

Medical and Pre-Hospital Emergencies

Code: 102904
ECTS Credits: 3

Degree	Type	Year	Semester
2502442 Medicine	OT	6	0

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Víctor Vargas Blasco
Mireia Puig Campmany
Francesc Daniel Epelde Gonzalo
Pedro Tudela Hita
Fernando Rafael Armestar Rodriguez

Prerequisites

- It is necessary that the student has basic clinical knowledge of medical and surgical pathology, and general hospital functioning.
- The student will acquire the commitment of preserving the confidentiality and professional secrecy of the data to which he / she may have access due to the learning in the assistance services. Also to maintain an attitude of professional ethics in all its actions.

Objectives and Contextualisation

This is an optional subject linked to the mention of Medical Clinic, taught in the sixth year of the Degree in Medicine.

The general objective is the basic knowledge of the organization of the Emergency and Emergencies system, and the clinical action before the urgent processes, fundamentally in the pre-hospital environment.

Competences

- Demonstrate understanding of the manifestations of the illness in the structure and function of the human body.
- Establish a diagnostic approach and a well thought-out strategy for action, taking account of the results of the anamnesis and the physical examination, and the results of the appropriate complementary tests carried out subsequently.

- Indicate the basic diagnosis techniques and procedures and analyse and interpret the results so as to better pinpoint the nature of the problems.
- Indicate the most suitable treatment for the most prevalent acute and chronic processes, and for the terminally ill.
- Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
- Obtain and prepare a patient record that contains all important information and is structured and patient-centred, taking into account all age and gender groups and cultural, social and ethnic factors.
- Perform a general and a system-by-system physical examination appropriate to the patient's age and sex, in complete and systematic way, and a mental evaluation.
- Recognise and take action in life-threatening situations and others that require an immediate response.
- Use information and communication technologies in professional practice.

Learning Outcomes

1. Assess the efficiency of the main therapeutic interventions.
2. Assess the importance of every sign and symptom in the current illness.
3. Assess the relationship between efficacy and risk in the main therapeutic interventions.
4. Categorise emergency situations in accordance with the available indices of seriousness.
5. Describe the organ and system involvement and forms of presentation of diseases of the respiratory, circulatory and digestive systems, blood and hematopoietic organs, nervous system, musculoskeletal system, genitourinary system, metabolism and endocrine system.
6. Distinguish normality from pathological alterations on performing a physical examination.
7. Distinguish situations that require hospitalisation and those that require intensive care.
8. Establish a diagnostic and therapeutic approach in emergencies.
9. Gather, choose and record important information patient supplied by patients and accompanying persons.
10. Identify serious clinical situations.
11. Indicate suitable therapeutic interventions for the main health problems.
12. Indicate the basic complementary examinations for interpreting the manifestations of the illness in the different organs and systems of the human body.
13. Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
14. Order signs and symptoms to perform a differential syndromic diagnosis.
15. Perform basic and advanced life support manoeuvres.
16. Propose a basic diagnostic strategy to reach a definitive diagnosis.
17. Understand the manifestations of the main pathologies on the structure and function of the human body.
18. Use information and communication technologies in professional practice.

Content

LEARNING ACTIVITIES

1. Directed activities

Theoretical class: Prehospital medical emergency. 1 hour

Clinical skills: Cardiopulmonary resuscitation (via advanced air). 2 h

Clinical skills: Polytrauma. 2 h

Resolution of cases: Recognition of the critical or life-threatening patient 1 h

Resolution of cases: Thoracic pain. 1 hour

Case resolution: Respiratory failure 1 h

Resolution of cases: IAM Code 1 h

Case resolution: Hemodynamic management of the seriously ill. 1 hour

Case resolution: Management of hemoptysis. 1 hour

Resolution of cases: Intoxications. 1 hour

Case resolution: Acute neurological deficit. ICTUS code. 1 hour

Case resolution: Changes in ambient temperature. 1 hour

2. Supervised practices

Face-to-face activity in emergency and extra-hospital emergencies: PRASS 18 h of supervised presence.

3. Autonomous activities

Comprehensive reading of texts and articles, study and realization of schemes, summaries and conceptual assimilation of the contents. Preparation of presentations and deliveries.

Methodology

This Guide describes the framework, contents, methodology and general rules of the subject, in accordance with the current curriculum. The final organization of the subject in terms of number and size of groups, distribution in the calendar and dates of exams, specific criteria for evaluation and review of exams, will be specified in each of the Hospital Teaching Units (UDH), which will explain it through their web pages and the first day of class of each subject, through the professors responsible for the subject in the UDH.

For this course, the professors appointed by the Departments as responsible for the subject at the Faculty and the UDH level are:

Department (s) responsible (s): Departament de Medicina

Head of Faculty: nom (e-corru): Pere Tudela Hita (ptudela.germanstrias@gencat.cat)

General methodology:

Estimated hours of the subject: 75 (3 ECTS)

Directed (20%): 15 h

Practices in the laboratory of clinical skills. Resolution of clinical cases.

Supervised (25%): 18 h

Practical assistance without guidelines, emergency devices and out-of-hospital emergencies.

Self-employment 50%: 38 h.

Bibliographic and documentary consultations. Realization of schemes and summaries.

5% evaluation: 4 h.

Work presentation and problem solving.

Exceptionally and according to the criteria of the responsible professorat, the available resources and the health situation at each moment to the different Unitats Docents, part of the continguts corresponents to the teachers, practitioners and seminars may be taught in person or virtual.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practices in the laboratory of clinical skills.	6	0.24	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2
Resolution of clinical cases.	8	0.32	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2
Theoretical class	1	0.04	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2
Type: Supervised			
Practical assistance without guidelines, emergency devices and out-of-hospital emergencies.	18	0.72	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2
Type: Autonomous			
Bibliographic and documentary consultations. Realization of schemes and summaries.	38	1.52	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2

Assessment

For the final evaluation of the subject, the following will be taken into account:

1) Attendance at practices (30%).

(Face-to-face activity in emergency and out-of-hospital emergencies devices: 18 h)

2) The presentation of a clinical case of the agenda, presented in free electronic format (40%).

3) Objective multiple response tests (5) on the content of clinical cases (30%).

(At the end of each of the case resolution sessions).

Students who do not take the theoretical and practical assessment tests will be considered as not evaluated, exhausting the rights to the registration of the subject.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Assistance and active participation in class and seminars	30%	0	0	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2
Delivery of written work	40%	2.67	0.11	4, 17, 5, 6, 7, 8, 10, 12, 11, 13, 14, 16, 15, 9, 18, 1, 3, 2
multiple response tests	30%	1.33	0.05	4, 17, 5, 6, 7, 8, 10, 12, 13, 14, 16, 15, 9, 18, 1, 3, 2

Bibliography

Books:

Rosen's Emergency Medicine - Concepts and Clinical Practice. 10 ed. Elsevier SA, 2022.

Emergency Medicine. Harrison Principles of Internal Medicine. 20 ed. McGraw-Hill, 2018.

Jimenez Murillo L, Montero Perez FJ. Medicina de Urgencias y Emergencias. 6 ed. Elsevier SA, 2018.

Journals:

Revista Española de Urgencias y Emergencias.

<https://www.reue.org/numero-actual/>

Annals of Emergency Medicine

Journal of Emergency Medicine

American Journal of Emergency Medicine

Videos:

<https://www.youtube.com/watch?v=lowHO8g9cnA>

https://elpais.com/ccaa/2019/07/04/catalunya/1562262167_670465.html

Software

does not require specific software