

# ACTIVITIES, AQUATIC THERAPY AND BALNEOLOGY IN OCCUPATIONAL THERAPY

## Degree in Occupational Therapy

**Codes:** 804153

**Type:** mandatory

**Grade:** Third

**Semester:** 1º

**Department:** Radiology,  
Rehabilitation and Phisiotherapy

**Credits:** 6 ECTS

## TEACHING STAFF

**Teacher responsible:** Maraver Eyzaguirre, Francisco

**Email:** fmaraver@ucm.es

Ramos Sánchez, Mabel

Pascual Vilavedra, Sara

## SHORT DESCRIPTOR

Set of knowledge that will lay the foundations and provide the necessary strategies to assess limitations in activity and restrictions in participation, these diversities, in addition to teaching students training in activities of daily living in different professional fields, as well as knowledge of the fundamentals and operation of Thermal Health Services (Spa Establishments, Climatic Establishments, Thalassotherapy Centres and Kneipptherapy Centres) as ideal places for the development of Occupational Therapy Activities, and the means and systems to achieve autonomy and independence within the limits of their diversity and techniques and means for the control of the environment.

## COMPETENCIES

### ***General Competencies***

- Recognise the essential elements of the profession of occupational therapist, including ethical principles, legal responsibilities, professional practice focused on individuals and populations, respecting their autonomy and professional secrecy.
- Understand and recognise the importance of contextual factors as determinants of occupational dysfunction.
- To carry out the evaluation and adaptation of the environment to promote participation in meaningful occupations in the different facets of daily life, personal autonomy and quality of life.

- Conduct assessment of occupational functioning appropriate to the needs of individuals and populations.
- Understand the rationale for action, indications and efficacy of Occupational Therapy interventions, based on the available scientific evidence.

### ***Specific Competences***

- Understand the different theories of functioning, personal autonomy, functional adaptation to the environment, as well as the models of intervention in Occupational Therapy, transferring them to daily professional practice.
- Perform appropriate treatment, respecting the different phases and basic principles, through therapeutic occupations and based on related knowledge such as occupational science, in the different areas of occupational performance, analysing the components of performance and the different existing environments and contexts.
- Encourage the participation of the user and family in their recovery process.
- To know, understand and apply the fundamentals of personal autonomy in activities of daily living with and without adaptations and/or technical aids in the life cycle.
- Using the therapeutic potential of occupation through analysis and synthesis of occupation and activity.

- To know and understand the medical, surgical and psychiatric knowledge applicable to human beings at all stages of the life cycle, from infancy to old age, in order to be able to evaluate, synthesise and apply Occupational Therapy treatments.

and without adaptations and/or technical aids in the life cycle.

- Students will be instructed in the different pathological patterns and gait types for evaluation and intervention in Occupational Therapy.

### ***Transversal Competences***

- Flexibility. Modifying behaviour to adapt to situations of change or ambiguity, maintaining effectiveness in different environments, with different tasks, responsibilities and patients.
- Planning/organisation. Defining priorities; establishing the necessary action plans to achieve the objectives set, adjusting to the means and time available; defining intermediate goals and the contingencies that may arise; establishing the appropriate control and monitoring measures.
- Emotional control. Remaining calm in difficult situations of social interaction, maintaining self-control in stressful situations and controlling emotions.
- Responsibility. Providing help to other colleagues when requested, seeking the collaboration of others to complete activities, following through on commitments and completing the tasks he/she starts.
- Problem solving and decision making. Analysing problems and complex situations, identifying their most relevant aspects and their causes, according to the available information, in order to choose the best quality solutions within the established timeframe.

### **OBJECTIVES**

Students will learn the Occupational Therapy/Ergotherapy techniques, evaluations and assessments necessary to recognise and interpret function-dysfunction processes.

- You will learn about the different theories of functioning, personal autonomy, functional adaptation of the environment, as well as the models of intervention in Occupational Therapy/Ergotherapy, transferring them to daily professional practice.
- Know, understand and apply the fundamentals of personal autonomy in activities of daily living with

- Students will learn to differentiate and classify the different technical mobility and ambulation aids for their subsequent therapeutic application.
  - You will be familiar with the therapeutic applications and methodology for motor activities, both in the dependent and independent patient.
  - Students will learn how to assess the environment of patients with physical disabilities and motor sequelae.
  - Know the means and laws available to remove architectural barriers to mobility.
  - You will learn about the intervention of Occupational Therapy in Thermal Resorts.
  - Students will learn the basics and how Thermal Health Services work.
  - You will be familiar with the specific application techniques of Spa Establishments.
  - You will be familiar with the application techniques specific to Climatic Establishments.
  - You will be familiar with the specific application techniques of Thalassotherapeutic Establishments.
  - You will learn the specific application techniques of the Kneipptherapy Centres
  -
- 11. Basic activities of daily living: support products II.
  - 12. Basic activities of daily living: support products III.
  - 13. Physiological Gait Recall.
  - 14. Evaluation of sequelae and capabilities in pathological gait in Occupational Therapy.
  - 15. Therapeutic applications of gait support products.
  - 16. Basic activities of daily living: functional mobility: standing transfers.
  - 17. Basic activities of daily living: functional mobility: Progression with gait support products. Progression in wheelchairs.
  - 18. Basic activities of daily living: sphincter control.
  - 19. Basic activities of daily living: sexuality.
  - 20. Instrumental activities of daily living: household management.
  - 21. Accessibility. Aids and adaptations for diversity. Legislation in force.

## AGENDA

### THEORETICAL

#### Didactic Unit I. Introduction to the activities.

1. Recall of activities of daily living.
2. Evaluation in Occupational Therapy.
3. Intervention in Occupational Therapy. Interventions to improve personal skills and abilities I.
4. Intervention in Occupational Therapy. Interventions to improve personal skills and abilities II.
5. Intervention in Occupational Therapy. Interventions to improve personal skills and abilities III.
6. Basic activities of daily living: feeding and dressing.
7. Basic activities of daily living: personal cleanliness, body hygiene.
8. Sitting. Postural control for activities of daily living.
9. Standing upright. Postural control for activities of daily living.
10. Basic activities of daily living: support products I.

Didactic Unit II. Health Resorts Medicine and Ocupacional Therapy.

1. General concepts of Aquatic Therapy and Balneotherapy.
2. Current importance of Aquatic Therapy and Balneotherapy. Social thermalism.
3. Hydrothermal resources in Aquatic Therapy and Balneotherapy. Classifications.
4. Mechanism of action of waters in Aquatic Therapy and Balneotherapy.
5. Pressure application techniques in Aquatic Therapy and Balneotherapy.
6. Non-pressure application techniques in Aquatic Therapy and Balneotherapy.
7. Other Application Techniques in Aquatic Therapy and Balneotherapy.
8. General considerations about the spa environment. Climate factors and their actions on the organism. Importance in Occupational Therapy.
9. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in musculoskeletal disorders.
10. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in neurological conditions.
11. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in respiratory conditions.
12. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in dermatological conditions.

- 13. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in the extreme ages of life: in the elderly and in childhood
- 14. Intervention of Occupational Therapy in Aquatic Therapy and Balneotherapy in other conditions.
- 15. Application in Occupational Therapy of the sun and sea water.

## TEACHING ACTIVITIES

Practical classes - Seminars

Evaluation in Occupational Therapy.

Activities related to the applications in Aquatic Therapy and Balneotherapy.

### Tutorials

The professors will solve individually the doubts that the students raise in relation to any aspect, both theoretical and practical, of the subject and doubts about the seminar and/or practice, as well as all those doubts that arise throughout the course and that are of interest to the student, and will find supporting documentation for the learning of the subject.

If health conditions prevent the realization of face-to-face activities, it would be necessary to adapt the teaching to the scenario in which we find ourselves (blended or online). In this case, synchronous lectures will be given through videos and online presentations that will be made available through the Virtual Campus of the subject.

Likewise, the seminar and / or practice will be conducted in small groups or non face-to-face activities adapted in the same way as the theoretical classes and according to the situation.

Finally, a system of tutorials by e-mail or any other virtual tool will be available for students to contact individually or collectively with the professors responsible for the theoretical, practical or seminar teaching.

## EVALUATION

### For Didactic Unit I

The evaluation of the Theory will be carried out by means of a multiple-choice exam, based on short questions with four or five options, of which only one is correct. Answering a question incorrectly does not entail a negative score. An exam composed of propositions of this type is considered passed in December/January and July, when a minimum of 65% of the questions have been answered correctly.

Attendance to the practical is compulsory.

The evaluation of the content of the practice will be made by means of an exam type Test of the subject, this exam is considered approved in December/January and July, when a minimum of 50% of the questions have been answered correctly.

If the practice is NOT attended, the exam will be a Topic Type Question of that practice, in the December/January and July exams.

The grade for the Topic Type Question will be PASS or FAIL, and the Practical Type Test must also be passed.

For the final grade of the course, it will be an indispensable requirement to have passed each part separately: Theory and Practical, and it is calculated by averaging the two grades. To this final grade a corrective factor is added/discounted depending on the attendance and participation of the student.

### For Didactic Unit II

The evaluation of theory and practice will be carried out by means of a multiple-choice exam, based on short questions with four or five options, of which only one is correct. Answering a question incorrectly does not entail a negative score. An exam composed of this type of questions will be considered passed in December/January and July, when a minimum of 65% of the questions have been answered correctly. If the seminar is NOT attended, the exam of such content will be asked as a Topic Type, in the December/January and July convocation.

Final Mark: On the day of the exam two questionnaires will be handed in, corresponding to each of the Didactic Units, each questionnaire will be done and handed in separately. The final grade will correspond to the average of the grades obtained in Didactic Unit I and Didactic Unit II.

If it is not possible to take the exams in person, the tests will be adapted to the online evaluation.

If online, the exam model will be indicated in the call and will be the same for both the ordinary and the extraordinary call.

The voluntary or accidental infringement of the rules of the exam will prevent the evaluation of the same, so the offending student will take an oral examination of the subject to establish their knowledge of the subject. If intentionality in the cheating is confirmed, it will be considered very serious misconduct, and will be brought to the attention of the Services Inspection to take the disciplinary measures it deems appropriate.

- Dotte, D., Método de Manutención Manual de los Enfermos, Tomo I, Editorial Masson, 5<sup>a</sup> ed., Barcelona, 2001.
  - Dotte, D., Método de Manutención Manual de los Enfermos, Tomo II, Editorial Masson, 2<sup>a</sup> ed., Barcelona, 1999.
  - Hopkins, H.L.; Smith, H.D., Willard/Spackman. Terapia Ocupacional, Novena ed., Editorial Médica Panamericana, Madrid, 2016.
  - Moruno Miralles; Moreno Ayuso, Actividades de la Vida Diaria, Editorial Elsevier Masson, 1<sup>a</sup> ed., Barcelona, 2006.
  - Pérez de Heredia, Marta; Martínez Piédrola, Rosa; Huertas Hoyas, Elisabet, Tratamiento de las Actividades de la Vida Diaria. Terapia Ocupacional., Editorial Médica Panamericana, Primera Ed., Madrid 2022.
  - Polonio López; Terapia Ocupacional en Disfunciones Físicas. Teoría y Práctica., Editorial Médica Panamericana, Segunda ed., Madrid, 2015.
  - Polonio López; Romero Ayuso, Terapia Ocupacional aplicada al Daño Cerebral Adquirido, Editorial Médica Panamericana, Primera ed., Madrid, 2010.
  - Polonio López, B., Terapia Ocupacional en Discapacitados Físicos: Teoría y Práctica, Editorial Médica Panamericana, Primera ed., Madrid, 2004.
  - Sánchez Cabeza, Angel. Terapia Ocupacional en Disfunciones Físicas. Editorial SINTESIS. Primera Edición. Madrid 2018.
  - Turner, A.; Foster, M. y Johnson, S.E., Terapia Ocupacional y Disfunción Física. Principios, Técnicas y Práctica, 5<sup>a</sup> ed., Madrid, Editorial Elsevier, 2003.
  - Turner, A.; Foster, M. y Johnson, S.E., Occupational Therapy and Physical Dysfunction: Principles, Skills and Practice, 1<sup>a</sup> ed., Barcelona, Editorial Churchill Livingstone, 1.992.
- For Didactic Unit II**
- AETS. Técnicas y Tecnologías en Hidrología Médica e Hidroterapia, Madrid, Instituto de Salud Carlos III, 2006.
  - Agostini G. Manuale di Medicina Termale. Torino: Ed Archimedica, 2000.
  - Armijo M.; San Martín J., Curas Balnearias y Climáticas, Talasoterapia y Helioterapia, Madrid, Editorial Complutense, 1994.
  - Bachmann R.M.; Schleinkofer G.M., Guía práctica de la Hidroterapia Kneipp, Barcelona, Integral, 1998.

## BIBLIOGRAPHY / RELATED INTERNET LINKS

### Basic Bibliography

#### **For Didactic Unit I**

- Blesedell Crepeau, E.; S. Cohn, E; Boyt Schell, A., Willard/Spackman. Terapia Ocupacional, Decimoprimer ed, Editorial Médica Panamericana, Madrid, 2011.
- Cano de la Cuerda y Collado Vázquez. Neurorrehabilitación: Métodos específicos de Valoración y Tratamiento, Editorial Médica Panamericana, 1<sup>a</sup> ed., Madrid, 2012
- Cano de la Cuerda, Martinez Piedrola y Miangolarra Page. Control y aprendizaje motor, Editorial Médica Panamericana, 1<sup>a</sup> ed., Madrid, 2017.
- Cardinali, Daniel, Neurociencia Aplicada, Editorial Médica Panamericana, Madrid, 2007.

#### **For Didactic Unit II**

- Benelli P, Zanazzo M. Hidrocinesiterapia. Milano: edímeres, 2018.
- Bruce BE.; Cole AJ. (Coords.), Comprehensive Aquatic Therapy. Washington: Washington State University Press, 2011.
- Cameron MH. Agentes físicos en Rehabilitación. Barcelona: Elsevier, 2014.
- Carboja J.M.; Mestre J.; Tío R. del; Ruiz R., Estética hidrotermal, Madrid, Videocinco, 2007.
- Crott C, Minelli E (coord.). Water & Health. How water protects and improves health overall. Milano: FEMTEC - WHO, 2015.
- Güeita J., Alonso M., Fernández C (Edit.). Terapia Acuática. Abordajes desde la Fisioterapia y la Terapia Ocupacional. Barcelona: Elservier, 2015.
- Hernández-Torres A (Coord.). Peloterapia: Aplicaciones médicas y cosméticas de fangos termales. Madrid: Fundación Bíbilis, 2014.
- Kuory J.M., Acuaterapia. Guía de rehabilitación y fisioterapia en la piscina, Barcelona, Editorial Bellaterra, 1998.
- Maraver F.; Armijo F. Vademécum II de las Aguas Mineromedicinales Españolas, Madrid, Editorial Complutense, 2010.
- Maraver F.; Karagulle M.Z., Medical Hydrology and Balneology: environmental aspects, Madrid, Editorial Complutense, 2012.
- Mourelle L.; Meijide R.; Freire A.; Maraver F.; Carretero M.I., Técnicas hidrotermales y estética del bienestar, Madrid, Paraninfo, 2009.
- Pérez M.R., Princípios de Hidroterapia y Balneoterapia, Madrid, McGraw-Hill, 2005.
- Queneau, P.; Roques, C. (coord.), La medicina termal. Datos científicos. Madrid. Ed. Videocinco. 2019.
- San José C. Hidrología Médica y terapias complementarias, Sevilla, Universidad de Sevilla, 2012.
- Solimene U.; Padrini F.; Lucheroni MT. La Talassoterapia. Il mare che cura. Milano: Xenia Ed., 2011.

#### **Reference Bibliography**

- Atención a las Personas en Situación de Dependencia en España. Libro Blanco, Editado por el Ministerio de Asuntos Sociales, 2005.
- Catálogo General de Ayudas Técnicas, vol. 1 y 2, Centro Estatal de Autonomía Personal y Ayudas Técnicas, Editado por el Ministerio de Asuntos Sociales (INSERSO), 1994.
- Clasificación Internacional del Funcionamiento, de la Discapacidad y de la Salud, 2001.
- Directorio de Asociaciones de Ayuda Mutua y Salud, Instituto de Salud Pública, Comunidad Autónoma de Madrid.
- Ducroquet, R.; Ducroquet, J.; Ducroquet, P., Marcha normal y patológica, Editorial Toray-Masson, 1ª ed., Barcelona, 1972.
- Guía Técnica de Accesibilidad en la Edificación 2001, Segunda ed., Editado por el Ministerio de Asuntos Sociales (IMSERSO), 2001.
- Kottke, Stillwell y Lehmann, Krusen-Medicina Física y Rehabilitación, Editorial Médica Panamericana, 4ª ed., Madrid, 1994.
- Pregúnteme sobre Accesibilidad y Ayudas Técnicas, Editado por el Ministerio de Asuntos Sociales (IMSERSO), 2001.
- Taller de Empleo de IBERMUTUAMUR, Guía de Recursos para personas con Discapacidad, Madrid.
- SNMTh. Guía de buenas prácticas termales. Anales de Hidrología Médica 2007, vol. 2, 95-150.

#### **Websites and Internet Links**

- Instituto de Biomecánica de Valencia:  
[ibv.org](http://ibv.org)  
[ibv.org/informacion/libros](http://ibv.org/informacion/libros)
- Instituto Nacional de Migración y Servicios Sociales (IMSERSO):  
[seg-social.es/imserso](http://seg-social.es/imserso)
- Centro Estatal de Adaptación Personal y Ayudas Técnicas (CEAPAT):  
[ceapat.org](http://ceapat.org)  
[catalogo\\_ceapat.org](http://catalogo_ceapat.org)  
[ceapat@mtas.es](mailto:ceapat@mtas.es)
- Organización Nacional de Ciegos Españoles (ONCE):  
[once.es](http://once.es)
- GUIA LESION MEDULAR ASPAYM  
<https://www.aspaymmadrid.org/wp-content/uploads/2018/05/guia-manejo-integral-2013.pdf>
- Estatuto del Personal Sanitario no Facultativo de Instituciones Sanitarias de la Seguridad Social:  
[funcionadministrativa.com](http://funcionadministrativa.com)

- Asociación Nacional de Balnearios de España (ANBAL):  
balnearios.org
- Federación Mundial de Termalismo y Climatismo (FEMTEC): femteconline.org
- IMSERSO: Programa Termalismo  
[http://www.imserso.es/imserso\\_01/envejecimiento\\_activo/](http://www.imserso.es/imserso_01/envejecimiento_activo/)
- Sociedad Española de Talasoterapia (SET):  
set.com.es