



MEDICAL UNIVERSITY
“Prof. Dr. Paraskev Stoyanov” Varna

FACULTY of „DENTAL MEDICINE“

Confirmed by Protocol of FS

Confirmed by:
DEAN

2/27/05
2005
Dr. G. P. Paraskev, gm.

Academic Program

“ Anesthesiology and emergencies“

Specialty “DENTAL MEDICINE”

Educational qualification degree “MASTER”

Professional qualification “Doctor in Dental Medicine”

Type of classes	Semester	Hours Weekly	Hours Total
Lectures	VI	1	15
Practical sminars	VI	1	15
Total hours			30
Extracurricular activities			30
Forms of control	Current control		Exam – VI semester
Credits (ECTS)			2

Annotation

The goal of the training is for the VI semester students to become familiar with the basic characteristics of anesthesia and emergency conditions necessary for their activities as dental practitioners. To achieve this, the students go through a simulation and clinical training course, where they learn about anesthetic practices, the etiology and pathogenesis of emergency conditions, and methods of treatment and prevention. The practical work aims to build basic skills in the students in diagnosing and treating the studied pathological units.

Forms of Training, Control, and Evaluation:

Forms of Evaluation: Current Evaluation, Seminar Participation, Colloquium, Test, Practical Exam, Theoretical Exam.

Forms and Methods of Training: Lecture, Seminar, Discussion, Case Solving, Simulation Exercises, Practical Exercises, Multimedia Presentation.

Criteria for Evaluation:

Formation of the Grade: Comprehensive

1. Assessment of the student's activity during practical exercises
2. Colloquium
3. Practical Exam
4. Exam result during the session

Aspects in forming the grade: Comprehensive

1. Clinical and Paraclinical Diagnosis
2. Solving Clinical Cases
3. Test
4. Exam Result

Upon completion of the course, students should possess the following **knowledge, skills and competencies**:

1. Be able to provide pain and fear control in emergency and planned dental activity.
2. Plan and in some cases perform anesthesia (local or conductive) and correction of emergency conditions in different types of dental patients, including those with special needs.
3. Perform certain types of anesthesia and correction of emergency conditions in all conditions of a hospital, dental center, outpatient dental surgical center, etc.
4. Function effectively in a multidisciplinary team environment.
5. Develop skills in ethical behavior, continuous learning, patient-oriented behavior, adaptability and tolerance of different culturally determined specifics.

Lecture and Exercise Plan Lecture Program

Lecture Topic	Hours
History of Anesthesiology. General anesthesia. Assistance for general anesthesia. Postoperative observation	2
Types of general anesthesia. Pharmacology of general anesthetics. Inhalation and intravenous anesthesia in the context of dental medicine. Sedation. Phobic patients. Dangers and complications.	2
Regional Anesthesia Techniques - local and conductive anesthesia. Pharmacology of local anesthetics. Dangers and complications. Anatomy of the periodontal ligament	2
Pain - pathology and treatment of acute and chronic pain. Anatomy of cementum	2

Emergency medicine. First aid. Behavior in emergency situations. Measures to maintain life. Concept of intensive care. Dentology.	2
Emergency conditions related to the respiratory system. Acute respiratory failure	2
Emergency conditions related to cardiovascular system disruptions. Shock and collapse. Cerebral insufficiency.	2
Allergic reactions. Types and behavior.	1

Practical Exercises for III Course - VI Semester	
1. Equipment and aids for general anesthesia. Sedation. Monitoring - monitored anesthesia care.	2
2. Equipment and aids for intensive care. Visit to the intensive care clinic. Monitoring.	2
3. Local anesthesia, types of local anesthesia. Conductive techniques. Visit to a simulation center.	2
4. Acute breathing disruptions - techniques, measures, aids, and management of a difficult respiratory path. Visit to a simulation center.	2
5. Acute disruptions to the cardiovascular system.	2
6. Cardiac arrest. Methods of maintaining CPR. Visit to a simulation center.	2
7. Deontology. Documentation. Legal requirements. Informed consent and responsibility. Patients with special needs.	2

Literature

1. Malamed SF. *Handbook of Local Anesthesia*. 7th ed. Elsevier; 2019.
2. Bosack RC, Lieblich S. *Anesthesia Complications in the Dental Office*. 2nd ed. Elsevier; 2019.\
3. Gaudy JF, Arreto CD. *Anatomical Bases for Local Anesthesia in Dentistry*. Quintessence Publishing; 2020
4. James W Little, Craig S Miller, Nelson L Rhodus . *Dental management of the Medically compromised Patient* ,9th ed. Elsevier.
5. Stanley Malamed . *Medical Emergencies in the Dental Office* (8th Ed., 2023)
6. Manuel Pardo . *Miller's Basics of Anesthesia* (8th Edition - July 5, 2022)

Sources for education and training

1. Lectures
2. Malamed SF. *Handbook of Local Anesthesia*. 7th ed. Elsevier; 2019.
3. Bosack RC, Lieblich S. *Anesthesia Complications in the Dental Office*. 2nd ed. Elsevier; 2019.\
4. Gaudy JF, Arreto CD. *Anatomical Bases for Local Anesthesia in Dentistry*. Quintessence Publishing; 2020
5. James W Little, Craig S Miller, Nelson L Rhodus . *Dental management of the Medically compromised Patient* ,9th ed. Elsevier.
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Outline

Semester exam in "Anesthesia and Intensive Care" in Dental Medicine

1. Anesthesia. Definition, essence, tasks, types.
2. Preparation of the patient for general anesthesia.
3. Preparation of the patient for local/regional anesthesia
4. Inhalation and intubation anesthesia
5. Venous anesthesia
6. Sedation
7. Pain. Types. Pathophysiology. Treatment.
8. Local anesthesia - types, methods, means, indications, complications.
9. Local anesthetics - characteristics, dangers, and complications.
10. Contact and infiltration anesthesia.
11. Conductive anesthesia.
12. Indications and contraindications for sedation and general anesthesia.
13. Acute respiratory failure - etiology, pathogenesis, clinic, treatment.
14. Oxygen therapy.
15. Acute hemorrhagic shock - etiology, pathogenesis, clinic, treatment.
16. Allergic reactions.
17. Clinical death - etiology, pathogenesis, clinic, treatment.
18. Acute circulatory failure. Shock - types, pathogenesis.
19. Acute cerebral blood flow disorders.
20. First aid.
21. Basic Life Support and Advanced Life Support.

Protocol by:

Department council № 2026. date:

Faculty Council №.3 date: 07.05.2026

The program has been prepared:

/Dr. Martinova/

Head of Department:

/Assoc. Prof. P.Ivanova, phd /