

## 1. OVERVIEW

<b>Subject Area</b>	CARING FOR CRITICAL AND SURGICAL PATIENTS
<b>Degree</b>	Bachelor's Degree in Medicine
<b>School/Faculty</b>	Biomedical and Health Sciences
<b>Ac. Year</b>	6
<b>ECTS</b>	3 ECTS (practical)
<b>Type</b>	Optional
<b>Language(s)</b>	Spanish
<b>Delivery Mode</b>	On campus
<b>Semester</b>	Yearly

## 2. INTRODUCTION

The Optional Clinical Placement VI subject is part of the Human Clinical Training module. It takes place in the 6th year.

The overall objectives of the subject area are:

- Provide knowledge to assess the severity of critical patients and identify the main clinical symptoms they present.
- Provide knowledge to identify and treat the most common post-operative and post-anaesthetic complications.
- Direct the gathering of patient information to draw up a suitable clinical history (anamnesis and physical examination) for a critical patient.
- Integrate the use of the main complementary tests are used in critical and post-operative care.
- Encourage practical action based on pathophysiological reasoning and diagnostic probability at the patient's bedside, both individually and as a team, as opposed to excessive tutoring and the traditional and obligatory clinical rounds of patient visits.
- Promote non-technical skills, such as teamwork, information sharing, appropriate writing and presentation of clinical information in sessions and on medical records and presentation in public. All of this will be through mini-sessions while on placements.
- Enhance discussion on ethics and values which are inherent in the decision-making process with critical patients.

## 3. SKILLS AND LEARNING OUTCOMES

**General skills (CG, by the acronym in Spanish):**

- CG2. Understand the importance of such principles to benefit patients, society and the profession, with particular attention paid to professional secrecy, confidentiality and privacy.
- CG3. Know how to apply the principle of social justice to professional practice.
- CG4. Develop professional practice taking into account patient autonomy, beliefs and culture.
- CG5. Be aware of the need to maintain and update professional skills, paying special attention to continuous self-learning of emerging knowledge and to discover new products and techniques with

the aim of improving quality.

- CG6. Carry out professional activity with regard to other health professionals.
- CG10. Understand and recognise the causal agents and risk factors which determine health conditions and the development of a disease.
- CG12. Understand the principles of action, indications and effectiveness of therapeutic interventions, based on the available scientific evidence.
- CG13. Obtain and elaborate a clinical history report with all relevant information.
- CG14. Perform a physical examination and mental health assessment.
- CG15. Have the ability to carry out an initial diagnosis and establish a well-founded approach to making a diagnosis.
- CG16. Understand and treat situations which are an immediate threat to life and any others which require immediate attention.
- CG17. Establish the diagnosis, prognosis and treatment, applying the principles based on the most reliable information possible.
- CG18. Indicate the most suitable therapy for the most common acute and chronic processes, including patients in the terminal phase.
- CG19. Raise and propose the suitable preventative measures required for each clinical situation.
- CG20. Acquire sufficient clinical experience under supervision in hospital institutions, health centres or other healthcare institutions.
- CG21. Listen attentively, obtain and synthesise information regarding the problems troubling the patient and understand this information.
- CG22. Write clinical histories and other medical records in a way so they can be understood by other people.
- CG23. Communicate effectively and clearly, both orally and in writing, with patients, family members, media and other professionals.
- CG24. Establish good interpersonal communication which allows you to efficiently and empathetically connect with patients, family members, media and other professionals.
- CG34. In professional practice, maintain a critical, creative, constructively-sceptical and research-minded approach.
- CG35. Understand the importance and limitations of scientific thinking in the study, prevention and management of diseases.
- CG36. Be able to formulate hypotheses, gather information and critically evaluate information to solve problems following the scientific method.

#### **Basic Skills (CB, by the acronym in Spanish):**

- CB3: Students have the ability to gather and interpret relevant information (usually within their study area) to form opinions which include reflecting on relevant social, scientific or ethical matters.
- CB4 Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

#### **Cross-curricular skills (CT, by the acronym in Spanish):**

- CT1. Communication: ability to engage in active listening, ask questions and respond in a clear and concise way, as well as to effectively express ideas and concepts. This includes concise and clear written communication.
- CT4. Adaptability: ability to detect, interpret and respond to a changing environment. Ability to equip themselves and work effectively in different situations and/or with different groups or individuals. This means adapting to change depending on circumstances or needs. It involves the confidence to take on crucial challenges on a personal or group level, maintaining good physical and mental health to allow effective work to be carried out.
- CT10. Independent learning: the ability to govern your own development by choosing the most effective lines of action, strategies, tools and opportunities to independently learn and apply knowledge to practice.

**Specific skills (CE, by the acronym in Spanish):**

- CE 3.1.20 Recognise, diagnose and manage situations which are life threatening.
- CE 3.2.1 Know how to do a full anamnesis focused on the patient and with a view to diverse pathologies, interpreting its meaning.
- CE 3.2.2 Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.
- CE 3.2.6 Know how to perform basic and advanced life support manoeuvres.

**Learning outcomes (RA, by the acronym in Spanish):**

- Understand the pathophysiology of the most common clinical syndromes.
- Know how to do a full anamnesis focussed on the patient and with a view to diverse clinical syndromes, interpreting its meaning.
- Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.
- Have the ability to carry out an initial diagnosis, evaluate the need for complementary tests and establish a well-founded approach to making a diagnosis.
- Understand and know how to apply the principles of good, effective and efficient interpersonal communication with patients, their family members and other professionals.
- Recognise the most common pathologies of the respiratory system: respiratory failure, obstructive and restrictive diseases, tumours of the respiratory system, pathology of the pleura, mediastinal pathology and other important pathologies of the respiratory system.
- Recognise the most common cardiovascular pathologies: cardiac arrhythmias, chest pain, acute coronary syndrome, heart failure, syncope, shock, valvular heart disease, ischaemic syndromes and venous malformations, arterial hypertension, oedematous syndrome, pericardial disease and other significant cardiovascular pathologies.
- Recognise the most common pathologies of the central and peripheral nervous system: intracranial hypertension, migraines, vertigo, cerebellar disorders, meningitis, convulsions, encephalopathy, cranioencephalic trauma, peripheral neuropathy, autonomic neuropathy, myopathies and other important pathologies of the central and peripheral nervous system.
- Recognise, diagnose and manage situations which are life threatening. Know how to diagnose a cardiac arrest and perform the basic cardiopulmonary resuscitation manoeuvres. Know the advanced life support manoeuvres.
- Recognise the most common infectious pathologies in the different organs and apparatus.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning Outcomes
CG10, CG16	Understand the pathophysiology of the most common clinical syndromes.
CG13 CG21 CG22 CT1 CE 3.2.1	Know how to do a full anamnesis focussed on the patient and with a view to diverse clinical syndromes, interpreting its meaning.
CE 3.2.2	Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.
CB3 CG2 CG3 CG4 CG5 CG6 CG12 CG14 CG15 CG17 CG18 CG19 CG20 CG34 CG35 CG36 CG37 CT1 CT4 CT10	Have the ability to carry out an initial diagnosis, evaluate the need for complementary tests and establish a well-founded approach to making a diagnosis.
CB4 CG6 CG23 CG24 CG37 CT1 CT4 CT10	Understand and know how to apply the principles of good, effective and efficient interpersonal communication with patients, their family members and other professionals.
CG10 CG12 CG15 CG17 CG18	Recognise the most common pathologies of the respiratory system: respiratory failure, obstructive and restrictive diseases, tumours of the respiratory system, pathology of the pleura, mediastinal pathology and other important pathologies of the respiratory system.
CG10 CG12 CG15 CG17 CG18	Recognise the most common cardiovascular pathologies: cardiac arrhythmias, chest pain, acute coronary syndrome, heart failure, syncope, shock, valvular heart disease, ischaemic syndromes and venous malformations, arterial hypertension, oedematous syndrome, pericardial disease and other significant cardiovascular pathologies.
CG10 CG12 CG15 CG17 CG18	Recognise the most common pathologies of the central and peripheral nervous system: intracranial hypertension, migraines, vertigo, cerebellar disorders, meningitis, convulsions, encephalopathy, cranioencephalic trauma, peripheral neuropathy, autonomic neuropathy, myopathies and other important pathologies of the central and peripheral nervous system.
CG16 CE 3.1.20 CE 3.2.6	Recognise, diagnose and manage situations which are life threatening. Know how to diagnose a cardiac arrest and perform the basic cardiopulmonary resuscitation manoeuvres. Know the advanced life support manoeuvres.
CG10 CG12 CG15 CG17 CG18	Recognise the most common infectious pathologies in the different organs and apparatus.

## 4. CONTENTS

- Topic 1 – Anamnesis and examination of a critical patient**
- Topic 2 – Anaesthesia in surgery and post-operative complications**
- Topic 3 – Heart failure**
- Topic 4 - Respiratory failure**
- Topic 5 – Low level of consciousness**
- Topic 6 – Sepsis and septic shock**

## 5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Lectures: Classroom presentations by the professor on basic theory, encouraging debate and student participation.
- Experiential learning in tutored clinical placements. In the different hospital services: problem-solving in a practical context observing the tutor, being observed by the tutor, or with the tutor's supervision. Students will integrate themselves and participate in the activities performed in the healthcare units. The student activities will be programmed, tutor-assisted and assessed by the tutor.

## 6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

**On campus:**

<b>Learning activity</b>	<b>Number</b>
Theory/practical learning activities on-campus	12
Clinical placements	62
Knowledge tests	1
<b>TOTAL</b>	<b>75 h</b>

## 7. ASSESSMENT

The assessment methods, plus their weighting in the final grade for the subject area, are as follows:

Assessment system	Weight (%)
<b>Activity 1</b>	5%
<i>Practice / Rotation</i>	30%
<i>Attitude and clinical skills Writing of practical work blog</i>	5%
<i>Creation and presentation of a clinical case</i>	5%
<b>Activity 2</b>	30%
<i>Assessed clinical skills workshop</i>	
<b>Activity 3</b>	10%
<i>Simulation</i>	
<b>Activity 4</b>	15%
<i>Short test (20 questions)</i>	

The practical work blog is aimed at gathering clinical and personal thoughts on the experience and performance with patients during the clinical placements. It aims to teach more about the student and how they understand the subject. It also serves to help lecturers improve based on the observations made.

It is of no set length or format. We will assess the students' ability for self-assessment regarding clinical, professional and ethical matters, together with how they relate to family members within an ICU context.

The clinical case is for students to describe and reflect on a patient with an interesting critical pathology. It will be chosen by a member of the ICU department. It will be prepared as a team, and presented together. We will evaluate formal aspects and the depth of the presentation. It will be repeated before hospital doctors in a clinical session. This is a key skill in preparing students to work in teams and be able to orally present their ideas and work.

On the Virtual Campus, when you open the subject area, you can see all the details of your assessment activities and the deadlines and assessment procedures for each activity.

## 8. BIBLIOGRAPHY

It does not apply in this subject as it is eminently practical.