Information about the subject

Degree: Bachelor of Science Degree in Speech and Language Therapy

Faculty: Faculty of Psychology

Code: 1171103 **Name:** Fundamentals of Neuroscience

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

Module: Basic Training

Subject Matter: Phisiology **Type:** Basic Formation

Field of knowledge: Health sciencies

Department: Neuropsychobiology, Methodology and Basic and Social Psychology

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

1171A	Alma Maria Bueno Cayo **(Profesor responsable)**	alma.bueno@ucv.es

Module organization

Basic Training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Phisiology	12,00	Functional anatomy of the organs of speech and hearing II	6,00	1/2
		Fundamentals of Neuroscience	6,00	1/2
Anatomy	6,00	Functional anatomy of the organs of speech and hearing I	6,00	1/1
Psychology	36,00	Basic Psychological Processes	6,00	1/1
		Developmental psychology	6,00	1/1
		Psycholinguistics	6,00	2/1
		Psychology of Education	6,00	2/2
		Psychology of language development	6,00	1/2
		Research Methodology	6,00	2/1
Clinical linguistics	6,00	Linguistics applied to speech and language therapy	6,00	1/1

Recommended knowledge

No prior knowledge is required

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 To know the interactions between the nervous system, cellular communication and their relationship with human behavior.

R2 To know and relate the macroanatomy of the nervous system with its functionality and some physiological characteristics.

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):

BASIC		Weighting			
		1	2	3	4
CB4	Students can communicate information, ideas, problems and solutions to both specialist and non-specialist			x	
CB5	Capacity to develop those learning skills needed to undertake further studies with a high degree of autonomy			x	

SPECIFIC		Weighting			
		1	2	3	4
CE1	Understand and integrate the biological foundations of Speech: Anatomy and Physiology				x
CE37	Master the terminology that allows one to interact effectively with other professionals				x

TRANSVERSAL		Weighting			
		1	2	3	4
CT7	Having an open and flexible attitude to lifelong learning				x

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2	50,00%	Written exam
R1, R2	40,00%	Practical work assignments assessment
R1, R2	10,00%	Attendance and participation of in-person formative activities

Observations

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 Class

M3 Seminar

M4 Laboratory

M5 Individual Work

M6 Group Work

M7 Work Exhibition

M8 Clinical Case Analysis

M9 Prácticas en clínicas y centros

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	24,00	0,96
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	12,00	0,48
GROUP WORK EXHIBITION. Application of multidisciplinary knowledge M7	R1, R2	6,00	0,24
SEMINAR. Supervised monographic sessions with shared participation M3	R1, R2	6,00	0,24
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, papers, etc. M1	R1, R2	9,00	0,36
ASSESSMENT. Set of oral and/or written tests used in initial, formative or additive assessment of the student M1	R1, R2	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 M3	R1, R2	36,00	1,44
INDEPENDENT WORK. Student study: 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 M5	R1, R2	54,00	2,16
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 1: Introduction to Neurosciences	UNIT 1. Introduction to the study of Neurosciences UNIT 2. Organization and general structure of the Nervous System
DIDACTIC UNIT 2: Functionality of the Nervous System.	UNIT 3: The cerebral cortex and functions UNIT 4: The neuron and neuroglia UNIT 5: Cell neurophysiology UNIT 6: Development of the Nervous System
DIDACTIC UNIT 3: Nervous System: normality and pathology	UNIT 7: The cerebrovascular system UNIT 8: Neuroimaging techniques

Temporary organization of learning:

Block of content	Number of sessions	Hours
DIDACTIC UNIT 1: Introduction to Neurosciences	6,00	12,00
DIDACTIC UNIT 2: Functionality of the Nervous System.	16,00	32,00
DIDACTIC UNIT 3: Nervous System: normality and pathology	8,00	16,00

References

·Carlson, N. R. (2014). **Fisiología de la conducta**. Madrid: PrenticeHall.

·Clark, D.L., Boutros, M.F. y Méndez, M.F. (2012). **El cerebro y la conducta. Neuroanatomía para Psicólogos (2ª ed.).**México: Manual Moderno.

·Cuetos, F. (2012). **Neurociencia del Lenguaje. Bases neurológicas e implicaciones clínicas**. Madrid: Panamericana.

·Felten, D.L. y Shetty, A.N. (2010). **Netter: Atlas de Neurociencia**. Barcelona: Elsevier-Masson.

·Felten, D.L. y Summo, M. (2019). **Netter: Cuaderno de Neurociencia para colorear**. Barcelona: Elsevier-Masson.

·Kandel, E.R., Schawartz, J.H. y Jessell, T.M. (2001). **Principios de neurociencia**. Madrid: McGraw Hill-Interamericana.

·Kolb, B. y Whishaw, I. Q. (2017). **Cerebro y conducta: una introducción**. Madrid: McGraw-Hill

·Obler, L.K. y Gjerlow, K. (2001). **El lenguaje y el cerebro.** Madrid: Cambridge University Press.

·Waxman, S.G. (2010). **Neuroanatomía clínica (26ª ed.)**. Madrid: McGraw-Hill.

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:

- [X] Microsoft Teams
- [X] Blackboard Collaborate Ultra
- [X] 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:

X	Microsoft Teams
X	Blackboard Collaborate Ultra
X	Kaltura

Explanation about the practical sessions:

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

ONSITE WORK

Regarding the Assessment Tools:

[X] 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: