2	Journal clubs and critical evaluation	10
3	Pedagogy	5

- Completion and submission of main dissertation.

Clinical Training:

1) Clinical assessment of patient.

2) Learning different criteria and instruments used in various oral indices ----- 5 cases each

- Oral Hygiene Index – Greene and Vermillion.

- Oral Hygiene Index – Simplified.

- DMF – DMF (T), DMF (S).

- Def t/s.

- Fluorosis Indices –

Dean's Fluorosis Index,

Tooth Surface Index for Fluorosis,

Thylstrup and Fejerskov Index.

- Community Periodontal Index (CPI).

- Plaque Index –

Silness and Loe.

- W.H.O. Oral Health Assessment Form – 1997.

- Comprehensive oral health care treatment and Maintaining complete records-----
10 patients.

3) Carrying out school dental health education.

4) School based preventive programmes:

- Topical Fluoride application –

Sodium Fluoride, Stannous Fluoride, Acidulated Phosphate Fluoride preparations and Fluoride varnishes.

- Pit and Fissure Sealants.

- Minimal Invasive Techniques –

Preventive Resin Restorations (PRR), Atraumatic Restorative Treatment (ART), recent advances in arresting caries (carisolve etc)

5) Exercise on solving community health problems – 10 problems.

6) Application of the following preventive measures in clinic -----10 cases each :

- Topical Fluoride application – Sodium Fluoride, Stannous Fluoride, Acidulated Phosphate Fluoride preparations.

8) Dental health education training of school teachers, social workers, health workers.

9) Posting at dental satellite centers / nodal centers.

10) In addition, the post graduate shall assist and guide the under graduate students in their clinical and field programme

SCHEME OF EXAMINATION:

THEORY PART II:

Paper I: Public health

Paper II: Dental public health

Paper III: Preventive dentistry

Paper IV : Essay with Emphasis on Recent advances

PRACTICAL EXAMINATION:

In case of practical examination, it should be aimed at assessing the competence and skills of techniques and procedures. It should aim at testing student's ability to make relevant and valid observations, interpretation and inference of clinical and field work relating to public health dentistry. The student must be competent enough to plan and formulate various public health programmes.

Total marks for practical examination will be 300 marks. The distribution will be as follows:
The exam will be conducted for two working days.

The first day will consist of the following,

- | | |
|--|----------|
| A) Long case presentation with chair side viva ,
Indices and WHO format recording | 50 marks |
| B) Short case sheet with preventive procedure | 50 marks |
| C) Problem solving | 50 marks |
| D) Critical evaluation of a given research article | 50 marks |

The second day of the exam will consist of:

- | | |
|---|----------|
| E) Pedagogy / Dissertation presentation | 20 marks |
| F) Grand viva | 80 marks |

M.D.S PART- II SYLLABUS

MDS271A	PUBLIC HEALTH
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Public Health, Health, Disease, General Epidemiology, Environmental Health, Public Health Education, Public Health Practice & Administration, Ethics & Jurisprudence, Nutrition in Public Health, Behavioural Science, Hospital Administration, Health Care Delivery System, Research Methodology & Biostatistics.

1. Public Health:

- Definition, concepts and philosophy of dental health.
- History of public health in India and at International level.
- Terminologies used in public health.

2. Health:

- Definition, concepts and philosophy of health.
- Health indicators.
- Community and its characteristics and relation to health.

3. Disease:

- Definition, concepts.
- Multifactorial causation, natural history, risk factors.
- Disease control and eradication, evaluation and causation, infection of specific diseases.
- Vaccines and immunization.

4. General Epidemiology:

- Definition and aims, general principles.
- Multifactorial causation, natural history, risk factors.
- Methods in epidemiology, descriptive, analytical, experimental and classic epidemiology of specific diseases, uses of epidemiology.
- Duties of epidemiologist.
- General idea of method of investigating chronic diseases, mostly noninfectious nature, epidemic, endemic, and pandemic.
- Ethical consideration in any study requirement.
- New knowledge regarding ethical subjects.
- Screening of diseases and standard procedures used.

5. Environmental Health:

- Impact of important components of the environment of health.
- Principles and methods of identification, evaluation and control of health hazards.
- Pollution of air, water, soil, noise, food.
- Water purification, international standards of water.
- Domestic and industrial toxins, ionizing radiation.
- Occupational hazards.
- Waster disposal – various methods and sanitation.

6. Public Health Education:

- Definition, aims, principles of health education.
- Health education methods, models, contents, planning health educational programmes.

7. Public Health Practice and Administration System in India.

8. Ethics and Jurisprudence:

- Basic principles of law.
- Contract laws – dentist – patient relationship & Legal forms of practice.
- Dental malpractice.
- Person identification through dentistry.
- Legal protection for practicing dentist.
- Consumer protection act.

9. Behavioural Sciences:

- Definition and introduction.
- Sociology: social class, social group, family types, communities and social relationships, culture, its effect on oral health.
- Psychology: definition, development of child psychology, anxiety, fear and phobia, intelligence, learning, motivation, personalities, fear, dentist-patient relationship, modeling and experience.
- Anthropology: Introduction and definition, evolution of man, human race, appreciation of the biological basis of health and disease, various studies of different races by anthropological methods. Rural and urban society-structure, differences, beliefs, customs, values related to health in general and oral health in particular, child development and fear, dentist-patient relationship, modeling and experience.

10. Hospital Administration:

- Departmental maintenance, organizational structures.
- Types of practices.
- Biomedical waste management.
- Over view of hospital system.
- Importance and challenges in hospital administration.

11. Health Care Delivery System:

- International oral health care delivery systems – Review.
- Central and State system in general and oral health care delivery system, if any.
- National Oral health policy.
- National health programme.
- Primary health care – concepts, oral health in P.H.C. and its implications.
- National and International health organizations.
- Dentists Act 1948, Dental Council of India, Ethics, Indian Dental Association.
- Role of W.H.O. and Voluntary organizations in Health Care for the Community.

12. Research Methodology and Biostatistics:

Health Informatics: Basic understanding of computers and its components, operating software (Windows), Microsoft office, preparation of teaching materials like slides, multimedia knowledge.

Research Methodology: Definitions, types of research, designing written protocol for research, objectivity in methodology, quantification, records and analysis.

Biostatistics: introduction, applications, uses and limitations of bio-statistics in Public Health dentistry, collection of data, presentation of data, measures of central tendency, measures of dispersion, methods of summarizing, parametric and non parametric tests of significance, correlation and regression, multivariate analysis, sampling and sampling techniques – types, errors, bias, trial and calibration.

Computers – Basic operative skills in analysis of data and knowledge of multimedia.

MDS272A**DENTAL PUBLIC HEALTH**

Dental Public Health, Epidemiology of Oral Diseases, Oral Surgery Procedures, Delivery of Dental Care, Payment for Dental care, Evaluation of Quality of Dental Care, Preventive Dentistry and Practice Management, planning and evaluation and forensic medicine and pathology.

1. Dental Public Health:

- History.
- Definition and concepts of dental public health.
- Differences between clinical and community dentistry.
- Critical review of current practice.
- Dental problems of specific population groups such as chronically ill, handicapped and institutionalized group.
- Theory of dental public health.
- Hobbies and norms.

2. Epidemiology of Oral Diseases and Conditions:

- Dental caries, gingival, periodontal disease, malocclusion, dental fluorosis, oral cancer, TMJ disorders and other oral health related problems.

3. Oral Survey Procedures:

- Planning.
- Implementation.
- W.H.O. basic oral health methods 1997.
- Indices for dental diseases and conditions.
- Evaluation.

4. Delivery of Dental Care:

- Dental person power – dental auxiliaries.
- Dentist – population ratios.
- Public dental care programmes.

- School dental health programmes – Incremental and comprehensive care.
- Private practice and group practice.
- Oral health policy – National and International policy.
- National and international system or detailed system.

5. Payment for Dental care:

- Prepayment.
- Fee for service
- Post-payment.
- Reimbursement plans.
- Voluntary agencies.
- Health insurance.

6. Evaluation of Quality of Dental Care:

- Problems in public and private oral health care system programme.
- Evaluation of quality of services, governmental control.
- Cost control and analysis.
- Aseptic maintenance.

7. Practice Management:

- Definition.
- Principles of management of dental practice and types.
- Organization and administration of dental practice.
- Ethical and legal issues in dental practice.
- Current trends.

8. Planning and Evaluation:

- Definition.
- Steps in planning and evaluation.
- Types

- Uses
- Current trends

9. Forensic medicine and Pathology

- History of forensic odontology
- Bite marks on the living and deceased
- Saliva, semen, cytology and blood groups, DNA “finger printing”
- Non-Biological methods of identification
- Recording methods and preparation of reports
- Soft tissue injuries (the differential diagnosis of the causative agent)
- The bio-dynamics of cranio-facial injuries
- Field-kit
- Disaster Victim Identification(DVI)
- Exhumation
- Forensic Photography
- Forensic psychology/ psychiatry – offender profiling

MDS273A**PREVENTIVE DENTISTRY**

- Introduction to Preventive Dentistry
- Levels of prevention.
- Preventive oral health programmes – screening, health education and motivation.
- Prevention of all dental disease – dental caries, periodontal disease, oral cancer, dental fluorosis malocclusion and dentofacial anomalies.
- Role of dentist in prevention of oral diseases at individual and community level.
- Fluoride :-
 - History.
 - Mechanism of action.
 - Metabolism.
 - Fluoride toxicity.
 - Fluorosis.
 - Systemic and topical preparations.
 - Advantages and disadvantages of each.
 - Update regarding Fluorosis.
 - Epidemiological studies.
 - Methods of fluoride supplements.
 - Defluoridation techniques.
- Plaque control measures :-
 - Health Education.
 - Personal oral hygiene.
 - Tooth brushing technique.
 - Dentrifrices, mouth rinses.
- Pit and fissure sealant, A.R.T.
- Preventive oral health care for medically compromised individual.

- Update on recent preventive modalities.
- Caries vaccines. Dietary counseling Caries activity tests, Caries risk assessment; Sugar substitutes Minimal Invasive Dentistry, Salivary substitutes.
- Interceptive orthodontics-Habits, Space maintainers, Serial extraction, functional appliances.
- Screening tests for oral cancer and pre-cancerous lesions.
- Tobacco cessation programmes.

MDS274A	ESSAY WITH EMPHASIS ON RECENT ADVANCES
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M.D.S - PAEDODONTICS AND PREVENTIVE DENTISTRY

AIMS & OBJECTIVES:

The goals of the postgraduate education programme is to produce efficient and competent pedodontists who are excelled

- In Methodical Examination of child patient
- To Confer correct and proper diagnosis
- To in statute correct treatment modalities
- Well equipped clinical skills in basic life support protocols
- To acquire clinical skills in basic life support protocols
- To train them in various preventive protocols
- To increase their awareness about pre-natal counseling
- To employ a multi disciplinary approach in treating child patients

CLINICAL POSTINGS IN OTHER SPECIALITIES:

Candidates will be posted on rotation to the various departments during II & III YEAR

- A)Pediatric Surgery & Medicine
- B)Community Dentistry
- C)Orthodontics
- D)Oral Surgery & Anesthesiology
- E)Prosthodontics
- F)Periodontia

METHODS OF TRAINING: Shall be for full time with graded responsibilities as follows:

I a)Special Assignments:

School Health Programme: During the course, the candidate should submit a project of the work including schools and rural centres. The first and second year

PG's to actively participate in such programs.

b) Dissertation(library /University)

Topic to be selected within three months of joining and approved by guide and certified by HOD. Subject and the protocol to be approved by HOD and submitted before appearing for part I exams. Work should be original and registered in University. A scientific presentation of dissertation to be prepared and submitted.

II A) TEACHING ASSIGNMENTS

- Case presentation with detailed Discussion
- At least one scientific presentation per Year / Student in a National Or state conference / one Publication in an Indexed Journal.
- Seminar topics will be allotted by HOD one month prior to the date of presentation.
- Students should present in power point. Every student should submit a hard copy one week prior to the seminar.
- Journal clubs: Articles to be selected by HOD. 10 days prior to the date of presentation.
- Interdisciplinary approach to oro-facial deformities comprising of pediatrics, oral surgery, plastic surgery, speech therapy, psychology, anesthesiology, orthodontics and prosthodontics.
- To attend CDE / Workshop / conferences / advanced courses / .publications/symposium Lone department per month for interdisciplinary case presentation at clinical society meeting.

B) Utilization of Library:

- Students should use the library for 2 hours 1 day which will be checked by HOD Regularly.

GENERAL ASSESSMENT METHOD:

Monthly evaluation report will be maintained on a regular basis by HOD along with parent - teacher's assessment every 6 months.

MDS PART – II SYLLABUS

MDS281A	GENERAL PEDODONTICS
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- Child development - Principles and theories of growth and development effects of prenatal and post-natal factors. Details of anatomy (pedo) growth and development of skull, facial skeleton, dentition occlusion, psychological development of the child including personality, intelligence and emerging principles of development of social behavior and communication skills.
- Behaviour Management - Principles and Practice of behavior management including counseling and pain control. Behaviour management, objectives for sedation in pediatric dentistry/ definitions/pre- anesthetic medication/ opioids, sedatives & anti anxiety drugs / anti cholinergics / Neuroleptics H2 blockers / anti emetics
- Conscious sedation- Goals / indication / clinical considerations ASA class I / II / III / IV / procedure for conscious Sedation / sub mucosal/IV sedation /IV Sedation /Rectal sedation. Discharge criterious.
 - a. N2 sedation procedure protocols
 - b. Midazolam Oral
- Rectal
- Intra nasal
- Intra muscular
 - a. Chloral Hydrate
 - b. Profol
 - c. Ketamine
 - d. Zolpidem

G. A Need & objectives | indications | contraindications | class I, II, III, IV - sedation route | stages of anesthesia complications.

Plaque control mechanical | chemical | Disclosing solution - indication |

Dentifrices - composition.

Therapeutic Dentifrices

Tooth brushes- ADA specification | parts of tooth brushes/ freq & duration of brushes / Powered brushes/ Dental floss- Types | Technical prep | Nipl | insertion | cleaning stroke | additional methods/ precaution Age of children for flossing | inter- proximal brushes/ wooden tips /oral irrigation /devices/delivery methods / procedure/indication / contraindication / Mouth wash | chemotherapeutic agents/ chlorhexidine/essential oils /quaternary Ammonium compounds | plaque control for disabled child.

MDS282A**CLINICAL PEDODONTICS****PEDIATRIC ORAL MEDICINE & ORAL PATHOLOGY:**

- Ora manifestations of systemic conditions in children and their management.
- Principles of oral microbiology, immunology and Human genetics as applied to paedodontics.
- Pediatric oral medicine and clinical pathology
- Non pathological lesion of hard tissues
- Infection control
- Gingival periodontal diseases in children
- Dental emergency in children & their management

PEDIATRIC CONSERVATIVE / ENDODONTICS:

- Principles of Cariology & updates
- Pediatric Endodontics
- Traumatic injuries in children
- Pediatric Operative Dentistry

PEDIATRIC ORAL RADIOLOGY:

- Dental Radiology including recent trends in imaging
- Pediatric Dental Practice Management and utilization of Dental Auxiliaries
- Epidemiology
- Principles of oral hygiene, dental plaque, gingival & periodontal diseases in children
- Elements of nutrition and dental health in children

PEDIATRIC ORTHODONTIA

- Interceptive orthodontics Preventive orthodontics
- Oral habits
- Child abuse &
- Mixed dentition analysis & space Management

MDS283A	PUBLIC AND PREVENTIVE DENTISTRY
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1. Dental health: Principles & practice, primary healths are: Dental health education & promotion.
2. Dental health delivery systems & community health programs.
3. Preventive dentistry: Principles of children's preventive & community dentistry
4. Fluorides & trace elements in dentistry
5. Biostatistics & research methodology
6. Principles of epidemiology of dental diseases including Indian & Global prevalence
Dental Caries epidemiology / diagnosis/etiology/histopathology/management research studies conducted world wide.

MDS284A	ESSAY WITH EMPHASIS ON RECENT ADVANCES
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M.D.S - ORAL MEDICINE AND RADIOLOGY**GOALS:**

The goal of post graduate training course would be train dental graduates who will

- Practice the specialty of Oral Medicine and Radiology efficiently based on scientific knowledge and skill
- Exercise a sympathetic and caring attitude by maintaining high professional and ethical standards.
- Develop keen interest in Oral Medicine and Radiology in teaching institution, hospital and clinical practice.
- Should be a motivated teacher in Oral Medicine and Radiology and thereby share his / her knowledge and skills with colleagues, juniors or any learner.
- Be able to carry out a scientific study, case presentation and research projects and enable the skill of publishing his / her research works.

OBJECTIVES OF THE COURSE:**General objectives:**

The post graduates will be able to provide diagnostic / therapeutic care for patients with complex problems that are beyond the treatment skills of the general dentist and to demonstrate evaluative and judgment skills in making appropriate decisions regarding prevention, treatment and referral to deliver comprehensive care to patients by acquiring

- Knowledge
- Skills
- Attitude
- Communication abilities

Knowledge:

The candidate should possess basic and systematic knowledge on the following subjects.

- Diagnosis of oral diseases, diagnosis of systemic diseases through oral manifestations, investigatory methods to establish the diagnosis of oral and systemic diseases, therapeutics in the treatment of oral diseases and oral manifestations of systemic diseases, dental management of medically compromised patients.

- Basics of Dental Radiology, roentgenography, applications of advanced imaging in the dental practice, diagnostic interpretation through conventional radiography and advanced imaging techniques.
- Nutritional status of patients.
- General health conditions as related to oral medicine treatment.
- Identify cases, which are outside the area of this specialty / competence and refer them to appropriate specialists.
- Advice regarding case management involving surgical, interim treatment etc.
- Should attend continuing education programs, seminars and conferences related to Oral Medicine in thus updating himself / herself.
- Teach and guide his / her team, colleagues and other students.
- Should be able to use information technology tools and carry out research both basic and clinical, with the aims of publishing his / her work and presenting his / her work at various scientific fora.
- Essential knowledge of personal hygiene, infection control, prevention of cross infection and safe disposal of waste, keeping in view the risks of transmission of Hepatitis and HIV.

Skills:

- The candidate should be able to examine the patients with oral-systemic diseases clinically, investigate the patients systematically, analyze the investigation results, diagnose the ailment, plan a treatment, communicate it with the patient and execute it.
- Should be a fully qualified specialist demonstrating the clinical competence necessary to carry out appropriate treatment at level of knowledge, training and practice available in the specialty area.
- Perform radiographic and advanced imaging procedures with understanding of radiation and radiation protection related to radiographic, CT machine and have competent dexterity for providing radiographic diagnoses in maxillo facial region.
- Dental management of medically compromised patients in hospital admission, case sheet writing in patient care, drug administration through parenteral routes administration of IV fluids, transfusion medicine etc.

Attitude:

- Adopt ethical principles in oral medicine practice. Professional honesty and integrity are to be fostered. Treatment to be delivered irrespective of social status, cast, creed, religion of patient.

- Willing to share the knowledge and clinical experience with professional colleagues.
- Willing to adopt new methods and techniques in oral medicine from time to time based on scientific research, which is in the patients best interest.
- Respect patient's rights and privileges including patients right to information and right to seek second opinion.

Communicative Abilities:

- Develop communication skills, in particular, to explain treatment option available in management.
- Provide leadership and get the best out of his group in congenial working atmosphere.
- Should be able to communicate in simple understandable language with the patients and explain the principles of oral medicine to the patient. He should be able to guide and counsel the patient with regard to various treatment modalities available.
- Develop the ability to communicate with professional colleagues, through various media like internet, video conference, etc. to render the best possible treatment.

COURSE CONTENT:

The program outline addresses the knowledge, diagnostic and therapeutic skills needed in oral medicine and radiology practice. A minimum of three years of formal training through a graded system of education as specified will enable the trainee to practice oral medicine and radiology competently and have necessary skills/knowledge to update themselves with advancements in field.

The course content has been identified and categorized as essential knowledge as given under.

Essential knowledge:

The topics to be considered are:

Basic sciences

Oral medicine and Radiology

Specialty topics

Basic sciences:

A thorough knowledge on the applied aspects of anatomy, physiology, bio-chemistry, pathology and microbiology, bio chemistry, pharmacology. , as related to Oral Medicine and Radiology.

It is desirable to have adequate knowledge in bio-statistics research methodology and use of computers to develop necessary teaching skills in oral medicine and radiology.

Oral medicine and Radiology:

- Oral diagnosis
- Oral medicine
- Dental radiology
- Advanced imaging

TEACHING AND LEARNING ACTIVITIES:

Lectures:

Lectures are to be kept to a minimum. The following lectures should be integrated which are common topics to all specialties.

- Bio Statistics
- Use of Library
- Research Methods
- Code of Conduct and Ethics
- Communication skills.
- Computer Skills.
- Photography.

These topics should be taken during first six months of the first year.

Journal Club:

Recommended to be held twice a week. All the post graduate students are expected to attend and actively participate in the discussion and enter relevant details in the log book. Each student should present at least 15 articles from the selected journals during the 3 years. A timetable with name of the student and the moderator should be announced earlier.

Subject Seminar:

Subject Seminar should be held twice a week. All PG students are expected to attend and actively participate in the discussion and enter relevant details in the Logbook. Each candidate must present atleast 4 times a year and a total of 12 seminar presentations in three years. A timetable for the seminar with the moderator should be scheduled earlier.

Student Symposium:

Students Symposium recommended as an optional multi-disciplinary program. The evaluation may be similar to that described for subject seminar.

Inter-Departmental Meeting:

Strongly recommended in the following subjects:

- Periodontics
- Oral Surgery
- Orthodontics
- Oral Pathology

Teaching Skills:

The Postgraduate students should teach Under Graduate students, in the subject of diagnosis and diagnostic methods, examination and investigation.

A minimum of demonstrations and six lectures/ tutorials must be of Radiographic techniques IOPA and OPG addressed by the post graduates.

Continued dental education program (C.D.E)

Should attend at least 4 C.D.E programs related to Oral Medicine and Radiology.

Conferences:

Participation in conferences/ Presentation of papers

Minimum of one specialty conference per year

Minimum of one paper presentation per year.

Clinical Discussions:

Should be conducted on diagnosis, investigation, treatment planning of Oral diseases, interpreting a disease with various imaging technique.

Rotation & Postings in other Department:

It is desirable that the Post-Graduate students attend postings minimum of rotary postings 1hr/day and in following specialties.

- General Medicine - 3 months
- Dermatologic and STD clinics - 2 months
- Radiation Therapy - 2 months
- Radiation Diagnosis - 2 months

SCHEME OF EXAMINATIONS:

THEORY PART II

Paper 1 - Diagnostic methods, dental radiography and imaging

Paper 2 - Oral medicine, therapeutics and applied oral pathology

Paper 3 - Differential diagnosis in oral medicine and radiology

Paper 4 - Essay with Emphasis on Recent advances

CLINICAL EXAMINATION SCHEDULE

DAY 1:

- 1 Long case - 1 hr (1x 50 = 50 marks)
- 2 Short cases - 40 minutes (2x15 = 30 marks)
- 2 Spotters - 20 minutes (2x10 = 20 marks)

Radiology exercise

1 Intra Oral radiograph	-15 minutes	10 marks
1 occlusal radiograph	- 15 minutes	30 marks
2 extra oral radiograph (2 X 30)	- 1 hour	60 marks
(Including technique and interpretation)		

DAY 2:

PEDAGOGY / DISSERTATION PRESENTATION	30 minutes	- 20 marks
VIVA	1 hr	- 80 marks

CLINICAL EXAMINATION REQUIREMENTS

- 3 sets of plane and concave mouth mirror, straight explorer, curved explorer - 10 each
- CPITN probe - 1 each (WHO specification – 1)
- Moon's Probe - 1 each
- Tweezers - 3
- Torch - 1
- Metal scale - 2
- Measuring Tape - 1
- Magnifying lenses - 1
- Stethoscope - 1
- Cheek retractor – 2
- Caliper
- Stainless steel tray
- Disposable apron for patient

The candidate should also bring:

- Short case and long case records
- Slides and relevant materials for presentation and discussion of thesis/ dissertation
- Radiographs and CT, MRI prints, reference and case radiographs and CDs
- Photographic albums of cases completed

- Work completion record during post graduate training.
- Attendance certificate of conferences attended and presentations made during the conferences.

THE CLINICAL, PRACTICAL, VIVA VOCE AND DISSERTATION PRESENTATION IS OF TWO DAYS DURATION.

PROCEDURAL AND OPERATIVE SKILLS

1ST Year:

- | | | |
|-------------------------------|--|-------|
| 1. Examination of the patient | - Case history recordings | - 100 |
| | - FNAC | - 50 |
| | - Biopsy | - 50 |
| | - Observe, assist and perform under supervision. | |
| 2. Intra- Oral Radiographs: | - Perform and interpretation | -500 |

2ND Year:

Dental treatment to medically compromised patients :

Observe, assist and perform under supervision.

Extra- Oral radiographs, Digital radiography -20:

Observe, assist and perform under supervision.

OPERATIVE SKILLS:

1. Giving intra muscular and intra venous injections.
2. Administrations of oxygen and life saving drugs to the patients.
3. Performing basics CPR and certification by RED CROSS.

3RD Year:

All the above

- Perform independently – Case history: Routine cases – 100
- Interesting cases – 25
- Periapical View -100
- Bitewing View-50
- Occlusal View-50
- Extra oral radiographs of different views-100

* CLINICAL CASES: Will be allotted for radiographic projections after completion.

MDS Part – II SYLLABUS

Oral and Maxillofacial Radiology -

Study includes seminars, lectures, demonstrations, interpretations

1. History of Radiology, structure of x-ray tube, production and properties of x-rays
2. Biological effects of radiation
3. Filtration, collimation, grids, units of radiation
4. Films and recording media
5. Processing of image in radiology
6. Design of x-ray department, dark room and use of automatic processing image units
7. Object Localization techniques
8. Faults of dental radiographs and concepts of ideal radiograph
9. Quality assurance, Infection control and audit in dental radiology
10. Intra-oral techniques
11. Extra-oral imaging techniques
12. OPG and other radiographic techniques
13. Advanced imaging techniques like CT scan, CBCT, MRI, Ultrasound and Thermography
14. Radionuclide imaging techniques
15. Contrast radiography in salivary gland, TMJ and other radiolucent pathologies
16. Radiation protection and ICRP guidelines
17. Art of Radiographic reports, writing and description referred in reports
18. Radiographic differential diagnosis of radiolucent, radio-opaque and mixed lesions
19. Digital radiology and its various types of advantages
20. Implant radiology
21. Principles and basics of radiotherapy.

Oral Medicine, Therapeutics and Laboratory investigations

1. Study includes seminars, lectures, discussion
2. Methods of clinical diagnosis of oral and systemic diseases as applicable to oral tissue including modern diagnostic techniques
3. Laboratory investigations including special investigations of oral and oro-facial diseases.
4. Teeth in local and systemic diseases, congenital and hereditary disorders
5. Oral manifestations of systemic diseases

6. Oro-facial pain
7. Psychosomatic aspects of oral diseases
8. Management of medically compromised patients including medical emergencies in the dental chair
9. Congenital and Hereditary disorders involving tissues of oro facial region
10. Systemic diseases due to oral foci of infection
11. Hematological, Dermatological, Metabolic, Nutritional and Endocrinal conditions with oral manifestations
12. Neuromuscular diseases affecting Oro-facial region
13. Salivary gland disorders
14. Tongue in Oral and systemic diseases
15. TMJ dysfunction and diseases
16. Concept of immunity as related to Oro-facial lesions, including AIDS
17. Cysts, Neoplasm, Odontomes and fibro-osseus lesions
18. Oral changes in Osteo – dystrophies and chondrodystrophies
19. Premalignant and malignant lesions of orofacial region
20. Allergy and other miscellaneous conditions
21. Forensic odontology
22. Molecular biology
23. Ulcerative, vesiculobullous lesions
24. Evidence based oral care in treatment planning
25. Computers in Oral diagnosis and Imaging
26. Therapeutics in Oral Medicine- clinical pharmacology

PROPOSED WORK SCHEDULES FOR THE MDS PROGRAMME

I YEAR WORK SCHEDULE

THEORETICAL:

- Through knowledge of basic sciences & Dental materials .
 - Broad outline of Psychology Emotional development Growth & Development
 - Library Dissertation to be completed
 - Main Dissertation topic to be finalized & approved
 - Seminar presentations.
1. Neuroanatomy and trigeminal nerve
 2. Major and minor salivary glands
 3. Muscle physiology
 4. Facial, Glossopharyngeal and Hypoglossal nerve
 5. Orofacial pain
 6. Orofacial musculature
 7. Lymphatic drainage and head and neck
 8. Calcium and phosphate metabolism
 9. Blood supply of head and neck
 10. Nutrition in children
 11. Tongue in oral and systemic diseases
 12. TMJ dysfunction and diseases
 13. Isolation - Important methods and advantages
 14. Radiology in pediatric dentistry
 15. Drugs used in pediatric dentistry
 16. Management of children in dental office
 17. Pediatric emergencies in dental office
 18. Basics of inflammation and healing with applied clinical aspects (including dental abscess)
 19. Cysts and tumors of oro-facial organ (pediatric oral pathological conditions)
 20. Blood physiology and mechanism of clotting
 21. Oral manifestation of bleeding disorders in children
 22. Endocrinology (hormones and applied aspects in children)
 23. Saliva and oral health (emphasis on role of saliva in dental caries)
 24. Restorative materials

PRE CLINICAL:

Preclinical Work

- To be completed by first 6 months. Exercise to be entered in log book, daily signed by staff member and HOD. Exercise to be displayed for the final examinations.
- Student will be allotted clinical cases on completion of pre-clinical work. Cases to be entered in a log book, daily signed by staff member in charge and counter signed by HOD

PRE CLINICAL WORK SCHEDULE

S.No	Exercise	Signature
1	Drawing Album and Records <ol style="list-style-type: none"> 1. Table Showing Chronology of eruption of teeth 2. Table showing tooth dimensions 3. Pulp morphology 4. Development of dentition at different ages 5. Development of occlusion 6. Diagram showing cephalometric points, planes and angles 7. Table showing difference in cavity preparation in primary and permanent tooth 8. Mixed dentition analysis 9. Space management 10. Pulpal therapies 11. Principles of Soldering and Welding 12. Crowns used in Pediatric dentistry 13. Principles of Rubberdam 14. Brushing techniques 15. Serial Extractions 16. Fluoride application-Topical/Systemic 	
2	Models / Trays <ol style="list-style-type: none"> 1. Complete set up of dentition at age of 8 years 2. Complete set up of dentition at the age 10 years 3. Preparation of Special trays with lower and upper impressions of 3 years old child 4. Models of children with normal occlusion at age 3,7,11 and 14 years 5. Cephalograms - detailed seminar and album making at 3,7,11,13 years 	
3	Tooth Carving <ol style="list-style-type: none"> 1. Carvings of all deciduous teeth in wax and mounting 2. Mixed dentition (8 Years) in wax and mounting 3. Mixed dentition (10 Years) in wax and mounting 	

S.No	Exercise	Signature
4	<p>Restorative Dentistry</p> <ol style="list-style-type: none"> 1. Class I - Mesial and distal pit with palatal extension In 16 with amalgam 2. Class I - buccal extension in 36 with amalgam 3. Class II cavity in 54,55,64,65,74,75,84 and 85 4. Class II MOD in 55 	
5	<p>Pulp Therapy</p> <ol style="list-style-type: none"> 1. Pulpotomy in 75 2. Pulpectomy in extracted teeth 51,54 or 64,55 or 65,75 or 85,74 or 84 3. RCT in extracted teeth 16,22,23,36 or 46 4. Post and core crown on 11 or 21 5. Jacket crown on 12 or 22 and 31 or 41 	
6	<p>Orthodontic exercises / Wire bending exercises</p> <ol style="list-style-type: none"> 1. Straightening of wire (19 & 21 Gauge) 2. Square, Triangle, Circle, U Loop, V loop and UV loop (19 & 21 gauge) 3. Clasps -3 / 4 Clasp, Full Clasp, Adams clasp, Arrowhead clasp, Modified arrowhead clasp, Ball clasp 4. Labial bow - short, long, high with apron spring 5. Multiple loop exercises - Finger spring, Single cantilever, double cantilever, canine retractore, U- loop, Helical, Palatal canine retractors and Robert's retractor 	
7	<p>Soldering exercises</p> <ol style="list-style-type: none"> 1. Lamp post formation (19 & 21 gauge) 	
8	<p>Appliances</p> <ol style="list-style-type: none"> 1. Upper Hawley's appliance 2. Upper Hawley's appliance with finger springs Upper hawley's appliance with anterior bite plane 3. Upper Hawley's appliance with tongue spike 4. Upper Hawley's appliance with Expansion screw 5. Upper Hawley's appliance with double cantilever springs 6. Inclined plane 	

S.No	Exercise	Signature
	7. Activator 8. Oral Screen 9. Lip bumper 10. Obturator 11. Frankel I appliance 12. Cheek bite appliance	
9	Space maintainers	
	a Removable type	
	b Fixed type 1. Band and Loop (Short & Long) 2. Crown and loop 3. Transpalatal & Nance palatal arches 4. Lingual arch with canine stoppers 5. Space maintainer for guiding eruption of first permanent molar	
	c Space regainers for distalising first permanent molar 1. Removable type 2. Fixed type	
10	Mixed dentition analysis - one case	
11	Indices recording: Caries Index / Caries Activity Test / OHI / Fluoride Index / Periodontal Indices	
12	Submission of all Preclinical Work	

CLINICAL CASE QUOTA

- PROTHYLACTIC & PREVENTIVE TREATMENTS
 - ULTRASONIC SCALING WITH BRUSHING TECHNIQUES-50
 - FLUORIDE APPLICATIONS-50
 - PIT & FISSURE SEALANTS-50
 - DIET CHART / DIET COUNSELLING 100
 - RESTORATIVE TREATMENTS
1. CLASS I CAVITY WITH RESTORATION -100
 2. CLASS II CAVITY WITH RESTORATION -100
 3. CLASS II CAVITY WITH MODIFICATIONS & RESTORATION – 50
 4. CLASS III & IV CAVITY WITH RESTORATION -25 each .
 5. . LIGHT CURE COMPOSITE -50

II YEAR WORK SCHEDULE

THEORETICAL:-

Text book revision .

Learning the principles & development of social behavior, speech & communication skills .

Seminar presentations:25

1. Growth and development
2. Development of craniofacial complex
3. Growth assessment and prediction
4. Development of teeth and developmental disturbances
5. Development of occlusion
6. Eruption of teeth
7. Immunization schedule
8. Child psychology
9. Emotional development
10. Dental caries
11. Epidemiology of dental caries
12. Fluorides
13. Radiology

Journal club presentations-25

1. CLINICAL CASE QUOTA:
2. CASE HISTORY DISCUSSION:
 - LONG CASE HISTORY-25
 - SHORT CASE HISTORY-25
3. INTER DISCIPLINARY TREATMENT CASES-25
 - PULPOTOMY-50
 - APEXIFICATION-5

4. ESTHETIC TREATMENTS

- (Polycarbonate, Celluloid & ART glass crowns)- 50

5. RADIOLOGY: (Learning Activity)

- IOPA ALBUM OF SPECIAL CASES -25 Cases
- Pulpotomy-50
- Apexification-5
- CEPHALOMETRIC TRACING-- 10
- RVG UTILITY RECORD MAINTENANCE- 5

6. CAMP SCHEDULE:

- SCHOOL HEALTH PROGRAMMES
- RURAL HEALTH VISIT
- OHI AWARENESS PROGRAMME.
- MANAGEMENT OF HANDICAPPED CHILDREN- 5
- MIXED DENTITION CAST ANALYSIS-10

III YEAR WORK SCHEDULE

THEORETICAL:

The main Dissertation topic to be completed 6 Months before final year completion
Understanding in detail the principles of cariology, nutrition, diet Dc, & malocclusion .

Journal club presentation.

Seminar presentations:

1. Early childhood caries
2. Pathophysiology of pulp
3. Pulpotomy, indirect pulp capping and direct pulp capping
4. Pulpectomy and apexification
5. Traumatic injuries-classification, Etiology, epidermiology, And prevalence,
6. Sequale
7. Management of traumatic injuries
8. Non pharmlological behavior management
9. Interceptive orthodontics
10. Oral habits
11. Space management
12. Minor orthodontic tooth movements in children

CLINICAL CASE QUOTA

- SS Crowns- 100
- Pulpectomiess - 100
- Fixed space maintainers & Habit Breaking Appliances-25
- Removable space maintainers & Habit breaking appliances-15
- GA cases -----10
- Minor surgical cases with albums-5

PRACTICAL EXAMINATION PATTERN

Day 1: Pulp therapy i.e pulpectomy on a primary molar

- Case discussion - 20 marks
- Rubber dam application - 10 marks
- Working length X ray - 20 marks
- Obturation - 20marks

Stainless steel crown preparation on a primary molar

- Case discussion - 10 marks
- Crown preparation - 20 marks
- Crown selection and cementation - 20 marks

Space maintainer

- Case discussion - 20 marks
- Band adaptation - 20 marks
- Impression making - 20 marks

Day 2

- Space maintainer insertion and evaluation - 20 marks
- Pedagogy / Dissertation presentation - 20 marks
- Viva voce - 80 marks