



## MANUFACTURING MEDICAL PRACTICE FROM SURGICAL DENTISTRY

1. General information	
<b>Name of the Faculty</b>	<b>Dental</b>
<b>Educational program</b> (sphere of knowledge, specialty, level of higher education, form of education)	22 Healthcare, 221 Dentistry, second level of higher education (master's degree), day form of education
Educational year	2020-2021
<b>Name of the discipline, code</b> (e-mail address on the website of LNMU named after Danylo Halytsky)	<b>manufacturing medical practice from Surgical Dentistry MC 60</b> e-mail: <a href="mailto:kaf_omfs@meduniv.lviv.ua">kaf_omfs@meduniv.lviv.ua</a>

Department ( <i>name, address, phone, e-mail</i> )	Surgical dentistry and maxillofacial surgery, 79010, Lviv, Nekrasova street, 6, Lviv Regional Clinical Hospital, Department of Maxillofacial Surgery, +38 (032) 278-62-67; 79000, Lviv, Mykolaychuka street, 9, Municipal City Clinical Hospital of Ambulance, +38 (032) 278-62-67; 79000, Lviv, Pekarska street, 69B, Dental Medical Center of LNMU, +38 (032) 278-62-67; e-mail: <a href="mailto:kaf_omfs@meduniv.lviv.ua">kaf_omfs@meduniv.lviv.ua</a>
Chief of the department ( <i>e-mail</i> )	Professor, DDS Yan Vares e-mail: <a href="mailto:kaf_omfs@meduniv.lviv.ua">kaf_omfs@meduniv.lviv.ua</a>

Year of study (year in which the discipline is studied)	IV
Semester ( <i>semester</i> , in which the discipline is studied)	VII
Type of the discipline/module ( <i>mandatory/selective</i> )	Mandatory
Teachers (names, surnames, scientific degrees and titles of teachers who teach the discipline, contact e-mail)	Ya.E. Vares, DDS, Professor Yu.O. Medvid, CMS, Associate Professor N.M. Krypnyk, CMS, Associate Professor H.R. Pogranychna, CMS, Associate Professor A.V. Filipyskyi, CMS, Associate Professor e-mail: <a href="mailto:kaf_omfs@meduniv.lviv.ua">kaf_omfs@meduniv.lviv.ua</a>
Erasmus yes/no (availability of the discipline for students within the program <i>Erasmus+</i> )	no

The person responsible for the syllabus (the person to be commented on the syllabus, contact <i>e-mail</i> )	Head of the Department, Professor Yan Vares, DDS Deputy Head of the Department, Associate Professor Yu.O. Medvid, CMS e-mail: kaf_omfs@meduniv.lviv.ua
ECTS credits	<b>2</b>
Total hours ( <i>lectures/ practical lessons/ student's independent work</i> )	Total hours – 60 Duration of the practice – 2 weeks
Language of education	<b>Ukrainian, English</b>
Information about consultations	Consultations are held according to the schedule of consultations, which is posted on the information stands of the department, the website of the department, the platform for distance learning misa
Address, telephone and regulations of the clinical base	79010, Lviv, Nekrasova street, 6, Lviv Regional Clinical Hospital, Department of Maxillofacial Surgery, +38 (032) 278-62-67; 79000, Lviv, Mykolaychuka street, 9, Municipal City Clinical Hospital of Ambulance, +38 (032) 278-62-67; 79000, Lviv, Pekarska street, 69B, Dental Medical Center of LNMU, +38 (032) 278-62-67;  Working hours : 9.00-16.20 (on the days of repassing of the missed lessons according to the schedule: 9.00-19.00)

## 2. Short annotation of the course

**Educational program description (abstract).** The discipline involves the study of surgical dentistry in its main sections: "Propaedeutics of surgical dentistry", "Inflammatory diseases of the maxillo-facial area gland" and "Traumatology of the maxillo-facial area" with emphasis on pathology, clinics, diagnostics, emergency treatment and prevention of the main and most common diseases of maxillo-facial area (MFA).

Special attention is paid to the formation of students' skills of anamnesis collection, examination and differential diagnosis of MFA diseases with various clinical course and their complications, modern approaches to diagnostics, principles of treatment and prophylaxis on the basis of evidence-based medicine and urgent conditions are studied in practical surgical dentistry. Students participate in the diagnostic and treatment process of outpatient, inpatient patients under the guidance of assistants and associate professors of the department. There is also an introduction to the treatment-and-prophylactic measures that are most commonly used in surgical dental practice.

The study of the discipline «manufacturing medical practice from surgical dentistry» helps to form a holistic view of the structure and functioning of the organs of the maxillo-facial area; deepening of theoretical and practical preparation, acquisition of professional practical skills for independent medical activity.

Structure of the discipline	Number of credits, hours	Year of study/ semester	Test type
	Total		

<b>Name of the discipline:</b> <b>manufacturing medical practice from surgical dentistry</b> <i>Content module 1</i>	<b>2 credits</b>	<b>IV course (VII semester)</b>	<b>Credit</b>
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**The subject of study of the discipline are** pathological processes of maxillo-facial area, related to the competence of surgical dentistry and maxillofacial surgery, features of their clinical course, the main diagnostic and therapeutic manipulations used in the practice of the dental surgeon.

### **3. The purpose and objectives of the course**

**The purpose of teaching** the discipline «manufacturing medical practice from surgical dentistry» is to provide a comprehensive and highly-specialized training of a dentist, which involves mastering the theory and practice of all sections of surgical dentistry and basics of maxillo-facial department (MFD), from organization of surgical department of dental clinic and maxillofacial hospital to the ability of providing urgent care in extreme conditions and qualified surgical dental and reconstructive-restoration assistance in MFD.

**The main tasks** of manufacturing practice are to educate a professional surgical dentist who is able to provide a thorough examination of the patient, diagnose the main symptoms and syndromes of MFA pathologies, to substantiate and formulate the preliminary diagnosis; to analyze the results of the examination and conduct differential diagnosis, to formulate a clinical diagnosis of major diseases, to identify the manifestations of somatic diseases in the oral cavity, to define the principles of integrated treatment in the clinic of surgical dentistry, to identify various clinical variants and complications of the most common diseases of the MFA, to be aware of the measures of primary and secondary prevention the most common surgical dental diseases.

#### **Competence and course results.**

In accordance with the requirements of the Standard of Higher Education, the discipline "manufacturing medical practice from Surgical Dentistry" provides students with the acquisition of competences:

- Integral (the ability to solve complex problems in the field of health care in the specialty "Dentistry" in professional activity or in the process of study, which involves research or innovation).

- General (ability to abstract thinking, analysis and synthesis; ability to learn and to be trained in accordance with the newest educational tools; ability to apply knowledge in practical situations; skills of using information and communication technologies; ability to search, process and analyze information from different sources; ability to identify, set and solve the problem; the ability to choose a communication strategy; the ability to work in a team; interpersonal skills; the ability to follow the labour safety regulations; the ability to evaluate and provide high quality results).

- Special (professional, subject) (collection of medical information about the patient (history); evaluation of results of laboratory and instrumental research; clinical diagnostics of a dental disease; diagnosis of urgent conditions; identification of the nature and treatment principles of dental diseases; tactics of dealing with dental patients with somatic pathology; performing the range of medical and dental manipulations; treatment of major dental diseases; dealing with medical documentation).

#### **General competencies (GC) according to the requirements of the NQF:**

1. Ability to abstract thinking, analysis and synthesis.

2. Knowledge and understanding of the subject area and understanding of professional activity.
3. Ability to apply knowledge in practice.
4. Ability to communicate in the state language both orally and in writing.
5. Ability to communicate in English.
6. Skills in the use of information and communication technologies.
7. Ability to search process and analyze information from various sources.
8. Ability to adapt and act in a new situation.
9. Ability to identify, pose and solve problems.
10. Ability to be critical and self-critical.
11. Ability to work in a team.
12. The desire to preserve the environment.
13. The ability to act socially responsibly and consciously.
14. The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.
15. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle.

**Special (professional, subject) competencies (SC) according to the requirements of the National Qualifications Framework (NQF):**

1. Ability to collect medical information about the patient and analyze clinical data.
2. Ability to interpret the results of laboratory and instrumental research.
3. Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies.
4. Ability to plan and implement measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.
5. Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.
6. Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.
7. Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.
8. Ability to perform medical and dental manipulations.
9. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.
10. Ability to organize and conduct medical and evacuation measures.
11. Ability to determine tactics, methods and provide emergency medical care.
12. Ability to organize and conduct screening examinations in dentistry.
13. Ability to assess the impact of the environment on the health of the population (individual, family, population).
14. Ability to maintain regulatory medical records.
15. Processing of state, social and medical information.
16. Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.
17. Ability to legally support their own professional activities.
18. Ability to provide home care according to the protocols of tactical medicine.

**Detailing competencies in the NQF descriptor in the form of "Competency matrix".**

## Competency matrix of the educational component Surgical dentistry

Program competencies	manufacturing medical practice from Surgical Dentistry MC 60
<i>General competencies</i>	
<b>GC 1</b> Ability to abstract thinking, analysis and synthesis.	+
<b>GC 2</b> Knowledge and understanding of the subject area and understanding of professional activity.	+
<b>GC 3</b> Ability to apply knowledge in practice.	+
<b>GC 4</b> Ability to communicate in the state language both orally and in writing.	+
<b>GC 5</b> Ability to communicate in English.	+
<b>GC 6</b> Skills in the use of information and communication technologies.	+
<b>GC 7</b> Ability to search process and analyze information from various sources.	+
<b>GC 8</b> Ability to adapt and act in a new situation.	+
<b>GC 9</b> Ability to identify, pose and solve problems.	+
<b>GC 10</b> Ability to be critical and self-critical.	+
<b>GC 11</b> Ability to work in a team.	+
<b>GC 12</b> The desire to preserve the environment.	+
<b>GC 13</b> The ability to act socially responsibly and consciously.	+
<b>GC 14</b> The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.	+
<b>GC 15</b> Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle.	+
<i>Special (professional) competencies</i>	
<b>SC 1</b> Ability to collect medical information about the patient and analyze clinical data.	+
<b>SC 2</b> Ability to interpret the results of laboratory and instrumental research.	+
<b>SC 3</b> Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies.	+
<b>SC 4</b> Ability to plan and implement measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.	+
<b>SC 5</b> Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.	+
<b>SC 6</b> Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.	+
<b>SC 7</b> Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.	+
<b>SC 8</b> Ability to perform medical and dental manipulations.	+
<b>SC 9</b> Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.	+
<b>SC 10</b> Ability to organize and conduct medical and evacuation measures.	+
<b>SC 11</b> Ability to determine tactics, methods and provide emergency medical care.	+
<b>SC 12</b> Ability to organize and conduct screening examinations in dentistry.	+
<b>SC 13</b> Ability to assess the impact of the environment on the health of the population (individual, family, population).	+
<b>SC 14</b> Ability to maintain regulatory medical records.	+
<b>SC 15</b> Processing of state, social and medical information.	+
<b>SC 16</b> Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.	+
<b>SC 17</b> Ability to legally support their own professional activities.	+
<b>SC 18</b> Ability to provide home care according to the protocols of tactical medicine.	+

As a result of studying the discipline, the student must

**know:**

- Features of the examination of patients with thyroid pathology, participation of related specialists in the examination.
- Methods of examination of patients with trauma to the maxillofacial area. Organizational principles of assistance to the victims with injuries of the maxillofacial area.
- Principles of deontology and medical ethics in surgical dentistry and maxillo-facial surgery.
- Principles of organization of dental care in Ukraine.
- Basic methods of general and local anesthesia, sedation in the practice of the dental surgeon (demonstrations, contraindications, features of conducting).
- General and local complications in the practice of surgical dentistry and maxillo-facial surgery (MFS). Cardiopulmonary resuscitation.
- Tooth extraction operation. Modern methods of tooth extraction.
- Diseases of teeth eruption (diagnosis, treatment).
- Inflammatory processes of hard tissues of the MFA. Periodontitis, periostitis, alveolitis, osteomyelitis (diagnosis, treatment).
- Inflammatory processes of the soft tissues of the MFA. Abscesses, phlegmons, lymphadenitis, boils, carbuncles, erysipelas (diagnosis, treatment).
- Odontogenic sinusitis. Modern methods of diagnosis and treatment.
- Inflammatory and reactive-dystrophic diseases of the salivary glands. Salivary stone disease (diagnosis and treatment).
- Specific inflammatory diseases of the MFA. Actinomycosis, tuberculosis, syphilis, diphtheria, HIV (diagnosis and treatment).
- Temporomandibular joint dysfunction. Inflammatory and destructive processes of the TMJ. Modern methods of diagnosis and treatment.
- Complications of inflammatory processes of the MFA (sepsis, mediastinitis, brain abscess, cavernous sinus thrombosis, etc.). Diagnosis and treatment.
- Traumatic damage of the teeth. Classification, indications for the preservation of injured teeth. First aid for dental injuries in children and adults.
- Traumatic injuries of soft tissues of MFA. Types of surgical treatment of wounds, principles of care for different types of wounds MFA.
- Traumatic injuries of hard tissues of MFA. Types of fractures of the jaw bones.
- Differential diagnosis, participation of related specialists in the treatment of patients. Types of conservative and surgical treatment.
- Traumatic disease (pathogenesis, clinical symptoms, assistance during the evacuation stages).
- Thermal (burns, frostbite), chemical (acids, alkalis, heavy metal salts), physical (electric shock) facial damage.
- Combined damage of the maxillofacial area. Clinic, diagnosis, treatment. Traumatic disease.
- Organization of dental care in the Armed Forces of Ukraine.
- Principles of medical sorting and stage treatment of the injured in the maxillofacial area.
- General characteristics, clinical course, diagnosis of gunshot wounds, burns, combined lesions of the maxillofacial area.
- Early and late complications of traumatic injuries of the maxillofacial area. Clinic, diagnosis, treatment.

**to be able to:**

- Collect anamnesis and to examine the patient for the specified pathology of MFA.
- Make a plan and carry out an examination of the patient with trauma to the maxillofacial area.
- Plan additional research methods and be able to interpret their results.
- Analyze and interpret the results of the X-ray examination in the Surgical Dentistry Clinic and establish an appropriate clinical diagnosis based on them.
- Fill in appropriate medical records.
- Perform diagnostic puncture of inflammatory focus of the MFA.
- To collect the inflammatory exudate for the antibiotic susceptibility test (study of the nature of the microflora and its antibiotic susceptibility).

- To collect the material from the wound surface for cytological examination (imprint, swab) and for further smear production on the specimen glass.
- To prescribe an individual scheme of premedication, depending on the psycho-somatic state of the patient, the nature and extent of surgical intervention.
- To demonstrate the techniques of preoperative preparation of the surgeon's hands by modern methods.
- To perform a phantom-based technique for antiseptic preparation of the surgical site.
- To make a plan for comprehensive screening and treatment for AIDS patients.
- To make the plan of complex treatment of patients with the specified pathologies.
- To perform a phantom-based technique of application anesthesia.
- To perform a phantom-based technique of topical anesthesia.
- To perform a phantom-based technique of infiltration anesthesia.
- To perform a phantom-based technique of mandibular anesthesia.
- To perform a phantom-based technique of torus anesthesia.
- To perform a phantom-based technique of mental anesthesia.
- To perform a phantom-based technique of lingual nerve block.
- To perform a phantom-based technique of buccal anesthesia.
- To perform a phantom-based technique of canine anesthesia.
- To perform a phantom-based technique of palatal anesthesia.
- To perform a phantom-based technique of tuberal anesthesia.
- To perform a phantom-based technique of infraorbital anesthesia.
- To perform a phantom-based technique of central anesthesia.
- To remove certain groups of teeth on the upper and lower jaws (phantom).
- To perform atypical tooth extraction as in case of pericoronitis (phantom).
- To open the subperiosteal abscess (phantom).
- To close oro-antral communication (phantom).
- To perform radical sinusotomy (phantom).
- To perform sequestrectomy (phantom).
- To perform cystotomy.
- To perform different stages of the operation - to open an abscess and phlegmon of various anatomical and topographic areas of the MFA (using the phantom).
- To perform drainage the wound.
- Perform primary surgical treatment of the wound.
- Demonstrate the technique of applying of surgical knot.
- Provide a tooth replantation.
- Make temporary immobilization of the fragments of the lower and upper jaws.
- Make temporary tires and provide fixation of the jaw fractures.
- Make ligature fixation of the teeth.
- Make a smooth arch bar.
- Carry out permanent immobilization of fragments of the lower and upper jaws.
- Provide fixation of the bimaxillary arch bars as one of the permanent immobilization methods.
- Reposit the dislocation of the mandible.
- Apply maxillofacial devices (repositioning, shaping, substitutive and fixation).
- To perform cardio-pulmonary resuscitation.

**To demonstrate:**

- ability to abstract thinking, analysis and synthesis.
- ability to learn and be modernly trained.
- knowledge and understanding of the subject area and understanding of professional activity.
- ability to apply knowledge in practical situations.

- skills of using information and communication technologies.
- ability to search, process and analyze information from various sources.
- ability to identify, pose and solve problems.
- ability to choose a communication strategy.
- ability to work in a team.
- interpersonal skills.
- ability to act on the basis of ethical considerations (motives), security orientation.
- possession of moral and deontological principles of a medical specialist and the principles of professional subordination.
- ability to evaluate and ensure the quality of work performed.
- ability to act socially responsible and civic conscious.

#### 4. Course details

Discipline	Student must know	Student must be able to do
Normal anatomy  Hystology, cytology, embriology	Know the anatomical and physiological features of the maxillofacial area: a)structure of the upper and lower jaws, histostructure of bone tissue; b)innervation and vascularization of these areas; c)attachment points and muscles of the maxillofacial area; d)layered histological structure of the skin; e)the structure of the lymphatic system of the head and neck; e)features of lymph outflow from the teeth of the upper and lower jaws; f)localization of cellular spaces with definition of their borders; g)structure of deciduous and permanent teeth; h)anatomical and histological structure of periodontal tissues; i)anatomical and histological structure of the oral mucosa; j)the structure of the organs of the head and neck; k)embryogenesis of the maxillofacial organs.	Be able to explain the structure of organs and systems of the maxillofacial area. Be able to explain the mechanical interaction of muscle groups. Be able to explain the localization of the pathological process in the maxillofacial area. Be able to explain the genesis of congenital malformations of the tissues of the maxillofacial area.
Physiology	Know the physiology of the act of swallowing, the act of breathing	Be able to explain which organs take part in these acts and what their role is.
Pathomorphology  Pathophysiology	Know the mechanism of inflammation and its morphological manifestation. Phases of development of inflammatory process. Know the concepts of	Be able to explain the mechanism of development of the inflammatory process, its phase. Describe the pathomorphological and



	<p>hyperplasia, metaplasia, atrophy. Know the mechanism of soft and hard tissue regeneration. Phases of reparative osteogenesis. Soft tissue healing phases.</p>	<p>clinical signs of inflammation. Be able to explain the morphological changes in the tissues that occur. Be able to explain the mechanism of development of allergic reactions, to characterize the morphological changes in the tissues that occur. Be able to explain the mechanism of reparative regeneration, its phases. Describe the pathomorphological and clinical signs of callus formation; healing by primary and secondary tension. Be able to explain disorders of swallowing, breathing and speech disorders in congenital malformations of the MFA.</p>
Topographical and clinical anatomy	<p>Know the topography of the cellular spaces, the location of the salivary glands, muscles, bones of the maxillofacial area. Blood supply, innervation and layered structure of individual organs of the oral cavity.</p>	<p>Be able to explain the topography of the organs of the maxillofacial area. Be able to explain the localization of the pathological process in the maxillofacial area. Be able to explain the layered structure of the organs of the maxillofacial area.</p>
Pharmacology	<p>Know the pharmacological features of drugs used for treatment in the clinic of surgical dentistry.</p>	<p>Be able to characterize the mechanism of action of drugs. Be able to prescribe and calculate the doses of the main drugs used .</p>
Microbiology, virology and immunology	<p>Know the species identification of oral microorganisms; what are opportunistic and pathogenic microorganisms, their role in the development of inflammatory processes of the maxillofacial area.</p>	<p>Be able to characterize the features of the microflora of the oral cavity and microorganisms that cause the development of purulent-inflammatory and specific processes. Be able to explain the essence of the bacteriological examination.</p>
Propaedeutics of internal medicine	<p>Know the procedure for examining the patient. Know the structure and methodology of filling in the medical card.</p>	<p>Be able to collect complaints, medical history, conduct a systematic examination of the patient and properly perform the medical records.</p>
Foreign language (for professional purposes)	<p>Know a foreign language, foreign medical terminology.</p>	<p>Be able to communicate in a foreign language, use foreign sources for professional purposes.</p>

Latin language and medical terminology	To know international medical terminology.	To be able to use international medical latin terminology.
Military-oriented training in the specialty "Dentistry"	Know the amount of medical care provided at each stage of the evacuation.	Be able to explain the basic principles of emergency assistance to victims.
Radiology	To know additional methods of inspection which are applied to diagnosis of pathologies of MFA. General principles of diagnostic criteria.	Be able to explain the principles on which certain methods are based (X-ray, CT, MRI, ultrasound).
Internal diseases	Know the main clinical symptoms, principles of diagnosis and treatment of somatic diseases (hypertension, myocardial infarction, stroke, epilepsy, bronchial asthma).	Be able to explain the main clinical symptoms, principles of diagnosis and treatment of somatic diseases (hypertension, myocardial infarction, stroke, epilepsy, bronchial asthma).
Social medicine, public health	Know the levels of medical care in the state. Statistical and analytical methods in medical practice. Know the basic principles of analysis of the activities of a doctor, department, health care institution, measures to ensure the quality of medical care and improve the efficiency of medical resources.	Be able to form an annual report on personal production activities; keep medical records of the patient and the population. Investigate the scope and effectiveness of the doctor, department, health care institution; identify defects in activities and the reasons for their formation. Carry out quality control of medical care; identify factors that hinder the improvement of the quality and safety of medical care. Organize the work of medical staff; to form rational medical routes of patients; organize interaction with colleagues.
General surgery	Know the techniques of applying the main types of bandages to wounds.	To perform temporary stopping of the bleeding.
Therapeutic dentistry Pediatric therapeutic dentistry Pediatric surgical dentistry	Know the diseases of the hard tissues of the tooth and pulp. Know the additional methods of examination used in dental practice.	Be able to perform intraoral examination of individual teeth. Be able to diagnose caries, pulpitis of temporary and permanent teeth. Be able to diagnose diseases of the oral mucosa.

<b>5. Learning outcomes</b>		
<b>Program learning outcomes</b>		
Code of result of the	The content of the learning outcome	Reference to the

learning outcome		competency matrix code
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Identify and identify the leading clinical symptoms and syndromes (according to list 1 of educational and professional program – EPP); according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a probable nosological or syndromic preliminary clinical diagnosis of dental disease (according to list 2 of EPP).	<i>PRE1</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Collect information about the general condition of the patient, evaluate the psychomotor and physical development of the patient, the condition of the organs of the maxillofacial area, based on the results of laboratory and instrumental studies to assess information about the diagnosis (according to list 5 of EPP).	<i>PRE 2</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Prescribe and analyze additional (mandatory and optional) examination methods (laboratory, radiological, functional and / or instrumental) according to the list 5 of EPP, patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (according to the list 2 of EPP).	<i>PRE 3</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Determine the final clinical diagnosis in accordance with the relevant ethical and legal norms, by making an informed decision and logical analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis under the supervision of a supervising doctor in a medical institution (according to list 2.1 of EPP).	<i>PRE 4</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Establish a diagnosis of emergencies under any circumstances (at home, on the street, in a medical institution), in an emergency, martial law, lack of information and limited time (according to list 4 of EPP).	<i>PRE 5</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Plan and implement measures to prevent dental diseases among the population to prevent the spread of dental diseases.	<i>PRE 6</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1,</i>	Analyze the epidemiological situation and carry out measures of mass and individual, general and local	<i>PRE 7</i>

<i>Aut2, Aut3</i>	medicament and non-medicament prevention of dental diseases.	
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Determine the approach, plan, type and principle of treatment of dental disease (according to list 2 of EPP) by making an informed decision according to existing algorithms and standard schemes.	<i>PRE 8</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Determine the nature of work, rest and the necessary diet in the treatment of dental diseases (according to list 2 of EPP) on the basis of preliminary or final clinical diagnosis by making an informed decision according to existing algorithms and standard schemes.	<i>PRE 9</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Determine the tactics of treatment of the dental patient with somatic pathology (according to list 3 of EPP) by making the decision according to existing algorithms and standard schemes.	<i>PRE 10</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Carry out treatment of major dental diseases according to existing algorithms and standard schemes under the supervision of a doctor-manager in a medical institution (according to list 2.1 of EPP).	<i>PRE 11</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Organize medical and evacuation measures among the population, servicemen, in emergency situations, including martial law, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.	<i>PRE 12</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Determine the tactics of emergency medical care, using the recommended algorithms, under any circumstances on the basis of a diagnosis of emergency in a limited time (according to list 4 of EPP).	<i>PRE 13</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Analyze and evaluate government, social and medical information using standard approaches and computer information technologies.	<i>PRE 14</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Assess the impact of the environment on the health of the population in a medical institution by standard methods.	<i>PRE 15</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Form goals and determine the structure of personal activity based on the result of the analysis of certain social and personal needs.	<i>PRE 16</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Adhere to a healthy lifestyle, use the techniques of self-regulation and self-control.	<i>PRE 17</i>

<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	To be aware of and guided in their activities by civil rights, freedoms and responsibilities, to raise the general cultural level.	<i>PRE 18</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Adhere to the requirements of ethics, bioethics and deontology in professional activities.	<i>PRE 19</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>	Organize the necessary level of individual safety (personal and carers) in case of typical dangerous situations in the individual field of activity.	<i>PRE 20</i>
<i>Kn1, Kn2, Skl1, c2, Com1, Com2, Aut1, Aut2</i>	Perform medical manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1 of EPP) for different segments of the population and in different conditions (according to list 6 of EPP).	<i>PRE 21</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Perform medical dental manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1 of EPP) for different segments of the population and in different conditions (according to list 7 of EPP).	<i>PRE 22</i>
<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2</i>	Perform manipulations of emergency medical care, using standard schemes, under any circumstances on the basis of a diagnosis of emergency (according to list 4 of EPP) in a limited time (according to lists 6, 7 of EPP).	<i>PRE 23</i>

**Matrix of correspondence of the competencies defined by the Standard to descriptors of NQF**

<b>Classification of competencies by NQF</b>	<b>Knowledge</b>  Kn 1 Specialized conceptual knowledge acquired in the process of learning and / or professional activity at the level of the latest achievements, which are the basis for original thinking and innovation, in particular in the context of research work  Kn 2 Critical understanding of problems in teaching and / or professional activities and at the border of subject areas	<b>Skills</b>  Skl 1 Solving complex problems and issues that require updating and integrating knowledge, often in conditions of incomplete / insufficient information and conflicting requirements  Skl 2 Conducting research and / or innovation activities	<b>Communication</b>  Com 1 Clear and unambiguous communication of one's own conclusions, as well as the knowledge and explanations that substantiate them, to specialists and non-specialists, in particular to students  Com 2 Use of foreign languages in professional activities	<b>Autonomy and responsibility</b>  Aut 1 Making decisions in difficult and unpredictable conditions, which requires the application of new approaches and forecasting Aut 2 Responsibility for the development of professional knowledge and practices, assessment of strategic development of the team Aut 3 Ability to further study, which is largely autonomous and independent
<b>General competencies</b>				
<b>1. Ability to abstract thinking, analysis and synthesis.</b>	Kn 1 Kn 2	Skl 1		Aut 1
<b>2. Knowledge and understanding of the subject area and understanding of professional activity.</b>	Kn 1	Skl 1	Com 1	Aut 2
<b>3. Ability to apply knowledge in practice.</b>	Kn 1	Sc 1	Com 1	Aut 1
<b>4. Ability to communicate in the state language both orally and in writing.</b>			Com 1, Com 2	
<b>5. Ability to communicate in English.</b>			Com 1	
<b>6. Skills in the use of information and communication technologies.</b>	Kn 1		Com 1, Com 2	Aut 2
<b>7. Ability to search process and analyze information from various sources.</b>	Kn 1		Com 1	Aut 2

<b>8. Ability to adapt and act in a new situation.</b>		Skl 1		Aut 1
<b>9. Ability to identify, pose and solve problems.</b>	Kn 1	Skl 1	Com 1	Aut 1
<b>10. Ability to be critical and self-critical.</b>	Kn 2			Aut 1
<b>11. Ability to work in a team.</b>	Kn 2		Com 1, Com 2	Aut 2
<b>12. The desire to preserve the environment.</b>	Kn 1	Skl 1		Aut 1
<b>13. The ability to act socially responsibly and consciously.</b>	Kn 1			Aut 1
<b>14. The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights and freedoms in Ukraine.</b>	Kn 1	Skl 1	Com 1	Aut 3
<b>15. Ability to preserve and increase moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, use different types and forms of motor activities for active recreation and a healthy lifestyle.</b>	Kn 1	Skl 2		Aut 3
<b>Special (professional) competencies</b>				
<b>1. Ability to collect medical information about the patient and analyze clinical data.</b>	Kn 2	Skl 1	Com 1, Com 2	
<b>2. Ability to interpret the results of laboratory and instrumental research.</b>	Kn 1	Skl 1		Aut 1
<b>3. Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies.</b>	Kn 1	Skl 1		Aut 1
<b>4. Ability to plan and implement measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial area.</b>	Kn 2	Skl 1	Com 1	Aut 1
<b>5. Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.</b>	Kn 1	Skl 1		Aut 1

<b>6. Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial area.</b>	Kn 1, Kn 2	Sk1 1	Com 1	
<b>7. Ability to determine the tactics of management of patients with diseases of organs and tissues of the oral cavity and maxillofacial area with concomitant somatic diseases.</b>		Sk1 1		Aut 1, Aut 2
<b>8. Ability to perform medical and dental manipulations.</b>	Kn 1	Sk1 1		Aut 1
<b>9. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial area.</b>	Kn 1	Sk1 1	Com 1	Aut 1, Aut 2
<b>10. Ability to organize and conduct medical and evacuation measures.</b>	Kn 1, Kn 2	Sk1 1	Com 1	Aut 1, Aut 2
<b>11. Ability to determine tactics, methods and provide emergency medical care.</b>	Kn 1, Kn 2	Sk1 1		Aut 1, Aut 2
<b>12. Ability to organize and conduct screening examinations in dentistry.</b>	Kn 1	Sk1 2	Com 1	Aut 2
<b>13. Ability to assess the impact of the environment on the health of the population (individual, family, population).</b>	Kn 2	Sk1 2		
<b>14. Ability to maintain regulatory medical records.</b>			Com 1	Aut 1
<b>15. Processing of state, social and medical information.</b>	Kn 2		Com 1, Com 2	Aut 1, Aut 2
<b>16. Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA.</b>	Kn 1	Sk1 1	Com 1	
<b>17. Ability to legally support their own professional activities.</b>	Kn 1		Com 1	Aut 2
<b>18. Ability to provide home care according to the protocols of tactical medicine.</b>	Kn 2	Sk1 1	Com 1	Aut 1, Aut 2





<b>6. Form and volume of the course</b>		
Form of the course	<b>Full-time course</b>	
Type of the lessons	Quantity of hours	Quantity of groups
practical	<b>10 lessons (60 hours)</b>	According to the schedule

<b>7. Topics and content of the course</b>				
Code of the type of the lesson	Topic	Content of the lesson	Code of the result of education	Teacher
<b>VII Semester</b>				
P-1	<p>The structure and organization of surgical dental aid to population of Ukraine.</p> <p>Introducing the work of dental surgeon.</p> <p>Identifying risk factors for major dental diseases depending on anatomical and physiological characteristics of the maxillofacial area.</p>	<p>Types of surgical dental care: outpatient and inpatient (emergency and planned). Features of the organization of care in extreme situations.</p> <p>Organization of work and equipment of the surgical department (office) of the dental clinic, maxillofacial department of the hospital, operating room, dressing.</p> <p>Special equipment, apparatus and instruments for examination patients and dental interventions.</p> <p>Medical documentation in the surgical department (office) of the dental clinic and in the maxillofacial department of the hospital. Statistic indicators of work of a dental surgeon.</p> <p>Indications for hospitalization of patients with pathology of the maxillofacial area, features of their examination and rehabilitation.</p> <p>Features of examination of patients with diseases of the dental system, injuries, inflammatory processes, benign, malignant and tumor-like formations, congenital and acquired defects, deformities of the maxillofacial area.</p> <p>The value of personal communication between doctor and patient. Emotional factors associated with diseases, injuries and defects of the face and treatment. Deontology and medical ethics in surgical dentistry and maxillofacial surgery.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 6, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE19, PRE 20</i></p>	according to the schedule
P-2	<p>Methods of patient examination.</p> <p>Algorithm of dental examination in</p>	<p>Collection of subjective data of the patient. Complaints at the time of application to the medical institution. Medical history. Life history.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2,</i></p>	according to the schedule

	<p>patients with surgical dental pathology. Subjective and objective methods of diagnosis.</p>	<p>Objective examination. Examination of organs and systems in the hospital. Examination of the maxillofacial area. Face examination. Palpation. Examination of organs and soft tissues of the oral cavity, examination of teeth. General clinical, laboratory and special research methods. Objective research methods with the use of modern diagnostic equipment. Radiological: radiography, tomography, panoramic radiography and pantomography. Computed tomography and magnetic resonance imaging, radioisotope, ultrasound diagnostics, remote and contact thermography. Morphological methods: cytological examination of prints, scrapes, puncture material; histological examination of biopsy material. Methods of functional diagnostics. The volume of examination of patients with pathology of the maxillofacial area during treatment in the clinic and hospital, participation of related specialists in the examination.</p>	<p><i>Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22, PRE23</i></p>	
P-3	<p>Dental instruments recommended to perform surgical procedures in the oral cavity. Sanitary-epidemiological requirements of the dental surgeon.</p>	<p>Instruments for local anesthesia in dentistry. Tooth extraction instruments. Tissue separation and joining instruments. Criteria for selecting dental forceps. Criteria for selection of dental elevators. Criteria for selecting a scalpel blade, needle holder, etc. Features of the use of rotary instruments in surgical dentistry. Method of using a surgical needle, needle holder and suture material.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20</i></p>	<p>according to the schedule</p>
P-4	<p>Methods of local anesthesia in an outpatient surgical procedures on the upper and lower jaws.</p>	<p>Classification of conduction anesthesia of the mandible. Mandibular anesthesia. Torus anesthesia. Mental anesthesia. Anesthesia of the lingual nerve. Anesthesia of the buccal nerve. Local complications when performing anesthesia on the lower jaw, the causes of their occurrence. Classification of conduction anesthesia of the upper jaw. Infraorbital anesthesia. Tuberal</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14,</i></p>	<p>according to the schedule</p>

		<p>anesthesia. Cutting anesthesia. Palate anesthesia. Extraoral methods of anesthesia on the upper jaw. Indications for conducting. Anesthesia of the upper dental plexus (plexus anesthesia). Local complications when performing anesthesia on the upper jaw, the causes of their occurrence. Precautions. Clinical manifestations. Providing care to the patient in case of complications.</p>	<p><i>PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22, PRE23</i></p>	
P-5	<p>Methods of typical and atypical tooth removal on the upper and lower jaws.</p>	<p>The position of the patient in the chair in case of teeth extraction on the upper and lower jaws. The position of the doctor regarding to the patient in case of teeth extraction on the upper and lower jaws. Stages of tooth extraction surgery. Movements characteristic of the removal of multi-rooted teeth. Movements characteristic of the removal of single-rooted teeth. The first movements of the forceps, depending on the group of teeth. Features of tooth root removal. Tools. Atypical tooth extraction. Indications for its holding. Stages of the operation. Necessary tools. Postoperative medical support.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 22, PRE23</i></p>	<p>according to the schedule</p>
P-6	<p>Indications and contraindications for surgery in an outpatient surgical dental practice. Methods of surgical interventions: periostotomy at subperiosteal abscess, alveolotomy, resection of the root apex, hemyseccion, crown-radicular separation.</p>	<p>Methods of periostotomy. Method of operation of resection of the apex of the root. Method of compactosteotomy operation. Method of tooth hemyseccion surgery. Method of tooth root amputation operation. Concomitant drug therapy. Complications of surgical methods of treatment of inflammatory diseases of the alveolar tissue.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 22</i></p>	<p>according to the schedule</p>
P-7	<p>Methods of examination of the patients with traumatic injuries of maxillo-facial</p>	<p>Subjective examination of a surgical dental patient (complaints, medical history, life history). Methods of examination of the general condition of a surgical dental patient. Methods</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2,</i></p>	<p>according to the schedule</p>

	area.	of local examination (extraoral and intraoral) of a surgical dental patient. Additional methods of examination (electroodontometry, radiography, morphological, microbiological, functional studies). Indications for hospitalization of surgical dental patients. Classification, clinic, diagnosis, treatment of traumatic soft tissue injuries of the MFA. Classification, clinic, diagnosis, treatment of injuries of the teeth. Classification, clinic, diagnosis, treatment of traumatic injuries of the facial bones. Emergency care for traumatic injuries of the tissues of the MFA.	<i>Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22, PRE23</i>	
P-8	Methods of surgical interventions in patients with traumatic injuries of maxillo-facial area.	Principles of primary surgical treatment of facial wounds. Methods of suturing wounds of the oral mucosa. Techniques for suturing facial skin wounds. Methods of primary surgical treatment of penetrating facial injuries. Reposition, replantation and immobilization of teeth.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 22</i>	according to the schedule
P-9	Complications of teeth extraction (bleeding, alveolitis, alveoloneuritis). Their treatment and prevention and traumatic injuries of the maxillo-facial area (scars, traumatic osteomyelitis, traumatic maxillary sinusitis, etc.). The algorithm of dental surgeon actions at the outpatient reception.	Common complications that occur during tooth extraction. Fracture of a tooth or its root. Fracture, dislocation and removal of an adjacent tooth. Fracture of the lower jaw. Fracture of part of the alveolar process. Fracture of the hump of the upper jaw. Dislocation of the lower jaw. Soft tissue damage. Pushing the tooth or its root into the soft tissues. Perforation of the bottom of the maxillary sinus. Alveolitis.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22,</i>	according to the schedule

			<i>PRE23</i>	
P-10	Postoperative treatment of patients with traumatic injuries and inflammatory diseases of the maxillofacial area.	General principles of healing of the tissues. Primary and secondary tension. Features of work with purulent wounds. Types of bone healing. Terms of immobilization of the fractures of jaws. Types of healing of dislocated teeth. Terms of immobilization. Features of nutrition of patients with trauma of MFA.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 9, PRE 10, PRE 14, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22, PRE23</i>	according to the schedule
<b>VII Semester</b>				
SST-1	Modern syringes and injection systems in dentistry.	Classification of local anesthesia. Advantages and disadvantages of local and local potentiated anesthesia. The latest technologies of local anesthesia - The Wand plus and Quick sleeper. Pharmacological drugs used for local and local potentiated anesthesia. Their features. Features of local anesthesia on the upper and lower jaw. Complications of anesthesia. Causes of complications during anesthesia.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 6, PRE 7, PRE14, PRE15, PRE16, PRE17, PRE 8, PRE 19, PRE 20, PRE 21</i>	
SST-2	Features of local anesthesia in patients with concomitant pathology.	Classification of types of local anesthesia. Anatomical and topographic substantiation of types of local anesthesia, technique of their implementation. Mechanisms of action and pharmacodynamic effects of local anesthetics. Indications and contraindications to local anesthesia in patients with concomitant pathology. Clinical interpretation and diagnostic value of laboratory test results. Possible complications, their prevention, diagnosis and treatment. Features of history taking and	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 5, PRE 6, PRE10, PRE13, PRE14, PRE16, PRE17, PRE18,</i>	

		<p>clinical examination. Selection of the required type of anesthesia and local anesthetic for patients with concomitant pathology. Diagnosis of complications of local anesthesia.</p> <p>Providing emergency medical care to patients with concomitant pathology during complications of local anesthesia.</p>	<p><i>PRE19, PRE20, PRE21, PRE22, PRE23</i></p>	
SST-3	<p>Intensive care, cardiopulmonary resuscitation in maxillofacial surgery.</p>	<p>Stages and stages of CPR (according to P. Safar, 1997). Triple reception of P. Safar.</p> <p>Phase plan of CPR for ABCD protocol.</p> <p>Indirect heart massage.</p> <p>Methods of airway patency.</p> <p>Technique and sequence of tracheotomy, conicotomy.</p> <p>Basic principles of artificial lung ventilation (ALV).</p> <p>Complications associated with cardiopulmonary resuscitation.</p> <p>Assessment and control of the main indicators of hemodynamics of the patient .</p> <p>Medical support of cardiopulmonary resuscitation.</p> <p>Clinical death.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 5, PRE 6, PRE10, PRE11, PRE13, PRE14, PRE16, PRE17, PRE 18, PRE19, PRE20, PRE21, PRE22, PRE23</i></p>	
SST-4	<p>Tooth extraction in patients with diseases of the cardiovascular system, blood system, diabetes.</p>	<p>Instrumental, functional and laboratory methods of research of cardiovascular system, endocrine system, blood system and interpretation of their results. Risk factors and the nature of diabetes mellitus.</p> <p>Indications and contraindications to local anesthesia and tooth extraction in patients with concomitant pathology.</p> <p>Features of history taking and clinical examination.</p> <p>Selection of the required type anesthesia and local anesthetic for patients with concomitant pathology.</p> <p>Diagnosis of complications of local anesthesia and tooth extraction surgery.</p> <p>Providing emergency medical care to patients with concomitant pathology during complications of local</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 5, PRE 6, PRE8, PRE10, PRE11, PRE13, PRE14, PRE16, PRE17, PRE 18, PRE19, PRE20,</i></p>	

		anesthesia and tooth extraction surgery.	<i>PRE21, PRE22, PRE23</i>	
SST-5	X-ray diagnosis of dental diseases.	Types of X-ray examination. Indications for examination radiographs. Indications for targeted X-rays of teeth. Indications for orthopantomogram. Types of intraoral radiographs. Advantages of digital radiography Features of carrying out X-ray examination with contrast Possibilities of computer tomography. Choice of a method of carrying out X-ray examination of the patient with a concrete pathology. Work with a program for viewing computed tomography. Indications and contraindications to X-ray examination methods. Advantages and disadvantages of certain types of X-ray examination.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 3, PRE 4, PRE14, PRE16, PRE17, PRE 18, PRE19</i>	
SST-6	Modern view on the etiology and pathogenesis of odontogenic abscesses and phlegmon of the maxillofacial area.	Microflora that causes purulent-inflammatory processes in MFA. Pathogenetic aspects of the development of odontogenic abscesses and phlegmon of the MFA. Favorable factors. Ways of spreading of the infection in the MFA. Modern classifications of inflammatory diseases of the MFA: -by the location of the primary source of infection; -by the presence of infection; -by type of inflammatory tissue lesion, -by organ or anatomical structure of the MFA; -by topographic and anatomical feature; -by type of inflammatory reaction (clinical severity) -by phases of the disease; -by type of inflammatory exudate. Types of reactions and features of the clinical course of inflammatory diseases of the MFA. Influence of a local source of infection on the general condition of the body through blood, lymphatic vessels, as well as the immune, endocrine, blood	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 2, PRE14, PRE15, PRE18</i>	



		coagulation systems. Reverse effect of the organism on the focus of the inflammatory process in MFA (mutual burdening syndrome). Odontogenic chronic sepsis.		
SST-7	Topographic anatomy of MFA . Basic principles of incisions in MFA.	Topography of cellular spaces of MFA. Superficial and deep cellular spaces. Topography of salivary glands, muscles, bones. Layered structure of individual organs of the oral cavity. Features of the structure of the circulatory and lymphatic system of the MFA. Features of the structure of the circulatory and lymphatic system of the MFA. The main aspects of the innervation of the MFA. The main ways of spreading the infection through the cellular spaces of the MFA. The importance of facial aesthetics in life and human psychology. The main types of incisions and their technique. Functional and cosmetic requirements. Scheme of the most rational cut lines used in MFA.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 8, PRE 9, PRE14, PRE18</i>	
SST-8	Manifestations of MFA lymphadenitis in specific diseases: tuberculosis, actinomycosis, syphilis, AIDS.	Specific lymphadenitis of MFA. Classification. Comprehensive examination of patients with specific lymphadenitis of MFA. Features of the clinical course of tuberculous, actinomycosis, syphilitic lymphadenitis. Specific diagnostic methods. Comprehensive treatment with the participation of related specialists.	<i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i>  <i>PRE 1, PRE 2, PRE 3, PRE4, PRE 6, PRE 7, PRE 8, PRE 9, PRE10, PRE11, PRE14, PRE15, PRE16, PRE17, PRE18, PRE19, PRE20, PRE21, PRE22, PRE23</i>	
SST-9	Modern view on the etiology and	Microflora that causes purulent-inflammatory processes in MFA.	<i>Kn1, Kn2, Skl1, Skl2,</i>	

	<p>pathogenesis of nonodontogenic abscesses and phlegmon of the maxillofacial area.</p>	<p>Pathogenetic aspects of the development of odontogenic abscesses and phlegmon of the MFA. Favorable factors. Ways of spreading of the infection in the MFA. Modern classifications of inflammatory diseases of the MFA:</p> <ul style="list-style-type: none"> <li>-by the location of the primary source of infection;</li> <li>-by the presence of infection;</li> <li>-by type of inflammatory tissue lesion,</li> <li>-by organ or anatomical structure of the MFA;</li> <li>-by topographic and anatomical feature;</li> <li>-by type of inflammatory reaction (clinical severity)</li> <li>-by phases of the disease;</li> <li>-by type of inflammatory exudate.</li> </ul> <p>Types of reactions and features of the clinical course of inflammatory diseases of the MFA. Influence of a local source of infection on the general condition of the body through blood, lymphatic vessels, as well as the immune, endocrine, blood coagulation systems. Reverse effect of the organism on the focus of the inflammatory process in MFA (mutual burdening syndrome). Odontogenic chronic sepsis.</p>	<p><i>Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 2, PRE14, PRE15, PRE18</i></p>	
SST-10	<p>Topographic anatomy of MFA. Basic principles of incisions in MFA.</p>	<p>Topography of cellular spaces of MFA. Superficial and deep cellular spaces. Topography of salivary glands, muscles, bones. Layered structure of individual organs of the oral cavity. Features of the structure of the circulatory and lymphatic system of the MFA. The importance of facial aesthetics in life and human psychology. The main types of incisions and their technique. Functional and cosmetic requirements. Scheme of the most rational incision lines used in MFA.</p>	<p><i>Kn1, Kn2, Skl1, Skl2, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 8, PRE 9, PRE14, PRE18</i></p>	

***The system of organization of practical lesson***

**1. Preparatory stage.**

1.1 Organizational activities.

1.2 Setting learning goals and motivation. Substantiation by the head of the importance of the

topic of the lesson for further study of the discipline and professional activity of the doctor in order to form motivation and purposeful educational activities. Introducing students to specific goals and lesson plan.

**Educational technologies, materials of methodical support:** medical documentation and equipment of the surgical dental office of the health care institution, which is the basis for the production of medical practice in surgical dentistry

**1. The main stage.**

Formation of professional skills and abilities. Collection of anamnesis by students and examination of the thematic patient. Students make a plan of examination of the patient, a plan of additional research methods, fill in the relevant medical documentation, practice the technique of diagnostic manipulations, treatment measures, and master practical skills in accordance with the subject.

**Educational technologies, materials of methodical providing:** patients of dental polyclinic, case histories, selection of results of additional methods of inspection of thematic patients, situational tasks, algorithms of performance of practical skills, models, tools, thematic video materials.

**2. Final stage.**

2.1 Control and correction of the level of professional skills and abilities using the demonstration of practical skills or abilities. Display the assessment of practical skills acquisition by the student in the practice diary.

2.2 Summarizing the lesson.

2.3 Homework. Informing students about the topic of the next lesson. Recommended literature.

**Innovative methods and technologies used in the educational process**

Discipline	Names of pedagogical technologies and innovative teaching methods
manufacturing medical practice from surgical dentistry	<ul style="list-style-type: none"> <li>- Involvement of students in working with well-known electronic databases of medical information (ScienceDirect, PubMed, Panteleimon, etc.) via the Internet;</li> <li>- Use in the pedagogical process of an interdisciplinary approach to the study of dentistry - constant emphasis of students on the connection of the subject with the basic disciplines and related medical specialties;</li> <li>- Involvement of students in assisting in performing surgical interventions, online broadcasting of operations in the methodical office due to the available modern video equipment with simultaneous discussion of the performed manipulations;</li> <li>- Systematic examinations with students of thematic patients and discussion of clinical cases, motivation of students to compile algorithms of diagnostic and therapeutic measures under the conditions of one or another dental pathology.</li> </ul>

All necessary materials (methodical support, normative documents, list of questions for current and final control, list of algorithms for practical skills) are presented on the information platform of LNMU named after Danylo Halytsky MISA.

**8. Verification of learning outcomes**

**Current control**

Control measures in the study of the discipline "Manufacturing medical practice from surgical dentistry" include current control and final control - differential credit.

Current control is carried out in each practical lesson in accordance with the specific objectives of each topic. Current control is carried out on the basis of a comprehensive assessment of student activities, including control of the input level of knowledge, the quality of practical work, the level of theoretical training, independent work according to the thematic plan

and the results of output control of knowledge.

**The current control** is carried out by the direct supervisor from the base of practice during the training sessions and aims to verify the acquisition of practical skills by students. Forms of current control - demonstration of practical skills or abilities. Forms of assessment of current learning activities are standardized and meet the standards of answers.

*Evaluation of current educational activities.* During the assessment of mastering each topic for the current educational activity of the student, grades are set on a 4-point scale (national). This takes into account all types of work provided by the discipline program. The student should receive a grade for each practical skill for further summation and formation of points for current performance (from 72 to 120 points).

Assessment of current student performance is carried out in practical classes and recorded in the practice diary. Students are evaluated according to the criteria given in the table.

Learning outcome code	Code of the type of the lesson	Method of verifying of the learning outcomes	Enrollment criteria
<p><i>Kn1, Kn2, Sk11, Sk12, Com1, Com2, Aut1, Aut2, Aut3</i></p> <p><i>PRE 1, PRE 2, PRE 3, PRE 4, PRE 5, PRE 6, PRE 7, PRE 8, PRE 9, PRE 10, PRE 11, PRE 12, PRE 13, PRE 14, PRE 15, PRE 16, PRE 17, PRE 18, PRE 19, PRE 20, PRE 21, PRE 22, PRE 23</i></p>	<p><i>VII semester: P1-P10</i></p>	<p>Practical skills</p>	<ul style="list-style-type: none"> <li>- “5” points – receives a student who has given orally or in writing the proposed manipulation and thoroughly described it at a quite high level of theoretical and practical mastering of skills and fully demonstrated them.</li> <li>- “4” points – receives a student who has given orally or in writing the proposed manipulation and gave theoretical description, admitted with insignificant mistakes. Volume demonstration of the practical skills was sufficient.</li> <li>- “3” points – receives a student who has given orally or in writing description of the proposed manipulation and gave theoretical description, admitted with serious mistakes. The student has demonstrated only the simplest level of performance of the practical skills.</li> </ul> <p>Practical skills are not counted to the student, who did not set out the essence of the practical skills in written form and / or hasn't provided its adequate theoretical description. The student didn't learn practical skills during the practice.</p>

### **Підсумковий контроль**

Final control students make on the last day of practice to the commission, which includes managers of practice from the University and, if possible, from the bases of practice. A student who has 100% completed the internship program, provided reasonable answers to questions about the content of the diary, and scored the minimum number of points for the current internship (72 points), submitted a report on practice and a positive description of the general

supervisor is allowed to defend the practice in the final lesson. from the practice base.  
 The mark for the practice is entered by the University practice manager into the diary, student's index book and credit-examination information. Within three days after the end of the practice, the University practice manager submits the information to the relevant dean's office, the report on the practice - to the department of practice of the University. The practice diary is kept at the department for 1 year.

General evaluation system	Participation in the work during the semester - 100% on a 200-point scale											
Evaluation scales	Traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale											
Conditions of admission to the final control	The student attended all practical classes, met the requirements of the curriculum and received at least 72 points for current performance.											
Type of final control	Methods of final control	Enrollment criteria										
Differential credit	<p>Concluding lesson of medical practice for students of the 4th year involves solving of two situational tasks, including description of theoretical and demonstration of practical skills:</p> <table border="1"> <tr> <td>Practical skill 1 -</td> <td>collecting of complaints, medical history.</td> </tr> <tr> <td>Practical skill 2 -</td> <td>examination of the patient, instrumental examination, interpretation of additional methods of examination.</td> </tr> <tr> <td>Practical skill 3 -</td> <td>setting of preliminary diagnosis, plan of treatment and filling in the appropriate documentation.</td> </tr> <tr> <td>Practical skill 4 -</td> <td>performing of medical manipulations.</td> </tr> <tr> <td>Practical skill 5 -</td> <td>appointment of postoperative treatment, recommendations.</td> </tr> </table> <p>Number of points for final lesson is charged according to the existing provision from 50 to 80 points and consists of the sum of scores for both situational tasks. The possible number of points for a situational task is from 25 to 40 and consists of an amount of points for each of the five practical skills.</p> <p>8 points – receives a student who has written the proposed manipulation and thoroughly described it at a quite high level of theoretical and practical mastering of skills and fully demonstrated them.</p> <p>7 points – receives a student who has written the proposed manipulation and gives theoretical description,</p>	Practical skill 1 -	collecting of complaints, medical history.	Practical skill 2 -	examination of the patient, instrumental examination, interpretation of additional methods of examination.	Practical skill 3 -	setting of preliminary diagnosis, plan of treatment and filling in the appropriate documentation.	Practical skill 4 -	performing of medical manipulations.	Practical skill 5 -	appointment of postoperative treatment, recommendations.	<p>Maximum number of points - 80          Minimum number of points - 50          For enrollment, a student must receive for current academic activities at least 60% of the maximum amount of points in the discipline (120 points). Points in the discipline are ranked on the ECTS scale.</p>
Practical skill 1 -	collecting of complaints, medical history.											
Practical skill 2 -	examination of the patient, instrumental examination, interpretation of additional methods of examination.											
Practical skill 3 -	setting of preliminary diagnosis, plan of treatment and filling in the appropriate documentation.											
Practical skill 4 -	performing of medical manipulations.											
Practical skill 5 -	appointment of postoperative treatment, recommendations.											

	<p>admitted with insignificant mistakes. Volume demonstration of the practical skills was sufficient.</p> <p>6 points – receives a student who has written the proposed manipulation and gives theoretical description, admitted with serious mistakes. The student has demonstrated only the simplest level of performance of the practical skills.</p> <p>5 points – receives a student who has written the proposed manipulation and gives theoretical description with significant mistakes. The student was unable to demonstrate practical skills</p> <p>Practical skills are not counted to the student, who did not set out the essence of the practical skills in written form and / or hasn't provided its adequate theoretical description. The student didn't learn practical skills during the practice.</p>	
<p>The calculation of the number of points is based on the grades received by the student on a 4-point (national) scale during the study of the discipline and the results of the final control. The grade for practice consists of the sum of points for performance by the student of practical skills which are checked by the direct head from base of practice (maximum 120 points - minimum 72 points), and points for final control which are exposed at carrying out the differentiated credit (maximum 80 points - minimum 50 points). ). Points from the discipline are independently converted into both the ECTS scale and the 4-point scale.</p>		

<p><b>9. Policy of the course</b></p>
<p>During studying the discipline, the policy of academic integrity is ensured in accordance with the <b>Law of Ukraine "On Education". Article 42 "Academic Integrity"</b>. URL: <a href="http://zakon0.rada.gov.ua/laws/show/2145-19/page3">http://zakon0.rada.gov.ua/laws/show/2145-19/page3</a>,</p> <p>Adherence to academic integrity by students involves:</p> <ul style="list-style-type: none"> <li>• independent performance of educational tasks, tasks of current and final control of learning outcomes;</li> <li>• links to sources of information in the case of ideas, developments, statements, information;</li> <li>• personal presence at all lectures and practical classes, except for cases caused by good reasons;</li> <li>• providing reliable information about the results of their own educational (scientific, creative) activities, used research methods and sources of information.</li> </ul> <p>Adherence to academic integrity by teachers involves:</p> <ul style="list-style-type: none"> <li>• providing quality educational services;</li> <li>• objective evaluation of learning outcomes.</li> <li>• monitoring the observance of academic integrity by students;</li> <li>• systematic and continuous professional development through self-development and self-improvement;</li> <li>• compliance with internal regulations, work discipline, corporate ethics;</li> <li>• informing students about typical violations of academic integrity and responsibilities.</li> </ul> <p>Teachers, researchers and educators may be held academically liable for violations of academic integrity.</p>

## 10. Literature

### Basic:

1. Oral and maxillofacial surgery= Хірургічна стоматологія та щелепно-лицева хірургія. Part1: textbook for the students of stomatological faculties of higher medical education establishments of the IV level of accreditation / V. O. Malanchuk [et al.] ; ed. V. Malanchuk. – Вінниця: Нова книга, 2011
2. Oral and maxillofacial surgery= Хірургічна стоматологія та щелепно-лицева хірургія. Part2: textbook for the students of stomatological faculties of higher medical education establishments of the IV level of accreditation / V. O. Malanchuk [et al.] ; ed. V. Malanchuk. – Вінниця: Нова книга, 2011.

### Additional:

#### II.

1. Atlas of Human Anatomy / F. Netter – 2<sup>nd</sup> ed. – New Jersey: ICON Learning Systems. – 592 p.
2. Bauml, Philips R.W., Lund M.R. Textbook of Operative Dentistry = Підручник з хірургічної стоматології.- 3-rd ed.- Philadelphia: Saunders, 1995.- 661p.
3. Kharkov L. V. Pediatric oral and maxillofacial surgery : a textbook for students of higher medical educational institutions of the III-IV levels of accreditation / L. V. Kharkov, L. M. Yakovenko, N. V. Kiselyova ; ed. by L. V. Kharkov. - Kyiv : AUS Medicine Publishing, 2015. - 103 с.
4. PETERSON'S PRINCIPLES OF ORAL AND MAXILLOFACIAL SURGERY Third Edition, Vol. 1, 2012. - 2000 p.
5. PETERSON'S PRINCIPLES OF ORAL AND MAXILLOFACIAL SURGERY Third Edition, Vol. 2, 2012. - 1772 p.
6. Pohranychna, Ch. R. Infections of the maxillofacial area : guide of lectures on oral and maxillofacial surgery for the english-medium students of the 3rd year education at dentistry faculty (spring semester) [Текст] : methodological guide / Ch. R. Pohranychna, R. Z. Ogonovsky. - Lviv, 2011.
7. Pohranychna, Ch. R. Maxillofacial oncology : guide of lectures on oral and maxillofacial surgery for the english-medium students of the 5th year education at dentistry faculty (autumn semester) [Текст] : methodological guide / Ch. R. Pohranychna, R. Z. Ogonovsky. - Lviv, 2011.
8. Timofieiev O.O. Anesthesia in Oral and Maxillofacial Surgery / O.O. Timofieiev, I.I. Fesenko. - Kyiv: OMF Publishing, 2016, 128 p.
9. Vares Ya.E., Ogonovsky R.Z., Pohranychna Ch.R. Principles of Local Dental Anaesthesia and Teeth Removal: An Illustrated Methodological Guide. – Lviv, 2007.

## 11. Equipment and software of the discipline / course

In order to introduce new educational technologies, implement the concept of visualization of the educational process and mastering by students the manual skills of basic dental surgical manipulations by the staff of the department during 2013-2019, the following organizational and methodological activities were carried out.

With the help of sponsorship, the use of a local computer network and modern video equipment was created and established, which provides online broadcasting of surgical interventions in classrooms, which allows students to "virtually" be in the operating room, discuss with teachers and surgeons the operation. or other surgical manipulations, etc. Based on the video footage of surgical interventions, a video library was created for demonstration during the relevant thematic classes. The video library of the department also contains advertising films with the products of the companies "Septodont" (France), "Kolapan" (Russia), "Conmet" (Russia), "Geistlich" (Switzerland), "Synthes" (Switzerland), "Ihde Dental" (Switzerland), "BTI"

(Spain), etc., the demonstration of which expands students' imagination about modern technologies in surgical dental practice. Thanks to the cooperation with the Center for Medical 3D Diagnostics (Lviv), the use of the program for decoding radiographs and computer tomograms "Point Nix" (Korea) was introduced into the educational process, which will allow students to better navigate the issues of radiological diagnostics of various surgical dental pathologies. Employees of the department created and implemented in the educational process author's computer programs for diagnostics and planning of cystectomy operations and atypical removal of lower third molars "RTG ruler" and "Xray analyzer" for which received patents of Ukraine for inventions and acts of implementation in practical medicine.

A phantom class of the Department of Surgical Dentistry and the Department of Surgical Dentistry has been created, which is equipped with modern computer and video equipment for demonstration of operations and thematic films. For demonstration and practical mastering by students of skills of carrying out local anesthetics in a maxillofacial area and operation of tooth extraction the phantom class is provided with phantoms of the head with replaceable modules of jaws (4 pieces), collapsible models of a skull and jaws (6 pieces), sets of tools for tooth extraction, performing surgical interventions in the maxillofacial area.

To demonstrate and practice practical skills in providing care for traumatic injuries of the MFA, the phantom class is equipped with equipment and models for testing the technique of mono- and intermaxillary splinting, osteosynthesis of facial bones (3 models of the skull with imitation fractures of the upper jaw and chin-orbital complex, 55 models with imitation of mandibular angle fractures, 45 models with imitation of mandibular symphysis fractures, 40 models with imitation of mandibular fractures of the mandible, 3 holders for fixing models to the work surface, Synbone, Switzerland).

In 2018, the department received a full-fledged resuscitation simulator with a control device (ONICO) for visualization and practice of emergency care skills.

Practical lessons from "Manufacturing medical practice from surgical dentistry" are provided with methodological and illustrative material, respectively. Visualization of algorithms of performance of practical skills by video presentations is provided.

## 12. Additional information

- responsible person at the department for practice: responsible person at the department for practice: professor Vares Ya.E., associate professor Medvid Yu.O., associate professor Pogranichna H.R., associate professor Krypnyk N.M., associate professor Filipyskyi A.V.
- e-mail: [kaf\\_omfs@meduniv.lviv.ua](mailto:kaf_omfs@meduniv.lviv.ua)
- practical lessons are held on clinical bases of practice in accordance with the distribution and referral of students for manufacturing medical practice from surgical dentistry.
- final control is carried out on the clinical bases of the Department of Surgical Dentistry and Maxillofacial Surgery:  
Lviv, Nekrasova street, 6, Lviv Regional Clinical Hospital, Department of Maxillofacial Surgery,  
Lviv, Mykolaychuka street, 9, Municipal City Clinical Hospital of Ambulance, Department of Maxillofacial Surgery,  
Lviv, Pekarska street, 69B, Dental Medical Center of LNMU.
- all necessary materials (methodical support, normative documents, list of questions for current and final control, list of algorithms of practical skills, criteria for discipline assessment, schedule of consultations, etc.) are presented on the website of the department and information platform of LNMU named after Danylo Halytsky MISA.

Syllabus creator

Yan Vares, DDS, Professor

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(Signature)



Head of the Department  
Yan Vares, DDS, Professor

(Signature)