



Course Curriculum for Higher Specialty Certificate in Dentistry/ Oral and Maxillofacial Surgery

The Higher Specialty Certificate in Dentistry/ Oral and Maxillofacial Surgery is awarded by the Faculty of Graduate Studies at Jordan University of Science and Technology (JUST) upon the fulfillment of the following requirements:

- 1- Compliance with the JUST regulations for the Higher Specialty Certificate in Dentistry/ Oral and Maxillofacial Surgery outlined by the Deans' Council decision in its meeting (No21/2010), dated 8/6/2010
- 2- Successful completion of (5) years of study/ training as follows:

Course number	Course	Credit hours (*)
Med 701 S	First year clinical training in oral and maxillofacial surgery	12
Dent 702 S	Second year clinical training in oral and maxillofacial surgery	12
Dent 703 S	Third year clinical training in oral and maxillofacial surgery	12
Dent 704 S	Fourth year clinical training in oral and maxillofacial surgery	12
Dent 705 S	Fifth year clinical training in oral and maxillofacial surgery	12

* Each year is registered as 12 credit hours for the purpose of registration and fees calculation

- 3- The residents have to finish a complete scientific research under the supervision of a faculty member in the department and they are required to present it in front of the department faculty members, or have it published or accepted for publication in a medical journal or conference, before graduation.

The first year: Med 701 S, First year clinical training in oral and maxillofacial surgery

Residents spend this year in the departments of General Surgery, Special Surgery, Emergency, and Intensive care.

During this year, the student receives training as follows:

1. General Surgery (two months):

Oral and maxillofacial surgery residents join the Surgical team in the department in their rounds on patients. They will have the following duties:

- To learn how to admit patients to the hospital, how to obtain relevant information from them, how to complete their records and proper way of discharging them from the hospital
- To learn how to look after the inpatients, how to monitor their vital signs including pulse, blood pressure, temperature, respiratory rate, ..etc, and how they progress in their treatment.
- To learn how to control and maintain fluid and electrolyte balance of the inpatient.
- To learn how to prepare the patient for the operation room and how to request proper investigations and consultations.
- To learn proper protocols that are followed in the operation theatre including maintenance of sterilization and infection control.

2. Emergency (two months):

The oral and maxillofacial surgery residents participate with the emergency team in their activities within the department and learn the basics of emergency management of the patients including history taking and clinical examination leading to diagnosis and treatment planning. They will be more involved in the management of oral and maxillofacial surgery emergencies.

3. Plastic Surgery (two months):

The oral and maxillofacial surgery residents participate with the plastic surgery team in their activities within the department and learn the basics of plastic surgery with emphasis on wound suturing and wound care procedures.

4. ENT (two months):

The oral and maxillofacial surgery residents participate with the ENT team in their activities within the department and observe or assist in their procedures especially in relation to paranasal sinuses and areas of common interest between ENT and oral and maxillofacial surgery

5. Anaesthesia and intensive care (two months):

The oral and maxillofacial surgery residents learn the basics of different methods and techniques of anaesthesia, drugs used, devices and machines used and how to relate that to body anatomy and physiology. They also participate in other activities within the department.

6. General medicine (two months):

The oral and maxillofacial surgery residents rotate between the different sections of the department and learn mainly the proper way of obtaining history and doing clinical examination with emphasis on diseases or conditions that are related to oral and maxillofacial surgery.

During the first year the residents should learn the following:

1. Detailed anatomy and physiology of the head and neck:

The residents must know in details the anatomy of different structures in the head and neck, their functions, and how they can be accessed surgically in the practice of oral and maxillofacial surgery. This includes among others: bones of the skull and face, muscles of mastication, muscles of facial expression, oral cavity, throat, larynx, neck, blood vessels, lymphatic channels and nodes, in addition to detailed knowledge of physiology relevant to oral and maxillofacial surgery including fluid and electrolyte balances.

2. Oral pathology:

In addition to general pathology (cell injury and death, inflammation, wound healing, infectious diseases, .. etc.), the residents focus on diseases affecting soft and hard tissues and oral cavity, TMJ, facial muscles and blood vessels, lymph vessels, nerves, throat and salivary glands. They focus on their causes, microscopic appearance, symptoms and clinical importance.

3. Oral Medicine:

The residents should learn screening, diagnosis and non-surgical treatment of various diseases that may affect the mouth, oral mucosa, and perioral tissues including ulcers, as red and white lesions, viral, bacterial and fungal infections, and different pigmentations, in addition to facial pain and TMJ disorders and their relation to systemic diseases.

4. Oral Microbiology and Immunology:

This includes the study of bacteria, viruses and fungi that cause infections in the oral cavity. Also focuses on types of bacteria in the mouth and their role in some diseases, especially caries and periodontal diseases. It also includes the structure and vital role of antibodies in primary and

secondary immunity and in causing pathological tissue changes as they react with cells and epithelium. It also includes chemical and immunological methods used for the identification of bacteria, viruses and fungi.

5. Pharmacology:

It includes the study of medicines and other therapeutic materials that are used in the field of oral and maxillofacial surgery, and focuses on interactions resulting from the use of different drugs, especially those used for chronic diseases.

6. The basic principles of general surgery.

7. History obtaining and clinical examination of patients.

8. Evidence based care of patients in the intensive care unit.

9. Effective participation in the morning rounds on patients, lectures, symposia and other research and scientific activities.

10. Participation in night on calls.

*** By the end of the year, residents must pass all exams including the topics mentioned above in addition to the annual assessment. They will be promoted to the following year in accordance with the current regulations of the higher specialty certificate in dentistry/ oral and maxillofacial surgery.**

The second year: Dent 702 S, Second year clinical training in oral and maxillofacial surgery

The residents are trained in the Oral and Maxillofacial Surgery outpatient clinics and operation room. They begin to understand the uniqueness and quality of service provided to the oral and maxillofacial surgery patients.

The residents have to learn the following:

1. Proper methods of history taking and clinical examination specific to patients in the oral and maxillofacial surgery outpatient clinics:

This includes the examination of patients and the development of the initial and final diagnosis after taking the history and requesting proper investigations for the patient including radiographs and lab tests. They also assist in and learn minor surgical procedures and start to take responsibility for patients. They should develop the skill of linking theoretical knowledge they already obtained with

clinical situations. They also help in supervising dental students in the oral and maxillofacial surgery clinics.

2. Advanced Oral and maxillofacial radiology:

The residents learn to examine and interpret different radiographic images to reach proper diagnosis. They also learn about physical radiations, their effects on living tissues, and methods of protection against that. They also learn about more sophisticated imaging techniques such as CT scanning and MRI and how they help with more accurate diagnoses of different cases.

3. Patient care before and after surgery:

This includes: Admission of patients to hospital and discharging them, recording patients' notes and monitoring their progress, vital signs, and investigations.

4. Basics of Oral and Maxillofacial Surgical interventions:

This is done through hands-on training in the oral and maxillofacial surgery operation room, where the residents assist in minor and major operations that are carried out under general anesthesia, and in outpatient clinics, where minor operations are done under local anesthesia.

5. Basics of oral and maxillofacial surgery emergency management:

The residents are trained to diagnose and treat emergencies in the emergency department or outpatient clinics including acute infections and injuries of the mouth and facial bones.

During this year, the residents have to perform and master the following surgical procedures:

- Suturing facial wounds and how to take care of them.
- Incision and drainage of abscesses of face and jaws.
- Surgical extraction of roots of teeth
- Surgical extraction of impacted teeth
- Taking biopsies and surgical specimens of oral and facial lesions
- Surgical removal of small cysts and the eradication of small pathologic lesions from the face and jaws
- Insertion of dental implants in simple uncomplicated cases
- Assisting in major surgical operations

*** By the end of the year, residents must pass all exams including the topics discussed in the second year and relevant topics from the first year in addition to the annual assessment. They**

will be promoted to the following year in accordance with the current regulations of the higher specialty certificate in dentistry/ oral and maxillofacial surgery.

The Third year: Dent 703 S, Third year clinical training in oral and maxillofacial surgery

The residents are trained in the clinics and operation room of Oral and maxillofacial surgery.

Their responsibility increase in terms of difficulty of surgical procedures he performs. They have to perform and master the following:

- Dealing with emergency cases so that they take a primary responsibility in that.
- Requesting all necessary investigations for the patients and reading and interpreting the results to reach a correct diagnosis based on that.
- Caring for patients before and after surgical operations.
- Working as first assistant in major surgical operations.
- Participating in the process of teaching dental students and training of more junior residents.
- Participating in all activities of the department.
- participate in and conduct surgical procedures related to:
 - Odontogenic infections of the face and jaws
 - Impacted teeth
 - Maxillofacial injuries
 - TMJ dysfunction
 - Dental implants and preparation for dental prosthetics
 - Pathological lesions in the mouth, face and jaws
 - Malformations of blood and lymph vessels in the mouth, face and jaws
 - Tumors of the mouth and jaws
 - Salivary gland disorders
 - Cosmetics of the mouth, face and jaws
 - Cleft lip and palate
 - Dental and skeletal causes of malocclusion
 - Reconstruction of soft and hard tissues
 - Dental and facial pain

***By the end of the year, residents must pass all exams including the topics discussed in the third year and relevant topics from the previous two years in addition to the annual assessment. They will be promoted to the following year in accordance with the current**

regulations of the higher specialty certificate in dentistry/ oral and maxillofacial surgery.

The Fourth year: Dent 704 S, Fourth year clinical training in oral and maxillofacial surgery

Residents have to perform the following training and clinical responsibilities:

- Carry out the diagnosis of various surgical cases.
- Identify and request appropriate lab tests.
- Analyze and interpret the results of lab tests and diagnose various surgical conditions.
- Be able to carry out appropriate surgical interventions.
- Teach and train dental students and more junior residents.
- Participate and conduct surgical procedures related to the following:
 - Odontogenic infections of the face and jaws
 - Impacted teeth
 - Maxillofacial injuries
 - TMJ dysfunction
 - Dental implants and preparation for dental prosthetics
 - Pathological lesions in the mouth, face and jaws
 - Malformations of blood and lymph vessels in the mouth, face and jaws
 - Tumors of the mouth and jaws
 - Salivary gland disorders
 - Cosmetics of the mouth, face and jaws
 - Cleft lip and palate
 - Dental and skeletal causes of malocclusion
 - Reconstruction of soft and hard tissues
 - Dental and facial pain

***By the end of the year, residents must pass all exams including the topics discussed in the fourth year and relevant topics from the previous three years in addition to the annual assessment. They will be promoted to the following year in accordance with the current regulations of the higher specialty certificate in dentistry/ oral and maxillofacial surgery.**

The Fifth year: Dent 705 S, Fifth year clinical training in oral and maxillofacial surgery

The responsibility of the residents increase more than previous years and they are given the chance to take and implement decisions concerning the treatment of patients with prior coordination with the specialists. They carry the following training and clinical responsibilities:

- The residents become directly responsible and work as surgeons under the supervision of a specialist.
- Carry out the diagnosis of various surgical cases.
- Identify and request appropriate lab tests.
- Analyze and interpret the results of lab tests and diagnose various surgical conditions.
- Be able to carry out appropriate surgical interventions.
- Lead their more junior fellow residents in Oral and Maxillofacial Surgery
- Teach and train dental students.
- Participate and conduct surgical procedures related to the following:
 - Odontogenic infections of the face and jaws
 - Impacted teeth
 - Maxillofacial injuries
 - TMJ dysfunction
 - Dental implants and preparation for dental prosthetics
 - Pathological lesions in the mouth, face and jaws
 - Malformations of blood and lymph vessels in the mouth, face and jaws
 - Tumors of the mouth and jaws
 - Salivary gland disorders
 - Cosmetics of the mouth, face and jaws
 - Cleft lip and palate
 - Dental and skeletal causes of malocclusion
 - Reconstruction of soft and hard tissues
 - Dental and facial pain

*** By the end of the Fifth year, the residents must pass an exam, in addition to the annual assessment. The exam in this year is comprehensive and in accordance with the current regulations of the higher specialty certificate in dentistry/ oral and maxillofacial surgery.**