

**STUDY PLAN
FOR THE CERTIFICATE OF THE HIGHER SPECIALIZATION
IN
(ORAL AND MAXILLOFACIAL SURGERY)**

Plan number: 1/13/3/2000/NT

I- GENERAL RULES AND CONDITIONS:

1. This plan confirms to the regulations of the certificate of the higher specializations of medicine and dental medicine.
2. Specialties allowed to enroll in this plan:
 - Holders of the Bachelor's degree in Dental Medicine and Surgery or equivalent can be admitted to this program.

II- SPECIAL CONDITIONS:

The candidate must have completed a year of internship or a general practice residency or equivalent prior to commencing the program.

III- DURATION OF STUDY AND TRAINING:

Four years

IV- THE PLAN:

1. Four obligatory programmed years of the following sequence:

Year	Field of Study and Training
First	<p>A. Medical Basic Science.</p> <ol style="list-style-type: none">1. Applied Head and Neck Anatomy.2. Advanced Physiology.3. General and Oral Pathology.4. Advanced oral Microbiology /Immunology.5. Pharmacology. <p>B. Principles of General Surgery.</p> <ol style="list-style-type: none">6. Introduction to surgical skills.7. Seminar in Principles of General Surgery.8. In Patient Care (General Surgery).9. Emergency Department

Second	<p>A. Medical Clinical Science.</p> <ol style="list-style-type: none"> 1. Advanced Oral and Maxillofacial Radiology. 2. General Anesthesia and Intensive Care. 3. General Surgery (ENT Surgery). 4. Internal Medicine. <p>B. Principals of ORAL & Maxillofacial Surgery.</p> <ol style="list-style-type: none"> 5. Oral and Maxillofacial Surgery Seminars (2). 6. Oral and Maxillofacial Surgery- inpatient care (1). 7. Oral and Maxillofacial Surgery-clinical (1). 8. Oral and Maxillofacial Surgery-intensive care (1). 9. Oral and maxillofacial surgery- accident and emergency) (2). 10. Oral and Maxillofacial Surgery- theater (1).
Third	<p>Oral and Maxillofacial Surgery</p> <ol style="list-style-type: none"> 1. Oral Medicine Seminar (1). 2. Oral and Maxillofacial Surgery Seminar (3). 3. Oral and Maxillofacial Surgery- inpatient care (2). 4. Oral and Maxillofacial Surgery-clinical (2). 5. Oral and Maxillofacial Surgery-intensive care (2). 6. Oral and Maxillofacial Surgery- theater (2). 7. Oral and maxillofacial surgery- accident and emergency) (3). 8. Orthopaedic Surgery. 9. Biostatistic.
Fourth	<p>* Oral and Maxillofacial Surgery</p> <ol style="list-style-type: none"> 1. Oral Medicine Seminar (2). 2. Oral and Maxillofacial Surgery Seminar (4). 3. Inpatient Care (Oral and Maxillofacial) (3). 4. Clinical Oral and Maxillofacial Surgery (3). 5. Intensive Care (Oral and Maxillofacial) (3). 6. Oral and Maxillofacial Surgery (Accident Emergency) (4). 7. Oral and Maxillofacial Surgery Theater (3). 8. Research Methodology. 9. Research project.

2. There are exams at the end of each year and a comprehensive examination at the end of residency program (4th year).

3. The description and duration of teaching / training specified in every teaching/ training year as well the department, divisions and specialties where teaching/ training take place are integral part of the plan.

COURSE DESCRIPTION

FIRST YEAR OF THE PROGRAM

A. MEDICAL BASIC SCIENCE

1. Applied Head and Neck Anatomy:

This course reviewed highlight salient anatomical structures of the head and neck as applied to dentistry to reflect significant clinical considerations. The format of teaching is didactic. This is supplemented with selected practical sessions or laboratory audiovisual learning aids as may be decided. Topics covered include but are not limited to facial skeleton, muscles of the face and mastication, the mouth, oropharynx and larynx, blood vessels, lymphatic and nerve supply of the oral cavity and salivary glands.

2. Advanced Physiology:

Physiology is taught as an additional basic biological science course to graduate residents in oral and maxillofacial surgery. This course is given in the formal of lectures and seminars. It is designed to increase the student's depth of knowledge in the subject and enhance the clinical application of this knowledge. The practical application of blood physiology in the care of oral and maxillofacial surgery patients will be stressed at every level of the lectures and seminars.

3. General and Oral Pathology:

The design of this course recognizes the different but related requirements of graduate dental residents and their intended specialty certifications. The course is mostly didactic, in addition to the general topics of cell injury and death, inflammation, wound healing and infectious diseases, selected diseases of the teeth, Periodontium, jaws, temporomandibular joint, muscles and nerves, oral mucous membrane and salivary glands will be covered. Etiopathogenesis, gross and microscopic appearances of these diseases and clinical considerations will be emphasized.

4. Advanced Oral Microbiology / Immunology:

The didactic course, normally offered during the first year of graduate dental studies, covers topics in microbiology and immunology which explain oral pathological conditions including bacterial, viral and mycotic infections of the oral cavity. The composition and ecology of oral flora, pathogenic mechanisms in bacterial diseases., role of microorganisms in dental caries and periodontal diseases, chemistry of antigens and antibodies and their primary and secondary interactions, cellular and humoral aspects of immunity, diagnostic oral microbiology and immunology are some of the main topics also taught in the course.

5. Pharmacology:

The aim of this course is to introduce the residents to drugs and other therapeutic agents most frequently used by oral and maxillofacial surgeons. Emphasis will also be placed on drug interactions, drugs for patients with special needs need and medically compromised patients. The topics are selected to reflect general and specific interests in this field.

B. PRINCIPLES OF GENERAL SURGERY

6. Introduction to Surgical Skills:

The aim of this course is to improve the surgical skills of the residents and to provide them with the confidence in developing new skills required for their future work. Residents are taught history taking, general medical examination, diagnosis and treatment planning, in addition they are introduced to the management of acute and chronic surgical cases. This course contains a number of lectures and seminars in addition to hands-on practical work related to general surgery techniques.

7. Seminars in Principles of General Surgery:

Oral and Maxillofacial Surgery is considered an integral part of general surgery. Therefore, the general surgery seminars are designed to introduce the residents to the techniques required for general surgery emphasizing the relevance and application of those techniques to the head and neck region.

8. In patient care (General Surgery):

The residents are expected to accompany the teaching staff during their daily rounds in the general surgery wards. Their duties include: admission and discharge of patients, monitoring the vital signs (temperature, blood pressure, etc.), observing the patients cooperation, follow up the progress of the treatment and to perform bed side procedures. In addition, they are involved in day case operating and assisting with in patient theatre lists.

9. Emergency Department:

The oral and Maxillofacial Surgery residents are part of the trauma team in the Accident and Emergency Department.

SECOND YEAR

A. Medical Clinical Sciences

1. Advanced Oral Maxillofacial Radiology:

This course is offered during the second year of graduate studies. The lecture-seminar format is complemented with clinico-radiographic materials and radiological interpretations. This course aims at providing residents with the opportunity to acquire knowledge of radiation physics, radiation biology, hazards and protection, advanced imaging techniques and diagnostic oral and maxillofacial radiology.

2. General Anesthesia and Intensive Care:

During this rotation the resident is expected to work as a member of the anaesthesia team, also they are expected to participate in all the departmental scientific activities. This course is designed to educate the resident in the pre-operative evaluation of patients prior to the administration of the anaesthetic agent and to provide an understanding of the pharmacology, anatomy and physiology involved in the administration of anesthesia. The course also serves to develop the resident's skill in various anaesthetic techniques.

3. General Surgery (ENT Surgery):

The resident are expected to participate with their colleagues in the (ENT) department in all their activities for at least two months.

4. Internal Medicine:

A minimum of two months of clinical medical experience must be provided during this rotation. Residents are required to take a complete medical history and perform a comprehensive physical examination. Resident's competency in physical examination and diagnosis must be verified and documented by a member of the teaching staff. They are also involved with the medical teams in managing medically compromised in patients.

Principals of ORAL & Maxillofacial Surgery.

5. Oral and Maxillofacial Surgery Seminars (2):

These seminars are considered a continuation of the seminars given previously; they are directed by participating members of the teaching staff and are conducted to augment the biomedical science and clinical program. They are scheduled and structured to provide instruction in the broad scope of oral and maxillofacial surgery and related sciences including retrospective audits, clinico pathological conferences, tumor conference and guest lectures.

6. Oral and Maxillofacial Surgery- inpatient care (1):

Residents are expected to accompany the teaching staff during their daily rounds. Their duties include the admission and discharge of the patients, monitoring the vital signs (temperature, blood pressure, etc.), observing the patients' cooperation and following-up the progress of the treatment.

7. Oral and Maxillofacial Surgery-clinical (1):

Resident are actively involved in the oral and maxillofacial surgery clinics. Non-scheduled cherished teaching will be prominent during these clinical sessions.

8. Oral and Maxillofacial Surgery-intensive care (1):

Residents learn the principles for management of critically ill patients. They participate with an active general surgery team.

10. Oral and Maxillofacial Surgery- accident and emergency) (2):

The duties of the resident towards accident and emergency patients during this part of the course are considered a continuation of their duties previously and these duties will be sustained throughout the full length of their studies. They should always be available in emergencies to diagnose, render emergency treatment, and assume major responsibility for the care of injuries to the mouth, circumpolar structures, mandible, maxilla and zygomatic complex.

11. Oral and Maxillofacial Surgery-theater (2):

Second year residents are expected to prepare patients for their operations. They are taught theatre protocols and are expected to operate in day case theatres under supervision by the senior member of the team and to assist in major cases.

THIRD YEAR

ORAL AND MAXILLOFACIAL SURGERY

1. Oral Medicine Seminar (1):

These seminars represent selected topics for presentation and discussion and are designed to allow residents to demonstrate a thorough and a comprehensive understanding of oral medicine topics.

2. Oral and Maxillofacial Surgery Seminars (3):

These seminars are considered a continuation of the seminars given previously, they are directed by participating members of the teaching staff and are conducted to augment the biomedical science and clinical program. They are scheduled and structured to provide instruction in the broad scope of oral and maxillofacial surgery and related sciences including retrospective audits, clinico-pathological conferences, tumor conference and guest lectures.

3. Oral and Maxillofacial Surgery- inpatient care (2):

Residents are expected to accompany the teaching staff during their daily rounds and present cases on the round. Residents are expected to participate in decision making.

4. Oral and Maxillofacial Surgery-clinical (2):

Residents are expected to formulate treatment planning, they have increased responsibility in managing patients in a large outpatient clinics. In addition, they are involved in undergraduate teaching

5. Oral and Maxillofacial Surgery-intensive care (2):

Residents are involved in the management of oral and maxillofacial surgery patients in the intensive care unit. They are subjected to additional training in the management of critically ill patients.

6. Oral and Maxillofacial Surgery- theater (2):

Residents are expected to perform dento-alveolar surgery duties. In addition, they participate in trauma and simple deformity cases.

7. Oral and maxillofacial surgery- accident and emergency (3):

During third year, residents take a greater responsibility in the emergency team. They are expected to triage cases and make decisions.

8. Orthopaedic Surgery:

The residents are expected to participate with their colleagues in the orthopaedic unit in all their activities for at least two months.

9. Biostatistics:

This course is given in a manner, which progressively combines basic which intermediate level statistical concepts, definitions and methods commonly applied to research and data analysis. Topics covered include variables, frequency distributions, sampling measure of central tendency, variance, measure

of dispersion, various statistical test, analysis and probability. The course also include introduction to computer application in dental sciences.

FOURTH YEAR

ORAL AND MAXILLOFACIAL SURGERY:

1. Oral Medicine Seminar (2):

These seminars represent selected topics for presentation and discussion and are designed to allow the residents to demonstrate a thorough and comprehensive understanding of oral medicine topics which should have been achieved at this stage of the residents training program.

2. Oral and Maxillofacial Surgery Seminar (4):

These seminars are considered a continuation of the seminars given previously, they are directed by participating members of the teaching staff and are conducted to augment the biomedical science and clinical program. They are scheduled and structured to provide instruction in the broad scope of oral and maxillofacial surgery and related sciences including retrospective audits, clinico pathological conferences, tumor conference and guest lectures.

3. Inpatient Care (Oral and Maxillofacial Surgery) (3):

This is a continuation of the course given previously whereby the residents are expected to accompany the teaching staff during their daily rounds. Their duties include the admission and discharge of the patients, monitoring the vital signs (temperature, blood, pressure, etc.), observing the patients cooperation and following-up the progress of the treatment.

4. Clincial Oral and Maxillofacial Surgery (3):

This is a continuation of the course given previously. This course is presented in the clinics with demonstration on patients and hands-on practical application of surgical skills by residents. The advanced courses prepare the residents for increased responsibility and primary duty of manging patients in a large out-patient clinic while at the same time learning the finer techniques of major oral and maxillofcial surgery. In additions the graduated student will learn how to teach and impart knowledge and will therefore be integrated into the supervision and teaching of undergraduate residents in clinical oral and maxillofacial surgery.

5. Intensive Care (Oral and Maxillofacial Surgery) (3):

The residents are expected to carry on with their intensive care duties from the previous year and to participate as an active member of the general surgery team. The residents would be subjected to additional training in the management of critically ill patients in the intensive unit.

6. Oral and Maxillofacial Surgery (Accident and Emergency) (4):

The management of oral and maxillofacial trauma is a significant part of oral and maxillofacial surgery practice. The duties of the resident / graduate residents towards accident and emergency patients during this part of the course are considered a continuation of their duties previously and these duties will be sustained throughout the full length of their studies. They should always be available in emergencies to diagnose, render emergency treatment, and assume major responsibility for the care of injuries to the mouth, circumpolar structures, mandible, maxilla and zygomatic complex.

7. Oral and Maxillofacial Surgery Theater (3):

This course is a continuation of the course given during the second year, the training is offered in the hospital operating theaters on a number of patients presenting with a wide range of conditions that require surgical interventions so that a varied experience and understanding the management of oral and maxillofacial surgical problems is acquired by the graduated student.

8. Selected Techniques in Diagnosis Oral Science (1):

This is a continuation of the diagnostic oral sciences course given in the third year for all the residents in diagnostic oral sciences specialty program regardless of the subspecialty concentration. Lectures and practical are offered in oral medicine, radiology and pathology. Residents will be exposed to selected techniques commonly used in the clinical oral medicine and diagnosis and in histopathology diagnostic laboratories.

9. Research Methodology:

This course is given in lecture format covering a number of topics including definitions and terminology, the scientific theories, research methodology, experimental design and evaluation of collected data. In addition, a broad spectrum of topics including information retrieval systems, evaluation of published data, scientific expressions and terminology will be covered. Residents will be introduced to the methods of scientific writing vetting of manuscripts, writing-up research work for publication and grant applications.

10. Thesis Research:

The resident should be able to design, carry out and report a research project under the guidance of teaching staff.

**THE PLAN FOR
THE CERTIFICATE OF THE HIGHER SPECIALIZATION
IN
(ORAL AND MAXILLOFACIAL SURGERY)**

1- INTRODUCTION:

The four year Oral and Maxillofacial Surgery training prepares the student for specialty examination and provides the basis for continuing professional development after completion of the programme.

The training includes didactic and clinical components.

The student will be required to complete a research project and to be involved in undergraduate teaching programmes.

2- REQUIREMENTS:

To receive the certificate in Oral and Maxillofacial Surgery, the student is required to:

- * Be in attendance in the programme for 48 months.
- * Complete all courses and pass short essay type course assessment.
- * Complete all clinical competence tests in a satisfactory manner.
- * Participate in and assume responsibility for one or more research projects.
- * Organize, write and present a project.

3- AIMS AND OBJECTIVES:

Aims:

The main aim of the programme is to provide the necessary training and education to independently carry out those Oral and Maxillofacial Surgical procedures which are beyond the competence of the average dental practitioner.

* Complete a project required for the certificate of Oral and Maxillofacial surgery.

* Provide trainees with the requisite knowledge and clinical proficiencies to successfully sit the certificate of Oral and Maxillofacial surgery.

* Provide the requisite qualification for registration on a specialist register.

Objectives:

- 1- To obtain a detailed knowledge of anatomy of the head and neck relevant to the practice of Oral and Maxillofacial Surgery.
- 2- To understand the basic principles of physiology, pathology and microbiology necessary for the practice of Oral and Maxillofacial Surgery.
- 3- To have a sound understanding of how to communicate with patients and in particular the behavioral sciences.
- 4- To understand the importance of history taking not only relating to the presenting complaint but also in relation to the patients medical status social factors and dental status.
- 5- To be capable of competent examination of the patient.
- 6- To understand the scientific basis and application of the tests, which supplement a diagnosis, e.g. x-ray, blood investigations etc.
- 7- To understand the principals of sterilization and their application to Oral and Maxillofacial Surgery practice.

- 8- To be capable of managing dental and medical emergencies which may occur during the practice of Oral and Maxillofacial Surgery.
- 9- To be competent at the management of extracting roots uncovering submerged teeth and complicated dental extractions.
- 10-To introduce the principles and techniques related to surgical endodontics.
- 11-To be able to manage dento-alveolar trauma and uncomplicated mandible fractures.
- 12-To carry out tissue integrated implant surgery.
- 13-To diagnose and appropriately manage disorders of structures immediately adjacent to the oral cavity including the Maxillary sinus, the salivary glands and the jawbones.
- 14-To recognize benign and malignant disease of the oral cavity and jaw and understand the appropriate management.
- 15-To be able to diagnose and manage facial pain including disorders of the TMJ.
- 16-To understand and manage, in appropriate consultation, the oral manifestations and complications of systemic diseases.
- 17- To be able to diagnose, participate in treatment planning and refer for appropriate treatment patients who have abnormalities or deformities of the jaw.
- 18-To diagnose and appropriately manage maxillofacial trauma.
- 19-To be able to diagnose, participate in treatment planning of cleft lip and palate.
- 20-To understand the medico-legal requirements of Oral and Maxillofacial Surgery practice.
- 21-To prepare and present a research thesis.
- 22-To practice teaching in Oral and Maxillofacial Surgery.

Year Level Month	1	2	3	4	5	6	7	8	9	10	11	12	
First Year	Anatomy												
	Physiology												
	Advanced oral microbiology & immunology & biology												
	Pharmacology												
	General and Oral Pathology												
	Introduction to Surgery skills												
	Inpatient Care (General Surgery)												
	Emergency Clinic												
	Seminar in Principles of General Surgery					Oral & Maxillofacial Surgery Seminar							
	Oral & Maxillofacial Surgery (Accident & Emergency)												

Year Level Month	1	2	3	4	5	6	7	8	9	10	11	12
Second Year	Surgical Anatomy of Head & Neck											
	Advanced Oral & Maxillofacial Radiology											
	General Anesthesia & Intensive Care		General Surgery (ENT)			Internal Medicine		-Inpatient Care -Clinical Oral & Maxillofacial Surgery -Intensive Care (Oral & Maxillofacial Surgery) - Oral & Maxillofacial Surgery (Accident & Emergency) - Oral & Maxillofacial Surgery Theater				
							Oral & Maxillofacial Surgery Seminar					

Year Level Month	1	2	3	4	5	6	7	8	9	10	11	12
Third Year	Oral Medicine Seminar											
	Oral & Maxillofacial Surgery Seminar											
	Plastic Surgery		Orthopaedic Surgery			- Inpatient Care (Oral & Maxillofacial) -Clinical Oral & Maxillofacial Surgery -Intensive Care (Oral & Maxillofacial Surgery) - Oral & Maxillofacial Surgery Theater - Oral & Maxillofacial Surgery (Accident & Emergency)						

	Selected Techniques in Diagnostic Oral Sciences
	Biostatistics

Year Level Month	1	2	3	4	5	6	7	8	9	10	11	12
Fourth Year	Oral Medicine Seminar											
	Oral & Maxillofacial Surgery Seminar											
	Oral & Maxillofacial Surgery Theater	Oral And Maxillofacial Surgery (Accident Emergency)	Intensive Care (Oral & Maxillofacial)	Clinical Oral and Maxillofacial Surgery	Inpatient Care (Oral & Maxillofacial)							
	Selected Techniques in Diagnostic Oral Sciences											
	Research Methodology											
	Thesis Research											

Rotation Schedule by Level of Training:

<u>First Year</u>	<u>Months</u>
In patients care (General Surgery)	4
Emergency Clinic	4
Oral and Maxillofacial Surgery (Accident & Emergency)	4

<u>Second Year</u>	<u>Months</u>
Internal Medicine	2
Anesthesiology	2
General Surgery (ENT Surgery)	2
Inpatient Care (Oral & Maxillofacial Surgery)-----	
Clinical Oral & Maxillofacial Surgery -----	
Intensive Care (Oral & Maxillofacial Surgery)-----	6
Oral & Maxillofacial Surgery (Accident & Emergency)-----	
Oral & Maxillofacial Surgery Theater -----	

<u>Third Year</u>	<u>Months</u>
Orthopaedic Surgery	2
Plastic Surgery	2
Inpatient Care (Oral and Maxillofacial Surgery)-----	
Clinical Oral & Maxillofacial Surgery -----	
Intensive Care (Oral & Maxillofacial Surgery)-----	8
Oral & Maxillofacial Surgery Theater (-----	
Oral & Maxillofacial Surgery Accident & Emergency) -----	

<u>Fourth Year</u>	<u>Months</u>
Inpatient Care (Oral and Maxillofacial Surgery)-----	2
Clinical Oral & Maxillofacial Surgery -----	2
Intensive Care (Oral & Maxillofacial Surgery)-----	2
Oral & Maxillofacial Surgery Theater -----	3

First Year Lectures & Seminars:

	Credit Hours
A- Medical Basic Science	
Head & Neck Anatomy	1/week *
Advanced Physiology	1/ week
General & Oral Pathology	1/week
Advanced Oral Microbiology/Immunology	1/week
Pharmacology	1/week
B- Principles of General Surgery	1/week
Introduction to Surgery Skills	1/2 week **
Principles of General Surgery /Seminar	1/2 week
(R1)	
Inpatient Care (General Surger) ***	
Emergency Clinic *****	
Oral & Maxillofacial Surgery (Accident & Emergency)	

Second Year Lectures & Seminars:

A- Medical Clinical Science	
Surgical Anatomy of Head & Neck	1/week
Advanced Oral & Maxillofacial Radiology	1/week
B- Principles of Maxillofacial Surgery	
Oral & Maxillofacial Surgery /Seminar	1/2 week
(R2)	
Internal Medicine	
Anesthesiology	
General Surgery (ENT Surgery)	
Inpatient Care (Oral & Maxillofacial Surgery)*****	
Clinical Oral & Maxillofacial Surgery	
Intensive Care (Oral & Maxillofacial Surgery)	
(Oral & Maxillofacial Surgery (Accident & Emergency)	
Oral & Maxillofacial Surgery Theater	

* 1/week = one lecture (60 minutes) per week

** 1/2 week = one seminar (60 minutes) per two weeks

Third Year Lectures & Seminars:

Selected Techniques in Diagnostic Oral Sciences
Biostatistics

Credit Hours

1/week

3/week

Oral Medicine/Seminar

1/2 week

Oral & Maxillofacial Surgery /Seminar

1/2 week

(R3)

Inpatient Care (Oral & Maxillofacial Surgery)

Clinical Oral & Maxillofacial Surgery

Intensive Care (Oral & Maxillofacial Surgery)

Oral & Maxillofacial Surgery (Accident & Emergency)

Oral & Maxillofacial Surgery Theater

Orthopaedic Surgery

Plastic Surgery

Fourth Year Lectures & Seminars:

Selected Techniques in Diagnostic Oral Sciences

1/week

Research Methodology

1/week

Thesis Research

1/week

Oral Medicine /Seminar

1/2 week

Oral & Maxillofacial Surgery /Seminar

1/2 week

(R4)

Inpatient Care (Oral & Maxillofacial Surgery)

Clinical Oral & Maxillofacial Surgery

Intensive Care (Oral & Maxillofacial Surgery)

(Oral & Maxillofacial Surgery (Accident & Emergency)

Oral & Maxillofacial Surgery Theater

*** Inpatient Care (General Surgery) (The residents are observers).

**** Inpatient Care (Oral & Maxillofacial Surgery).

1- Morning Case Review “Morning Report”

The Chairman of the department meets with the residents on call the night before, to discuss emergency admission. The student is expected to present the case and put forward to diagnosis and a plan of management. He is expected to defend his diagnosis and rationalize his planned management and to have reviewed relevant literature about the presented case.

2- Bed side patient Care “Ward Rounds”

The student makes rounds on the patients assigned to him. During the round, the teaching staff member discusses the patient history, physical examination, general assessment, diagnosis and plan of management. The residents are expected to consult relevant literature before the rounds.

3- Evening Case Review “Evening Closing Rounds”

Residents are required to report on problematic cases in the ward, when on call and discuss them with the senior graduate student & teaching staff member on call.

***** Emergency Clinic

1- The residents are expected to be an observer in advanced trauma and life support.

2- The residents are expected to shadow the surgical resident and observe him in his emergency management.

3- The residents are expected to cover the on call duties in all oral and Maxillofacial injuries and performing their duties in Emergency Clinics (recovering, treating, managing admission and referring patients to other specialty if any need).

Courses:

Core Course:

- Medical Basic Science.

* Applied Head and Neck Anatomy:

- General topography of the neck.
- The fasciae of the neck.
- The investing layer of deep cervical fascia.
- The tissue spaces of the neck.
- The posterior triangle.
- The floor of the posterior triangle.
- The cutaneous nerves of the neck.
- The interior triangle of the neck.
- The thyroid gland.
- Parathyroid Glands.
- The trachea
- The suprahyoid region.
- The submandibular fossa.
- The side of the neck.
- The thyro-glosso-facial confluence of veins
- The prevertebral region
- The prevertebral muscles of the neck.
- The Cervical sympathetic trunk.
- The root of the neck.
- The scalp.
- The temporal fossa and zygomatic arch.
- The muscles of the face.
- Extra cranial course of the facial nerve.
- Sensory nerve supply of the face.
- Blood supply of the face.
- The infratemporal fossa.
- Contents of the fossa.
- The mandibular nerve.
- Posterior part of the infratemporal fossa.
- The styloid apparatus.
- The pterygo-palatine fossa.
- The nose.

- The cavity of the nose.
- Osteology of the nose.
- Development of the nose.
- The paranasal sinuses.
- The mouth
- The vestibule.
- The teeth.
- The cavity of the mouth.
- The tongue.
- The floor of the mouth.
- The pharynx.
- The wall of the pharynx.
- The interior of the pharynx.
- The soft palate.
- The larynx.
- The skeleton of the larynx.
- The intrinsic muscles of the larynx.
- Intrinsic movements of the larynx.
- Summary of vocal fold movements.
- Extrinsic muscles of the larynx.
- The orbit.
- The contents of the orbit.
- The muscles of the orbit.
- Stability of the eyeball.
- The nerves of the orbit.
- The eyeball.
- The fibrous coat.
- The vascular coat.
- The nerves coat.
- The refracting media.
- Lymph drainage of the head and neck.
- The mandibular joint.
- Movements of the mandible and the floor of the mouth.
- Topographical anatomy of the thoracic wall & thoracic viscera.

Anatomy:

- The morphology histology and relationships of the extr-cranial structures of the head & neck.
- The general organization of the central nervous system emphasizing the central connections of the cranial nerves.
- The meninges and the venous sinuses in the cranial cavity.
- The organization & topography of the autonomic system as related to structures of the head and neck.
- The main arterial supply to, and venous drainage from the brain.
- Topographical anatomy of the thoracic wall and thoracic viscera.
- The disposition and function of the vertebrae.

*** Pharmacology for Dentistry:**

- Pharmacodynamics: mechanisms of drug action.
- Pharmacokinetics; the absorption, distribution, and fate of drugs.
- Pharmacotherapeutics; the clinical use of drugs.
- General mechanisms of drug interactions.
- Introduction to autonomic nervous system drugs.
- Adrenergic drugs.
- Adrenergic blocking drugs.
- Cholinergic drugs.
- Antimuscarinic drugs.
- Ganglionic blocking drugs.
- Neuromuscular blocking drugs.
- Psychopharmacology; antipsychotics and antidepressants.
- Antianxiety drugs and centrally acting muscle relaxants.
- Sedative-hypnotics and central nervous system stimulants.
- Anticonvulsants.
- Antiparkinson agents.
- Local anesthetics.
- Principles of general anesthesia.
- Agents used in general anesthesia & conscious sedation.
- Opioid analgesics & antagonists.
- Peripherally acting (nonopioid) analgesics.
- Antiinflammatory drugs.
- Histamine & histamine antagonists.
- Introduction to cardiovascular pharmacology antiarrhythmic drugs.
- Cardiac glycosides.
- Antianginal drugs.
- Diuretic drugs.
- Antihypertensive drugs.
- Lipid-lowering drugs.
- Antianemic drugs.
- Hemostasis, hemostatics, and anticoagulants.
- Drugs acting on the respiratory system.
- Drugs acting on the gastrointestinal tract.

- Hormones of reproduction and sexual development
- Principles and mechanisms of antibiotic therapy.
- Antibacterial antibiotics.
- Antifungal and antiviral agents.
- Immunotherapy.
- Antineoplastic drugs.
- Aliphatic alcohols.
- Anticaries and antiplaque/antigingivitis agents.
- Antiseptics and disinfectants.
- Management of pain and anxiety.
- Treatment of oral complications of cancer radiotherapy.
- Drug abuse.
- Toxicology.
- Geriatric pharmacology.
- Prescription writing and drug regulations.

Oral Physiology

(1) Mastication:

- a. Control of Mastication.
- b. Rest position of Mandible.
- c. Physiology of TMJ.
 - * Functional anatomy
 - Opening
 - Protrusion
 - Retrusion
 - Closing

 - * TMJ Receptors and possible function.

(2) Deglutition:

- a. Collection phase (oral).
- b. Engulfing phase (pharyngeal).
- c. Oesophageal phase.

(3) Speech:

The physiological media of speech are:

- a. Respiration
- b. Phonation.
- c. Anticulation.

(4) Sensations from the mouth:

- a. Taste:
 - Function
 - Receptors and nerve pathways
 - Thresholds
 - Mechanism

- b. Sensitivity of teeth:
 - Periodontal ligament contains mechanoreceptors
 - Introdental receptors in pulp
 - Nerve fibers in dentine
 - Oodontoblast process
 - Fluid movement in dentinal tubules

*** Medical Physiology:**

- The General & Cellular Basis of Medical Physiology.
- Cell biology and molecular biology.
- Excitabel Tissue: Nerve
- Excitabel Tissue: Muscle.
- Synaptic & Junctional Transmission.
- Reflexes.
- Cutaneous, Deep & Visceral Sensation.
- Vision.
- Smell & Taste.
- Control of Posture & Movement
- The Autonomic Nervous System.
- Neural Basis of Instinctual Behavior & Emotions
- Higher Functions of he Nervous System
- Energy Balance, Metabolism & Nutrition.
- The thyroid Gland
- The adrenal medulla & adrenal cortex
- Hormonal Control of Calcium Metabolism & the physiology of Bone.
- The pituitary Gland.
- Digestion & absorption.
- Regulation of Gastrointestinal Function.
- Circulating Body Fluids.
- Dynamics of Blood & Lymph Flow
- Pulmonary Function.
- Gas transport between the Lungs & the Tissues.
- Regulation of Respiration.
- Respiratory Adjustments in Health & Disease.

*** Immunity:**

- The immune system: introduction.
- Natural immunity.
- Disease due to natural immunity.
- Adaptive immunity.
- B cells and antibody.
- T cells and the MHC.
- The antibody response.
- Cell-mediated responses.
- Autoimmunity.
- Immunodeficiency.

*** Pharmacology:**

- Anesthetic agents- local & General.
- Anti-infective agents- agents used for the treatment of bacterial, fungal, tuberculosis viral, AIDS infection.
- Non-Narcotic Analgesics, Non steroidal Anti-inflammatory drugs.
- Agents acting on the central Nervous system.
 - 1- Sedative-hypnotics.
 - 2- Agents used in the treatment of anxiety.
 - 3- Narcotic analgesics.
 - 4- Chemotherapeutic agents – Introduction.
- Principles of drugs interactions in dentistry.

*** Radiology:**

- Radiological investigations and their uses, CT, MRI, Ultrasound, plain x-ray.
- Conditions that can present as a cyst-like radiolucency
 - 1- Cysts.
 - 2- Tumors and tumor-like lesions.
 - 3- Giant cell lesions.
 - 4- Fibro-cemento-osseous lesions (early stages)
 - 5- Idiopathic and other lesions.
- Conditions that can present as variable radiopacity.
 - 1- Abnormalities of the teeth.
 - 2- Conditions of variable radiopacity affecting the bone-Developmental, inflammatory, tumours, Fibro-cemento-osseous lesions, others.
- Superimposed soft tissue calcifications
- Foreign bodies.

*** Oral Medicine: (Lectures)**

General aspects of Oral Medicine:

- Facial pain- analgesia.
- Facial pain – psychogenic pain.
- Recurrent Aphthous Stomatitis.
- Inflammatory & autoimmune disorders of the oral mucosa.
- Pathology of tumours & tumour-like lesions of the oral mucosa.
- Lichen planus
- Pathology of oral cancer-precancer.
- Clinical management in Oral Medicine.
- Oral infections – the herpes viruses.
- Pathology of the salivary glands (obstructive & inflammatory diseases).
- Pathology of the salivary glands (tumours)
- Oral infections (fungal).
- Oral infections (bacterial).
- White patches – lichen planus
- White patches – benign lesions.
- Oral malignancy – diagnosis
- Oral malignancy – non-Hodgkin's lymphoma & other primary tumours.
- Oral malignancy – Oral consequences of therapy of malignancy.
- Oral malignancy – significant aspects.
- Oral pigmentation.
- Lip lesions.
- Salivary gland disease – infections.
- Oral Soft tissue enlargements
- Neck lumps Oral manifestations of systemic disease.

*** Oral Medicine & Oral Pathology: (Seminars)**

- Facial Pain
- Oral ulceration
- Oral infections.
- White patches.
- Red patches.
- Oral malignancy.
- Oral pigmentation.
- Salivary gland infections.
- Sjogren's Syndrome
- Salivary gland malignancy.
- Neck lumps.
- Oral manifestations of systemic disease
- Oral malodour
- Trigeminal neuropathy.

*** General Medicines (Seminars):**

- Introduction to clerking
- General clerking
- Cardiovascular system
- Cardiovascular system
- Respiratory system
- Gastroenterology.
- Neurology.
- Cranial nerves
- Endocrinology
- Diabetes
- Haematology
- Anticoagulant therapy
- Musculoskeletal system
- Rheumatology
- Dermatology
- ENT
- Eye
- Control of Cross infection

*** Oral and Maxillofacial Surgery (Lectures):**

- Basic life support.
- Impacted teeth.
- Surgical endodontic
- Pain mechanisms & central pathways.
- Taking a history.
- Cysts of the jaw.
- Odontogenic tumours
- Management of unerupted teeth.
- Bone infections
- Surgical haemorrhage
- Fundamentals of Orthognathic surgery.
- Pre-surgical orthodontics.
- TMD & their surgical management.
- Cranial neuropathies.
- Oral Cancer: presentation & management.
- Epidemiology & diagnosis of cancer & precancer.
- Imaging for head and neck cancer.
- Radiotherapy & chemotherapy in management of head & neck cancer
- Laser & photodynamic therapy in management of head & neck cancer.
- Secondary tumours of the jaws.
- Flaps and reconstruction
- Cancer of maxillary antrum
- Reconstruction of maxillary defects.
- Bone dysplasias & connective tissue tumours
- Introduction to osseointegrated implants.
- Gross facial deformity.
- Cleft lip and palate management.
- TMJ ankylosis
- Medical emergencies & BLS
- Basic ECG interpretation.
- Maxillofacial trauma
- Maxillofacial ATLS
- Principles of bone grafts and reconstruction
- Basic intensive therapy
- Preoperative & post-operative management of maxillofacial surgery patients.

*** Maxillofacial technology:**

- Impression taking.
- Occlusal registration.
- Face bow recording and transfer.
- Recording clinical data
- Model casting and trimming
- Types of articulators
- Duplication & articulation
- Fixation techniques
- Eyelet wires
- Prefabricated and custom made
- Archbars
- Paediatric arcylic splints
- Vacuum formed transplant splints.
- Healing plates and fixation plates
- Applications of wires & archbars on phantom head
- Rehabilitation appliances, obturator design & construction
- Cover plates & obturators
- Maxfac Technology
- Sturing techniques
- Extra oral and rigid fixation techniques
- Hollow box obturators
- Cephalometric tracing analysis
- Profile and prdication tracing
- First model surgery Class
- Model surgery continues
- Model surgery – intermediate wafer
- Oro-craniofacial implants & prosthesis.
- Facial and bod7y prostheses.
- Final wafer and review of model surgery principles
- Second model set LP Class.
- Intermediate stage
- Final stage of orthognathic workup
- Completion of outstanding work
- Orthognathic surgery planning
- Microosurgical techniques.

*** General Medicine: (Lectures)**

- Psychiatric classification.
- Medical emergencies – an overview
- Lymphoproliferative disease: myelodysplasia, myelofibrosis
- Sickle cell disease and anaemia
- Bleeding disorders
- Ischaemic heart disease- related disorders
- Infective endocarditis a& dental implications.
- Cerebrovascular accidents.
- Epilepsy
- Asthma, cystic fibrosis
- Chronic bronchitis, emphysema
- Gastriontestinal disease-upper
- Gastrointestinal disease-lower
- Viral pheptitis & related disorders
- Other hepatic disorders
- Chronic renal failure, renal transplantation
- Diabetes mellitus & related disorders
- Thyroid & parathyroid disease
- Dysfunctional uterine bleeding, pregnancy, contraception
- Congenital dermatological disease
- Urticaria & angioedema
- Other acquired skin disease
- Primary immunodeficiencies
- Chemotherapy for malignancy
- Rheumatology
- Disorders of movement (cerebral palsy, dystrophies, parkinson' disease etc...)
- Disorders of sensation; multiple sclerosis
- Learning disabilities (Autism, down's syndrome, other)
- Oral & dental aspects of mental illness.
- Addiction disorders.
- Occupational hazards-physical & infections
- Occupational hazards-radiological