

CD 8.5.1 CURRICULUM DISCIPLINĂ

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FACULTY OF STOMATOLOGY

STUDY PROGRAM 0911.1 STOMATOLOGY

DEPARTMENT OF ORAL AND MAXILLOFACIAL SURGERY AND ORAL

IMPLANTOLOGY "ARSENIE GUŢAN"

APPROVED at the meeting of the Committee for Quality Assurance and Curriculum Evaluation, Faculty of Stomatology Minutes no. 2 from <u>13.04.2018</u>

Chairwoman of the Committee, PhD MD, associate/professor Stepco Elena APPROVED at the meeting of the Faculty Council, Faculty of Stomatology Minutes no. 6 from <u>Lo. 02</u>, <u>Lo18</u>



APPROVED at the Meeting of the Department of Oral and Maxillofacial Surgery and Oral Implantology Asenie Gutan Minutes no. 2 of 23.10.2014

Head of the Department PhD MD, associate professor Chele Nicolae

CURRICULUM

DISCIPLINE: ODONTECTOMY

Integrated studies

Course type: Mandatory discipline

Chișinău, 2017



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I. PRELIMINARY

• General presentation of the subject: the role of subject in building skills specific to the instructional and professional training programme /Speciality

The Odontectomy course is an important component in the field of clinical education and its main aim is to make students acquire the principles and techniques of dental extraction as well as proper management of post-extraction accidents and complications. This subject includes both the attitude towards the patients with concomitant diseases requiring dental extraction and special conduct in medical emergencies caused by dental extraction.

Curriculum purpose in the professional training

The course content is structured in order to improve the dental students` practical skills of patient examination, to develop the clinical reasoning skills of the future dentists, to make students learn and acquire knowledge of efficient dental extraction procedures, to carry out the treatment and prophylaxis of the intra/post-extraction accidents and complications.

- Languages of study: Romanian and English.
- *Target public:* 3rd year students, Faculty of Dentistry.

Subject code		S.05.O.055		
Subject name		Odontectomy		
Subject leaders		Zănoagă Oleg, PhD, MD, assoc.prof. Chele Nicolae , PhD, MD, assoc.prof, Head of Chair		
Year III		Semester	V	
Total number of hours	s, including:		90	
Lectures 17		Practical work	17	
Seminars	34	Individual work	22	
Type of assessment	Credit test	Number of credits	3	

II. SUBJECT MANAGEMENT

III. LEARNING OBJECTIVES

At the end of the course the students will be able to:

- At knowledge and comprehension level:
- \checkmark to know the instruments used in oral and maxillofacial surgery;
- \checkmark to know indications and contraindications for dental extractions;
- \checkmark to understand the principles of preparing the surgeon and patient for dental extraction;



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- \checkmark to know the technique and stages of dental extraction with forceps and elevators;
- ✓ to understand minimally invasive extraction techniques;
- \checkmark to know the principles of extraction by alveolotomy;
- \checkmark to understand the particularities of dental extractions in patients with concomitant diseases;
- \checkmark to know the particularities of antibiotic prophylaxis in dento-alveolar and maxillofacial surgery;
- \checkmark to know the dental extractions accidents and complications;
- \checkmark to know medical emergencies caused by dental extraction.

• At application level:

- \checkmark to distinguish instrumentation used in oral and maxillofacial surgery;
- \checkmark to evaluate indications and contraindications for dental extractions;
- ✓ to distinguish various techniques of performing mucoperiosteal flaps;
- \checkmark to distinguish different types of incisions;
- \checkmark to distinguish different types of sutures;
- \checkmark to evaluate the practical role of the correct management of dental post-extraction wounds;
- ✓ to interpret laboratory results in patients with concomitant diseases subjected to dental extraction;
- \checkmark to evaluate the dental extraction accidents and complications.

• At integration level:

- \checkmark to be able to differentiate basic and supplimentary dental instruments for dental extraction;
- ✓ to be able to carry out basic and auxiliary steps in dental extraction as well as to handle forceps and elevators;
- \checkmark to be able to perform minimally invasive dental extractions;
- \checkmark to be able to perform atypical dental extractions;
- \checkmark to be able to provide medical first aid in acute respiratory failure;
- \checkmark to be able to carry out basic life support measures;
- \checkmark to be able to implement the knowledge gained in the research activity;
- ✓ to be able to use critically and confidently the scientific information obtained using the new information and communications technologies;
- ✓ to be able to use multimedia technology in order to receive, to evaluate, to store, to produce, to present and to exchange information, as well as to communicate and to participate in professional networks on the Internet;
- \checkmark to be able to learn to learn, which will contribute to professional path management.

IV. PRELIMINARY REQUIREMENTS

To know and comply with ethical-moral and professional norms in patient-doctor relationship. To know the purpose and tasks of oral and maxillofacial surgery. To know the anatomic and topographic features of the oral and maxillofacial region. To know methods and stages of clinical and paraclinical examination used in oral and maxillofacial surgery. To know instruments used in oral and maxillofacial surgery. To know indications and contraindications for dental extractions. To know the dental extraction accidents and complications. To know the methods of prophylaxis. To know the stages of surgeon's preparation for surgery. To know the information sources necessary in oral and maxillofacial surgery.



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V. TOPICS AND APPROXIMATE HOUR DISTRIBUTION						
No.			Number of ho		ours	
10.	TOPIC	Lectu es	Semi- nars	Prac- tice	Indivi dual	
1.	Instruments used in dento-alveolar and maxillofacial surgery. History of instruments used in oral and maxillofacial surgery. Classification of instruments used in oral and maxillofacial surgery. Basic instruments for dental extraction. Classification and structure of forceps and elevators. Extra equipment for dental extraction.	1	2	1	3	
2.	Dental extraction. Indications and contraindications. Pre-extraction preparations. Dental extraction as a surgical intervention, definition. History of dental extraction. Dental extraction indications and contraindications. Preparing the patient and surgeon for dental extraction.	1	2	1	0	
3.	Techniques and stages of dental extraction using forceps and elevators. Techniques of minimally invasive dental extraction. General principles of dental extraction technique. Instructions for using forceps and elevators. Basic steps of dental extraction using forceps and elevators. Auxiliary steps of dental extraction. Techniques of minimally invasive dental extraction with periotome, piezotome and Benex Root Control.	1	2	1	1	
4.	Extraction of the maxillary teeth . Instrumentation for maxillary teeth extraction. Anesthesia methods used in the upper jaw. Particularities of extraction of upper incisors. Particularities of extraction of upper canines. Particularities of extraction of upper premolars. Peculiarities of extraction of the first two upper molars.	1	1	1	1	
5.	Extraction of the mandibular teeth. Summative assessment. Instrumentation for mandibular teeth extraction. Anesthesia methods used in the lower jaw. Particularities of extraction of inferior incisors. Particularities of extraction of inferior premolars extraction. Particularities of extraction of the first two lower molars.	1	2	1	1	
6.	Extraction of the upper third molars. Indications and contraindications for the upper third molar extraction. Classification of the upper third molars (sagittal and transverse position, relation with the second molar, maxillary sinus relation, the nature of the covering tissue). Types and techniques of mucoperiosteal flap design. Techniques of extraction of the third upper molars. Instruments. Types of sutures. Intraoperative accidents associated with extraction of the upper third molar. Prevention.	1	2	1	2	
7.	Extraction of the lower third molars. Indications and contraindications for the lower third molar extraction. Classification of the lower third molars (by position - sagittal and transversal plane, in relation to the second molar, by position to the mandibular ascending branch, by the mandibular canal relation, by the nature of the covering tissue). Types and techniques for mucoperiosteal flap design. Techniques of the lower third molar extraction. Instruments used. Types of sutures. Intraoperative accidents caused by the lower third molar extraction. Prevention.	1	2	1	2	



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No.	TOPIC		Number of hours Lectu Semi- Prac- Indivi			
			Semi- nars	Prac- tice	Indivi dual	
8.	Extraction by alveolotomy. Alveolotomy. Definition. Indications. Types of alveolotomy. Types of incisions. Partial alveolotomy and total alveolotomy. Indications. Technique. Instruments.	1	2	1	2	
9.	Management of dental post-extraction wound. Examination of dental post-extraction wound, periapical curettage. Indications. Instruments. Smoothing of interdental septa and alveolar edges. Indications. Instruments. Post-extraction wound suturing. Indications. Contraindications. Methods. Post-extraction recommendations. Dental post- extraction wound healing.	1	2	1	2	
10.	Particularities of dental extractions in patients with concomitant diseases. Particularities of dental extractions in patients with respiratory, cardiovascular, endocrine, digestive and renal diseases; patients with epilepsy, and patients on antithrombotic therapy. Dental extractions in the inpatient setting.	1	2	1	1	
11.	Antibiotic prophylaxis in dento-alveolar and maxillofacial surgery. Summative assessment. Antibiotic prophylaxis. Definition. Indications for antibiotic prophylaxis. Risk groups. Antibacterial prophylaxis.	1	2	1	1	
12.	Accidents caused by dental extraction. Classification of accidents caused by dental extraction. Dental injuries. Lesions of soft perimaxillary parts. Bone lesions. Sinus accidents. Displacement of teeth into perimaxillary spaces. Nerve damage. Temporomandibular joint luxation. Diagnosis, treatment, prophylaxis. Other types of accidents (swallowing of dental or bone fragments, instrument fracture).	1	2	1	2	
13.	Post-extraction dental haemorrhage. Post-extraction dental haemorrhage. Definition. Classification. Etiological factors. Clinical picture. Local haemostatic methods. General treatment of patients with the haemorrhagic syndrome. Prophylaxis of post-extraction dental hemorrhage.	1	2	1	1	
14.	Local haemostatic agents. Local haemostatic agents. Definition. Classification. Active hemostatic agents (thrombin and fibrin glue). Mechanism of action. Passive haemostatic agents. Method of providing post-extraction dental hemostasis by local application of human thrombin and 5% aminocaproic acid. Properties of the ideal hemostatic agent.	1	2	1	1	
15.	Post-extraction alveolitis. Post-extraction alveolitis. Definition. Etiology. Anatomical and pathological forms. Symptoms. Evolution. Treatment. Prevention.	1	2	1	0	
16.	Acute respiratory failure. Acute respiratory failure. Definition. Etiological factors. Partial and total airways obstruction. Clinical picture. Conduct. Tracheotomy and	1	2	1	1	



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No	No. TOPIC		Number of hours		
110.			Semi- nars	Prac- tice	Indivi dual
	cricothyrotomy. Indications. Benefits. Disadvantages.	es	indi 5	ucc	uuui
	Cardiopulmonary resuscitation in adults. Summative assessment. Heart attack. Definition. Causes. Manifestations. Clinical death. Recognition of signs suggestive of heart attack. Pathognomonic signs of clinical death. Clinical death. Differential diagnosis. Basic Life Support - elementary measures to support vital functions. Signs of biological death and death confirmation.	1	2	1	1
	Total			17	22

VI. INSTRUCTIONAL OBJECTIVES AND CONTENT UNITS

Objectives	Content units
Typical dental extraction and instrumentation	ı used
 ✓ to know the instruments used in dento- alveolar and maxillofacial surgery; ✓ to define the term of dental extraction; ✓ to know indications and contraindications for dental extraction; ✓ to understand the principles of preparing the surgeon and patient for dental extraction; ✓ to know the technique and stages of dental extraction with forceps and elevators. 	Classification of instruments. Structure of forceps and elevators. Indications and contraindications for dental extraction. Preparing the surgeon and patient for dental extraction. General principles of dental extraction technique. Instructions for using forceps and elevators. Basic and auxiliary steps in dental extraction using forceps and elevators. Techniques of minimally invasive dental extraction.
 Atypical dental extraction ✓ to know the classification of upper and lower wisdom teeth; ✓ to know the indications and contraindications for atypical extraction of wisdom teeth; ✓ to know and to carry out dental extraction technique by alveolotomy; ✓ to know the techniques and types of mucoperiosteal flap design; ✓ to know the types of incisions and sutures; ✓ to know the peculiarities of the right management of dental post-extraction wounds; ✓ to know the intraoperative accidents caused by wisdom teeth extraction. 	Indications and contraindications of the third upper and lower molar extraction. Classification of third molars. Techniques of mucoperiosteal flap design. Techniques for extraction of the third molar. Types of sutures. Intraoperative accidents caused by the extraction of third upper and lower molars. Alveolotomy. Indications. Types. Alveolotomy techniques. Examination of post-extraction wound. Post- extraction recommendations. Post-extraction wound healing.



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	Objectives	Content units
\checkmark	to know the particularities of dental	Particularities of dental extractions in patients
	extraction in patients with concomitant	with concomitant diseases.
	diseases;	Antibiotic prophylaxis. Indications. Regimens.
\checkmark	to know the particularities of antibiotic	Accidents caused by dental extraction.
	prophylaxis in dento-alveolar and	Causes, symptomatology and treatment of dental
	maxillofacial surgery;	post-extraction hemorrhage.
\checkmark	to know the classification of dental	Local haemostatic agents.
	extraction accidents;	Symptomatology, treatment and prophylaxis of
\checkmark	to know the particularities of dental post-	post-extraction alveolitis.
	extraction hemorrhage;	Acute respiratory failure. Clinical picture.
\checkmark	to know local haemostatic agents and their	Conduct.
	properties;	Cardiac arrest. Causes. Clinical picture.
✓	to know treatment particularities of post- extration alveolitis;	Cardiopulmonary resuscitation in adults.
\checkmark	to know the medical emergencies caused by	
	dental extraction.	
	VII. PROFESSIONAL (SPECIFIC	(SS) AND TRANSVERSAL (TS) SKILLS

VII. PROFESSIONAL (SPECIFIC (SS) AND TRANSVERSAL (TS) SKILLS AND LEARNING OUTCOMES

Professional (specific) skills (SS)

SS1: to know, to understand and to use of specific language in dento-alveolar and maxillofacial surgery; to know and to understand instrumentation used in dento-alveolar and maxillofacial surgery; to explain indications and contraindications for dental extractions; to know the principles of preparing surgeon and patient for dental extraction; to know the techniques and stages of dental extraction with forceps and elevators.

SS2: to know and understand minimally invasive extraction techniques; to know and simulate types of incisions and sutures; to know the peculiarities of correct attitude towards the dental post-extraction wound;

SS3: to know intraoperative injuries /accidents caused by wisdom teeth extraction; to know the principles of extraction by alveolotomy.

SS4: to know and understand the particularities of dental extractions in patients with concomitant diseases; to know dental extraction accidents and complications; to know and understand medical emergencies caused by dental extraction. **SS5:** to describe and know the peculiarities of antibiotic prophylaxis in dento-alveolar and maxillofacial surgery, as well as risk groups; to know the particularities of post-extraction dental hemorrhage; to recognize local haemostatic agents.

SS6: to demonstrate and apply acquired knowledge in the clinical and paraclinical assessment of patient; to select and argument the medical first aid techniques in emergencies caused by dental extraction.

✓ Transversal skills (TS)

TS1: to apply professional evaluation standards, to act according to professional ethics, as well as the provisions of the legislation in force. To promote logical reasoning, practical applicability, assessment and self-assessment in decision-making.

TS2: to perform activities and to exercise the roles specific to teamwork within the OMF surgery setting /department; to promote initiative, dialogue, cooperation, positive attitude and respect for others, empathy, altruism and continuous improvement of professional activities;

TS3: to assess systematically personal skills, roles and expectations, to apply self-assessment to learned



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processes, acquired skills and professional needs, effective use of language skills, knowledge of information technologies, research and communication skills to deliver qualitative services and to adapt to the dynamics of policy requirements in health care and to carry on personal and professional development.

✓ Learning outcomes

At the end of the course, the students will be able to:

- \checkmark To know the instruments used in oral and maxillofacial surgery;
- \checkmark To know indications and contraindications for dental extractions;
- \checkmark To understand the principles of preparing physician and patient for dental extraction;
- \checkmark To know the technique and stages of dental extraction with forceps and elevators;
- \checkmark To understand techniques of minimally invasive dental extraction;
- \checkmark To know the principles of dental extraction by alveolotomy;
- ✓ To be able to evaluate the particularities of dental extractions in patients with concomitant diseases;
- ✓ To be able to use the knowledge of antibiotic prophylaxis particularities in dentoalveolar and maxillofacial surgery;
- \checkmark To be able to deduce the possible causes of dental extraction accidents and complications;
- \checkmark To be able to recognize early medical emergency and to provide medical first aid;
- \checkmark To be able to implement the knowledge gained in the research activity;
- ✓ To be able to use critically and confidently scientific information using information and communications technologies (ICT).



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VIII. INDIVIDUAL WORK OF STUDENTS

No.	Expected product	Work strategies	Assessment criteria	Period of accomplishment		
1.	Work with information sources	Analysis and synthesis of the material studied on the subject. Reflection on the topic questions. Selection of additional information sources on the topic and its study. Reading the information carefully and describing the essentials. Generalizing and drawing conclusions on the topic/subject importance.	Ability to extract the essentials. Interpretative skills. Ability to analyze and communicate and discuss the material studied independently.	During the semester		
2.	Case problem solving	Solving case problems, drawing conclusions and making arguments at the end of each practical work. Verification of outcomes and appreciation of outcome achievement. Selection of additional information, using websites and additional bibliography.	Quality of solving problems and clinical cases. Ability to formulate and interpret clinical and paraclinical data. Ability to analyze the selected information from national and international professional websites.	During the semester		
3.						
3.1.	Schematic recording of instruments	Work with bibliographic sources in the systematization of instrumentarium for odontectomy	Assessment of accomplishment correctness.	During the semester		
3.2.	2. Assessment of odontectomy indications Study of odontectomy particularities and arguing the need for dental extraction.		Assessment of information accuracy.	During the semester		
3.5.	Creating projects	Preparing Power Point presentations on the information selected from the syllabus topics.	Assessment of selected material quality, project design and ability to reproduce the information.	During the semester		



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IX. TEACHING- LEARNING-ASSESSMENT METHODOLOGY

• Teaching and learning methods

When teaching the subject of odontectomy in OMF surgery, different teaching methods and strategies are used, aimed at efficient acquisition and achievement of learning objectives. The course entails lectures, seminars, practical and individual work. The odontectomy course is held in the 4th semester by the course holder/subject leader. The following forms of training are used in the practical work: frontal and individual activity, group discussions, simulation cases, case studies, brainstorming activities. The literature available in the university library is used as a teaching aid, along with methodological recommendations of the department's staff, tables, schemes, electronic information resources, national and international professional websites, etc. Students receive individual assignments that are presented for group discussions, subsequently the quality of individual work and practical skills being assessed. In order to learn the material and acquire teambuilding skills, during the semester the students perform a mini-research in the field, the results of which are presented during seminars and practical lessons organized in the last month of the semester.

Learning methods used in the teaching process are as follows: *learning of the theoretical material* using lecture material and textbooks; *observation* - identifying the characteristic features of doctorpatient communication; *analysis* - use of methods of appreciation of indications and contraindications for dental extraction; *comparison* - comparison by analysis of instruments used in oral and maxillofacial and dento-alveolar surgery according to their advantages and disadvantages; *algorithm elaboration* selection of mandatory elements and algorithm elaboration for consulting the patient with concomitant diseases; *modeling* - identifying and selecting the elements necessary to detect emergency situations caused by dental extraction.

• Teaching strategies / techniques

Frontal, individual, brainstorming, group discussion, clinical case analysis, teambuilding activities, clinical exam simulation, mini-research, comparative analysis.

• *Methods of assessment* (including the way the final mark is calculated)

Current: Current assessment during seminars and practical work, 3 summative assessments in written form and/or current tests. For individual work during the semester, the student is assessed, the grade being included in summative assessments. At the end of the semester, based on the summative assessment marks, the average annual mark is calculated.

Final: The course ends with a credit test. The mark at the credit test is based on the annual average mark. The marks above 5 are equivalent to "passed", which will be recorded in the student's report card (gradebook). The annual average mark is expressed in numbers according to the grid of assessment mark scaling.



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Method of ma	rk rounding Grading system	ECTS
Grid of intermediary marks (anual average mark, final examination mark)	Grading system	Equivalent
1,00-3,00	2	F
3,01-4,99	4	FX
5,00	5	
5,01-5,50	5,5	Е
5,51-6,00	6	-
6,01-6,50	6,5	D
6,51-7,00	7	- U
7,01-7,50	7,5	С
7,51-8,00	8	
8,01-8,50	8,5	D
8,51-8,00	9	B
9,01-9,50	9,5	
9,51-10,0	10	A

Scaling of marks for assessments

The annual average mark and final examination marks (computer test, written test, oral test) will be expressed in numbers according to the grid of marks (see table above), while the final mark will be expressed in a number with two decimal digits, which will be recorded in the student's report card (gradebook).

Note: Students` unexcused absence at the final examination is qualified with ,, absent" and is equivalent to 0° (zero). The students have the right to retake the failed examination twice.

RECOMMENDED BIBLIOGRAPHY: X.

A. Compulsory:

- 1. Materialele prelegerilor.
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- 3. Bucur A., Cioacă R. Urgențe și afecțiuni medicale în cabinetul stomatologic: note de curs. București: Editura Etna, 2004.
- 4. Burlibașa C. Chirurgie orală și maxilo-facială. București: Editura Medicală, 1997.
- 5. Chele N. Implantarea dentară imediată. Riscuri și beneficii. Chișinău: S.n., 2017.
- 6. Timoșca G., Burlibașa C. Chirurgie buco-maxilo-facială. Chișinău: Universitas, 1992.
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- 9. Тимофеев А. А. Руководство по челюстно-лицевой хирургии и хирургической стоматологии. Киев: 000 «Червона Рута-Туре», 2012.
- 10. Moore U. J. Principles of Oral and Maxillofacial Surgery. Sixth Edition, Wiley-Blackwell, 2011.
- 11. Peterson Larry. Principles of Oral and Maxillofacial Surgery. Second Edition, BC Decker Inc, 2004.

B. Supplimentary:

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- 2. Gănuță N. Chirurgie oro-maxilo-facială. Vol.II. București: Editura Medicală Națională, 1998.
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- 4. Zănoagă O. Hemoragiile postextracționale dentare. Teză de doctor în științe medicale. Chișinău, 2010.
- 5. Zănoagă O., Topalo V. Hemoragia postextracțională dentară la adult. Protocol clinic național. 2015.
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- 7. Панчишин М., Готь И., Масный З. Неотложные состояния в стоматологической практике. Львов: ГалДент, 2004.
- 8. Робустова Т. Г. Хирургическая стоматология и челюстно-лицевой хирургия. Москва: Гэотар Медия, 2010.
- 9. Тимофеев А. А. Челюстно-лицевой хирургия. Киев: Медицина, 2015.
- 10. Hupp James R., Ellis III Edward, Tucker Myron R. Contemporary Oral and Maxillofacial Surgery. Fifth Edition. Mosby Elsevier, 2008.
- 11. Koerner Karl R. Manual of Minor Oral Surgery for the General Dentist. Blackwell Munksgaard, 2006.