

**Advanced Technical Orthopaedics**

Code: 102991  
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OT	4	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

Name: Jairo Laguna Muñoz  
Email: Jairo.Laguna@uab.cat

### 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

Jairo Laguna Muñoz

### Prerequisites

Basic knowledge of anatomy and biomechanics of the human body.

Comply with regulations regarding the confidentiality of the clinical information of the patients treated in the clinical practices

### Objectives and Contextualisation

Within the professional work of the physiotherapist, the use of prosthesis and ortesis by patients is quite common.

We believe appropriate specific knowledge regarding the indication and evaluation of these elements therapeutic.

### Competences

- Analyse and synthesise.
- Clearly and effectively communicate orally and in writing with all users of the healthcare system, and with other professionals.
- Easily recognise and cope with changes.
- Evaluate the evolution of the results obtained from the treatment in relation to the objectives.
- Organise and plan.
- Respect diversity in ideas, people and situations
- Show sensitivity to environmental issues.
- Work effectively and cooperatively in multidisciplinary professional teams.

## Learning Outcomes

1. Analyse and synthesise.
2. Assess results and their relation to the objectives set, through real cases within the different clinical specialisations.
3. Describe patients' functional needs to orthopaedic technicians, patients and the rest of the therapy team, taking into account the chances of making progress with orthoprosthetic technical aids.
4. Display knowledge of the processes for making and adapting upper and lower limb prostheses and trunk and limb orthoses.
5. Display teamwork skills, ability to work in coordination with the rest of the team, specifically with the prosthetist, the rehabilitation physician and, where appropriate with the occupational therapist.
6. Easily recognise and cope with changes.
7. Organise and plan.
8. Respect diversity in ideas, people and situations.
9. Show sensitivity to environmental issues.

## Content

Responsible for all subjects: Dr. Josep Maria Muniesa Portolés

Unit 1: GENERAL CONCEPTS OF ORTHOTICS AND PROSTHETICS. MATERIALS

Unit 2: PSYCHOLOGY OF THE AMPUTEE

Unit 3: EPIDEMIOLOGY OF AMPUTATION

Unit 4: PROSTHESIS FOR PARTIAL AMPUTATION OF FOOT

Unit 5: PROSTHESIS FOR TIBIAL AMPUTATIONS

Unit 6: PROSTHESIS FOR KNEE DISARTICULATION AND FEMORAL AMPUTATIONS

Unit 7: PROSTHESIS FOR HIP DISARTICULATION AND HEMIPELVECTOMY

Unit 8: PROSTHETIC FEET

Unit 9: ALIGNMENT OF THE LOWER LIMB PROSTHEICS

Unit 10: EVALUATION OF THE AMPUTEE MARCH

Unit 11: INTRODUCTION TO THE UPPER LIMB PROSTHESIS

Unit 12: PROSTHESIS FOR HAND AND FOREARM AMPUTATIONS

Unit 13: PROSTHESIS FOR ELBOW, ARM AND SHOULDER AMPUTATIONS

Unit 14: MALFORMATIONS AND ORTHOPROSTHETICS. OSTEOINTEGRATION IN AMPUTEES

Unit 15: HIP ORTHOSIS

Unit 16: KNEE ORTHOSIS

Unit 17: PLANTAR ORTHOSIS. ORTHOPEDIC SHOES INSOLES

Unit 18: ORTHOPEDIC SHOES

Unit 19: ORTHOSIS FOR SHOULDER AND ELBOW

Unit 20: ORTHOSIS FOR HAND

Unit 21: ORTHOSIS FOR THORACIC DEFORMITIES. SCOLIOSIS AND KYPHOSIS

Unit 22: CERVICAL ORTHOSIS

Unit 23: DORSO-LUMBAR ORTHOSIS

Unit 24: ORTHOSIS FOR CRANIAL DEFORMITIES

Unit 25: AMBULATION AIDS

Unit 26: WHEELCHAIRS

Unit 27: TECHNICAL AIDS / SUPPORT PRODUCTS

Unit 28: TECHNICAL AIDS / SUPPORT PRODUCTS FOR ACTIVITIES OF DAILY LIVING

Unit 29: PATIENT LIFTS AND TRANSFER SYSTEMS

Unit 30: PREVENTION OF BEDSORES

SEMINARS:

- Evaluation, prosthetic indication, making and checkout for lower limb prosthesis.
- Evaluation, prosthetic indication, making and checkout for upper limb prosthesis.
- Evaluation, orthotic indication, making and checkout for spine orthosis.
- Evaluation, orthotic indication, making and checkout for upper limb orthosis.
- Evaluation, orthotic indication, making and checkout for lower limb orthosis.
- Evaluation, indication and checkout of support products (technical aids).

PRACTICES:

- They will be carried out in a concerted center (Orthopedics). The period of completion will end the first fortnight of June.

## Methodology

The subject is divided into activities of theoretical classes, practical seminars, practices in a company of Orthopedics Technical and autonomous work.

Practical period ends the first fortnight of June.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Specialized seminars (SEM)	10	0.4	3
THEORY (TE)	35	1.4	3
Type: Supervised			
CARE PRACTICUM WITHOUT GUIDELINES (PRASS)	32	1.28	2, 5, 8
Type: Autonomous			

## Assessment

1. Continuous evaluation through the control of attendance at the theoretical classes, seminars, practices and group work on practical cases (20% of the weight of the note). The proactive attitude will be valued. Minimum note for approve: 5
2. Evaluation written through objective tests (30% of the weight of the note). It will be programmed according to calendar.
3. Oral defense of works (0-25% of the weight of the note)
4. Delivery of reports / written papers (0-25% of the note)
5. In the case of students who have not attended a minimum of 80% of the theoretical classes and / or seminars and / or practices the final grade will be the one of Non-Valuable.
6. Recovery Test: Test type of 30 questions with multiple answers developed in 60 minutes. Only for those students who have not passed the continuous assessment and / or want to opt to raise a note. Minimum mark to be approved: 5.

It will be programmed according to the calendar.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class and in seminars	20%	0.1	0	1, 2, 4, 5, 9, 7, 6, 8, 3
Delivery of written works	0-25%	0.5	0.02	2
ORAL PRESENTATION/EXPOSITION OF WORKS	0%-25%	0.4	0.02	3
Written assessments: objective tests	30%	0.5	0.02	4

## Bibliography

1. González Viejo MA, Salinas Castro F, Cohí O. Escoliosis: realidad tridimensional. España:Masson; 2001.
2. Shurr, D., Michael, J. Prosthetics and Orthotics. 2ªed. Prentice Hall; 2001.
3. Zambudio Periago R. Prótesis, órtesis y ayudas técnicas. España: Elsevier España SL; 2009.