



## Information about the subject

**Degree:** Bachelor of Science Degree in Psychology

**Faculty:** Faculty of Psychology

**Code:** 291102 **Name:** Biology of Human Behaviour

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

**Module:** BIOLOGICAL BASIS OF BEHAVIOR

**Subject Matter:** BIOLOGY **Type:** Basic Formation

**Field of knowledge:** Health Sciences

**Department:** -

**Type of learning:** Classroom-based learning / Online

**Languages in which it is taught:** Spanish

### Lecturer/-s:

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## Module organization

### BIOLOGICAL BASIS OF BEHAVIOR

Subject Matter	ECTS	Subject	ECTS	Year/semester
PHYSIOLOGY	12,00	Fundamentals of Neuroscience	6,00	1/2
		Psychophysiology	6,00	2/1
BIOLOGY	6,00	Biology of Human Behaviour	6,00	1/1

## Recommended knowledge

### GENERAL GOALS

#### Cognitive:

· Understand and analyze the interactions between the nervous system, cellular communication and its relationship to human behavior.

#### Procedural:

- Learn proper use of terms and concepts of matter and expressed correctly and accurately.
- Derive, identify and describe the effects and central nervous phenomena involved in various behavioral processes.
- Derive, interpret and critically evaluate experimental results Know the main documentary sources of the discipline to develop the ability to complete and update knowledge in the future.

#### Attitudinal:

To determine the adaptive value of behavior adopt a scientific attitude according to the study and explanation of phenomena that belong to the realm of scientific knowledge



## 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      Knowing the interactions between nervous system, cell communication and their relationship with human behavior.
- R2      Using concepts of behavioral biology and expressing oneself correctly and precisely.
- R3      Deducing, identifying and describing the effects and nerve phenomena at central level involved in the different behavioral processes.
- R4      Deducing, critically interpreting and assessing experimental results.
- R5      Knowing the main documentation sources of the field in order to develop the ability to complete and update knowledge in the future.
- R6      Determining the adaptive value of behavior.
- R7      Adopting a scientific attitude adequate to the study and explanation of phenomena that belong to the scientific knowledge world and that are related to behavioral biology within the context of Psychology.



## 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):

SPECIFIC	Weighting			
	1	2	3	4
CE4 Analyzing and measuring variables (personality, intelligence and other aptitudes) and cognitive, emotional, psychobiological and behavioral processes .				X
CE24 Analyzing and interpreting assessment results.		X		
CE26 Writing oral and written reports.				X

TRANSVERSAL	Weighting			
	1	2	3	4
CT1 Capacity to analyze and synthesize.			X	
CT2 Capacity to organize and plan.			X	
CT7 Problem solving.			X	
CT10 Capacity to work in interdisciplinary teams.			X	
CT18 Capacity to produce new ideas (creativity).			X	
CT35 Being able to develop audio-visual presentations.			X	



## Assessment system for the acquisition of competencies and grading system

### In-class teaching

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5, R6, R7	60,00%	Oral and/or written tests employed in initial, training and/or summative student assessment.
R1, R2, R3, R4, R5, R6, R7	30,00%	Presentation of practical activities.
R1, R2, R3, R4, R5, R6, R7	10,00%	Attendance and active participation: lessons, group assignments and tutoring sessions. It will be monitored and registered by the teacher.

### Observations

Note: In order to pass the subject the student must pass both the theoretical and the practical content separately.

### MENTION OF DISTINCTION:

The mention of Distinction will be awarded to students who have achieved a score equal to or greater than 9.5. The number of Distinctions granted will not exceed 5% of students enrolled in a subject in the corresponding academic year unless enrollment is under 20, in which case only one Distinction may be granted. (Royal Decree 1125/2003).

### DEVELOPMENT OF THE SUBJECT IN SECOND AND SUBSEQUENT ENROLLMENTS:

There will be a special group for students who are not enrolling for the first time if they exceed the occupancy limit of the classroom and a teacher is assigned to that group.

The professor in charge of this group will conduct 4 follow-up sessions and tutoring for 2 hours each. Assessment of skills and abilities will be done through the scheduled practice sessions. In each session the subject will be developed so as to reinforce the work on the skills that each student needs to pass the course.

Assessment of content and skills will be made during the examination set in the official calendar for this course.

### Online teaching

Assessed learning outcomes	Granted percentage	Assessment method
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R1, R2, R3, R4, R5, R6, R7	70,00%	Final evaluation consisting of essay questions and hypothetical scenarios.
R1, R2, R3, R4, R5, R6, R7	5,00%	Submitted tasks
R1, R2, R3, R4, R5, R6, R7	5,00%	Periodical assessment through questionnaires
R1, R2, R3, R4, R5, R6, R7	20,00%	Attendance and participation in synchronic communication activities.

## Observations

Note: In order to pass the subject the student must pass both the theoretical and the practical content separately.

## MENTION OF DISTINCTION:

The mention of Distinction will be awarded to students who have achieved a score equal to or greater than 9.5. The number of Distinctions granted will not exceed 5% of students enrolled in a subject in the corresponding academic year unless enrollment is under 20, in which case only one Distinction may be granted. (Royal Decree 1125/2003).

## DEVELOPMENT OF THE SUBJECT IN SECOND AND SUBSEQUENT ENROLLMENTS:

There will be a special group for students who are not enrolling for the first time if they exceed the occupancy limit of the classroom and a teacher is assigned to that group.

The professor in charge of this group will conduct 4 follow-up sessions and tutoring for 2 hours each. Assessment of skills and abilities will be done through the scheduled practice sessions. In each session the subject will be developed so as to reinforce the work on the skills that each student needs to pass the course.

Assessment of content and skills will be made during the examination set in the official calendar for this course.

## Learning activities

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



- M1 Teacher presentation of contents, competency analysis, explanation and demonstration of capacities, abilities and knowledge in the classroom (presential modality).
- M2 Teacher-supervised groupwork sessions: case studies, diagnostic tests, problems, fieldwork, IT room, visits, data searches, libraries, web, Internet, etc. Building knowledge significantly through interaction and student activities (presential modality).
- M3 Supervised monographic sessions with shared participation.
- M4 Application of interdisciplinary knowledge.
- M5 Activities developed in spaces with specialized equipment.
- M6 Personalized attention in small groups. Training and/or orientation period by a teacher aimed at revising and discussing the materials and topics presented in the lessons, seminars, lectures, assignments, etc.
- M7 Set of oral and/or written tests employed in initial, training or summative assessment of the student.
- M8 Group preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be presented or handed in during theory lessons, practical lessons and/or tutoring sessions in small groups. Tasks done on the platform or other virtual spaces.
- M11 Teacher presentation of contents, competencies analysis, explanation and demonstration of capacities, abilities and knowledge on the virtual classroom.
- M12 Group work sessions via chat moderated by the teacher. Case studies –both real and fictional– aimed at building knowledge through interaction and students' activities. Critical analysis of values and social commitment.
- M13 Monographic sessions throughout the course, focused on current aspects and applications of the subject.
- M14 Set of oral and/or written tests employed in initial, training or summative assessment of the student.
- M15 Student's individual study: individual preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be discussed or turned in in electronic format.



- M16 Individualized attention for the monitoring and orientation in the learning process, performed by a tutor in order to revise and discuss the materials and topics, seminars, readings and assignments, etc.
- M17 Group preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be discussed or handed in.
- M18 Participation and contributions to discussion forums related to the subject and moderated by the module's teacher.
- M19 Problem resolution, comments, reports to be handed in according to the deadlines throughout the course.



## IN-CLASS LEARNING

### IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
<b>ON-CAMPUS CLASS</b> Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge. M1, M3, M4	R1, R3	25,00	1,00
<b>PRACTICAL CLASSES</b> 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, M3	R1, R2	12,50	0,50
<b>SEMINAR</b> Supervised monographic sessions with shared participation. M1	R1	5,00	0,20
<b>GROUP WORK EXHIBITION</b> Application of multidisciplinary knowledge. M1, M2	R1, R2	5,00	0,20
<b>LABORATORY</b> Activities carried out in spaces with specialized equipment. M1, M2	R1, R3, R4	5,00	0,20
<b>OFFICE ASSISTANCE</b> 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, M2	R1, R3	5,00	0,20
<b>ASSESSMENT</b> Set of oral and/or written tests used in initial, formative or additive assessment of the student. M1, M2	R1, R2, R3	2,50	0,10
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>



## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
<b>GROUP WORK</b> 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 M1, M2	R1, R3	40,00	1,60
<b>INDEPENDENT WORK</b> 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. M1, M2	R1, R3	50,00	2,00
<b>TOTAL</b>		<b>90,00</b>	<b>3,60</b>



## ON-LINE LEARNING

### SYNCHRONOUS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Virtual session (distance learning) M1	R1, R2, R3	25,00	1,00
Virtual practical session (distance learning) M2	R1, R2	12,50	0,50
Seminar and virtual videoconference (distance learning) M3	R1, R3	5,00	0,20
In-person or virtual assessment (distance learning) M1, M6	R1, R2, R3	2,50	0,10
Individual tutoring sessions (distance learning) M1, M3	R1, R3	5,00	0,20
Discussion forums (distance learning) M1, M4, M6	R1, R3	5,00	0,20
Continuous assessment activities (distance learning) M1, M2, M3, M4	R1, R3	5,00	0,20
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

### ASYNCHRONOUS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Individual work activities (distance learning) M1, M4, M6	R1, R3	50,00	2,00
Teamwork (distance learning) M1, M3, M4	R1, R3, R4	40,00	1,60
<b>TOTAL</b>		<b>90,00</b>	<b>3,60</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

### Theoretical contents:

Content block	Contents
Didactic unit 1	<b>Introduction to behavioral biology</b> <ul style="list-style-type: none"><li>·UNIT 1. Introduction behavioral biology.</li><li>·UNIT 2. Nervous System (sn).</li><li>·UNIT 3. Nervous system: cellular communication.</li><li>·PRACTICAL 1. Structures and nerve tissues.</li><li>·PRACTICAL 2. Methods and Techniques in Behavioral Biology.</li></ul>
Didactic unit 2	<b>Hormones and Behavior:</b> <ul style="list-style-type: none"><li>·UNIT 4. Psychoendocrinology: introduction and general structure.</li><li>·UNIT 5. Hypothalamic-pituitary system.</li><li>·UNIT 6. Thyroid hormones.</li><li>·UNIT 7. The sex hormones.</li><li>·UNIT 8: Adrenal hormones</li><li>·UNIT 9. Other hormones</li><li>·PRACTICAL 3. Analysis of a case of hormonal alteration</li><li>·PRACTICAL 4. Literature search</li></ul>

### Temporary organization of learning:

Block of content	Number of sessions	Hours
Didactic unit 1	10,00	20,00
Didactic unit 2	20,00	40,00



## References

- CARLSON, N.R. (2014). **Fisiología de la conducta**. Madrid: Prentice Hall.
- CLARK, D.L., BOUTROS, M.F. y MENDEZ, M.F. (2012). **El cerebro y la conducta. Neuroanatomía para Psicólogos**. 2ª edición. México: Manual Moderno.
- CORR, P.J. (2008). **Psicología biológica**. México: McGraw Hill Interamericana.
- FELTEN, D.L. y SHETTY, A.N. (2010). **Netter: Atlas de Neurociencia**. 2ª edición. Barcelona: Elsevier-Masson.
- FELTEN, D.L. y SUMMO, M. (2019). **Netter: Cuaderno de Neurociencia para colorear**. Barcelona: Elsevier-Masson.
- GÓMEZ SÁEZ, J. M. (2015). **Actualización en Neuroendocrinología**. Barcelona: Elsevier.
- KANDEL, E.R., SCHAWARTZ, J.H. y JESSELL, T.M. (2017). **Principios de neurociencia**. Madrid: McGraw Hill-Interamericana.
- KOLB, B. Y WHISHAW, I. Q. (2002). **Cerebro y conducta: una introducción**. Madrid: McGraw-Hill.
- PINEL, J.P.J. (2007). **Biopsicología (6ª ed.)**. Madrid: Pearson Educacion.
- REDOLAR, D. (2021). **Neurociencia cognitiva**. Madrid: Editorial Médica Panamericana
- SNELL, R.S. (2014). **Neuroanatomía clínica (7ª ed.)**. Barcelona: Wolters Kluwerl.
- 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:

☒ 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:



## ONLINE 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: