

## 1. OVERVIEW

<b>Subject Area</b>	Optional Clinical Placement v: Rehabilitation and the Intensive Care Unit
<b>Degree</b>	MEDICINE
<b>School/Faculty</b>	BIOMEDICAL AND HEALTH SCIENCES
<b>Ac. Year</b>	6º
<b>ECTS</b>	3 ECTS
<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 V is part of the Human Clinical Training module. It takes place in the 6th year. This is a complimentary clinical placement in Rehabilitation Clinics and Intensive Care Units at the Hospital Infanta Sofia.

### Rehabilitation:

This subject teaches students about disability, how to evaluate it and the different ways of treating or mitigating disability. It also deals with social concepts of disability, the impact of the environment, and how all of this shapes the values and procedures required in the medical profession.

The aim is for students to be aware of the history and principles of physical medicine and rehabilitation, as well as the concepts of deficiency, disability and handicaps. It also includes functionality and how it is approached in clinical practice, the encouragement of personal autonomy, functional adaptation to the surroundings and managing pain in rehabilitation.

### Intensive Care Units:

The overriding aim of medical practices to preserve human life and ensure that it can be enjoyed in the best conditions possible. This is no more evident than in the field of Intensive Care Units. Continuous monitoring, intensive treatments and life-support measures are fundamental for patients whose life is at immediate or evident risk.

The aim of the complementary clinical training in Intensive Care Units is to learn about the clinical signs and symptoms of immediate life-threatening situations and the primary therapeutic measures geared towards life-support and functional recovery. It also deals with the main clinical syndromes of organ failure which can lead to a preventable risk to life.

### 3. SKILLS AND LEARNING OUTCOMES

#### Basic Skills (CB, as per the Spanish acronym):

- 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.

#### General Skills

- CG13 (C13): Obtain and elaborate a clinical history report with all relevant information.
- CG14 (C14): Perform a physical examination and mental health assessment.
- CG15 (C15): Have the ability to carry out an initial diagnosis and establish a well-founded approach to making a diagnosis.
- CG16 (C16): Understand and treat situations which are an immediate threat to life and any others which require immediate attention.
- CG17 (C17): Establish the diagnosis, prognosis and treatment, applying the principles based on the most reliable information and clinical safety conditions.
- CG18 (C18): Indicate the most suitable therapy for the most common acute and chronic processes, including patients in the terminal phase.

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

- CT6: Analysis and problem solving:
- CT9: Ability to put knowledge into practice, using the skills acquired in the classroom to mock situations based on real life experiences that occur in the relevant profession.
- CT10: Independent learning

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

- CE35: Know how to do a full anamnesis focused on the patient and with a view to diverse pathologies, interpreting its meaning.
- CE36: Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.
- CE39: Decide on a plan of action, focusing on the needs of the patient and their social and family environment, all the while in line with the patient's signs and symptoms.

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

- RA1: 2.2. Know how to do a full anamnesis focussed on the patient and with a view to diverse clinical syndromes, interpreting its meaning.
- RA2: 2.3. Know how to perform a physical examination of the systems and apparatus, as well as a psychopathological assessment, being able to interpret the results.
- RA3: 2.4. 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.

- RA4: 2.71. Establish a plan of action focused on the patient's needs and their family and social environment.

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

Skills	Learning outcomes
CB3, CG13, CT10, CE35	RA1
CB3, CG14, CT10, CE36	RA2
CB4, CG15, CG17, CT10, CT6	RA3
CB3, CB4, CG 18, CT9, CE 39	RA4

## 4. CONTENTS

### *REHABILITATION:*

PRACTICAL SEMINARS:

SESIÓN 1:

Clinical history in rehabilitation: Diagnosis of disease, deficiency and disability. ICD and ICF

Functional examination in rehabilitation: Disease/dysfunction. Measuring function (scales). ADLs, IADLs

SESIÓN 2:

Establishing the therapeutic objective: IRP (individualised rehabilitation programme). Prosthetics, orthotics and technical aids

Therapeutic approach 1: CT, ET, Speech Therapy, Therapeutic exercise: selection of the individualised programme. Myokines and inflammation

### *Intensive Care Units:*

PRACTICAL SEMINARS:

SESIÓN 1: Dealing with the airway and acute respiratory failure

Objective: practical training in the use of oxygen therapy and its different administration devices. Practical training in ventilation with AMBU and maintaining ventilation using supraglottic and subglottic devices (oro-tracheal intubation).

SESIÓN 2: Dealing with haemodynamics and arrhythmias

Objective: practical training in recognising arrhythmias and their treatments, particularly in handling cardioversion and defibrillation.

SESIÓN 3: Integrated advanced life support I

Objective: practical training in advanced life support, integrating knowledge acquired during work placements in the Intensive Care Unit and further developed in previous practical seminars.

SESIÓN 4: Integrated advanced life support II

Objective: undertaking of simulated practical cases using the skills learnt in previous seminars and applying the healthcare criteria for evident or potential risks to life.

#### TUTORED CLINICAL PLACEMENTS

## 5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Problem-based learning: Presentation of problems, reorganising into small groups, literature analysis, analysis of scientific texts and documents, symposiums and presentations, directed debates, specialised individual and collective tutorials, and reaching a consensus.
- Case studies and problem solving: approach and solving cases and problems either as an individual or in small groups.
- Specialised seminars: literature research and debate on scientific data in small groups.
- Case study method: presentation and discussion of clinical cases in small groups.

## 6. LEARNING ACTIVITIES

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

#### **On campus:**

Learning activity	Number of hours
AF.1 Directed learning activities	7h
AF.2 Tutored clinical placements	67h
AF3: Knowledge test	1h
<b>TOTAL</b>	<b>75H</b>

## 7. ASSESSMENT

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

### On campus:

Assessment system	Weighting
Assessment of skills in clinical practice	55%
Assessment of skills in simulation	10%
Participation in clinical practice	15%
Attitude in clinical practice	5%
Final exam of clinical skills	15%

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

### REHABILITATION

- Neurorrehabilitación. Métodos específicos de valoración y tratamiento. Ed. Panamericana. Madrid. 2012
- Conejero JA, Redondo MA et al. Manual de rehabilitación infantil-sermef. Ed. Panamericana. Madrid. 2012
- Manual Sermef de medicina física y rehabilitación. Ed. Panamericana. Madrid 2006.
- Miranda Mayordomo, JL. Rehabilitación médica. Ed. Aula médica. 2004
  
- Braddom, RL. Physical medicine and rehabilitation. WB Saunders CO. 2ª ed. Philadelphia. 2000.
  
- De Lisa, JA & Gans, BM. JB. Rehabilitation medicine. Principles and practice. Lippincot co. 3ª ed. Philadelphia. 1998.
- Hoppenfeld S. Exploración de columna vertebral y extremidades. Ed Manual moderno. 1979.

### INTENSIVE CARE UNIT

The student will be given the latest version of the Advanced Life Support Guides of the European Resuscitation Council.