

**MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH**

**(Deemed To Be University U/S 3 OF UGC ACT, 1956)**

**12, Vembuliamman Koil Street, West K.K. Nagar, Chennai – 600 078**

**FACULTY OF DENTAL SCIENCES**



**MASTER OF DENTAL SURGERY (MDS) IN  
ORAL AND MAXILLOFACIAL SURGERY**

**REGULATION 2017 AND SYLLABUS  
Effective from Academic Year 2017 – 2018**

**Effective from Academic year 2017**

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**MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH**  
**MEENAKSHI AMMAL DENTAL COLLEGE AND HOSPITAL**  
**(Affiliated to MAHER)**  
**MASTER OF DENTAL SURGERY (MDS) IN**  
**ORAL AND MAXILLOFACIAL SURGERY**  
**REGULATION -2017**

**VISION AND MISSION OF**  
**MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH**

**VISION**

To be a world-class institution, transforming society through value-based diverse programs and healthcare advancements, leading to the all-around development of human resources, knowledge, innovation, entrepreneurship, and research.

**MISSION**

- To become an institute of eminence by developing world-class professionals in the field of healthcare, science, liberal arts, technology and research with a focus on the societal good.
- To create an enabling state-of-the-art infrastructure, intellectual capital and provide best-in-class learning experience with a freedom to innovate and invent.
- To foster values and ethics so as to develop students and learners into responsible citizens of the Nation and the world.

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MEENAKSHI AMMAL DENTAL COLLEGE AND HOSPITAL  
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MASTER OF DENTAL SURGERY (MDS) IN ORAL AND MAXILLOFACIAL  
SURGERY  
REGULATION -2017**

**VISION AND MISSION OF  
MEENAKSHI AMMAL DENTAL COLLEGE AND HOSPITAL**

**VISION**

To create a center of excellence in all dental specialties by imparting quality education to undergraduate and postgraduate students and to deliver a quality dental care to the public. To raise the standard of dental education on par with the global standards and to perform high quality dental research that will benefit the public.

**MISSION**

- To enhance the quality of dental education to world class standards
- To train the students in basic and advanced techniques used in delivering dental care
- To provide high quality dental treatment at affordable cost
- To motivate the students to do ethical clinical practice

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**SURGERY**  
**REGULATION -2017**

**VISION AND MISSION OF**  
**DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY**

**VISION**

To be recognised by the surgical and medical fraternity as a unique and best referral centre that catersto speciality treatment of congenital deformities , head and neck pathology, reconstructive,rehabilitative and trauma careinhead and neck region.

**MISSION**

- To achieve reasonable level of perfection in providing quality dental care efficiently and effectively, backed by scientific knowledge and skill;
- To attain comprehensive knowledge on preventive, interceptive and therapeutic aspects .
- To provide affordable and superior quality oral surgical healthcare that would benefit the patient and inspire the patient to recommend our centre to family and friends.
- To provide effective treatment ground for budding dental specialists and maxillofacial surgeons to be highly competent in their field.
- To enable students confer correct and proper diagnosis.
- To train students with well equipped clinical skills in basic life support protocols.
- To achieve excellence to meet global standards

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**SURGERY**  
**REGULATION -2017**

**PROGRAMME EDUCATION OBJECTIVES (PEO's)**

- PEO 1** To prepare graduates for a successful technical and professional career in Oral and Maxillofacial Surgery
- PEO 2** To inculcate professional and ethical attributes in the students and to promote lifelong learning of attributes related to Oral and Maxillofacial Surgery.
- PEO 3** To develop graduates with enhanced technical acumen, aptitude, communication and professional skills to deliver quality surgical care to the community which includes both minor and major surgery.
- PEO 4** To enable students to understand the principles of surgery and post operative patient care and peri-operative management of surgical patients

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**PROGRAM OUTCOMES (PO's)**

- PO 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.
- PO 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.
- PO 3** Able to identify social, cultural, economic, genetic and environmental factors and their relevance to disease process management in the oral and Maxillofacial region.
- PO 4** 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.
- PO 5** 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.
- PO 6** 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.
- PO 7** Willing to share the knowledge and clinical experience with Professional colleagues.
- PO 8** Willing to adopt new techniques of surgical management developed from time to time based on scientific research which are in the best interest of the patient
- PO 9** Respect patient right and privileges, including patients right to information and right to seek a second opinion
- PO 10** Develop attitude to seek opinion from an allied medical and dental specialists as and when required.

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**REGULATION -2017**

**PROGRAM SPECIFIC OUTCOMES (PSO's)**

- PSO 1*** The Ability to analyze and implement the knowledge gained in the basic medical and clinical subjects in the management of patients with surgical problems clinically. Able to diagnose, manage and treat patients with basic oral surgical problems.
- PSO 2*** Have a broad knowledge of maxillofacial surgery and oral implantology. Should be familiar with legal, ethical and moral issues pertaining to the patient care and communication skills. Should have acquired the skill to examine any patient with an oral surgical problem in an orderly manner.
- .PSO 3*** Graduates should be competent in the extraction of the teeth under both local and general anesthesia. Competent to carry out certain minor oral surgical procedures under LA like transalveolar extraction, frenectomy, dento alveolar procedures, simple impaction, biopsy, etc
- PSO4*** Competent to assess, prevent and manage common complications that arise during and after minor oral surgery. Able to provide primary care and manage medical emergencies in the dental office. Familiar with the management of major oral surgical problems and principles involved in in-patient management.



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**MASTER OF DENTAL SURGERY (MDS) IN**  
**ORAL AND MAXILLOFACIAL SURGERY**  
**REGULATION -2017**

In exercise of the powers conferred by the Board of Management, Meenakshi academy of higher education and research, deemed to be University, Chennai hereby makes the following Regulations:

**1. SHORT TITLE**

These Regulations shall be called “THE REGULATIONS FOR THE MASTER OF DENTAL SURGERY (MDS) DEGREE PROGRAMME IN ORAL AND MAXILLOFACIAL SURGERY of MEENAKSHI AMMAL DENTAL COLLEGE AND HOSPITAL” affiliated to MEENAKSHI ACADEMY OF HIGHER EDUCATION AND RESEARCH, deemed to be University.

**2. COMMENCEMENT**

They shall come into force from the academic year 2017-18 onwards.

The Regulations and the Syllabus are subject to modification by the Academic council and board of studies from time to time.

**3. DEFINITIONS**

In these regulations unless the context otherwise requires:-

- (a) “Act” means the Dentists Act, 1948 (16 of 1948)
- (b) “The Council” means the Dental Council of India constituted under section 3 of the Act;
- (c) “Dentistry” includes.
  - (i) the performance of any operation on, and the treatment on any disease, deficiency or lesion of, human teeth or jaws, and the performance of radiographic work in connection with human teeth or jaws or the oral

cavity;

(ii) the giving of any anesthetic in connection with any such operation or treatment;

(iii) the mechanical construction or the renewal of artificial dentures or restorative dental appliances;

(iv) the performance of any operation on, or the giving of any treatment, advice or attendance to, any person preparatory to, or for the purpose of, or in connection with, the fitting, inserting, fixing, constructing, repairing or renewing of artificial dentures or restorative dental appliances, and the performance of any such operation and the giving of any such treatment, advice or attendance, as is usually performed or given by dentists;

(d) "NEET" means the National Eligibility-cum-Entrance Test conducted by the National Board of Examination for admission to post-graduate courses;

(e) "University" means a university established or incorporated by or under a Central Act, a Provincial Act or a State Act, and includes any such institution as may, in consultation with the university concerned, be recognised by the University Grant Commission in accordance with the regulations made in this behalf under this Act.

#### **4. TITLE OF THE PROGRAM**

The program shall be called Master of Dental Surgery (MDS) in Oral and Maxillofacial Surgery.

#### **5. SYLLABUS**

The syllabus for MDS programme includes both Applied Basic Sciences, Allied specialties and subjects of pertaining to the Department of Oral and Maxillofacial Surgery

#### **6. GENERAL CONDITIONS TO BE OBSERVED BY POST GRADUATE TEACHING INSTITUTIONS**

(1) The institutions recognised by the Central Government and after consultation with the Council shall be eligible for conducting the post-graduate degree or

diploma programmes.

(2) The maximum number of students for a post-graduate course, for training for the award of post-graduate degree or diploma by the affiliating university, shall be determined by the facilities available in the department in terms of infrastructure, teaching staff and clinical teaching material. However, to start with, a maximum of three post-graduate students, (one Unit) shall be permitted in a speciality department. The annual intake capacity recommended by the Council and approved by the Central Government for the academic year shall be final. No institution shall be permitted to increase more than three seats at a time in its annual intake capacity in a particular speciality in a given academic year. Not more than two units consisting of six seats (including increase of seats) shall be granted to any dental institutions for each speciality.

(3) The students undergoing post-graduate courses shall be exposed to the following:-

- (i) Basics of bio-statistics and research methodology;
- (ii) Basics of human behaviour studies;
- (iii) Basics of pharmaco-economics;
- (iv) Introduction to the non-linear mathematics.

## **7. ETHICS IN DENTISTRY**

There is a definite shift from the traditional patient and doctor relationship and delivery of dental care. With the advances in science and technology and the increasing needs of the patient, their families and community, there is a concern for the health of the community as a whole. There is a shift to greater accountability to the society. Dental specialists like the other health professionals are confronted with many ethical problems. It is therefore absolutely necessary for each and every one in the health care delivery to prepare themselves to deal with these problems. To accomplish this and develop human values, it is desired that all the trainees undergo ethical sensitization by lectures or discussion on ethical issues, discussion of cases with an important ethical component.

## **8. ELIGIBILITY FOR ADMISSION**

(a) A candidate for admission to the Master in Dental Surgery course, must possess a recognized degree of Bachelor in 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 rotatory internship of a year in an approved/recognised dental college:

Provided that in the case of a foreign national, the following procedure shall be followed:-

(b) The candidate is to get a temporary registration from the Dental Council of India 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:

(c) Provided further that temporary registration to such foreign national shall be subject to the condition that such person is duly registered as a dental practitioner in his/her 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 or concerned authority.

## **9. SELECTION OF CANDIDATE FOR POST-GRADUATE PROGRAMME**

There shall be a uniform NEET for admission to the post-graduate dental courses in each academic year conducted in the manner, as prescribed by the National Board of Examination or any other authority appointed by the Central Government in this behalf. The overall superintendence, direction and control of the NEET shall vest with the Council.

## **10. QUALIFYING CRITERIA FOR ADMISSION TO POST - GRADUATE PROGRAMME:**

(1) The candidate has to secure the following category-wise minimum percentile in NEET for admission to post-graduate courses held in a particular academic year.

General	50th Percentile
Person with locomotory disability of lower limbs	45th Percentile
Scheduled Castes, Scheduled Tribes, Other Backward Classes	40 <sup>th</sup> Percentile

Provided that the percentile shall be determined on the basis of highest marks secured in the All-India common merit list in NEET for post-graduate courses.

(2) The reservation of seats in dental college/institutions for respective categories shall be as per applicable laws prevailing in States/Union territories. An all India merit list as well as State-wise merit list of the eligible candidates shall be prepared on the basis of the marks obtained in NEET Test and candidates shall be admitted to post-graduate courses from the said merit list only.

#### **11. COMMENCEMENT OF ACADEMIC SESSION AND CUT-OFF DATE FOR ADMISSION:**

- (1) The academic session shall be commenced from 1st of May and the cut-off date for admission, even for stray vacancies, in the Master of Dental Surgery course shall be 31st of May, every year. The universities and other institutions shall start the admission process in such a way that teaching in post-graduate courses starts by 1st May each year for which they shall strictly adhere to the time schedule specified in the Dental Council of India (Establishment of new dental colleges, opening of higher courses of study and increase of admission capacity in existing dental colleges) Regulations, 2006.
- (2) There shall be no admission of students in respect of any academic session beyond the 31st May for post-graduate courses under any circumstances. The universities or institute shall not register any student beyond the said date; in case, any institution which grants admission to any student after the last date specified for the same shall also be liable to face such action including surrender of seats equivalent to the extent of such admission made from its sanctioned intake capacity for the succeeding academic year.
- (3) The Council may direct, that any student identified as having obtained his/her admission after the last date for closure of admission be discharged from the course of study, or any dental qualification granted to such a student shall not be a recognised qualification for the

purpose of the Act.

## **12. COMMON COUNSELING:**

(1) There shall be a common counseling for admission to all post-graduate courses (Diploma/MDS) in all dental educational institutions on the basis of merit list of the NEET.

(2) The designated authority for counseling for the 50% All India Quota seats of the contributing States, as per the existing scheme for post graduate (Diploma/MDS) courses shall be the Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India. Further Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India shall conduct counseling for all post-graduate (Diploma/MDS) Courses in Dental Educational Institutions of the Central Government, Universities established by an Act of Parliament and the Deemed Universities.

(3) The counseling for admission to post-graduate (Diploma/MDS) courses in all dental Educational Institutions in a State/Union Territory, including dental educational institutions established by the State Government, University established by an Act of State/Union Territory Legislature, Trust, Society, Minority Institutions shall be conducted by the State/Union Territory Government.

(4) In case, any dispute arises on such common counseling, the matter to the Central Government and its decisions shall be final, in this regard.

The academic session shall be commenced from 1st of May.

## **13. INFORMATION ON ADMISSION AND SCHEDULE OF EXAMINATION:**

Every dental institution and its affiliating university shall furnish information on admissions in the courses of study, schedule of examinations to the Council, in such form as the Council may specify, within stipulated period from time to time.

## **14. PERIOD OF TRAINING:**

(1) 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 in said course:

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 in the concerned speciality except 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.

(2) During the period, each student shall take part actively in learning and teaching activities design of training, by the institution or the university. The teaching and learning activities in each speciality, shall be as under:-

**(a) LECTURES:**

There shall be some didactic lectures in the speciality and in the allied fields. The departments shall encourage guest lectures in the required areas and integrated lectures by multi-disciplinary teams on selected topics, to strengthen the training programmes.

**(b) JOURNAL REVIEW:**

The journal review meetings shall be held at least once a week. All trainees, associate and staff associated with the post-graduate programme are expected to participate actively and enter relevant details in the logbook. The trainee shall make presentations from the allotted journals of selected articles. A model check list for the evaluation of journal review presentation is annexed at Schedule-I of these regulations.

**(c) SEMINARS:**

The seminars shall be held at least twice a week in each department. All trainees are expected to participate actively and enter relevant details in logbook. A model check list for the evaluation of seminar presentation is annexed at Schedule-II of these regulations.

**(d) SYMPOSIUM:**

It is recommended to hold symposium on topics covering multiple disciplines.

**(e) CLINICAL POSTINGS:**

Each trainee shall work in the clinics on regular basis to acquire adequate professional skills and competency in managing various cases, A model check list for evaluation of clinical postings is annexed at Schedule-III of these regulations.

**(f) CLINICO- PATHOLOGICAL CONFERENCE:**

The clinico pathological conference shall be held once a month involving the faculties of Oral Medicine and Radiology, Oral Pathology and allied clinical departments. The trainees shall be encouraged to present the clinical details, radiological and histo-pathological interpretations and participation in the discussions.

**(g) INTER-DEPARTMENTAL MEETINGS:**

To encourage integration among various specialities, there shall be inter-departmental meeting chaired by the Dean with all heads of post-graduate departments at least once a month.

**(h) TEACHING SKILLS:**

All the trainees shall be encouraged to take part in undergraduate teaching programmes either in the form of lectures or group discussions. A model check list for evaluation of teaching skills is annexed at Schedule-IV of these regulations.

**(i) DENTAL EDUCATION PROGRAMMES:**

Each department shall organise dental education programmes on regular basis involving other institutions. The trainees shall also be encouraged to attend such programmes conducted outside their university or institute.

**(j) CONFERENCES / WORKSHOPS / ADVANCED COURSES:**

The trainees shall be encouraged to attend conference/workshops/advanced courses and also to present at least two scientific papers and two posters at State / national level speciality and allied conferences / conventions during the training period.

**(k) ROTATION AND POSTING IN OTHER DEPARTMENTS:**

To bring in more integration among the specialities and allied fields, each department shall workout a programme to rotate the trainees in related disciplines.

**(l) DISSERTATION / THESIS:**

The trainees shall prepare a dissertation based on the clinical or experimental work or any other study conducted by them under the supervision of the guide. A model check list for evaluation of dissertation presentation and continuous evaluation of dissertation work by guide / co-guide is annexed at Schedule-V of these regulations. A model overall assessment sheet to be filled by all the trainees undergoing post-graduate course is annexed at Schedule-VI of these regulations.

**(3)** All the students of the speciality departments shall complete the minimum quota for the teaching and learning activities, as follows:-

- |                                   |               |
|-----------------------------------|---------------|
| (a) Journal Clubs :               | 5 in a year   |
| (b) Seminars :                    | 5 in a year   |
| (c) Clinical Case Presentations : | 4 in a year 7 |



- (d) Lectures taken for undergraduates : 1 in a year
- (e) Scientific Paper / Poster Presentations : 4 papers/posters during three years of training  
In State / National Level Conferences / workshop period
- (f) Clinico Pathological Conferences : 2 presentations during three years of training period
- (g) Scientific Publications (optional) : 1 publication in any indexed scientific journal
- h) Submission of Synopsis : 1 synopsis within six months from the date of commencement of the course
- (i) Submission of Dissertation : 1 dissertation within six months before appearing for the university examination
- (j) Submission of Library Dissertation : 1 dissertation within eighteen months from the date of commencement of the course.

### **15. STIPEND:**

The post-graduate students shall be paid stipend only for duration of three years of the course, as may be fixed by the Central Government/State Government/Union territory Administration or such authority as the respective government/administration may authorise. Where any dispute arises regarding any such stipend, including, quantum of stipend, it shall be considered and decided by the Central Government/respective State Government/Union territory Administration at its own level and its decision shall be final.

### **16. MIGRATION:**

Under no circumstances, the migration or the transfer of students undergoing post-graduate degree/Diploma shall be permitted by the university or the authority. No inter-change of the speciality in the same institution or in any other institution shall be permitted after the date of the commencement of session.

### **17. INFRASTRUCTURE AND FUNCTIONAL REQUIREMENTS :**

(1) **Space:** In addition to the undergraduate functional, facilities, the following physical facilities shall be made available to start a post-graduate training programme, namely:-

- (a) a minimum of 125 sq ft. area for each dental chair in the clinic. The area of the clinic shall be in accordance with the number of dental chairs required to be placed in the department;

(b) each department shall be equipped with a seminar hall, library, sterilization room, (800 to 1000 sq.ft.)

2) **Equipment:** Each department shall have adequate number of standard equipments available in the market as approved by the ISI. 8

The details of equipments specialities / unit wise is annexed as Schedule –VII to these regulations.

3) **Library:**

(a) There shall be a central library which shall provide the latest editions of books pertaining to the speciality and allied subjects. In additions to this, the departmental library shall be equipped with the latest books in the subjects concerned. In case, the central library is shared with the medical college, there shall be provision for additional space and separate budget for the dental college.

(b) In addition to books and journals in the library, internet, CDs, audio-visual facilities should be available.

(c) Minimum 15-20 titles of renowned authors, 4-6 international journals of the concerned speciality, alongwith 8-10 volumes of back issues of atleast 3 international journals of the concerned speciality should be available.

(d) All the journals of the speciality and allied subjects shall be available out of which 50% should be in print form.

## **18. TEACHING / LEARNING ACTIVITIES:**

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

### ***I Year***

Study of applied basic sciences including practicals (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 - 15 days

Plastic Surgery - 15 days

Casualty - 15 days

Anesthesia (ICU) - 15 days

Radiology (CT, MRI, USG) - 15 days

### ***II Year***

- ***Minor Oral surgery and higher surgical training***
- ***Submission of library assignment***
- ***Oncology posting - one month***

### ***III Year***

- Maxillofacial surgery
- Submission of dissertation to the university, six months before the final examination.

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:-

<b>Sl.No</b>	<b>Procedure</b>	<b>Category</b>	<b>Number</b>
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- a) corrective procedures b) ridge	PI A A	10 3 3

	extension c) ridge reconstruction		
7	OAF closure	PI, A	3,2
8	Cyst enuleation	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	mid face 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 a) Iliac crest b) Rib c) Calvarial d) 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	A,O	1,3

	skull surgeries		
29	Emergency Management for OMFS Patients in Casualty / Accident & Emergency	PI,O	5,5

PI:- Performed Independently

A:- Assisted

O:- Observed

### 19. 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 may be structured and assessment be done using checklists that assess various aspects. Checklists are given in Section IV.

### 20. PATTERN OF EXAMINATION & COURSES OF STUDY:

S.No	Course Code	Course Name	Number of hours	Internal Assessment	External Assessment	Total marks
1	6115	Applied Basic Science:	3	-	100	100
2	6116	Minor Oral Surgery and Maxillofacial Trauma	3	-	100	100
3	6117	Maxillofacial Surgery	3	-	100	100
4	6118	Essay ( descriptive and analyzing type questions)	3	-	100	100

#### Course I: Part I : Applied Basic sciences - Code 6115

1. Applied Anatomy,
2. Physiology,

3. Biochemistry,
4. Pathology,
5. Microbiology
6. Pharmacology,
7. Research Methodology and Biostatistics.

**Course II - Part II- Paper I: Minor Oral Surgery and Maxillofacial Trauma - Code 6116**

➤ Minor Oral Surgery:

1. Principles of Surgery
2. Medical Emergencies
3. Examination and Diagnosis:
4. Haemorrhage and Shock:
5. Exodontia
6. Impaction
7. Surgical aids to eruption of teeth:
8. Surgical Endodontics
9. Preprosthetic Surgery
10. Procedures to Improve Alveolar Soft Tissues
11. Infections of Head and Neck
12. Chronic infections of the jaws
13. Maxillary Sinus
14. Cysts of the Orofacial Region
15. Neurological disorders of the Maxillofacial Region
16. Implantology
17. Anesthesia : Local Anesthesia General Anesthesia:

➤ Maxillofacial Trauma

**Course III- Part II - Paper – II : Maxillofacial Surgery and Oral Implantology- Code- 6117**

- a) Salivary gland
- b) Temporomandibular Joint
- c) Oncology
- d) Orthognathic surgery

- e) Cysts and tumors of oro facial region
- f) Laser surgery
- g) Cryosurgery
- h) Cleft lip and palate surgery
- I) Aesthetic facial surgery
- j) Craniofacial surgery

**Course IV- Part II - Paper – III : Essays (Descriptive and analyzing type questions) -Code 6118**

1. Recent advances

**21. EXAMINATIONS:**

**(a) ELIGIBILITY:**

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

(i) Attendance: Every candidate shall secure (80% attendance during each academic year).

(ii) Progress and conduct: Every candidate shall participate in seminars, journal review meetings, symposia, conferences, case presentations, clinics and didactic lectures during each year organised by the concerned department.

(iii) Work diary and log book: Every candidate shall maintain a work diary and log book as per Annexure-I appended to these regulations for recording his or her participation in the training programmes conducted by the department. The work diary and log book shall be verified and certified by the Head of the Department of the institution. The certification of satisfactory progress is based on the work diary and log book.

**(b) UNIVERSITY EXAMINATION:**

The university examination shall consist of theory, practical and clinical examination and viva-voce and Pedagogy

**(i) Theory:**

Part-I: Shall consist of one paper

There shall be a theory examination in the Basic Sciences at the end of 1st year of course. The

question papers shall be set and evaluated by the concerned Department/Specialty. The candidates shall have to secure a minimum of 50% in the Basic Sciences and shall have to pass the **Part-I** examination at least six months prior to the final (Part-II) examination.

Part-II: Shall consist of three papers, namely:–

- (ii) Practical and Clinical Examination;
- (iii) Viva-voce; and
- (iv) Pedagogy.

A candidate who wishes to study in a second speciality, shall have to undergo the full course of three years duration in that speciality.

### **(c) DISSERTATION:**

Every candidate appearing for the post-graduate degree examination shall at least six months prior to the examinations, submit with his form for examination, four typewritten copies of the dissertation undertaken by the candidate, prepared under the direction and guidance of his/her guide. The dissertation so submitted shall be referred to the examiners for their examination and acceptance of it shall be a condition precedent to allow the candidate to appear for the written part of the examination: Provided that a candidate whose dissertation has been accepted by the examiner, but declared failed at the examination, shall be permitted to re-appear at the subsequent examination without a new dissertation:

Provided further that if the dissertation is rejected by the examiner, the examiner shall assign reasons therefor with suggestions for its improvement to the candidate and such candidate shall re-submit his/her dissertation to the examiner who shall accept it before appearing in the examination.

### **(d) CLINICAL/PRACTICAL EXAMINATION:**

Clinical/practical examination is designed to test the clinical skill, performance and competence of the candidate in skills such as communication, clinical examination, medical/dental procedures or prescription, exercise prescription, latest techniques, evaluation and interpretation of results so as to undertake independent work as a specialist. The affiliating university shall ensure that the candidate has been given ample opportunity to perform various clinical procedures.

The practical/clinical examination in all the specialities shall be conducted for six candidates in two days: Provided that practical/clinical examination may be extended for one day, if it is not complete in two days.



**(e) VIVA-VOCE EXAMINATION:**

Viva voce examination aims at assessing the depth of knowledge, logical reasoning, confidence and communication skill of the students.

**(f) SCHEME OF EXAMINATION:**

**A. Theory: Part-I: Basic Sciences 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 the minor 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.

**2. Case presentation and discussion: 100 Marks**

- (a) One long case - 60 Marks
- (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: 20 Marks***

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.

**(g) DISTRIBUTION OF MARKS:**

**Theory : (Total 400 Marks)**

**(1) Part I University Examination (100 Marks):-**

There shall be 10 questions of 10 marks each (Total of 100 Marks)

**(2) Part II (3 papers of 100 Marks):-**

- (i) Paper-I: 2 long essay questions of 25 marks each and 5 short essays of 10 marks each. (Total of 100 Marks)
- (ii) Paper-II: 2 long essay questions of 25 marks each and 5 short essays of 10 marks each. (Total of 100 Marks)
- (iii) Paper III: 2 out of 3 essay questions (50 x 2 = 100 Marks)

**Practical and Clinical Examination : 200 Marks**

**Viva-voce and Pedagogy : 100 Marks**

**22. EXAMINERS:**

**Part I:** There shall be one internal and one external examiner for three students appointed by the

affiliating university for evaluating the answer scripts of the same speciality. However, the number of examiner/s may be increased with the corresponding increase in number of students.

**Part II:** There shall be four examiners in each subject. Out of them, two (50%) shall be external examiners and two (50%) shall be internal examiners. Both external examiners shall be from a university other than the affiliating university and one examiner shall be from a university of different State.

### **23. QUALIFICATION AND EXPERIENCE FOR EXAMINERS:**

The qualification and experience for appointment of an examiner shall be as under:-

- (i) shall possess qualification and experience of a Professor in a post-graduate degree programme;
- (ii) a person who is not a regular post-graduate teacher in the subject shall not be appointed as an examiner;
- (iii) the internal examiner in a subject shall not accept external examinership in a college for the same academic year;
- (iv) no person shall be appointed as 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.

### **24. EXAMINATION CENTRE:**

(1) In the event of university exam being conducted in the same city or town having more than one post-graduate institution under the same university, one central examination centre shall be fixed by the university and the students from all the institutions of the city shall take the examination in that center: Provided that the clinical and viva-voice shall be conducted at their institute.

(2) Rotation of the institutions as center of examination shall be as per direction of the university.

### **25. VALUATION OF ANSWER BOOKS:**

Part-I : Answer book/s shall be evaluated by the internal and external examiner/s

Part-II : Answer books shall be evaluated by four examiners, two internal and two external and the average marks shall be computed.

## **26. CRITERIA FOR PASS CERTIFICATE:**

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.

## **27. AWARD OF DEGREE**

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

## COURSE DESCRIPTION

### COURSE - I

Course code	Course name	Mark allocation	Number of hours
6115	Applied Basic Sciences - Part I - Paper I	100 marks	150 hours

#### Course Objectives:

1. A thorough knowledge both on theory and principles in general and particularly the basic medial subjects relevant to the practice of maxillofacial surgery.
2. It is desirable to have adequate knowledge in bio-statistics, Epidemiology, research methodology, nutrition and computers.
3. 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.

#### Syllabus:

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

##### ***1.1 Applied Anatomy in relation to:***

Development of face, Bronchial arches, Muscles of facial expression, Muscles of mastication, TMJ, Salivary gland, Tongue, Salivary gland, Tongue, Hard and soft palate, Infra-temporal fossa, Paranasal air sinuses, Pharynx and larynx, Cranial and spinal nerves- with emphasis on trigeminal, facial, glossopharyngeal and hypoglossal nerve, Osteology of maxilla and mandible,

Blood supply, venous and lymphatic drainage of head and neck, Lymph nodes of head and neck, Structure and relations

### ***1.2 Applied Physiology and Biochemistry:***

Cell, Mastication and deglutition, Food and nutrition, Metabolism of carbohydrates, proteins, fats and minerals, Fluid and electrolyte balance, Pain pathway and mechanism-types, properties, Blood composition and functions, clotting mechanism and erythropoiesis, Blood groups and transfusions, Pulse and blood pressure, Dynamics of blood flow, Cardiovascular homeostasis-heart sounds, Respiratory system: Normal physiology in health and diseases, Asphyxia and artificial respiration, Endocrinology: thyroid, parathyroid, adrenals, pituitary, sex hormones and pregnancy, Endocrine regulation of blood sugar.

### ***1.3: Applied Pathology:***

Pathogenic mechanism of molecular level, Cellular changes following injury, Inflammation and chemical mediators, Oedema, thrombosis and embolism, Hemorrhage and shock, Neoplasia and metastasis, Blood disorders, Histopathology and pathogenesis of dental caries, periodontal disease, oral mucosa! lesions, and malignancies, HIV, Propagation of dental infection

### ***1.4: Microbiology:***

Microbial flora of oral cavity, Bacteriology of dental caries and periodontal disease, Methods of sterilization, Virology of HIV, herpes, hepatitis, Parasitology, Basic immunology - basic concepts of immune system in human body

### ***1.5: Applied Pharmacology***

Definition, scope and relations to other branches of medicine, mode of action, bioassay, standardization, pharmacodynamics, pharmacokinetics., Chemotherapy of bacterial, infections and viral infections - sulphonamides and antibiotics, Local anesthesia, Analgesics and anti-inflammatory drugs, Hypnotics, tranquilizers and antipyretics, Important hormones-ACTH, cortisone, insulin and oral antidiabetics, Drug addiction and tolerance, Important pharmacological agents in connection with autonomic nervous system- adrenaline, noradrenaline, atropine, Brief mention of antihypertensive drugs, Emergency drugs in dental

practice, Vitamins and hemopoietic drugs.

**1.6: Research Methodology and Biostatistics:**

HEALTH INFORMATICS - basic understanding of computers and its components, operating software {Windows), Microsoft office, preparation of teaching materials like slides, project, 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.

**Course Outcome (CO)**

- CO 1** Be Capable of providing basic care for maxillofacial surgical patients.
- CO2** 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.
- CO3** Able to apply the knowledge gained in the basic medical and clinical subjects in the management of patients with surgical problems  
Able to identify social, cultural, economic, genetic and environmental factors
- CO4** and their relevance to disease process management in the oral and maxillofacial region.
- CO5** 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.

## **References:**

### **REFERENCE BOOKS**

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2. Rajiv M Borle Text book of oral & maxillofacial surgery
3. Tripathi KD. Essentials of medical pharmacology
4. Chakravarthy PVK OSCE for clinical dental sciences
5. Krishna Garg BD Chaurasia's human anatomy for dental students
6. N A Faruqi Manual of practical anatomy, head, neck and brain, Vol.III,
7. Krishna Garg BD Chaurasia's dream human embryology, 2 nd edn.
8. Balaji, SM Textbook of oral & maxillofacial surgery, 2 nd edn.
9. Neelima Anil Malik Textbook of oral & maxillofacial surgery, 4 th edn.

### **JOURNALS**

1. Australian Dental Journal
2. British Dental Journal
3. Dental Clinics of North America
4. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology & Endodontology
5. British Journal of Oral & Maxillofacial Surgery
6. International Journal of Head & Neck Surgery



**PROGRAM OUTCOME AND COURSE OUTCOME MAPPING: PART I - PAPER I**

PAPER I	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P S O 1	P S O 2	P S O 3	P S O 4
CO1	2	2	1	-	2	-	1	1	-	3	2	1	-	-
CO2	2	2	2	2	2	2	3	2	2	1	1	2	1	3
CO3	1	1	3	1	1	2	2	-	2	3	3	2	2	1
CO4	1	2	1	3	3	1	2	1	2	2	2	1	3	2
CO5	3	1	1	2	2	1	1	2	1	-	1	3	2	2
TOTAL	18	16	16	16	22	12	18	22	14	18	18	18	16	16

1- Low

2- Medium

3- High

## COURSE II

Course code	Course name	Mark allocation	Number of hours
6116	Minor Oral Surgery and Maxillofacial Trauma - Part II- Paper I	100 Marks	150 hours

### Course Objectives

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. 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.

### Syllabus

#### **PART-II:**

#### **Paper– I: Minor Oral Surgery and Maxillofacial Trauma**

##### **1.1 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.

### **1.2 Medical Emergencies:**

Prevention and management of altered consciousness (syncope, orthostatic hypotension, seizures, diabetes mellitus, adrenal insufficiency), hypersensitivity reactions, chest discomfort, and respiratory difficulty.

### **1.3 Examination and Diagnosis:**

Clinical history, physical and radiographic, clinical and laboratory diagnosis, oral manifestations of systemic diseases, implications of systemic diseases in surgical patients.

### **1.4 Haemorrhage and Shock:**

Applied physiology, clinical abnormalities of coagulation, extra vascular hemorrhage, and hemorrhagic lesions, management of secondary hemorrhage, shock.

### **1.5 Exodontia:**

Principles of extraction, indications and contraindications, types of extraction, complications and their management, principles of elevators and elevators used in oral surgery.

### **1.6 Impaction:**

Surgical anatomy, classification, indications and contraindications, diagnosis, procedures, complications and their management.

### **1.7 Surgical aids to eruption of teeth:**

Surgical exposure of unerupted teeth, surgical repositioning of partially erupted teeth.

### **1.8 Transplantation of teeth**

### **1.9 Surgical Endodontics:**

Indications and contraindications, diagnosis, procedures of periradicular surgery

### **1.10 Preprosthetic Surgery:**

Requirements, types (alvoloplasty, tuberosity reduction, mylohyoid ridge reduction, genial reduction, removal of exostosis, vestibuloplasty)

### **1.11 Procedures to Improve Alveolar Soft Tissues:**

Hypermobile tissues- operative / sclerosing method, epulis fissuratum, frenectomy and frenotomy

### **1.12 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.

### **1.13 Chronic infections of the jaws:**

Osteomyelitis (types, etiology, pathogenesis, management) osteoradionecrosis

### **1.14 Maxillary Sinus:**

Maxillary sinusitis – types, pathology, treatment, closure of Oro – antral fistula, Caldwell- luc operation

### **1.15 Cysts of the Orofacial Region:**

Classification, diagnosis, management of OKC, dentigerous, radicular, non Odontogenic, ranula

### **1.16 Neurological disorders of the Maxillofacial Region:**

Diagnosis and management of trigeminal neuralgia, MPDS, bell's palsy, Frey's syndrome, nerve injuries.

### **1.17 Implantology:**

Definition, classification, indications and contraindications, advantages and disadvantages, surgical procedure.

### **1.18 Anesthesia**

#### **1.18a : Local Anesthesia:**

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

#### **1.18 b: 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.

### **Course Outcome (CO)**

- CO 1** 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.
- CO2** To diagnose the common diseases of maxillo-facial region by clinical and radiographical examination with specific management of periapical abscess, dento-alveolar abscess, temporomandibular joint disorders and oro facial pain.
- CO3** To train the students about the importance, role, use and techniques of Intra and trans extractions.
- CO4** Train the students in various suturing techniques in various regions of skeleton other than oral cavity.
- CO5** To handle and manage the local and systemic complications associated with extraction or local anaesthesia in a private practice.
- CO6** Management of medical emergencies is foremost important. One must always be trained to manage the medical emergencies like syncope, hemorrhage, allergy and anaphylaxis arise commonly in oral surgery
- CO7** Attain adequate clinical knowledge and skill through the preclinical exercises and ensure optimum utilization of the same in the Clinical practice.

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2. Malamed, S.F Handbook of local anaesthesia
3. Malamed, S.F Medical emergencies in the dental office
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9. Peter Banks Killey's fractures of the middle third of the skeleton
10. Micheal Perry Maxillofacial care
11. Misch, Carl E Contemporary implant dentistry
12. Sandberg, Warren S MGH textbook of anaesthetic equipment
13. Johannes Kleinheinz Fractures of the mandibular condyle: basic considerations and treatment
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15. Paolo Cappabianca Cranial, craniofacial and skull base surgery
16. Lin, Kant Y Craniofacial surgery: science and surgical technique
17. Per-Ingvar B Osseointegration in craniofacial reconstruction
18. Raymond J. Fonseca Oral and maxillofacial surgery, Vol. I: anaesthesia and pain control, etc.
19. Robert D. Marciani Oral and maxillofacial surgery, Vol. II: trauma, surgical pathology, etc.
20. Timothy A. Turvey Oral and maxillofacial surgery, Vol. III: orthognathic surgery, etc.
21. Peter Ward Booth Maxillofacial surgery, Vol. I
22. Peter Ward Booth Maxillofacial surgery, Vol. II
23. Peter Ward Booth Maxillofacial trauma & esthetic facial reconstruction
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44. Georg Watzek Implants in qualitatively compromised bone
45. Dvaid Schlossberg Antibiotic manual a guide to commonly used antimicrobials
46. Rahul Srivastava Temporomandibular joint imaging
47. Sanjay Singhal Handbook of hospital infection control
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1. Australian Dental Journal
2. British Dental Journal
3. Dental Clinics of North America
4. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology & Endodontology
5. British Journal of Oral & Maxillofacial Surgery

6. International Journal of Head & Neck Surgery
7. International Journal of Oral and Maxillofacial Implants
8. International Journal of Clinical Implant Dentistry
9. Indian Journal of Dental Research
10. FAM Dent
11. Quintessence International
12. Journal of the Indian Dental Association
13. Contemporary Clinical Dentistry
14. Journal of Maxillofacial & Oral Surgery
15. Annals of Maxillofacial Surgery
16. Journal of dental implants



**PROGRAM OUTCOME AND COURSE OUTCOME MAPPING: PART II - PAPER I**

<b>PAPE R II</b>	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>	<b>P S O 4</b>
<b>CO1</b>	-	3	-	1	2	1	2	3	2	1	1	2	3	1
<b>CO2</b>	3	2	1	2	2	3	2	3	1	-	-	-	2	2
<b>CO3</b>	2	1	2	2	1	2	3	2	1	2	3	2	2	2
<b>CO4</b>	1	2	-	3	1	1	1	3	-	1	1	1	1	-
<b>CO5</b>	2	1	3	2	3	1	2	-	2	3	3	3	3	3
<b>CO6</b>	1	2	2	1	-	2	1	1	3	2	-	1	1	1
<b>CO7</b>	2	3	1	1	2	2	1	2	2	2	2	2	2	1
<b>Total</b>	1 . 5	2	1 . 2	1 . 7	1 . 7	1 . 7	1 . 7	2	1 . 6	1 . 6	1 . 4	1 . 6	2	1 . 4

1- Low

2- Medium

3- High

### COURSE III

Course code	Course name	Mark allocation	Number of hours
6117	Maxillofacial Surgery - Paper III	100 Marks	150 hours

#### Course Objectives:

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 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. Able to identify social, cultural, economic, genetic and environmental factors and their relevance to disease process management in the oral and Maxillofacial region
4. Respect patient right and privileges, including patients right to information and right to seek a second opinion

#### Syllabus

##### **Paper – II : Maxillofacial Surgery**

##### **1.1 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

##### **1.2 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

### **1.3 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.

### **1.4 Orthognathic surgery**

Diagnosis and treatment planning, Cephalometric analysis, Model surgery, Maxillary and mandibular, repositioning procedures, Segmental osteotomies, Management of apertognathia, Genioplasty, Distraction osteogenesis.

### **1.5 Cysts and tumors of oro facial region**

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

### **1.6 Laser surgery**

The application of laser technology in surgical treatment of lesions.

### **1.7 Cryosurgery**

Principles, applications of cryosurgery in surgical management

### **1.8 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

### **1.9 Aesthetic facial surgery**

Detailed knowledge of the structures of the face and neck including skin and underlying soft 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, facelift, blepharoplasty, otoplasty, facial bone recontouring, etc

### 1. 10 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

#### Course Outcome (CO)

- CO 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.
- CO2** To properly diagnose the case and take complete medical, dental and personal history of the patient. To obtain relevant history from the patient.
- CO3** 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
- CO4** To perform the basic life support- CPR, Tracheostomy and intubation when the patient is in need is foremost important. One must always trained to manage the medical emergencies like arise commonly in oral and maxillofacial scenario.
- CO5** 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

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7. Indian Journal of Dental Research
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9. Quintessence International
10. Journal of the Indian Dental Association
11. Contemporary Clinical Dentistry
12. Journal of Maxillofacial & Oral Surgery
13. Annals of Maxillofacial Surgery

**PROGRAM OUTCOME AND COURSE OUTCOME MAPPING: PART II-PAPER II**

PAPER III	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P S O 11	P S O 12	P S O 13	P S O 14
CO1	2	3	1	2	2	1	3	1	-	1	3	1	1	1
CO2	1	-	2	1	3	-	1	3	2	-	1	2	2	3
CO3	-	2	1	-	-	3	1	-	1	2	3	3	1	1
CO4	3	1	2	3	1	2	2	2	3	3	2	2	3	1
CO5	1	-	2	1	3	3	1	1	-	1	1	2	2	2
TOTAL	14	12	16	14	18	18	16	14	2	4		2	18	16

1- Low

2- Medium

3- High

## COURSE IV

Course code	Course name	Mark allocation	Number of hours
6118	Essay - Part II-Paper III	100 marks	150 hours

### Course Objective:

1. This Course outline addresses the recent advances and innovative knowledge needed in Oral and Maxillofacial Surgery in its scope.
2. 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.
3. To attain periodic updates on recent advances, equipments, novel techniques, Advanced practice on Oral and Maxillofacial surgery.

### Course Outcome: (CO)

- This Course outline addresses the recent advances and innovative knowledge needed in Oral and Maxillofacial Surgery in its scope
- CO 1**
- CO2** 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
- CO3** To attain periodic updates on recent advances, equipments, novel techniques, Advanced practice on Oral and Maxillofacial surgery.

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15. Annals of Maxillofacial Surgery
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**PROGRAM OUTCOME AND COURSE OUTCOME MAPPING: PART II-PAPER III**

P A P E R I V	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P O 13	P O 14
C O 1	1	-	2	2	1		2	2	1	-	2	3	1	-
C O 2	3	2	1	2	3	2	1	2	3	2	2	2	2	2
C O 3	-	2	3	1	-	2	3		2	1	3	-	2	1
T O T A L	1 · 4	1 · 4	2	1 · 6	1 · 4	1 · 4	2	1 · 4	2	1	2 · 4	1 · 7	1 · 6	1

1- Low

2- Medium

3- High

**MAPPING COURSES WITH PROGRAMME OUTCOMES AND PROGRAMME SPECIFIC  
OUTCOMES**

<b>COURSE</b>	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PSO1</b>	<b>PSO2</b>	<b>PSO3</b>	<b>PSO4</b>
<b>COURSE 1</b>	1.8	1.6	1.6	1.6	2	1.2	1.8	1.2	1.4	1.8	1.8	1.8	1.6	1.6
<b>COURSE 2</b>	1.5	2	1.2	1.7	1.7	1.7	1.7	2	1.6	1.6	1.4	1.6	2	1.4
<b>COURSE 3</b>	1.4	1.2	1.6	1.4	1.8	1.8	1.6	1.4	1.2	1.4	2	2	1.8	1.6
<b>COURSE 4</b>	1.4	1.4	2	1.6	1.4	1.4	2	1.4	2	1	2.4	1.7	1.6	1
<b>Avg</b>	1.5	1.5	1.6	1.6	1.7	1.5	1.8	1.5	1.6	1.5	2	1.8	1.3	1.5