YENEPOYA
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REGULATIONS AND CURRICULUM GOVERNING MDS PROGRAM

(Academic year from which the curriculum is implemented/ revised/ amended)

Name of the Constituent Unit/Centre: Yenepoya Dental College



ORAL & MAXILLOFACIAL SURGERY

YENEPOYA DENTAL COLLEGE

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NOTIFICATIONS FROM THE UNIVERSITY

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Office of the Registrar
University Road
Deralakatte, Mangalore – 575 018
Ph: 0824 – 2204667/68/69/70/71
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Ref: No. Y/REG/ACA/44-ACM/2021

26.10.2021

The Principal
Yenepoya Dental College

Sub: Curriculum enrichment in MDS Oral & Maxillofacial Surgery

Ref: Resolution of the Academic council at its 44th meeting held on 05.10.2021, vide agenda –3

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The Academic Council at its 44th meeting held on 05.10.2021 and subsequently the Board of Management at its 55th meeting held on 05.10.2021 have resolved to approve the proposed enrichment in postgraduate program of Oral & Maxillofacial Surgery as follows:-

Course	Existing	Now Amended
Oral & Maxillofacial Surgery (syllabus under Paper I and Paper II)	Nil	Endoscopy in Maxillofacial Surgery
		Navigation Surgery in Maxillofacial region
		Simulation Surgery - CLINICAL EXERCISE (for 2nd year PGs)

This shall come into effect from the admission batch of 2021-2022 onwards.

REGISTRAR

Copy to:

1. Controller of Examinations
2. Professor & HoD, Department of Oral & Maxillofacial Surgery
3. File copy

DEAN / PRINCIPAL
Yenepoya Dental College
Yenepoya Deemed to be University
University Road, Deralakatte
Mangaluru-575018

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Ref: No. Y/REG/ACA/42-ACM/2021 13.04.2021

The Principal
Yenepoya Dental College

Sub: Teaching learning methods and evaluation in Faculty of Dentistry

Ref: Resolution of the Academic council at its 42nd meeting held on 22.03.2021, vide agenda –7

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The Academic Council at its 42nd meeting held on 22.03.2021 and subsequently the Board of Management at its 53rd meeting held on 23.03.2021 has resolved to approve the proposed teaching learning methods and evaluation by the Department of Oral and Maxillofacial Surgery as follows:-

DEPARTMENT	COURSES	Existing	Now Amended
Implementation of Innovative teaching methods for UG and PG students – Regarding" Oral and Maxillofacial surgery	BDS	Nil	**BLUNDER LECTURE:** ONE CLASS / BATCH METHOD: After aspecific topic is covered in theoryclass 'blunder lecture' theory class will be taken by the respective staff. Intentional blunders will be created and projected in the power point presentation and students will be asked to identify and note down the blunders with correct answers. In the end randomly they will be asked toread out the blunders with corrections.
	BDS	Nil	**MICROSEMINARS:** EACH STUDENT/ CLINICAL BATCH METHOD: Very specific short topic will be allotted to each student of a batch posted in the department. A 10 minutes power point presentation by the student in front of the staff and batchmates followed by discussion on the topic

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	MDS	Nil	QUIZ: Alternatemonth METHOD: A particular chapter(s)will be provided as topic, 1 week prior to the quiz. Studentswill be grouped in to3 member teams and staff on rotationbasis will conduct the quiz in the seminar room.

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1. Professor & HoD, Department of Oral & Maxillofacial Surgery
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Ref: No YU/REG/ACA/ACM-30/2017 04.10.2017

NOTIFICATION

Sub: Incorporation of new course content/amendment to the syllabus/teaching & evaluation methodology

Ref: Proceedings of the 30th Minutes of Academic Council meeting held on 20.10.2017, vide Agenda - 12

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The Academic Council at its 30th meeting held on 20.10.2017 approved the recommendation of the Faculty of Dentistry for incorporating news course content/amendment to the syllabus/teaching & evaluation methodology to the P G curriculum as follows to be implemented prospectively from the admission batch of 2017-18.

Department of Oral & Maxillofacial Surgery

Existing	Now Amended
No lectures on Bio statistics and Research methodology are taken at present	PG Curriculum: Inclusion of Bio statistics and Research methodology in PG training (Minimum 10 lectures of 1 hour each to be conducted)
Teaching methodology	
Utilization of skill lab for Post Graduate & Under Graduate students not yet introduced	To post Post Graduate & Under Graduate students in batches in skill lab for training in B.L.S and other ha nds on procedures
Evaluation	
Presently there is no University examination at the end of 1st MDS course for basic science	To Introduce University examination for 1st MDS students at the end of 1st year as directed by D.C.I. (From 2018-19 batch onwards)

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Department of Pedodontics

Sl.No	Existing	Now Amended
1	Presently case history is being conventionally hand written and recorded in log book	Introduction of a software to record and store case history in a mobile/web based application (soft copy) along with copies of all the supportive documents/photographs saved for instant future reference at finger tip apart from the usual manual recording of files. YENGRAM app was proposed for the same.

Department of Prosthodontics

Sl.No	Existing	Now Amended
1	CAD-CAM training is not mandatory as per DCI/ Yenepoya University regulations.	Chairman, Board of Studies, put forwarded the Proposal for Introduction of practical training in CAD-CAM for P.G students. It was proposed that five cases to be treated by MDS students using CAD-CAM technology. Proposed for 2017 MDS batch onwards.

The approved amendments may be incorporated the respective P.G. curriculum and the amended copy may be provided to this office for filing.

(Dr. G. Shreekumar Menon)
REGISTRAR

mj

Copy to

- Principal – YDC
- HoD, Department of Oral & Maxillofacial Surgery
- HoD, Department of Pedodotnics
- HoD, Department of Prosthodontics
- Controller of Examinations
- Academic Section

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YENEPOYA UNIVERSITY

Recognized under Sec 3(A) of the UGC Act 1956 as per Notification No. F.9-11/2007-U.3 (A) dated 27th February 2008

No. YU/REG/ACA/A. Council/27/2016 31.01.2017

NOTIFICATION

Sub: Amendment to syllabus, course content/teaching & evaluation Methodology for PG curriculum

Ref: Agenda-15 of the 27th meeting of the Academic Council held on 09.01.2017

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The Faculty of Dentistry at its meeting on 04.08.2016 recommended for amendment to syllabus course content/teaching evaluation methodology to PG curriculum.

The Academic Council after considering the proposed amendment approved the same. The amendment as proposed and approved is as follows:-

Existing	Now Amended
At present Postgraduates are not evaluated annually by most of the department.	It is recommended to conduct annual examination for the P.G.s in the College itself. Ist & IInd P.G.s of all the specialties will have annual exam in theory in each year.
Exchange of faculties from the neighboring institutions for academic purpose.	This was proposed by the Dept. of Pedodontics that they wanted to have short term faculty exchange with MCODS, Mangalore. All the members felt that the same can be done by rest of the department between the neighboring Institutions.
Presently only H.O.D.s are the Ph.D Guide in Dental College	Some of the other senior faculty members from various dental departments with sufficient experience with good number of research publication have requested to consider their names for Ph.D. Guide.

Dept. of Oral & Maxillofacial Surgery

PG Curriculum:	
At present the P.G.s are not exposed to theoretical & practical aspects of robotic surgery.	Exposure to the theoretical & practical aspects of robotic surgery was suggested to be implemented.
At present theoretical aspects on Tissue engineering was not included.	→ Possibility of including theoretical aspects on Tissue engineering in maxillofacial Surgery-it was suggested to be included

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Skill lab was not available till now	➢ Utilization of skill lab in PG training- It was suggested to train the faculty and PG's in the skill lab centre developed by the university. So that students can be given a demonstration of mock surgeries in the simulators
Collaboration- At present Post graduate students are posted at a. Regional cancer centre (RCC) Trivandrum/ Kidwai Cancer Institute /TATA Memorial Institute of oncology for Oral Cancer Training for 2 months b. Dwijan Institution, Chennai for micro vascular Training (optional) c. Tengku Ampuan Rahimah Hospital, Malaysia for training in advance Trauma Care (optional)	➢ Neuro surgery postings for PG's - External member suggested that KSHEMA has a good Neuro surgery department and it was decided to send PG's to that centre for postings after completing the formalities

Dept. of Orthodontics

Existing	Now Amended
Collaboration The department has collaboration for clinical exchange with the centres but so far the MOU between the institutions is not there	1. Proposed to Collaborate the Department of Orthodontics and Dentofacial Orthopaedics, Yenepoya University with the Department of Orthodontics and Dentofacial Orthopaedics, K.L.E. Vishwanath Katti Institute of Dental Sciences, K.L.E. University, Belagavi
	2. Proposed to a multi disciplinary tie up between our University with the University of Rome, the University of Milan and the University of Radboud was accepted. They will be visiting our University in the month of February 6th and 7th 2017 for signing the MOU

(Dr. G. Shreekumar Menon)
REGISTRAR

Copy to:

1. The Principal – YDC
2. HoD: Oral & Maxillofacial Surgery
3. HoD: Orthodontics
4. The Controller of Examinations
5. Academic Section

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CONTENTS

S. No.	Particulars	Page numbers
1.	Preamble	1
2.	Definitions	1
3.	Eligibility for admission	2
4.	Duration of the program	2
5.	Maximum period for completion of the program	2-3
6.	Aim of the Program	3
7.	Objectives/Outcomes of the program	3-8
8.	Attendance	8
9.	Syllabus / Course contents	8-20
10.	Teaching - Learning methods course-wise	20-36
11.	Scheme of Examination	36-40
12.	Eligibility to appear for University Examination	40-41
13.	Criteria for passing	41-42
14.	Logbook/Portfolio	42-44
15.	Recommended books	44-45
16.	Journals	45-46
17.	Annexure	46-52

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1. PREAMBLE

Department of Oral & Maxillofacial Surgery of - Yenepoya Dental College is bridging betweenmedicineanddentistry.Thisistheonlysurgicaldepartmentindentistrywithteaching and clinical activities. The clinical experience for the post graduates includes in-patient and out-patient care, treating various categories of diseases, disorders, tumors, pre-malignant lesions and trauma of maxillofacial regions.

The post graduate curriculum is designed as prescribed by the national apex body which is the Dental Council of India. The curriculum is broadly divided into training in basic science including research methodology, pre-clinical training, and clinical training focus in on postings in various medical /surgical departments of Yenepoya Medical College Hospitals such as Neurosurgery, craniofacial Surgery, General Anesthesia, General Medicine, General Surgery, ENT, Ophthalmology, Radio diagnosis etc. This rigorous and structural training programme in Oral & Maxillofacial surgery makes the trainees to perform independently and confidently in all the areas of this particular which include Minor & Major surgical procedures.

The three- year postgraduate programme in the Department is meticulously planned and all the postgraduates are expected to follow the schedule. The student shall maintain punctuality, discipline and dedication throughout the academic session

The following programmes have to be carried out in a time bound manner as per Department and University requirements.

2. Definitions

Branch of Dentistry that provides quality education and training in the practice, treatment, and research in preventive and therapeutic in oral & maxillofacial region.

3. Eligibility for admission

A candidate for admission to the Master in Dental Surgery course, must possess a recognized degree of Bachelor of Dental Surgery awarded by a university or institute in India and registered with the State Dental Council and has obtained provisional or permanent registration and has undergone compulsory rotator internship of a year in an approved/ recognized dental college.

Provided that in the case of a foreign national, the following procedure hall be followed—

The council may, on payment of the prescribed fee for registration for the duration of the post-graduate training restricted to the dental college/ institution to which he or she is admitted for the time being exclusively for post – graduate studies.

Provided further that temporary registration to such foreign national shall be subject to the condition that such person is duly registered as medical practitioner in his/ hr own country from which he/she has obtained his/her basics dental qualification and that his/her degree is recognized by the corresponding state dental council of concerned authority.

4. Duration of the program

3 Years

5. Maximum period for completion of the programme

The period of training for the award of the MDS course shall be of three years duration for three academic years as full time candidates in an institution including the period of examination:

Provided that the time period required for passing out of the MDS course shall be a maximum of six years from the date of admission is said curse:

Provided further that the duration of the post- graduate course for the post – graduate Diploma holders shall be of two years in the respective speciality. The syllabus and curriculum shall be the same as MDS Course I the concerned speciality expect that they are not required (i) to undergo study and training in Basic Sciences and (ii) pass the PART-I Examination of MDS Course. However, they have to submit the dissertation work, as part of the post – graduate programme.

6. Aim of the programme

The aims of the post- graduate training in Oral &Maxillofacial Surgery are to train the graduate in Dental Surgery who will.

i. Practice respective specialty efficiently and effectively, backed by scientific knowledge and skill;
ii. Exerciseempathyandacaringattitudeandmaintainhighethicalstandards;
iii. Continue to evince keen interest in professional education in the specialty and allied specialties whether in teaching or practice;
iv. Willing to share the knowledge and skills with any learner ,junior or a colleague;
v. Todevelopthefacultyforcriticalanalysisandevaluationofvariousconceptsand views and to adopt the most rational approach.

7. Objectives/outcomes of the program (Knowledge/Skill/Attitude/Communication)

The training program in Oral and Maxillofacial Surgery is structured to achieve the following five objectives-

- Knowledge
- Skills
- Attitude
- Communicative skills
- Research

Knowledge:

To have acquired adequate knowledge and understanding of the etiology, pathophysiology, diagnosis and treatment planning of various common oral and Maxillofacial surgical problems both minor and major in nature

- To understand the general surgical principles like pre and post surgical management, particularly evaluation, post-surgical care, fluid and electrolyte management, blood transfusion and post-surgical pain management.
- Understandingofbasicsciencesrelevanttopracticeoforalandmaxillofacialsurgery
- Able to identify social, cultural, economic, genetic and environmental factors and their relevance to disease process management in the oral and Maxillofacial region.
- Essential knowledge of personal hygiene and infection control, prevention of cross infection and safe disposal of hospital waste keeping in view the high prevalence of hepatitis and HIV.

Skills:

- To obtain proper clinical history, methodical examination of the patient, perform essential diagnostic procedures and order relevant laboratory tests, interpret them and to arrive at a reasonable diagnosis about the surgical condition.
- To perform with competence minor oral surgical procedures and common maxillofacial surgery.
- To treat both medically and surgically the problems of the oral and Maxillofacial and the related area

Attitude:

- Develop attitude to adopt ethical principles in all aspect of surgical practice, professional honesty and integrity are to be fostered. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
- Willingtosharetheknowledgeandclinicalexperiencewithprofessionalcolleagues.
- Willingtoadoptnewtechniquesofsurgicalmanagementdevelopedfromtimeto time based on scientific research which are in the best interest of the patient
- Respect patient right and privileges, including patients right to information and right to seek a second opinion.
- Developattitudetoseekopinionfromanalliedmedicalanddentalspecialistsasand when required.

Communication Skills

- Develop adequate communication skills particularly with the patients giving them the various options available to manage a particular surgical problem and obtain a true informed consent from them for the most appropriate treatment available at that point of time
- Develop the ability to communicate with professional colleagues.
- Develop ability to teach undergraduates

PROGRAM OUTCOMES

PO1: Demonstrate knowledge of basic sciences relevant to the practice oral and maxillofacial surgery

PO2: To acquire knowledge and understanding of etiology, pathophysiology and diagnosis, appropriate treatment planning of various oral and maxillofacial surgical problems

PO3: Record case history, perform clinical examination, order essential investigations and interpret them to arrive at a final diagnosis and plan the treatment and management of oral and maxillofacial problems.

PO4: Formulate an evidence-based and cost-effective treatment plan in collaboration with the patient after providing appropriate information and obtaining an informed consent. Safeguard the privacy, confidentiality of the patient and the data obtained from them. Respect the patient's right to information and right to seek a second opinion.

PO5: Practice personal hygiene, asepsis, sterilization, prevention of cross infection and safe disposal of hospital waste keeping in view of the high prevalence of hepatitis, HIV and other transmissible diseases

PO6: Apply general surgical principles to pre and post-surgical management particularly evaluation, post-surgical care, fluids and electrolyte management, blood transfusion and post-surgical pain management.

PO7: To deliver appropriate surgical and medical management of infections, trauma, pathologies and deformities of human jaws and associated oral structures by interaction with other dental, medical and allied disciplines.

PO8: Develop ability to teach undergraduate students and communicate with professional colleagues

PO9: Develop the ability to function as an effective team member / leader of a multi professional oral and maxillofacial surgical team

PO10: To contribute to the national and regional health scenario for conditions relevant to the specialty of Oral & Maxillofacial Surgery irrespective of social status, caste, creed or religion of the patient.

PO11: Demonstrate respect for human values, human rights and social responsibilities.

PROGRAMME SPECIFIC OUTCOME

A. Cognitive Domain

1. To have acquired adequate knowledge and understanding of the etiology, pathophysiology and diagnosis, treatment planning of various common oral and Maxillofacial surgical problems both minor and major in nature+
2. To have understood the general surgical principles like pre and post-surgical management, particularly evaluation, post-surgical care, fluid and electrolyte management, blood transfusion and post-surgical pain management.
3. Understanding of basic sciences relevant to practice of oral and maxillofacial surgery
4. Able to identify social, cultural, economic, genetic and environmental factors and their relevance to disease process management in the oral and maxillofacial region
5. Essential knowledge of personal hygiene and infection control, prevention of cross infection and safe disposal of hospital waste keeping in view the high prevalence of hepatitis and HIV.

B. Psychomotor Domain

1. To obtain proper clinical history, methodical examination of the patient, perform essential diagnostic procedures and order relevant laboratory tests and interpret them and to arrive at a reasonable diagnosis about the surgical condition.
2. To perform with competence minor oral surgical procedures and common maxillofacial surgery. To treat both surgically and medically the problems of the oral and Maxillofacial and the related area.
3. Capable of providing care for maxillofacial surgery patients

C. Affective domain

1. Develop attitude to adopt ethical principles in all aspect of surgical practice, professional honesty and integrity are to be fostered. Surgical care is to be delivered irrespective of the social status, caste, creed or religion of the patient

2. Willingtosharetheknowledgeandclinicalexperiencewithprofessionalcolleagues.
3. Willing to adopt new techniques of surgical management developed from time to time based on scientific research which is in the best interest of the patient.
4. Respect patient right and privileges, including patients right to information and right to seek a second opinion.
5. Develop attitude to seek opinion from an allied medical and dental specialists as and when required

8. Attendance

Minimum 80% percent attendance in Practical/Clinical will be criteria for eligibility to appear for university examination.

9. Syllabus/course content

The specialty of Oral & Maxillofacial Surgery deals with the diagnosis and management of the diseases of stomatognathic system, jaw bones, cranio- maxillofacial region, salivary glands and temporomandibular joints etc. Withinthis framework it also supports many vital organs like eye, oropharynx, nasopharynx and major blood vessels and nerves. The speciality of Oral & Maxillofacial Surgery is a multi disciplinary speciality and needs close working in co-ordination with Neurosurgeons, Oncosurgeons, Opthalmologists, ENT Surgeons and Plastic Surgeons. The traumatic injuries of maxillofacial skeleton are independently managed by Oral & Maxillofacial Surgeons. Whenever there are orbital injuries the ophthalmologists consulted only to tackle injuries of the eye ball (globe) but if there are associated injuries of the orbital skeleton, the Maxillofacial Surgeon is involved in its re-construction. Similarly, nasal bone fracture may be managed by ENT surgeons. Most of the time nasal bone fractures are associated with fractures of the maxilla, mandible and zygomatic bones which are being managed by Oral & Maxillofacial Surgeons. The maxillofacial facial injuries at times are associated with head injuries also. The Oral & maxillofacial Surgeon is involved in the management of cleft lip & cleft palate, orthognathic surgery, micro vascular surgery, reconstructive and oncological

surgical procedures of maxillofacial region. The Oral & Maxillofacial Surgeons, Ophthalmologist, ENT Surgeons, Plastic Surgeons, Neuro-Surgeons and Oncologists complement each other by performing Surgical Procedures with their respective expertise and knowledge thereby benefiting the patients and students of the respective specialities.

The program outline addresses both the knowledge needed in Oral and Maxillofacial Surgery and allied medical specialties in its scope. A minimum of three years of formal training through a graded system of education as specified will equip the trainee with skill and knowledge at its completion to be able to practice basic oral and Maxillofacial surgery competently and have the ability to intelligently pursue further apprenticeship towards advanced Maxillofacial surgery.

The topics are considered as under:-

A) Applied Basic sciences

B) Oral and Maxillofacial surgery

C) Allied specialties

A) Applied Basic Sciences:

Applied Anatomy, Physiology, Biochemistry, General and Oral Pathology and Micro biology, Pharmacology and Knowledge in Basic Statistics.

Applied Anatomy:

1. Surgical anatomy of the scalp, temple and face
2. Anatomy of the triangles of neck and deep structures of the neck
3. Cranial and facial bones and it surroundings of tissues with its applied aspects in maxillofacial injuries.
4. Muscles of head and neck, chest, lower and upper extremities (in consideration to grafts/flaps)

5. Arterial supply, venous drainage and lymphatic's of head and neck
6. Congenital abnormalities of the head and neck
7. Surgical anatomy of the cranial nerves
8. Anatomy of the tongue and its applied aspects
9. Surgical anatomy of the temporal and infra temporal regions
10. Anatomy and its applied aspects of salivary glands, pharynx, thyroid and parathyroid gland, larynx, trachea, esophagus
11. Tooth eruption, morphology, and occlusion.
12. Surgical anatomy of the nose.
13. The structure and function of the brain including surgical anatomy of intra cranial venous sinuses.
14. Autonomous nervous system of head and neck
15. Functionalanatomyofmastication,deglutition,speech,respirationandcirculation
16. Development of face, paranasal sinus and associated structures and their anomalies
17. TMJ: surgical anatomy and function

Physiology:

1. **Nervous system**

- Physiology of nerve conduction, pain pathway, sympathetic and parasympathetic nervous system, hypothalamus and mechanism of controlling body temperature

2. **Blood**

- Composition
- Haemostasis, various blood dyscrasias and management of patients with the same
- Hemorrhage and its control
- Capillary and lymphatic circulation.

- Blood grouping, transfusing procedures.

3. Digestive system

- Saliva- composition and functions of saliva
- Mastication, deglutition, digestion, assimilation
- Urine formation, normal and abnormal constituents

4. Respiration

- Control of ventilation, anoxia, asphyxia, artificial respiration
- Hypoxia–types and management

5. Cardio Vascular System

- Cardiac cycle,
- Shock
- Heart sounds,
- Blood pressure,
- Hypertension

6. Endocrinology

- General endocrinal activity and disorder relating to thyroid gl and,
- Parathyroid gl and, adrenal gland, pituitary gland, pancreas and gonads:
- Metabolism of calcium

7. Nutrition

- General principles of a balanced diet, effect to dietary deficiency, protein energy malnutrition, Kwashiorkor, Marasmus.
- Fluid and Electrolytic balance in maintaining haemost as is and significance in minor and major surgical procedure

Biochemistry:

- General principles governing the various biological activities of the body, such as osmotic pressure, electrolytes, dissociation, oxidation, reduction etc.
- General composition of the body
- Intermediary metabolism
- Carbohydrates, proteins, lipids, and the irmetabolism
- Nucleoproteins, nucleicacid and nucleotides and their metabolism
- Enzymes, vitamins and minerals
- Hormones
- Body and other fluids.
- Metabolism of in organic elements.
- Detoxification in the body.
- Antimetabolites.

Pathology:

1. **Inflammation–**

- Repair and re generation, necrosis and gangrene
- Role of component system in acute inflammation,
- Role of arachidonic acid and its metabolites in acute inflammation,
- Growth factors in acute inflammation
- Role of molecular events in cell growth and intercellular signaling cell surface receptors
- Role of NSAIDs in inflammation,
- Cellular changes in radiation injury and its manifestation

2. **Homeostasis**

- Role of endothelium in thrombo genesis,
- Arterial and venous thrombi,
- Disseminated Intravascular coagulation

3. Shock:

- Pathogenesis of hemorrhagic, neurogenic, septic, cardiogenic shock
- Circulatory disturbances, ischemia, hyperemia, venous congestion, edema, infarction

4. Chromosomal abnormalities:

- Marfans Syndrome, Ehler's Danlos Syndrome, Fragile X-Syndrome

5. Hypersensitivity:

- Anaphylaxis, type 2 hypersensitivity, type 3 hypersensitivity and cell mediated reaction and its clinical importance, systemic lupus erythematosus.
- Infection and infective granulomas.

6. Neoplasia:

- Classification of tumors.
- Carcinogenesis and carcinogens- chemical, viral and microbial
- Grading and staging of cancers, tumor Angiogenesis, Paraneoplastic syndrome, spread of tumors
- Characteristics of benign and malignant tumors

7. Others:

- Sex linkedagammaglobulinemia.
- AIDS
- Management of immune deficiency patients requiring surgical procedures
- De George Syndrome

- Ghons complex, post primary pulmonary tuberculosis– pathology and pathogenesis.

Oral Pathology:

- Developmental disturbances of oral and Para oral structures
- Regressive changes of teeth.
- Bacterial, viral and mycotic infections of oral cavity
- Dental caries,, diseases of pulp and periapical tissues
- Physical and chemical injuries of the oral cavity
- Oral manifestation sofmetabolic and endocrinal disturbances
- Diseases of jaw bones and TMJ
- Diseases of blood and blood forming organs in relation to oral cavity
- Cysts of the oral cavity
- Salivary gland diseases
- Role of laboratory investigations in oral surgery

Microbiology:

- Immunity
- Knowledge of organisms commonly associated with diseases of oral cavity.
- Morphology cultural characteristics of strepto, staphylo, pneumo, gono, meningo, clostridium group of organisms, spirochetes, organisms of TB, leprosy, diphtheria, actinomycosis and moniliasis.
- Hepatitis B and its prophylaxis.
- Culture and sensitivity test
- Laboratory determinations

- Blood groups, blood matching, RBC and WBC count
- Bleeding and clotting time etc, smears and cultures,
- Urine analysis and cultures.

Applied Pharmacology and Therapeutics:

1. Definition of terminologies used
2. Dosage and mode of administration of drugs.
3. Action and fate of drugs in the body
4. Drug addiction, to lerance and hyper sensitivity reactions.
5. Drugs acting on the CNS
6. General and local anesthetics, hypnotics, analeptics, and tranquilizers.
7. Chemotherapeutics and antibiotics
8. Analgesics and antipyretics
9. Anti tubercular and antisyphilitic drugs.
10. Antiseptics, sialogogues and anti sialogogues
11. Haematinics
12. Antidiabetics
13. Vitamins A,B- complex, C,D,E,K

Research Methodology

Definition, types of research, designing written protocol for research, objectivity in methodology, qualification and records and analysis.

Biostatistics

Introduction, applications, used and limitations of biostatistics in Public Health Dentistry Collection of data, presentation of data, measures of central tendency, measures of dispersion, measures of summarizing parametric and non parametrictests of significance, correction and regression, multivariate analysis sampling and sampling techniques, types, errors, bias, trial and calibration.

B) Oral and Maxillofacial Surgery:

- Evolution of Maxillofacial surgery.
- Diagnosis, history taking, clinical examination, Investigations.
- Informed consent /medico-legal issues.
- Concept of essential drugs and rational use of drugs.
- Communication skills with patients- understanding, clarity in communication, compassionate explanations and giving emotional support at the time of suffering and bereavement
- Principles of surgical audit – understanding the audit of process and outcome. Methods adopted for the same. Basic statistics.
- Principles of evidence based surgery- understanding journal based literature study; the value of textbook, reference book articles, value of review articles; original articles and their critical assessment, understanding the value of retrospective, prospective, randomized control and blinded studies, understanding the principles and the meaning of various Bio-statistical tests applied in these studies.
- Principles of surgery- developing a surgical diagnosis, basic necessities for surgery, aseptic technique, incisions, flap designs, tissue handling, hemostasis, dead space management, decontamination and debridement, suturing, edema control, patient general health and nutrition.
- Medical emergencies – Prevention and management of altered consciousness, hyper

sensitivity reaction, chest discomfort, respiratory difficulty.

- Pre operative workup – Concept of fitness for surgery; basic medical work up; work up in special situation like diabetes, renal failure, cardiac and respiratory illness; risk stratification
- Surgical sutures, drains–Suturing techniques, drain placements.
- Post operative care- concept of recovery room care, Airway management, Assessment of Wakefulness, management of cardio vascular instability in this period, Criteria for shifting to the ward, pain management
- Wound management-Wound healing, factors influencing healing, basic surgical techniques, Properties of suture materials, appropriate use of sutures.
- Surgical Infections – Asepsis and antisepsis, Microbiologicalprinciples,Rationaluseofantibiotics,specialinfectionslikeSynergistic Gangrene and Diabetic foot infection, Hepatitis and HIV infection and cross infection.
- Airway obstruction/management – Anatomy of the airway, principlesof keeping the airway patent, mouth to mouth resuscitation, Oropharyngeal airway, endotracheal intubation, Cricothyroidectomy, Tracheostomy.
- Anesthesia – stages of Anesthesia, pharmacology of inhalation, intravenous and regional anesthetics, muscle relaxants.
- Facialpain; Facial palsy and nerve injuries.
- Pain control – acute and chronic pain, cancer and non-cancer pain, patient controlled analgesia
- General patient management – competence in physical assessment of patients of surgery, competence in evaluation of patients presenting with acute injury, particularly to maxillofacial region. Competence in the evaluation of management of patients for Anesthesia
- Clinical oral surgery–all aspects of dento alveolar surgery
- Pre-prosthetic surgery – A wide range of surgical reconstructive procedures involving their hard and soft tissues of the edentulous jaws.
- Temporomandibular joint disorders – TMJ disorders and their sequelae need expert evaluation, assessment and management. It is preferable to be familiar with diagnostic and

therapeutic arthroscopic surgery procedures.

- Tissue grafting – Understanding of the biological mechanisms involved in autogenous and heterogeneous tissue grafting.
- Reconstructive oral and maxillofacial surgery – hard tissue and soft tissue reconstruction.
- Cyst and tumors of head and neck region and their management – including principles of tumor surgery, giant cell lesion of jaw bones, fibro osseous lesions of jaw.
- Neurological disorders of maxillofacial region-diagnosis and management of Trigeminal Neuralgia, MPDS, Bells palsy, Frey's Syndrome, Nerve injuries
- Maxillofacial trauma – basic principles of treatment, primary care, diagnosis and management of hard and soft tissue injuries, Comprehensive management including polytrauma patients
- Assessment of trauma-multiple injuries patient, closed abdominal and chest injuries, penetrating injuries, pelvic fractures, urological injuries, vascular injuries.
- Orthognathic surgery – The trainee must be familiar with the assessment and correcting of jaw deformities
- Laser surgery – The application of laser technology in the surgical Treatment of lesions amenabletosuch therapy
- Distraction osteogenesis in maxillofacial region.
- Cryosurgeries – Principles, the application of cryosurgery in the surgical management of lesions amenable to such surgeries.
- Cleft lip and palate surgery- detailed knowledge of the development of the face, head and neck, diagnosis and treatment planning, Current concepts in the management of cleft lip and palate deformity, knowledge of nasal endoscopy and other diagnostic techniques in the evaluation of speech and hearing, concept of multi disciplinary team management.
- Aesthetic facial surgery – detailed knowledge of structures of face & neck including sk in and underlyings oft tissues, diagnosis and treatment planning of deformities and conditions affecting facial skin, underlying facial muscles, bone, eyelids, external ear etc., surgical management of post acne scaring, face lift, blepharoplasty, otoplasty, facial bone recountouring etc.

- Craniofacial surgery – basic knowledge of developmental anomalies of face, head and neck, basics concept in the diagnosis and planning of various head and neck anomalies including facial cleft, cranio synostosis, syndromes, etc., Current concepts in the management of craniofacial anomalies.
- Head and neck oncology – understanding of the principles of management of head and neck oncology including various pre cancerous lesions, Experience in the surgical techniques of reconstruction following ablative surgery.
- Micro vascular surgery.
- Implantology– principles, surgical procedures for insertion of various types of implants.
- Maxillofacial radiology/ radio diagnosis
- Other diagnostic methods and imaging techniques
- Robotic Surgery
- Stem Cells and Its application in Oral & Maxillofacial Surgery
- Tissue Engineering
- Piezo surgery
- Endoscopy –TMJ arthroscopy and sialoendoscopy for major salivary glands.
- Navigation surgery in maxillofacial surgery.

C) Allied Specialties:

- General medicine: General assessment of the patient including children with special emphasis on cardio vascular diseases, endocrinal, metabolic respiratory and renal diseases, Blood dyscrasias
- General surgery: Principles of general surgery, exposure to common general surgical procedures.
- Neuro – surgery: Evaluation of a patient with head injury, knowledge & exposure of various

Neuro – surgical procedures

- ENT/Ophthalmology: Examination of ear, nose, throat, exposure to ENT surgical procedures, ophthalmic examination and evaluation, exposure to ophthalmic surgical procedures.
- Orthopedic: Basic principles of orthopedic surgery, bone diseases and trauma as relevant to Maxillofacial surgery, interpretation of radiographs, CT, MRI and ultrasound
- Anesthesiology: Evaluation of patients for GA technique, general anesthetic drugs use and complications, management of emergencies, various IV sedation techniques.
- Plastic Surgery- Assisting Surgeries, Active participation in ward rounds, discussions, OPD's, Learning General, Physical &Specific examination pertaining to maxillofacial area, Wound care, Principles of micro vascular surgery & reconstructive surgery of oro facial region
- Principles of facial aesthetic surgery & hair transplant
- Casualty: Triage management, multidisciplinary approach in managing the emergency and oral and maxillofacial related emergency management.

10. Teaching/ learning activities:

The post graduate is expected to complete the following at the end of:

I. Year

Study of applied basic sciences including practical (wherever necessary), basic computer sciences, exodontia, seminars on basic topics, selection of dissertation topic, library assignment topic, attending O.T, ward rounds, Medical Record keeping, Pre-clinical exercises, preparation of synopsis and its submission within the six months after admission to the university as per calendar of events.

Rotation and postings in other departments:

General medicine	-	1 month
General surgery	-	1 month
Ophthalmology	-	15 days
Neuro Surgery	-	15 days
ENT	-	15 days
Orthopedic	-	15days
Plastic Surgery	-	15 days
Casualty	-	15 days
Anesthesia (ICU)	-	15 days
Radiology (CT,MRI,USG)	-	15 days

University Examinations–Part I–Applied Basic Sciences

II. Year

- Minor oral surgery and higher surgical training
- Submission of library assignment
- Oncology posting–1month
- Craniofacial posting–1month
- Simulation Centre –Clinical Exercise, Skill lab for training in BLS and other hands on procedures

III. Year

- Maxillofacial surgery

- Conducting Quiz–Maxillofacial Surgery Topics–Alternative Months.
- Submission of dissertation to the university, six months before the final examination.

University Examinations–Part II–Paper I, II, III

It is desirable to enter general surgical skills and operative procedures that are observed, assisted or performed in the log book in the format as given below:-

Sl. No	Procedure	Category	Number
1	Injection I.M .and I.V.	PI	50, 20
2	Minor suturing and removal of sutures	PI	N,A
3	Incision & drainage of an abscess	PI	10
4	Surgical extraction	PI	15
5	Impacted teeth	PI,A	30,20
6	Pre prosthetic surgery-corrective procedures ridge extension Ridge reconstruction	PI, A A	10 3 3
7	O A F closure	PI,A	3,2
8	Cyst enucleation	PI,A	5,5
9	Mandibular fractures	PI,A	10,10
10	Peri-apical surgery	PI,A	5
11	Infection management	PI,A	3,3
12	Biopsy procedures	PI,A	10, 3
13	Removal of salivary calculi	A	3
14	Benign tumors	A	3,3

15	Midface fractures	PI,A	3,5
16	Implants	PI,A	5,5
17	Tracheotomy	A	2
18	Skin grafts	PI,A	2,2
19	Orthognathic surgery	A,O	3,5
20	Harvesting bone& cartilage grafts Iliac crest Rib Calvarial Fibula	A,O A,O A,O A,O	3,5 3,3 2,2 2,2
21	T. M. Joint surgery	A	3
22	Jaw resections	A,O	3,5
23	Onco surgery	A,O	3,3
24	Micro vascular anastomosis	A,O	2,2
25	Cleft lip & palate	A,O	3,5
26	Distraction osteogenesis	A,O	2,3
27	Rhinoplasty	A,O	2,3
28	Access osteotomies And base of skull surgeries	A,O	1,3
29	Emergency Management for OMFS Patients in Casualty/ Accident & Emergency	PI,O	5,5

PI:-Performed Independently

A:- Assisted

O:-Observed

Monitoring Learning Progress:

It is essential to monitor the learning progress to each candidate through continuous appraisal

and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to be done by the staff of the department based on participation of students in various teaching / learning activities. It is structured and assessment be done using checklists that assess various aspects like General Presentation, Case presentations, Seminars and Theory classes for Under Graduates.

It is essential to monitor the learning progress to each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to be done by the staff of the department bases on participation of students in various teaching/learning activities. It may be structures and time bound with minimal requirements.

Inter disciplinary seminars: Each post graduate shall present at least 1 seminar during the interdisciplinary activity of the institute.

POST GRADUATES DAILY SCHEDULE WHO ARE POSTED IN THE DEPARTMENT OF ORAL & MAXILLOFACIAL SURGERY

Monday..... Journal club presentation for IInd year and III MDS

Tuesday…… Seminar presentation for IInd MDS & case presentation

Wednesday…….. OT day

Thursday…….. Seminar presentation for III MDS

Friday…….....Basic science class for Ist MDS /case presentation

Saturday…….. OT day

Paper wise distribution of syllabus:

PART-I:

Applied Basic Sciences

PART-II:

Paper–I: Minor Oral Surgery and Maxillofacial Trauma

Minor Oral Surgery:

- **Principles of Surgery**: Developing A Surgical Diagnosis, Basic Necessities For Surgery, Aseptic Technique, Incisions, Flap Design Tissue Handling, Haemostasis, Dead Space Management, Decontamination And Debridement, Suturing, Oedema Control, Patient General Health And Nutrition.
- **Medical Emergencies**: Prevention and management of altered consciousness (syncope, orthostatic hypo tension, seizures, diabetes mellitus, adrenal insufficiency), hypersensitivity reactions, chest discomfort, and respiratory difficulty.
- **Examination and Diagnosis**: Clinical history, physical and radiographic, clinical and laboratory diagnosis, oral manifestations of systemic diseases, implications of systemic diseases in surgical patients.
- **Hemorrhage and Shock**: Applied physiology, clinical abnormalities of coagulation, extra vascular hemorrhage, and hemorrhagic lesions, management of secondary hemorrhage, shock.
- **Exodontia**: Principles of extraction, indications and contraindications, types of extraction, complications and their management, principles of elevators and elevators used in oral surgery.
- **Impaction:** Surgical anatomy, classification, indications and contraindications, diagnosis, procedures, complications and their management.
- **Surgical aids to eruption of teeth**: Surgical exposure of unerupted teeth, surgical repositioning of partially erupted teeth.
- **Transplantation of teeth**
- **Surgical Endodontics:** Indications and contraindications, diagnosis, procedures of

periradicular surgery

- **Preprosthetic Surgery:** Requirements, types (alvoloplasty, tuberosity reduction, mylohyoid ridge reduction, genial reduction, removal of exostosis,vestibuloplasty)
- **Procedures to Improve Alveolar Soft Tissues**: Hypermobile tissues- operative / sclerosing method, epulis fissuratum, frenectomy and frenotomy
- **Infections of Head and Neck:** Odontogenic and non Odontogenic infections, factors affecting spread of infection, diagnosis and differential diagnosis, management of facial space infections, Ludwig angina, cavernous sinus thrombosis.
- **Chronic infections of the jaws:** Osteomyelitis (types, etiology, pathogenesis, management) osteoradionecrosis
- **Maxillary Sinus:** Maxillary sinusitis – types, pathology, treatment, closure of Oro –antral fistula, Caldwell-lucoperation
- **Cysts of the Orofacial Region:** Classification, diagnosis, management of OKC, dentigerous, radicular, non Odontogenic, ranula
- **Neurological disorders of the Maxillofacial Region:** Diagnosis and management of trigeminal neuralgia, MPDS, bell's palsy, Frey's syndrome, nerve injuries.
- **Implantology**: Definition, classification, indications and contraindications, advantages and disadvantages, surgical procedure.
- **Anesthesia**

Local Anesthesia**:**

Classification of local anesthetic drugs, mode of action, indications and contra indications, advantages and disadvantages, techniques, complications and their management.

General Anesthesia:

Classification, stages of GA, mechanism of action, indications, and contra indications, advantages and disadvantages, post anesthetic complications and emergencies, anesthetic for dental procedures in children, pre medication, conscious sedation, legal aspects for GA

Maxillofacial Trauma:

- Surgical Anatomy of Head and Neck.
- Etiology of Injury.
- Basic Principles of Treatment
- Primary Care: resuscitation, establishment of airway, management of hemorrhage, management of head injuries and admission to hospital.
- Diagnosis: clinical, radiological
- Soft Tissue Injury of Face and Scalp: classification and management of soft tissue wounds, injuries to structure requiring special treatment.
- Dento Alveolar Fractures: examination and diagnosis, classification, treatment, prevention.
- Mandibular Fractures: classification, examination and diagnosis, general principles of treatment, complications and their management
- Fracture of Zygomatic Complex: classification, examination and diagnosis, general principles of treatment, complications and their management.
- Orbital Fractures: blow out fractures
- Nasal Fractures
- Fractures of Middle Third of the Facial Skeleton: emergency care, fracture of maxilla, and treatment of le fort I, II, III, fractures of Naso orbito ethmoidal region.
- Opthalmic Injuries: minor injuries, non-perforating injuries, perforating injuries, retrobulbar hemorrhage, and traumatic optic neuropathy.
- Traumatic Injuries To Frontal Sinus: diagnosis, classification, treatment
- Maxillofacial Injuries in Geriatric and Pediatric Patients.
- Gun Shot Wounds and War Injuries
- Osseo integration in Maxillofacial Reconstruction
- Metabolic Response to Trauma: neuro endocrine responses, inflammatory mediators, clinical

implications

- Healing of Traumatic Injuries: soft tissues, bone, cartilage, response of peripheral nerve to injury
- Nutritional consideration following Trauma.
- Tracheostomy: indications and contraindications, procedure, complications and their management.

Paper–II: Maxillofacial Surgery

a. Salivary gland

- Sialography
- Salivary fistula and management
- Diseases of salivary gland–developmental disturbances, cysts, inflammation and sialolithiasis
- Mucocele and Ranula
- Tumors of salivary gland and their management
- Staging of salivary gland tumors
- Parotidectomy

b. Temporomandibular Joint

- Etiology, history signs, symptoms, examination and diagnosis of temporomandibular joint disorders
- Ankylosis and management of the same with different treatment modalities

  MPDS and management
- Condylectomy – different procedures

- Various approaches to TMJ
- Recurrent dislocations–Etiology and Management

c. Oncology

- Biopsy
- Management of pre-malignant tumors of head and neck region
- Benign and Malignant tumors of Head and Neck region
- Staging of oral cancer and tumor markers
- Management of oral cancer
- Radical Neck dissection
- Modes of spread of tumors
- Diagnosis and management of tumors of nasal, paranasal, neck, tongue, cheek, maxilla and mandible
- Radiation therapy in maxillofacial regions
- Lateral neck swellings

d. Orthognathic surgery

- Diagnosis and treatment planning
- Cephalometric analysis
- Model surgery
- Maxillary and mandibular repositioning procedures
- Segmental osteotomies
- Management of apertognathia

- Genioplasty
- Distraction osteogenesis

e. Cysts and tumors of orofacial region

- Odontogenic and non- Odontogenic tumors and their management
- Giant Cell lesions of jaw bone
- Fibro osseous lesions of jawbone
- Cysts of jaw

f. Laser surgery

- The application of laser technology in surgical treatment of lesions

g. Cryosurgery

- Principles, applications of cryo surgery in surgical management

h. Cleft lip and palate surgery

- Detailed knowledge of the development of the face, head and neck
- Diagnosis and treatment planning
- Current concepts in the management of cleft lip and palate deformity
- Knowledge of Naso endoscopy and other diagnostic techniques in the evaluation of speech and hearing
- Concept of multidisciplinary team management

i. Aesthetic facial surgery

- Detailed knowledge of the structures of the face and neck including skin and underlyings of tissue
- Diagnosis and treatment planning of deformities and conditions affecting facial skin
- Underlying facial muscles, bone, Eyelids, external ear
- Surgical management of post acne scarring, face lift, blepharoplasty, otoplasty, facial bone recontouring, etc

j. Stem Cells and Its Application In Oral & Maxillofacial Surgery

Introduction, classification, Stem cell culture, Stem cell lines, Application.

k. Tissue Engineering

Introduction to tissue engineering, cells astherapeutic agents, tissue types, tissue dynamic (Dynamic state of tissue),In-vivo cell and tissue engineering- Artificial Skin, Artificial Blood vessels, Regeneration of bone and muscles.

l. Piezo surgery

History, principles and mechanism and design, applications, advantages& disadvantages

m. Robotic Surgery

History, Classification, Applications, Advantages, Disadvantages

n. Craniofacial surgery

- Basic knowledge of developmental anomalies of the face, head and neck

- Basic concepts in the diagnosis and planning of various head and neck anomalies including facial clefts, craniosynostosis, syndromes, etc.

- Current concept in the management of Craniofacial anomalies

Paper–III: Essays (descriptive and analyzing type questions)

ACADEMIC PERFORMANCE

END OF FIRST ACADEMIC YEAR				
Sl.No	Details	To be completed by	Quota	Compl / Incom
1	Pre-clinical exercise	August	-	
2	Seminars presented	May	5 +1	
3	Cases presented	May	5	
4	Journals presented	May	5	
5	Entry level theory examination	August	Pass/fail	
6	Poster presentation	May	1	
7	Conference attended	May	1	
8	CDE attended	May	3	
9	Completion of log book	May	Submission	
10	University examination in Basic Science Paper	APRIL	1	
11	Completion of Medical Posting	May (Jan-May)		
12	Leaves availed	Till May		
Clinical Cases to be done				
1	Injections IM/IV	May	30/10	
2	Surgical Extractions	May	5	

3	Pre-Prosthetic surgery	May	5	
4	Incision and Drainage	May	5	
	Clinical cases to be assisted			
1	Biopsy procedures	May	3	
2	Periapical Surgery	May	3	
3	Cyst enucleation	May	2	
4	OAF closure	May	2	
5	Removal of Impacted teeth(A)	May	5	
Cases to be observed				
1	Facial fracture management	May	5	

ACADEMIC PERFORMANCE

END OF SECOND ACADEMIC YEAR				
Sl.No	Details	To be completed by	Quota	Compl / Incom
1	Short study completion	May		
2	Completion of Library dissertation	May	1	
3	Paper & Poster Presentation	May	1+1	
4	Seminar presented	May	5	
5	Case presented	May	5	
6	Journal presented	May	5	
7	Completion of cancer centre posting	May	1 Month	
8	CDE attended	May	3	
9	Conference attended	May	1	
10	Theory class for Undergraduates	May	2	
11	Annual evaluation examination	APRIL	1	
12	Logbook	May		

13	Leaves availed	Till may		
Cases to be performed				
1	Injections IM/IV	May	20/10	
2	Biopsy	May	6	
3	Removal of impacted	May	10/5	
4	OAF closure	May	3	
5	Incision and drainage abscess	May	4	
6	Pre-prosthetic surgery corrective procedure	May	5	
Cases to be assisted				
1	Ridge extension procedure	May	5	
2	Cyst enucleation procedure	May	5	
3	Removal of salivary calculi	May	3	
4	Mandibular fracture management	May	5	
5	Tracheostomy	May	2	
6	Implant placement	May	2	
7	Cleft lip &palate surgery	May	5	
Cases to be observed				
1	Orthognathic surgery	May	3	
2	Harvesting bone and cartilage graft Iliac crest Rib Calvarial Fibula	May	5	
3	Emergency management for OMFS patients in casualty/Accident & Emergency		5	

ACADEMIC PERFORMANCE

END OF THIRD ACADEMIC YEAR (ELIGIBLE FOR UNIVERSITY EXAMINATION)				
Sl.no	Details	To be completed by	Quota	Compl / Incom
1	Completion of thesis	Nov	submission	
2	Seminar presentation	Jan	5	
3	Journal discussion	Jan-	5	
4	Case presentations	Jan	5	
6	Paper Presentation	Jan	1	
7	Scientific paper Presentation	Dec	1	
8	Completion of Clinical logbook	Dec	submission	
11	Conference attended	Feb	1	
12	CDE attended	Feb	3	
13	Theory class for Undergraduates	Feb	2	
14	Academic data file	Feb	Submission	
15	Completion of log book	Mar	submission	
16	Mock exam theory	May	1	
17	Mock exam clinical	May	1	
18	Leaves availed	Till May		
Cases to be done				
1	Removal of impacted teeth done		15	
2	Mandibular fractures		10	
3	Midface fractures		5	
4	Benign tumors		3	
5	Emergency management for OMFS Patients in casualty/ Accident &		5	

	Emergency			
Cases to be assisted				
1	Removal of Impacted tooth		10	
2	Preprosthetic Surgery–Ridge reconstruction		3	
3	Benign Tumor Management		3	
4	Midface # Management/ Mandible		5	
5	Tracheostomy		2	
6	Skin graft harvesting		2	
7	Orthognathic surgery		5	
8	Implant placement		2	
9	T.M.J. Surgery		3	
10	Onco Surgery		5	
11	Jaw resection		3	
12	Harvesting bone graft a) IliacCrest–3 cases b) Rib/Calvarial–2cases		5	
13	Cleft lip & Palate Surgery		5	
14	Distraction 0Osteogenesis		2	
15	Rhinoplasty		3	

11. Scheme of examination:

Internal examinations

- Candidate shall have pass marks in Basic Science examination conducted three months after admission to the course by the Department.

- ❖ Candidate shall have pass marks in Part-I examination (Basic Science) conducted at the end of first year by the University
- ❖ Candidates shall have pass marks in annual examination conducted at the end of second year by the collage.
- ❖ Candidate shall have pass marks in Preparatory examination conducted prior to University examination by the collage.

Department requirement: Candidate shall complete all their seminars, journal discussion, case presentation, logbook, conference presentations and publications.

Internal and university examination schedule

- Entry level theory examination (for fresh batch)-second week of August.
- University exam in Basic science, single paper at the end of 1st year (3 hrs paper with 100 marks).
- Internal examination at the end of second year in Minor Oral Surgery/ Trauma/ Tumours with 2 papers.
- In the 3rd year–Mock exam in University pattern both clinical and theory (1-2months before the university exam)

A. Theory: Part-I: BasicSciences Paper - 100 Marks
Part-II: Paper-I, Paper-II & Paper-III - 300 Marks
(100 Marks for each Paper)

Written examination shall consist of Basic Sciences Paper (Part-I) of three hours duration and should be conducted at the end of First year of MDS course. Part-II Examination will be conducted at the end of Third year of MDS course. Part-II Examination will consist of Paper-I, Paper-II & Paper-III, each of three hours duration. Paper-I & Paper-II shall consist of two long answer questions carrying 25 marks each and five questions carrying 10 marks each. Paper-III will be on Essays. In Paper-III three Questions will be given and student has to answer any two

questions. Each question carries 50 marks. Questions on recent advances may be asked in any or all the papers. Distribution of topics for each paper will be as follows:

PART-I: Applied Basic Sciences: Applied Anatomy, Physiology, & Biochemistry, Pathology, Microbiology, Pharmacology, Research Methodology and Biostatistics.

PART-II

Paper–I: Minor Oral Surgery and Maxillofacial Trauma

Paper–II: Maxillofacial Surgery

Paper–III: Essays (descriptive and analyzing type questions)

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

1. Minor Oral Surgery - 100 Marks

Each candidate is required to perform them in or oral surgical procedures under local anaesthesia. The minor surgical cases may include removal of impacted lower third molar, cyst enucleation, any similar procedure where students can exhibit their professional skills in raising the flap, removing the bone and suturing the wound.

1. Case presentation and discussion: 100 Marks

(a) One long case - 60 Mark

(b) Two short cases - 40 Marks
(20 marks each)

(c) Viva Voce - 100 Marks

i. Viva-Voce examination: 80 Marks

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression, interpretation of data and communication skills. It includes all components of course contents. It includes presentation and discussion on dissertation also.

ii. Pedagogy: 20Marks

A topic be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8-10 minutes

MDS PRACTICAL EXAM PATTERN

1ST DAY

Exercise No.	Details	Time
1	Minor oral surgery Each candidate is required to perform the minor oral surgical procedures under local anaesthesia. The minor surgical case includes removal of impacted lower third molar. a. Recording case history b. Examination c. Local Anaesthesia Injection d. Performing the procedure e. Discussion & submission	1 hour 30 minutes 10 min 10 min 5 min 45 min 20 min
2	2 short cases Case is allotted pertaining to orofacial region	2 X 20min

	a. Record only relevant history, local examination, Chair side investigation b. Formulate provisional / differential diagnosis c. Formulate treatment plan d. Presentation & discussion	2 X 15 min
3	1 long case In the given case a. Record detailed history, perform examination, chair side investigation b. Evaluation of radiographs & other investigations c. Perform provisional / differential diagnosis d. Provide final diagnosis e. Formulate treatment plan	60min
	Presentation & discussion	2X15min

2nd DAY

Exercise No.	Details	Time
1	Viva Voce	1 hour/ candidate
2	Pedagogy	8-10 Minutes /candidate

12.Eligibility to appear for university examination

Attendance: University mandates that minimum of 80% of attendance is required for a candidate to appear for University examination in each academic year.

- Journal Clubs : 5 in a year

- Seminars : 5 in a year
- Clinical Case Presentation : 4 in a year
- Lectures taken for undergraduates : 1in a year
- Scientific Paper/Poster Presentations In state/National level Conference : 4 Paper/Poster during three years of training period
- Clinic Pathological Conferences : 2 presentations during three years of training period
- Scientific Publications : One Publication in any indexed Scientific Journal
- Submission of Synopsis : One synopsis within six months from the date of commencement of the course
- Submission of Dissertation : One Dissertation within six months appearing for the university before examination
- Submission of Library Dissertation : One Dissertation within eighteen months from the date Commencement of the course

13. Criteria for passing

To pass the university examination, a candidate shall secure in both theory examination and in practical/clinical including viva voce independently with an aggregate of 50% of total marks allotted (50 out of 100 marks in Part I examination and 150 marks out of 300 in Part II examination in theory and 150 out of 300, clinical plus viva voce together). A candidate securing marks below 50% as mentioned above shall be declared to have failed in the examination.

A candidate who is declared successful in the examination shall be granted a Degree of Master of Dental Surgery in the respective specialty.

14. Log books/portfolio (if applicable)

TABLE-I

ACADEMIC ACTIVITIES ATTENDED

Name: Admission Year:

College:

Date	Type of activity (Specify Seminar, Journal club, presentation, under-graduate teaching)	Particulars

TABLE 2

YENEPOYA
(DEEMED TO BE UNIVERSITY)

ACADEMIC PRESENTATIONS MADE BY THE TRAINEE

Name: Admission Year:

College:

Date	Topic	Type of activity (Specify Seminar, Journal club, presentation, under- graduate teaching)

TABLE 3

DIAGNOSTIC AND OPERATIVE PROCEDURES PERFORMED

Name: Admission Year:

College:

Date	Name	OP No	Procedure	Category O,A,PA, PI

Key:

O-Washed up and observed- Initial six months of admission A-Assisted senior surgeon-I year MDS

PA-Performed procedure under the direct supervision of a senior surgeon – II year MDs

PI- Performed independently–III year MDS

15. Recommended books

1. Maxillofacial Trauma
   a. Maxillofacial Injuries (Vol I & II)-Rowe & Williams
   b. Oral & Maxillofacial trauma (Vol I & II)-Fonseca
   c. Killey's fractures of middle 3rd of the facial skeleton
   d. Killey's fractures of the mandible
2. Maxillofacial Pathology
   a. Oral & maxillofacial pathology – Robert E Marx
   b. Cysts of the oral & maxillofacial regions – Mervyn shear
   c. Shafer's textbook of oral pathology
3. Oncology & Reconstruction
   a. Stell & Maran's text book of head & neck surgery & oncology
   b. Jabin shah's Head & Neck surgery & oncology
   c. Local flaps in facial reconstruction-Baker
   d. Fundamental techniques of plastic surgery & their surgical applications-Alan D Mc Gregor
4. Cleft & Craniofacial Surgery
   a. Plastic surgery-Mc Carthy
   b. Cleft craft (Vol I -III)-Ralph millard
   c. Cleft lip & plates Diagnosis & Management –Samuel Berkowitz
5. Orthognathic Surgery
   a. Oral & maxillofacial surgery Vol III - Fonsec

b. Essentials of orthognathic surgery-Johan P Reyneke
c. Surgical correction of dentofacial deformities-William H Bell

6. Tempomandiblular Joint Disorders
   a. Petersons principles of oral & maxillofacial surgery
   b. Maxillofacial surgery-Peter Ward Booth
7. Exodontia & minor Oral Surgery
   a. Text book of oral & maxillofacial surgery-Neelima Anil Malik
   b. Contemporary oral & Maxillofacial Surery-Larry J Peterson
   c. Extraction of teeth-Geoffrey L Howe
   d. Impacted teeth-Charles C Alling
   e. Medical Emergencies in the dental office-Stanley F Malamed
8. Local Anesthesia
   a. Handbook of Local anesthesia-Stanley F Malamed
   b. Local anesthesia & pain control in dental practice-Monheim

16. Journals

International OMFS Journals

- International Journal of Oral and Maxillofacial Surgery (Elsevier; official journal of IAOMS).
- Journal of Oral and Maxillofacial Surgery (JOMS; official journal of AAOMS).
- British Journal of Oral and Maxillofacial Surgery.
- Journal of Cranio-Maxillofacial Surgery.
- Oral and Maxillofacial Surgery (Springer).
- Oral and Maxillofacial Surgery Clinics of North America.
- Atlas of the Oral and Maxillofacial Surgery Clinics of North America.
- Asian Journal of Oral and Maxillofacial Surgery.
- Journal of Stomatology, Oral and Maxillofacial Surgery.
- Oral and Maxillofacial Surgery Cases (case-report focused)
- Cleft Palate–Craniofacial Journal (includes craniofacial and orthognathic work).
- Craniomaxillofacial Trauma and Reconstruction.
- Journal of Oral & Maxillofacial Research (open-access, online).
- World Journal of Oral and Maxillofacial Surgery.
- Dentistry and Oral Maxillofacial Surgery (JDOMS)

Indian / National OMFS and related journals

- Journal of Maxillofacial and Oral Surgery (official journal of the Association of Oral and Maxillofacial Surgeons of India; Springer)
- Annals of Maxillofacial Surgery (Wolters Kluwer; India-based editorial leadership).
- National Journal of Maxillofacial Surgery (OMFS-focused, India). [9]
- Contemporary Clinical Dentistry

17. Annexure (Any other Checklists/Formats for assessment)

SCHEDULE-II

MODEL CHECKLIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Trainee:

Date Name of the Faculty/Observer:

Sl No	Items for observation during Presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness & Preparation.					
2.	Clarity of presentation.					
3.	Understanding of subject.					
4.	Whether other relevant publications consulted.					
5.	Whether cross-					

	references have been consulted.					
6.	Ability to answer the questions.					
7.	Time scheduling.					
8.	Appropriate use of audio–visual aids.					
9.	Overall performance.					
10.	Any other observation.					
	Total Score					

SCHEDULE-III

MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN Outpatient Department

(To be completed once a month by respective unit heads including posting in other department)

Name of the Trainee: Date:

Name of the Unit Head:

Sl No	Items for observation during Presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance.					
2.	Punctuality.					

3.	Interaction with colleagues and supportive staff.					
4.	Maintenance of case records.					
5.	Presentation of cases.					
6.	Investigations workup.					
7.	Chair-side manners.					
8.	Rapport with patients.					
9.	Overall quality of clinical work.					
	Total Score					

EVALUATION OF CLINICAL CASE PRESENTATION

Name of the Trainee: Date:

Name of the Faculty/Observer:

Sl. No.	**Items for observation during presentation**	**Poor 0**	**Below Average 1**	**Average 2**	**Good 3**	**Very Good 4**
1.	Completeness of history.					
2.	Whether all relevant points elicited.					
3.	Clarity of presentation.					
4.	Logical order.					

5.	Mentioned all positive and negative points					
6.	Accuracy of general physical examination.					
7.	Diagnosis: Whether it follows logicallyrom history and findings.					
8.	Investigations required.					
	Complete list.					
	Relevant order.					
	Interpretation of investigations.					
9.	Ability to react to questioning Whether it follows logically from History					
10.	Ability to defend diagnosis.					
11.	Ability to justify differential diagnosis.					
12.	Others.					
	Total Score					

Note: Please use a separate sheet for each faculty member.

SHEDULE -IV

MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL

Name of the Trainee: Date:

Name of the Faculty/Observer:

Sl. No	**Items for observation**	**Poor 0**	**Below Average 1**	**Average 2**	**Good 3**	**Very Good 4**

1.	Communication of the purpose of the talk					
2.	Evokes audience interest in the subject.					
3.	The introduction.					
4.	The sequence of ideas.					
5.	The use of practical examples and/ or illustrations.					
6.	Speaking style (enjoyable, monotonous, etc. specify)					
7.	Attempts audience participation.					
8.	Summary of the main points at the end.					
9.	Asks questions.					
10.	Answers questions asked by the audience.					
11.	Rapport of speaker with his audience.					
12.	Effectiveness of the talk.					
13.	Uses audio-visual aids appropriately.					

SCHEDULE-V

(See clause (l) of sub-regulation (2) of regulation 11)

(a) MODEL CHECKLIST FOR DISSERTATION PRESENTATION

Name of the Trainee: Date:

Name of the Faculty /Observer:

Sl. No.	Prints to be considered.	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Interest shown in Selecting topic.					
2	Appropriate review.					
3	Discussion with guide and other faculty.					
4	Quality of protocol.					
5	Preparation of proforma					
	Total Score					

(a) CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE/ CO-GUIDE

Name of the Trainee: Date:

Name of the Faculty/Observer:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1	Periodic consultation with guide/ co- guide.					
2	Regular collection of case material					
3	Depth of analysis/discussion.					
4	Quality of final output.					
5	Others					
	Total Score					

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SCHEDULE-VI

OVER ALL ASSESSMENT SHEET

Date:

SI. No.	Faculty Member	Name of Trainee and Mean Score									
		A	B	C	D	E	F	G	H	I	J
1											
2											
3											

Signature of Head of the Department

Signature of Principal

Note: The overall assessment sheet used along with the logbook shall form the basis for certifying satisfactory completion of course of study, in addition to the attendance required.

KEY:

Faculty member: Name of the faculty doing the assessment.