



The Iraqi Board for Medical Specializations

The Scientific Council of Maxillofacial Surgery

Surgical Curriculum Program

2021

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1. Introduction

1.1. Oral and maxillofacial surgery

Oral and maxillofacial surgery is the surgical specialty concerned with the diagnosis and treatment of diseases affecting the mouth, jaws, face and neck. The scope of the specialty is extensive and includes, but is not necessarily confined to: maxillofacial trauma, cancers of the head and neck, diseases of the salivary glands, surgical treatment of facial disproportion – both congenital and acquired, cleft lip and palate, esthetic facial surgery, facial pain, disorders of the temporomandibular joint (TMJ), surgical removal of impacted and buried teeth, cysts and benign tumors of the jaws, pre-prosthetic surgery including the placement of osseointegrated implants, management of infections of the head and neck including life-threatening fascial space infection and other pathological conditions of the oral mucosa such as mouth ulcers.

Worldwide, there are four basic systems of education and training in oral and maxillofacial surgery: 1) that requiring only a dental degree, 2) that requiring both a dental and medical degree, 3) that requiring a medical degree and no or minimal dental training, and 4) that requiring a combination of dental and medical education, but not degree based (stomatology)¹.

In Iraq the education and training in oral and maxillofacial surgery requires a dental degree as a prerequisite, similar to most countries in Asia, South, Central and North America. The dentally trained oral and maxillofacial surgeons practice the full scope of the specialty.

¹Laskin, D.M. The past, present, and future of oral and maxillofacial surgery. *J Oral Maxillofac Surg* 66:1037-1040, 2008.

The aim of this curriculum is to ensure the highest standards of oral and maxillofacial surgical practice in Iraq by delivering high quality surgical training and education with attainment of knowledge, skills and professional behaviors relevant to the practice in the specialty. This curriculum was founded on a common format and similar framework of all the surgical specialties in the Iraqi Board for Medical Specializations.

1.2. Overview of the curriculum

The Scientific Council of Oral and Maxillofacial surgery of the Iraqi Board for Medical Specializations provides a five-year training and education program for the specialty that involves doing research. The program culminates in awarding the trainees with the degree of Fellow of the Iraqi Board for Medical Specializations (FIBMS) in Oral and Maxillofacial Surgery which is considered to be the highest professional degree in the field of the specialty.

All applicants willing to enter the specialty program must submit to a credentialing process which includes qualification in dentistry and passing a written competitive enrollment examination which is in Multiple Choice Question- (MCQ) single best answer format, Essay format or both with a minimum 60% pass mark, internship in Oral and Maxillofacial surgery is recommended. All trainees will need to complete all the essential elements of the specialty syllabus satisfactorily in order to be awarded the FIBMS degree.

The academic year starts on the 1st of October, the five-year training and education program consists of the following frame:

1.2.1. Clinical training

- ❖ **First year:** One year residency in general surgery.
- ❖ **Second year:** It consists of the following residencies:

- General medicine for 2 months.
- Ear, Nose and Throat for 2 months.
- Plastic and reconstructive surgery for 3 months.
- Neurosurgery for 1 month.
- Ophthalmology for 2 months.
- Orthopedic surgery for 1 month.
- Radiology for 1 month.

❖ **Third, Fourth and Fifth years:** Residency in oral and maxillofacial surgery.

1.2.2. Lectures and seminars

- During the first year the trainees receive lectures on basic sciences and general surgery.
- During the subsequent years the trainees are actively engaged in seminars and journal clubs to improve their abilities in presentation and critical thinking.

1.2.3. Research requirements

At the beginning of the third year, the trainees are required to conduct a research work that is supervised by assigned educational supervisors. At the end of the fourth year the trainees should submit their theses to be examined and approved by examining committees assigned by the Scientific Council as a fulfillment of the requirement for the final examination.

1.2.4. Assessment

The assessment consists of 3 examinations held at three key stages:

- ❖ **Primary examination:** A machine-marked written examination conducted at the end of the first year, it consists of two papers in MCQ single best answer format, one in applied basic sciences (human anatomy, general physiology and general pathology) and the other in principles of general surgery.

- ❖ **Mid examination:** A written examination in MCQ single best answer format, Essay format or both conducted at the end of the third year covering certain topics in oral and maxillofacial surgery.
- ❖ **Final examination:** It is a comprehensive assessment in oral and maxillofacial surgery conducted at the end of the five-year training in two sections:
 - **Section 1:** It is a written examination composed of 2 papers; paper 1 MCQ single best answer and paper 2 essay. Candidates must meet the required standard in Section 1 in order to gain eligibility to proceed to Section 2.
 - **Section 2:** It is the clinical component of the final examination, it consists of case-based examination and oral examination.

2. Mission statement

The Iraqi Board for Medical Specializations in oral and maxillofacial Surgery provides specialty training, attainment of the necessary knowledge, experience and skills for a competent specialist in oral and maxillofacial surgery and a commitment to continuous learning and contemporary practice.

The 5-year training program integrates supervised surgical training with theoretical learning for the key topics that are considered essential for the specialty, it also provides the trainees with the ability to develop their experience in academic research, presentations and contribute to the specialty literature.

Throughout the training period, all trainees will be assessed by practice -based assessments covering knowledge, clinical judgement, technical skills and professional behavior, complemented by the surgical logbook of procedures to support the assessment of operative skills, in addition to examinations held at 3 key stages; at the end of the first year, at the end of the third year and towards the exit examination at the end of specialty training.

3. Program requirements

3.1. Training centers

The trainees entering the specialty of oral and maxillofacial surgery will undertake initial basic surgical training for 1 year to develop the basic and fundamental surgical skills common to all surgical specialties, together with a few surgical skills relevant to oral and maxillofacial Surgery. This is followed by a 1 year training in different medical and surgical disciplines that treat head and neck conditions providing a good interaction with these disciplines. The final 3 years of specialty training is undertaken in recognized oral and maxillofacial training centers.

The recognition of the training centers by the Scientific Council follows strict rules and regulations and depends on the academic standards and clinical experience of the trainers and on the medical and teaching facilities available in the center. The head of the center should hold a title of professor or Assistant Professor or be a Consultant oral and maxillofacial surgeon with teaching and academic interest and involvement.

The trainers should have the highest Academic degree in the specialty with at least 5-year experience after qualification. Selection of trainers and heads of training centers is decided by the Scientific Council of oral and maxillofacial surgery according to the above criteria.

Currently there are recognized oral and maxillofacial training centers for the Iraqi Board for Medical Specializations in Baghdad, Karbala'a, Basrah, Mousl and Sulaymaniyah.

3.2. The Scientific Council, trainers and educational supervisors

The administrative structure of the Scientific Council of oral and maxillofacial surgery consists of a Chairman and 4 members with academic degrees who are representatives of different Universities in Iraq in addition to one consultant member who is a representative of the Iraqi Ministry of Health and Environment.

The trainers should have the highest professional degree in the specialty (FIBMS or equivalent) with at least 5-year experience after qualification. The trainers are responsible for 1 to 3 trainees at any time depending on factors such as the size of the unit and the overall number of trainees.

The roles of trainers are to:

- Ensure that the trainee has appropriate day-to-day supervision in relation to their stage of training;
- Ensure patient safety in relation to trainee performance.

At the beginning of the third year, the trainees will have assigned educational supervisor who should be a Professor or Assistant Professor (Ministry of Higher Education and Scientific Research) or Consultant oral and maxillofacial surgeons (Ministry of Health and Environment).

The roles of the educational supervisor are to:

- Have overall educational and supervisory responsibility for the trainee in a given placement and to act as a mentor to the trainee and help with both professional and personal development.
- Keep the Chairman of the Scientific Council informed of any significant problems that may affect the trainee's training.
- Supervise the research work.

3.3. Admission requirements

The following is required in order to be admitted to the specialty training and education program:

1. Qualification in dentistry (B.D.S. or equivalent).
2. For dentists who work for the government, an official permission from the employer is required.
3. Passing a competitive enrollment examination which is in MCQ single best answer format, Essay format or both with a minimum 60% pass mark.

The applicants who pass the enrollment examination are ranked according to the points collected as follows:

- The examination mark: 70 points.
- The rank and the final average for the five-year dentistry study: 30 points.
- Additional 0.5 point for every month of internship in oral and maxillofacial surgery with a maximum of 6 points.

The number of the trainees who are enrolled in the training program is determined by the annual plan of the Iraqi Board for Medical Specializations.

After enrollment the new trainees are interviewed by a special committee headed by the Chairman of the Scientific Council for assigning the trainees to the training centers.

3.4. Rotation of trainees through the program

- ❖ **First year:** One year residency in general surgery; during this period, trainees will acquire the competences that are common to all surgical specialties together with a limited range of competences that are relevant to their chosen surgical specialty.

❖ **Second year:** It consists of the following residencies:

- General medicine for 2 months.
- Ear, Nose and Throat for 2 months.
- Plastic and reconstructive surgery for 3 months.
- Neurosurgery for 1 month.
- Ophthalmology for 2 months.
- Orthopedic surgery for 1 month.
- Radiology for 1 month.

The trainees are actively engaged in all the activities and duties assigned to their colleagues in other disciplines such as attending the outpatient clinics and the surgical theater in addition to participating in all the meetings and ward rounds that are held in these units. The trainees will be assessed by the directors of the training centers who will provide evaluation reports to the Scientific Council of oral and maxillofacial surgery at the end of each of the aforementioned residencies.

❖ **Third, Fourth and Fifth years:** Residency in oral and maxillofacial surgery, during these years the trainees will progress in surgical training in the domains of specialty-based knowledge, clinical and technical skills and professional behavior and leadership toward the development of competent surgical practice. The trainees will practice at the workplace and their tasks and responsibilities will increase in complexity in line with the progression through the training program.

They will acquire the generic skills to allow:

- Team working and perform as a member of the team caring for oral and maxillofacial surgical patients.

- Receive patients as emergencies and review patients in outpatient clinics and initiate management and diagnostic processes based on a reasonable differential diagnosis.
- Manage the perioperative care of the patients and recognize common complications and either be able to deal with them or know to whom to refer.
- To be safe and useful assistant in the operating room and perform some simple procedures under minimal supervision and perform more complex procedures under direct supervision. The trainees should record their operative experience in the surgical logbook (Appendix 1) corresponding to the operative levels: operator, first assistant or second assistant.
- The trainees need to be able to perform in differing conditions and circumstances, respond to the unpredictable, and make decisions under pressure using the professional judgement in everyday practice.

3.5. Educational program

3.5.1. Lectures

During the first year of training, the trainees will receive a series of lectures on basic sciences and general surgery to acquire the knowledge of the basic surgical principles that are common to all surgical specialties. The lectures are given on a weekly basis.

3.5.2. Seminars and journal clubs

Throughout the training period, the trainees will participate in the seminars and journal clubs held at the residency departments and units covering the subjects and topics relevant to the knowledge of the specialty to improve their abilities in presentation and critical thinking of the up-to-date literature.

3.5.3. Research requirements

The trainees are required to conduct a research work that is supervised by assigned educational supervisors and they should submit their theses to be examined and approved by examining committees assigned by the Scientific Council as a fulfillment of the requirement for the final examination.

4. The training objectives

The purpose of training in the specialty of oral and maxillofacial surgery is to produce surgeons competent to work as specialists in Iraq in the three main domains of competency; knowledge, skills and attitudes/behavior.

In general terms, by the end of training, surgeons have to demonstrate:

- Theoretical and practical knowledge related to surgery in general and to their specialty practice;
- Technical and operative skills;
- Clinical skills and judgement;
- Generic professional and leadership skills;
- An understanding of the values that underpin the profession of surgery and the responsibilities that come with being a member of the profession;
- The special attributes needed to be a surgeon;
- A commitment to their on-going personal and professional development and practice using reflective practice and other educational processes;
- An understanding and respect for the multi-professional nature of healthcare and their role in it;

- An understanding of the responsibilities of being an employee in the government's health systems and/or a private practitioner.

Generally the training objectives of oral and maxillofacial surgery can be divided into 3 parts: areas of expertise, areas of competence, and areas of familiarity.

Areas of expertise

- Dentoalveolar surgery.
- Pre-prosthetic surgery including dental implants.
- Head and neck infections.
- Oral and maxillofacial trauma
- Benign pathological conditions such as odontogenic and non-odontogenic cysts and tumors.
- Diseases of salivary glands.
- Facial pain.

Areas of competence

- Facial deformities, both congenital and acquired.
- Diseases of the temporomandibular joints.
- Local reconstructive surgery.

Areas of familiarity

- Cleft lip and palate
- Regional reconstructive surgery and free tissue transfer.

- Cancer of the head and neck, in particular oral, oropharyngeal and cutaneous malignancy.
- Craniofacial surgery.
- Cosmetic surgery.

The scope of practice should include at least the areas of expertise and competence. Oral and maxillofacial surgeon can also be competent or expert in the area defined as “familiarity”¹.

At the end of this training and education program, the oral and maxillofacial surgeon will be able to:

1. Manage patients presenting with problems relating to the teeth and their supporting structures (minor oral surgery).
2. Manage patients requiring pre-prosthetic surgery including the placement of osseointegrated implants.
3. Manage patients presenting with oral and maxillofacial trauma.
4. Manage patients presenting with infection of the head and neck, both acute and chronic. This will include infection of the fascial spaces of the head and neck.
5. Manage patients presenting with benign pathological conditions of the bone and soft tissues such as odontogenic and non-odontogenic cysts and tumors.
6. Manage patients presenting with cancer of the head and neck, in particular oral, oropharyngeal and cutaneous malignancy.

¹Laskin, D.M. The past, present, and future of oral and maxillofacial surgery. J Oral Maxillofac Surg 66:1037-1040, 2008.

7. Manage patients presenting with facial deformities, both congenital and acquired. This will include the treatment of patients with post-traumatic defects, syndromes of the head and neck and cleft lip and palate.
8. Manage patients presenting with diseases of the salivary glands.
9. Manage patients with diseases of the temporomandibular joints.
10. Manage the patient presenting with facial pain.
11. Manage patients presenting with problems which affect the cranio-maxillofacial region.
12. Be familiar with basic reconstructive techniques, including free tissue transfer, as these apply to the head and neck.
13. Be familiar with basic cosmetic surgery techniques.

In addition to the basic competencies required in all specialties, these include:

4.1. Patient Care

Trainees must be able to provide patient care that is compassionate, appropriate, and effective for the treatment of oral and maxillofacial problems and the promotion of health. Residents are expected to:

- a. Demonstrate caring and respectful behavior when interacting with patients and their families;
- b. Obtain essential and accurate information about their patients;
- c. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment;

- d. Develop and implement patient management plans;
- e. Educate the patients and their families;
- f. Perform all procedures that are considered essential for the practice of the specialty;
- g. Provide services aimed at preventing health problems or promoting health;
- h. Interact with health care professionals, including those from other disciplines, to provide quality care;
- i. Provide competent care and management for patients consistent with the patient's values and desires for treatment.

4.2. Medical Knowledge

At the end of the training program, the trainees must demonstrate an adequate level of knowledge in basic medical sciences, basic principles of surgery and all the fields of oral and maxillofacial surgery, they are expected to be able to demonstrate knowledge in:

- a. Human anatomy, in particular head and neck anatomy, appropriate for surgery including development and embryology, gross and microscopic anatomy, surface and imaging anatomy.
- b. Physiology relevant to surgical practice including homeostasis, metabolic pathways and abnormalities, blood loss and shock, fluid balance and fluid replacement therapy, bleeding and coagulation, thermoregulation and nutrition.
- c. Pathological principles underlying system specific pathology, this include inflammation, wound healing, cellular injury, pathology of neoplasms, tumor development and classification, staging and grading of cancers.

- d. Pharmacology relevant to the surgical practice and the safe prescription of drugs.
- e. Microbiology relevant to surgical practice including surgically important microorganisms, sources of infection, sepsis, principles of disinfection and sterilization and principles of antibiotics.
- f. Principles of diagnostic and interventional imaging including x-rays, ultrasound, CT, cone beam CT, MRI. PET, radiounucleotide scanning.
- g. Dentoalveolar surgery including principles of the management of impacted teeth, endodontic surgery and implantology, in addition to principles of incisional, excisional and needle biopsy techniques.
- h. Head and neck infections and the principles of the surgical management and the use of antimicrobial agents.
- i. Cranio-maxillofacial trauma and the principle of management.
- j. Salivary gland diseases and surgery.
- k. Orthognathic surgery.
- l. Temporomandibular joint diseases and surgery.
- m. Oncology.
- n. Neck surgery.
- o. Reconstructive surgery.
- p. Esthetic surgery.

4.3. Interpersonal and Communication Skills

The trainees must be able to demonstrate interpersonal and communication skills that result in effective information exchange with patients, families, and health professionals. Residents are expected to:

- a. Create and sustain a therapeutic and ethically sound relationship with patients;
- b. Use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills;
- c. Work effectively with others as a member or leader of a health care team or other professional group;
- d. Demonstrate effective communication skills, while handling difficult situations (breaking bad news and managing difficult patient);
- e. Maintain empathy with patients even under difficult circumstances;
- f. Manage appropriate boundaries with patients and families;
- g. Manage transference and counter-transference with patients and families;
- h. Demonstrate sensitivity to the sociocultural issues and differences;
- i. Communicate their treatment plans to patients and their families in an understandable way.
- j. Maintain a polite and courteous attitude at all times with all people;
- k. Listen to and learn from others, even those with different viewpoints and backgrounds;
- l. Communicate effectively within a multi-disciplinary inpatient treatment team;
- m. Communicate effectively with colleagues from all disciplines;

- n. Communicate effectively with peers;
- o. Communicate effectively with supervisors and teachers for purpose of learning;
- p. Maintain all necessary and appropriate documentation of patient care;
- q. Demonstrate ability to lead a clinical team.

4.4. Professionalism

The trainees must demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population. Residents are expected to:

- a. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest; and a commitment to on-going professional development and excellence;
- b. Demonstrate a commitment to ethical principles pertaining to withholding of clinical care, confidentiality of patient information, informed consent, and business practices;
- c. Demonstrate sensitivity and responsiveness to patients' culture, age, religion, sex, and disabilities;
- d. Maintain professional dress, and professional attire;
- e. Put needs of patients and families first;
- f. Maintain professional boundaries;
- g. Understand and respect issues related to patient confidentiality and informed consent;

- h. Work well with peers including helping out with group issues, emergencies, and cross-coverage;
- i. Be on-time, available, and arranging for appropriate cross-coverage;
- j. Maintain appropriate documentation;
- k. Contribute to the overall welfare of the hospital and the program;
- l. Demonstrate leadership in clinical and educational settings;
- m. Serve as a role model for students.

4.5. Practice-based Learning and Improvement

The trainees must demonstrate the knowledge, attitude and skills necessary to initiate self-directed learning to keep abreast of current information and practices relevant to the practice of oral and maxillofacial surgery, to correct any areas of information or skill gaps, and to improve patient care. Trainees are expected to exhibit progressive improvement in their level of knowledge and skill throughout their training. Practice-based learning includes ability to:

- a. Recognize and accept limitations in knowledge base and clinical skills and understand the need for life-long learning;
- b. Obtain, evaluate, and utilize evidence from the scientific literature to improve their patient care including prestigious journals and medical information databases (e.g., PubMed, ScienceDirect, Medline, EMBASE etc.) and on-line services and information technology;
- c. Utilize evidence based approaches in providing treatment for the patients;
- d. Use direct feedback to improve their performance;

- e. Use systematic evaluation of case load and practical experience to assess practice, growing competence and expanding knowledge and skills;
- f. Participate in research and/or scholarship, attend all classes, journal clubs, case conferences, ward rounds and special conferences and actively participate in these educational activities;
- g. Present scholarly work at conferences or meetings within and outside the program to improve patient care and knowledge base;
- h. Demonstrate effective contribution to the teaching of medical students and other health care professionals.

4.6. System-based Practice

The trainees are expected to exhibit progressive improvement in their level of knowledge and skill throughout their training. System-based practice includes:

- a. Understanding the influence of sociocultural factors on seeking, receiving, and assuring effectiveness of treatment;
- b. The ability to understand, use, or work with the resources available within the hospital health care system and the larger community in the care of patients requiring knowledge of social service systems, legal system and educational system;
- c. Understanding and ability to work within multi-disciplinary treatment setting;
- d. Identifying and reporting system errors; learning from these to reduce medical system errors;

- e. Understanding of and compliance with the hospital and program policies, systems, by-laws and regulations pertaining to patient care and residency training;
- f. Attention to cost-efficacy in patient care;
- g. Attention to patient advocacy within the hospital and the health-care system.

Examples of the 3 domains of competency that need to be acquired by the trainees

In basic principles of surgery

Knowledge	Skills	Attitude/behavior
<ul style="list-style-type: none"> ➤ Basic principles of surgery ➤ Classification of surgical wounds ➤ Principles of management of wounds; incision and closure ➤ Pathophysiology of wound healing ➤ Scars and contractures 	<ul style="list-style-type: none"> ➤ Creation of a sterile field ➤ Antisepsis ➤ Ability to use scalpel, diathermy and scissors. ➤ Accurate and tension free apposition of wound edges ➤ Tying surgical knots ➤ Control of bleeding ➤ Tissue handling 	<ul style="list-style-type: none"> ➤ Work effectively with others as a member or leader of a health care team ➤ Demonstrate caring and respectful behavior when interacting with patients

In oral and maxillofacial surgery/facial fractures

Knowledge	Skills	Attitude/behavior
<ul style="list-style-type: none"> ➤ Etiology of facial trauma Preliminary management of trauma ➤ Signs and symptoms of fractures of facial skeleton Investigations and radiographic interpretation ➤ Anatomy of the head and neck ➤ Principles of management of facial fractures and soft tissue injuries ➤ Potential complications Pharmacology and therapeutics 	<ul style="list-style-type: none"> ➤ General assessment of the trauma patient ➤ Assessment and emergency treatment of facial trauma ➤ Clinical examination of facial skeleton and cranial nerves Ability to formulate a treatment plan ➤ Carry out of steps of the surgical procedures safely and correctly; reduction, fixation and immobilization. ➤ Techniques of intermaxillary fixation ➤ Techniques of open reduction and internal fixation and bone manipulation ➤ Soft tissue handling and suturing techniques ➤ Pain control /prevention of infection and management of complications 	<ul style="list-style-type: none"> ➤ Work effectively with others as a member or leader of a health care team ➤ Communicate their treatment plans to patients and their families in an understandable way. ➤ Communicate effectively within a multi-disciplinary inpatient treatment team; ➤ Demonstrate a commitment to ethical principles pertaining to withholding of clinical care, confidentiality of patient information and informed consent.

Oral and maxillofacial surgery/facial deformity

Knowledge	Skills	Attitude/behavior
<ul style="list-style-type: none"> ➤ Etiological factors of facial deformities and differential diagnosis ➤ Specialized investigations Classification of malocclusion/deformity ➤ Principles of management 	<ul style="list-style-type: none"> ➤ History and examination of the patient with facial deformity ➤ Techniques of cephalometric analysis ➤ Ability to formulate treatment plan ➤ Orthognathic surgery techniques; genioplasty, ramus osteotomies and maxillary osteotomies ➤ Safe use of power tools Plating and fixation skills ➤ Post-operative care and follow-up ➤ Management of complications 	<ul style="list-style-type: none"> ➤ Work effectively with others as a member or leader of a health care team ➤ Communicate their treatment plans to patients and their families in an understandable way. ➤ Demonstrate a commitment to ethical principles pertaining to withholding of clinical care, confidentiality of patient information and informed consent.

5. Syllabus

5.1. Theoretical program

5.1.1. Lectures

During the first year of training, the trainees will receive a series of lectures on basic sciences and general surgery to acquire the knowledge of the basic surgical principles that are common to all surgical specialties. The lectures are given on a weekly basis. The appropriate level of knowledge can be found in textbooks that are in the following table

Topic	Textbooks
Human anatomy	Last's Anatomy regional and applied 12 th edition (Churchill Livingstone Elsevier). Snell's clinical anatomy by regions 10 th edition (Wolters Kluwer)
Physiology	Ganong's Review of Medical Physiology, 24 th edition (Lange Basic Science) Guyton and Hall textbook of medical physiology, 14 th edition (Elsevier)
Pathology	Robbin's basic pathology 10 th edition (Elsevier) Rubin's pathology clinicopathologic foundations of medicin 6 th edition (Wolters Kluwer Lippincott Williams and Wilkins)
General surgery	Bailey and Love's Short practice of surgery 26 th edition (Taylor and Francis group)

5.1.2. Seminars and journal clubs

Throughout the training period, the trainees will participate in seminars and journal clubs covering the subject and topics relevant to the knowledge of the specialty to improve their abilities in presentation and critical thinking of the up-to-date literature, the Scientific Council utilizes e-learning through online communication technology services in seminars and journal clubs.

5.2. Clinical Program

❖ **First year:** One year residency in general surgery.

❖ **Second year:** It consists of the following residencies:

- General medicine for 2 months.
- Ear, Nose and Throat for 2 months.
- Plastic and reconstructive surgery for 3 months.
- Neurosurgery for 1 month.
- Ophthalmology for 2 months.
- Orthopedic surgery for 1 month.
- Radiology for 1 month.

❖ **Third, Fourth and Fifth years:** Residency in oral and maxillofacial surgery.

5.3. Research

At the beginning of the third year, the trainees are required to conduct a research work that is supervised by assigned educational supervisors; Professor or Assistant Professor (Ministry of Higher Education and Scientific Research) or Consultant oral and maxillofacial surgeons (Ministry of Health and Environment).

The trainees and their assigned educational supervisors submit the study protocols to the Council to be reviewed and approved by a scientific committee assigned by

the Council. The reviewing process include the research question and aims of the study, the methodology, the study design and the research methods used in the study, the use of proper statistical analysis in addition to the ethical issues involved in the research.

At the end of the fourth year the trainees should submit their theses to be examined and approved by examining committees assigned by the Scientific Council as a fulfillment of the requirement for the final examination. The trainees should contribute to the literature by publishing one article at least in a prestigious journal indexed in Scopus and/or Clarivate Analytics.

5.4. Assessment

5.4.1. Purpose of the assessment

- To determine whether trainees are meeting the standards of competence and performance specified at various stages in the curriculum for surgical training.
- To determine whether trainees have acquired the common and specialty-based knowledge, clinical judgement, operative and technical skills, and professional behavior and leadership skills required to practice the specialty.

5.4.2. Components of assessment

- Workplace-based assessments covering knowledge, clinical judgement, technical skills and professional behavior and attitudes by direct observation of the workplace tasks. These are complemented by the surgical logbook of procedures to support the assessment of operative skills.
- Examinations held at key stages; at the end of the first year and the third year and towards the end of specialty training.

The examinations are held at three key stages:

- ❖ **Primary examination:** A machine-marked written examination conducted at the end of the first year, it consists of two papers in MCQ single best answer format, one in applied basic sciences (human anatomy, general physiology and general pathology) and the other in Principles of general surgery.
- ❖ **Mid examination:** A written examination in MCQ single best answer format, Essay format or both conducted at the end of the third year covering certain topics in oral and maxillofacial surgery:

	Topics
1.	Clinical examination of lump and ulcer
2.	Incisions and suturing techniques
3.	Surgical anatomy of the face
4.	Serious pyogenic infections of the soft tissues
5.	Chronic specific infections
6.	Management of hemorrhage
7.	The role of surgery in the treatment of facial pain
8.	Diagnostic imaging in Maxillofacial surgery
9.	Related diseases of the maxillary sinus
10.	Common cystic lesions in oral and maxillofacial region
11.	Osteomyelitis and osteonecrosis of the jaws
12.	Diagnosis of swellings of the neck
13.	Fibro-osseous lesions of the jaws
14.	Some non-malignant lesions in and around the jaws
15.	Potentially malignant disorders

❖ **Final examination:** It is a comprehensive assessment in oral and maxillofacial surgery conducted at the end of the five-year training in two sections:

- **Section 1:** It is a written examination composed of 2 papers; paper 1 MCQ single best answer and paper 2 essay. Candidates must meet the required standard in Section 1 in order to gain eligibility to proceed to Section 2.
- **Section 2:** It is the clinical component of the final examination, it consists of case-based examination and oral examination.

5.4.3. Examination regulations

The examinations are conducted twice a year in October and in April.

In the primary examination the pass mark in each paper is 60% and the average pass mark for both papers is 70%. The trainees are eligible to sit three attempts and if unsuccessful their relation with the specialty program is terminated.

In the final examination the pass mark in each paper is 60% and the average pass mark for both papers is 70%. The trainees are eligible to sit three attempts, if unsuccessful, their relation with the specialty program is terminated.

6. Monitoring and evaluation

Monitoring and evaluation of the educational and training program is achieved through regular annual meetings held by the members of the Scientific Council headed by the Chairman of the Council with the directors of the training centers, supervisors, trainers and the trainees to assess the progress of the trainees and the challenges encountered throughout the stages of the training program.