



Information about the subject

Degree: Bachelor of Science Degree in Occupational Therapy

Faculty: Faculty of Psychology

Code: 1120202 **Name:** Ergonomics, accessibility and new technologies

Credits: 6,00 **ECTS Year:** 2 **Semester:** 1

Module: OPTATIVITY

Subject Matter: Therapeutic Applications **Type:** Elective

Field of knowledge: Health Sciences

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

OPTATIVITY

Subject Matter	ECTS	Subject	ECTS	Year/semester
Therapeutic Applications	12,00	Ergonomics, accessibility and new technologies	6,00	2/1
		Orthoprosthetic technical aids	6,00	4/2

Recommended knowledge

There are no prerequisites.

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 T know the principles of accessibility and universal design , as well as the adaptations/modifications of the physical environment to favour the occupational performance of the person with disability.
- R2 To know the main resources, technologies and support products to favour the access to the computer and the communication technology.
- R3 To know the main techniques and strategies in the field of ergonomics to favour the occupational performance of the person with disability.
- R4 To integrate the knowledge of accessibility, ergonomics and new technologies in the development and implementation of an intervention plan in Occupational Therapy aimed at improving the user's occupational performance.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

GENERAL		Weighting			
		1	2	3	4
CG4	To recognise one's own limitations and the need to maintain and keep up to date one's professional competence, focusing specially on the importance of autonomous learning of knowledge and techniques and the desire for quality.		X		
CG5	To know, value critically and use the sources of information in order to obtain, organise, interpret and communicate the scientific, sanitary, socio-sanitary and information, preserving the confidentiality of the data.		X		
CG6	To understand the conceptual foundations of the occupational nature of the human being and the carrying out of his occupations throughout the cycle of life.			X	
CG7	To understand and recognise the interrelationship between the concepts of wellbeing, health, significant occupation, dignity and participation.			X	
CG10	To evaluate and adapt the environment to promote participation in meaningful occupations -in the different facets of every day life-, personal autonomy and the quality of life				X
CG11	To understand and develop, with the relevant information, the historical application of Occupational Therapy			X	
CG12	To develop an evaluation of occupational functioning that is adequate for the needs of individuals and populations.			X	
CG13	To determine occupational dysfunctions and needs, to define the planning and to establish Occupational Therapy interventions, using the therapeutic potential of meaningful occupation through the use of activities, with the consent and the participation of individuals and populations.			X	



CG14	To know, select and apply the appropriate theories, the theoretical frameworks for reference, the models and methods of Occupational Therapy practice to choose or re-establish meaningful occupation, according to the health needs of individuals/populations (promotion of health, prevention and treatment).				X
CG16	To understand the fundamentals of action, indications and efficiency of Occupational Therapy interventions, based on the available scientific evidence				X
CG20	To develop professional practice with respect for other professionals, acquiring group work skills.			X	

SPECIFIC		Weighting			
		1	2	3	4
CE32	To understand the different theories of functioning, personal autonomy, functional adaptation from/to the environment, as well as the intervention models in Occupational Therapy, transferring them to every day professional practice				X
CE33	To promote health and prevent disability, acquire or recover the occupational activity needed in each part of the life cycle in order to achieve independence and autonomy in the areas of occupational activity of those persons who are at risk, those with organ deficiency, activity limitation and participation and/or social exclusion.			X	
CE36	To encourage the participation of the client and family in the recovery process.			X	
CE37	To know, understand and apply the fundamentals of personal autonomy in everyday life activities with and without adaptations and/or technical help in the life cycle.			X	
CE40	To apply significant activity, ergonomic study, new technologies and assisted technology in Occupational Therapy in the cycle of life.				X
CE48	To use ethical and professional reasoning in an efficient way through the process of Occupational Therapy.			X	



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	50,00%	Written tests: Summative and final theoretical-practical test (open questions, objective test questions, truncated test, etc.) Preparation of field work memoranda, practical case solutions, single cases.
	30,00%	Presentation of group and individual works.
	20,00%	Individual monitoring of attendance at face-to-face sessions and active participation in theoretical and practical classes, seminars and tutorials.

Observations

CRITERIA FOR THE GRANT OF HONOR REGISTRATION:.

Attendance at the face-to-face sessions, active participation and involvement in the practical theoretical classes as well as in the rest of the training activities by the student, candidate to receive the Honors, must reach the levels of excellence.

The mention of Honor Enrollment may be awarded to students who have obtained a grade equal to or greater than 9.0. Their number may not exceed 5% of the students enrolled in a subject in the corresponding academic year, unless the number of students enrolled is less than 20, in which case a single Honor Enrollment may be granted. (Royal Decree 1125/2003).

In any case, the student must attend a minimum of 80% of the classroom sessions, always documenting their absences. The student must pass the minimum requirements established in each assessment instrument mentioned above in order to pass the course.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1 ON-CAMPUS CLASS



M2	PRACTICAL CLASSES
M3	SEMINAR
M4	GROUP PRESENTATION OF PAPERS
M5	OFFICE ASSISTANCE
M6	ASSESSMENT
M7	GROUP WORK
M8	INDEPENDENT WORK



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
ON-CAMPUS CLASS: Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge. M1	R1, R2, R3	29,00	1,16
PRACTICAL CLASSES: Group work sessions supervised by the professor. Case studies, diagnostic tests, problems, field work, computer room, visits, data search, libraries, on-line, Internet, etc. Meaningful construction of knowledge through interaction and student activity. M2	R1, R2, R3, R4	10,00	0,40
SEMINAR: Supervised monographic sessions with shared participation M3	R1, R2, R3	7,50	0,30
GROUP PRESENTATION OF PAPERS: Application of multidisciplinary knowledge M4	R1, R2, R3, R4	7,50	0,30
OFFICE ASSISTANCE: Personalized and small group attention. Period of instruction and /or orientation carried out by a tutor to review and discuss materials and topics presented in classes, seminars, readings, papers, etc. M5	R1, R2, R3, R4	3,00	0,12
ASSESSMENT: Set of oral and/or written tests used in initial, formative or additive assessment of the student M6	R1, R2, R3, R4	3,00	0,12
TOTAL		60,00	2,40



LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK: Group preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform (www.plataforma.ucv.es) M7	R1, R2, R3, R4	40,00	1,60
INDEPENDENT WORK: Student study: Group Individual preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform (www.plataforma.ucv.es) M8	R1, R2, R3, R4	50,00	2,00
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block

Contents

DIDACTIC UNIT I: ERGONOMICS

1. Activity analysis. Adaptation and graduation of activity as intervention tools in Occupational Therapy.
2. Energy Conservation Programs in Occupational Therapy and applications.
3. Joint Protection Programs in Occupational Therapy and applications.
4. Postural Hygiene Program. Low back pain.
5. Sitting and postural control. Pressure rating, FSA system and devices for the prevention of pressure ulcers in sitting.

DIDACTIC UNIT II: ACCESIBILITY

1. Introduction to the universal accesibility: meaning, principles, legal framework and users.
2. Areas of universal accessibility: public buildings, urban planning and transport in the legal framework. Apartment building: common elements and own home. Accesible tourism. Accesible beaches and parks.
3. Resources, grants, subsidies and praxis in the universal accessibility.

DIDACTIC UNIT III: NEW TECHNOLOGIES

1. Information Society for all. Legislative framework. Concept of Digital Divide Digital Literacy and e-Accessibility
2. ICT for people with disabilities .. 2.1 Solutions and needs for accessibility and usability of ICT.
3. Assistive Technology. ICT for Autonomy and daily life. ICT for dependency status.
4. Augmented reality, virtual reality rehabilitation and training of disabled people.
5. ICT for communication. Augmentative and alternative communication.



Temporary organization of learning:

Block of content	Number of sessions	Hours
DIDACTIC UNIT I: ERGONOMICS	10,00	20,00
DIDACTIC UNIT II: ACCESIBILITY	10,00	20,00
DIDACTIC UNIT III: NEW TECNHOLOGIES	10,00	20,00



References

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- Beukelman, D. R., & Mirenda, P. (2013). Augmentative & Alternative Communication: Supporting Children and Adults with Complex Communication Needs. Paul H. Brookes.
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- Fernández, J. (2020). TIC y discapacidad: investigación e innovación educativa. Ediciones Octaedro.
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- García-Margallo, P., San Juan, M., Jorquera, S., & Navas, I. (2005). El análisis y la adaptación de la actividad en Terapia Ocupacional. Aytona Editores.
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- Nieto, L. (2012). Aplicación de las tecnologías de la información y las comunicaciones en la vida diaria de las personas con discapacidad. Universidad da Coruña.
- Rybski M. (2012). Kinesiology for Occupational Therapy. SLACK Incorporated.
- Tortosa, L. (1999). Ergonomía y discapacidad. Instituto de Biomecánica de Valencia.



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

☒ Microsoft Teams

☒ Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

☒ Microsoft Teams

☒ Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

☒ The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

☐ The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: