

**Critical Inpatient and Outpatient Care**

Code: 105016  
ECTS Credits: 3

Degree	Type	Year	Semester
2502442 Medicine	OT	6	0

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

### 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

### External teachers

Antoni-Jordi Betbesé Roig

### Prerequisites

It is necessary that the student has basic clinical knowledge of the medical and surgical pathology, and of the ger

### 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 knowledge of the basic pathophysiology of the

### Competences

- Demonstrate understanding of the manifestations of the illness in the structure and function of the human body.
- Demonstrate understanding of the structure and function of the human organism in illness, at different stages in life and in both sexes.
- Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
- 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.

- Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
- 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.

## Learning Outcomes

1. Assess the relationship between efficacy and risk in the main therapeutic interventions.
2. Categorise emergency situations in accordance with the available indices of seriousness.
3. Demonstrate, in professional activity, a perspective that is critical, creative and research-oriented.
4. 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.
5. Distinguish situations that require hospitalisation and those that require intensive care.
6. Establish a diagnostic and therapeutic approach in emergencies.
7. Formulate hypotheses and compile and critically assess information for problem-solving, using the scientific method.
8. Identify serious clinical situations.
9. Identify the affection on organs and systems of diseases of the blood, cardiovascular system, respiratory system, digestive system, nervous system, renal system and musculoskeletal system.
10. Indicate the basic complementary examinations for interpreting the manifestations of the illness in the different organs and systems of the human body.
11. Maintain and sharpen one's professional competence, in particular by independently learning new material and techniques and by focusing on quality.
12. Perform basic and advanced life support manoeuvres.
13. a complete physical examination general and the respiratory, circulatory and digestive systems, blood and hematopoietic organs, nervous system, musculoskeletal system, genitourinary system, metabolism and endocrine system.

## Content

### Content

1. Directed activities
  - Theoretical class: The critical patient. 2 h
  - Resolution of cases: Transportation, consumption and extraction of oxygen 1 h
  - Resolution of cases: Blood volume 1 h
  - Case resolution: Hemodynamic 1 h
  - Clinical skills: Pulmonary mechanics 1 h
  - Clinical skills: Gas exchange 1 h
  - Resolution of cases: Filtration, reabsorption and excretion of solutes 1 h
  - Case resolution: Regulation of electrolyte balance 1 h
  - Case resolution: Acid-base decompensating regulation 1 h
  - Resolution of cases: The patient with severe neurological pathology 1 h

Clinical skills: The patient Polytraumatized Serious. 1 hour

Clinical skills: The patient in Septic Shock 1 h

Resolution of cases: Critical Hematological patient 1 h

Resolution of cases: The patient with severe abdominal pathology 1 h

2. Supervised practices

Assistance to the polyvalent ICU of the HGTiP and other units according

## Methodology

The general rules of the subject are described here. The final organization in terms of calendar, dates of examination

of groups is specified on the first day of class through the teachers of the subject.

General methodology:

Estimated hours of the subject: 75 (3 ECTS)

Directed (20%): 15 h

Supervised (25%): 18 h Practicum assistance without guidelines to the Ir

Autonomous work 50%: 38 h. Bibliographic and documentary references

5% evaluation: 3.75 h. Work presentation and solving problems.

In the current exceptional circumstances, at the discretion of the teachers and also depending on the resources available and the public health situation, some of the theoretical classes, practicals and seminars organized by the Teaching Units may be taught either in person or virtually.

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			
Clinical skills	4	0.16	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1
SEMINAR OF CLINICAL CASES	9	0.36	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1
THEORY	2	0.08	3, 5, 8, 11
Type: Supervised			
PRACTICAL ASSISTANCE WITHOUT GUIDELINES	18	0.72	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1

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Type: Autonomous

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DEVELOPMENT OF WORKS, PERSONAL STUDY, READING OF ARTICLES / REPORTS OF INTEREST	38	1.52	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1
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## Assessment

For the final evaluation of the subject, the following will be taken into account: 1) Attendance to practices (30%) 2

presented in electronic format (40%)

3) Objective multiple-choice tests and / or short questions about the content of clinical cases (30%). The question

When it is considered that the student has not been able to provide sufficient evidence of evaluation in the record

A recovery test will be scheduled for students who exceed the contents of the subject with a format to be determined

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Continuous evaluation in practices. Assistance and active participation	30%	0	0	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1
Evaluation through case studies and problem solving	40%	3	0.12	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1
Written evaluation through objective tests	30%	1	0.04	2, 3, 4, 5, 6, 7, 9, 8, 10, 11, 12, 13, 1

## Bibliography

### Bibliography

1. Barlett RH. Fisiopatologia en medicina intensiva. Edit. Masson, 1997.
2. Renke HG, Denker BM. Fisiopatologia renal. 2<sup>a</sup> ed. Edit. Wolters Kluwer 2007.
3. Guyton CA. Tractat de Fisiologia Mèdica. 12 ed. Adit. Elevar 2011.
4. Hall GB, Schmidt GA, Kress JP. Critical Care. Edit: Mc.Graw-Hill. 4<sup>a</sup> ed. 2015
5. Manual de Medicina Intensiva Massachusetts General Hospital. 6<sup>a</sup> ed. Ed. Wolters Kluwer. 2017
6. Irwin and Rippe's Intensive Care Medicine. Eighth edition. Ed. Wolters Kluwer. 2018

## **Software**

We use the SimPad PLUS software