

**VI year (2nd semester)
A.Y. 2024-25**

Scientific Field	SURGICAL AND MEDICAL EMERGENCIES	TUTOR	ECTS
MED/41	Anaesthesiology	Dauri Mario	1
MED/41	Anaesthesiology	Coniglione Filadelfo	1
MED/41	Anaesthesiology	Biasucci Daniele Guerino	1
MED/09	Internal Medicine – Emergency Medicine	Legramante Jacopo Maria	1
MED/09	Internal Medicine – Emergency Medicine	Gallù MariaCarla	1
MED/18	General Surgery – Emergency Medicine	Sica Giuseppe	1
MED/18	General Surgery – Emergency Medicine	Grande Michele	1
		TOT	7

**DAURI M.
COORDINATOR**

OBJECTIVES

ANAESTHESIOLOGY

Our course is structured to encourage students' knowledge, clinical skills and attitudes essential for effective practice of Emergency Medicine. Students will develop their clinical judgement and technical ability under the guidance and supervision of their tutors. They are expected to meet the following goals and objectives during this course:

- How to perform cardiopulmonary resuscitation
- Resuscitation in diseases of major impact in general medicine
 - Diagnosis and treatment of different kind of shock
 - Treatment of cardiac arrest
 - Diagnosis and treatment of acute respiratory failure
 - Diagnosis of Brain Death
- Knowledge of general and loco-regional anesthesia techniques
- General approach to Critical Illness
- General Approach to pain medicine
- General approach to polytrauma

TOPICS Cardiac Arrest and Cardio Pulmonary Resuscitation	BLS - D (Basic Life Support- Defibrillation); ALS (Advanced Life Support); Defibrillation Techniques and Procedures
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Polytrauma	<ul style="list-style-type: none">a. Physiopathologyb. Severity scoresc. Triaged. Clinical approach
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Respiratory failure	<ul style="list-style-type: none">a. Physiopathologyb. b. Diagnosis e Treatmentc. Techniques and Procedures of Invasive and Non Invasive Ventilationd. Equipment and devices
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The critically ill patient and multiple organ dysfunction syndrome

- a. Definition
- b. Aetiology
- c. Hemodynamic support
- d. Stabilization and transport of the critically ill patient
- e. Renal failure in ICU: general aspects
- f. Clinical and Therapeutic aspects

The critically ill patient in Operating Room, Emergency Room, Intensive Care Unit

- a. Respiratory monitoring
- b. Cardiac and circulatory monitoring
- c. Neurological monitoring
- d. Monitoring of the renal function
- e. Temperature

Schock

- a. Physiopathology
- b. Diagnosis
- c. Clinical aspects
- d. Treatment
- e. Drugs for hemodynamic support

Acute poisoning

- a. First aid

Brain death

- a. Definition
- b. Diagnosis
- c. Legal issues in Italy

Pain treatment

- a. Physiopathology of pain
- b. Definition and clinical characteristics of acute and chronic pain
- c. Drugs for pain treatment

General and loco-regional anesthesia

- a. Risk assessment and the ASA Classification
- b. Anesthetic drugs
- c. Local anesthetics

OBJECTIVES

Emergency surgery, unlike ordinary hospital care does not allow an early planning of the intervention that will take place but the latter must be “planned” in the course of work. Therapeutic choices will be conditioned by the clinical conditions of the patient and the local state. The purpose of this part of the course is to focus on the main pathologies that may cause

GENERAL SURGERY

TOPICS Acute abdomen

Abdominal pains and related causes

the onset of an “acute abdomen” and the evaluation of urgent surgical risk. It will refer to the main pathologies that may give perforations and intestinal occlusion. In addition, problems related to trauma and intestinal hemorrhages are analyzed. The aim of this section of the course is to understand principles of diagnosis and cure of the most common clinical scenarios presenting to A&E because of Abdominal Pain.

- a. Physiopathology
- b. Triage
- c. Clinical approach
- d. Surgical approach

- a. Physiopathology
- b. Triage
- c. Clinical approach
- d. Surgical approach

OBJECTIVES

EMERGENCY MEDICINE

Our course is structured to encourage student’s knowledge, clinical skills and attitudes essential for effective practice of Emergency Medicine at the patient bedside. Therefore, it is a teoric-practical teaching which will be performed within the Emergency Department Divisions (Emergency Room and the Emergency Medicine Division).

Students will develop their clinical judgment and technical ability under the guidance and supervision of their tutors.

They are expected to meet the following goals and objectives during this course:

- How to manage critical patients in the Emergency Room. ○ Diagnosis and treatment of different kind of shock (ipovolemic, septic, ecc.) ○ Treatment of Acute Heart Failure
 - Diagnosis and treatment of acute respiratory failure
 - Diagnosis and treatment of patients in Coma (posttraumatic, cerebrovascular, metabolic, ecc.) ○ Acute chest pain ○ Acute Renal failure

- Arrhythmias ○
- Pulmonary Embolism ○
- Syncope

- How to manage the risk stratification trying to define the right clinical pathway for each patients (discharge, recovery in medical divisions, recovery in ICU)
- General approach to Critical Illness

TOPICS

- a. Physiopathology
- b. Triage
- c. Clinical approach
- d. Therapy

Acute Heart Failure

Shock and multiple organ dysfunction syndrome

- a. Definition Aetiology
- b.
- c. Hemodynamic support
- d. Stabilization of the critically ill patient
- e. Clinical and therapeutic aspects

Respiratory failure

- a. Physiopathology
- b. Diagnosis and treatment
- c. Techniques and Procedures of non-invasive ventilation

d. Equipment and devices

Coma

- a. Physiopathology
- b. Diagnosis
- c. Clinical aspects
- d. Treatment

Acute chest pain

- a. Physiopathology
- b. Definition and clinical characteristics
- c. Patient management in the Emergency ward
- d. Treatment

Acute renal failure

- a. Physiopathology
- b. Definition and clinical characteristics
- c. Patient management in the Emergency ward
- d. Treatment

Arrhythmias

- a. Acknowledgement of the main arrhythmias at the EKG
- b. Patient management in the Emergency ward
- c. Treatments

TEXTBOOKS

Oxford Handbook of Emergency Medicine
Author: Jonathan P. Wyatt et al
4th Edition – Oxford University Press

Tintinalli's Emergency Medicine Manual
Author: David M. Cline et al
7th Edition – McGraw-Hill

Rosen's Emergency Medicine. Concepts and Clinical Practice
Author: Ron M. Walls et al
9th Edition - Elsevier

EXAM COMMISSION

The Coordinator, full Professors of the disciplines, Professors of similar disciplines, Specialists of the subject, compose the exam Commission of the Integrated Course.

Dauri Mario, President
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Biasucci Daniele Guerino
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Gallù Mariacarla
Grande Michele
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CONTACTS

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PREREQUISITES: Previous knowledge and competence in the following subjects: Internal Medicine, General Pathology, Immunology and Embryology, Chemistry, Physics, Microbiology, Laboratory Medicine, Clinical Symptomatology, Systemic Pathology I, Systemic Pathology II, Systemic Pathology III, Infectious Diseases.

The specific learning outcomes of the program are coherent with the general provisions of the Bologna Process and the specific provisions of EC Directive 2005/36/EC. They lie within the European Qualifications Framework (Dublin Descriptors) as follows: 1. **Knowledge and Understanding**

- Assess the physiologic principles, which govern the function of the main body systems and the alterations induced by functional and structural abnormalities.
- Describe the main aspects of general pathology and explain the physiopathologic mechanisms underlying the concept of benign and malignant disorders as well as reversible and irreversible cellular damage
- Demonstrate knowledge about the mechanism of cell cycle maintenance and regulation, the factors affecting it and their consequences.
- Understand the core principles of acute and chronic inflammation in relation to the molecular, systemic and clinical aspects.
- Relate the general principles, terminology, and modes of spreading of disease to the study of Systemic Pathology and the ways in which pathology contributes to the understanding of patient presentation in a clinical setting.
- Focus on each organ and describe the pathogenesis of the main disease.
- Correlate basic disease states studied at a cellular and gross anatomic level with the overt clinical signs and symptoms seen in those disorders.
- Learn to interpret appropriate laboratory and diagnostic studies.

2. **Applying Knowledge and Understanding**

- Apply the diagnostic procedure in pathology, through introduction of the differential diagnostic methods at the clinical level.
- Apply a basic understanding of histopathology and morbid anatomy to the examination of microscopic sections and gross specimens, respectively, displaying pathologic processes.
- Provide a differential diagnosis based on specific clinical data, providing a comprehensive explanation of the underlying reasoning.
- Learn the practical aspects of the pathologic diagnostic instruments, when to use them and how to perform them.

3. **Making Judgements**

- Recognize the importance of an in-depth knowledge of the topics consistent with proper medical education.
- Identify the fundamental role of proper theoretic knowledge of the subject in the clinical practice.

4. **Communication Skills**

- Present the topics orally in an organized and consistent manner.
- Use of proper scientific language coherent with the topic of discussion.

5. **Learning Skills**

- Identify the possible use of the acknowledged skills in the future career.
- Assess the importance of the acquired knowledge in the overall medical education process.