



## Information about the subject

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

**Faculty:** Faculty of Psychology

**Code:** 291201 **Name:** Psychophysiology

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

**Module:** BIOLOGICAL BASIS OF BEHAVIOR

**Subject Matter:** PHYSIOLOGY **Type:** Basic Formation

**Field of knowledge:** Health Sciences

**Department:** Basic, Social, and Neuropsychology

**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

It is recommended to have previously studied Human Behavioral Biology and Fundamentals of Neuroscience



## 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 the specialized vocabulary of the field and expressing oneself adequately.
- R3 Understanding the neuronal communication processes that support the processing of information of the Nervous System.
- R4 Deducing, interpreting and critically assessing experimental results from scientific reading or informative science.
- R5 Using the documental resources available for the training in scientific knowledge as well as maintaining a scientific attitude as regards the presentation of questions and the search for answers.
- R6 Knowing and relating macroanatomy of the NS with its functionality and some physiological characteristics.
- R7 Knowing the basic relationships between physiology and human behavior.
- R8 Knowing and relating microanatomy and molecular biology of the NS with their 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):

SPECIFIC	Weighting			
	1	2	3	4
CE4 Analyzing and measuring variables (personality, intelligence and other aptitudes) and cognitive, emotional, psychobiological and behavioral processes .				X
CE5 Identifying differences, problems and needs.				X
CE6 Diagnosing following professional principles.				X
CE12 Selecting and correctly using tools, products and services and identifying those people and group concerned.		X		
CE15 Defining objectives and devising action plans according to action goals. (prevention, treatment, rehabilitation, insertion, support).		X		
CE16 Choosing adequate psychological intervention techniques.		X		
CE18 Putting into practice direct intervention strategies and methods: psychological advice, therapy, negotiation mediation...		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	
CT4 Command of a foreign language.	X			



CT7	Problem solving.				X
CT8	Decision making.		X		
CT10	Capacity to work in interdisciplinary teams.	X			
CT11	Capacity to work in multicultural environment.	X			
CT18	Capacity to produce new ideas (creativity).			X	
CT35	Being able to develop audio-visual presentations.		X		
CT36	Being able to collect information using different kinds of sources.				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, R8	60,00%	Oral and/or written tests employed in initial, training and/or summative student assessment.
R1, R2, R3, R4, R5	30,00%	Presentation of practical activities.
R2	10,00%	Attendance and active participation: lessons, group assignments and tutoring sessions. It will be monitored and registered by the teacher.

### Observations

To pass the course it will be necessary to have passed the evaluation tests and the practical activities with a minimum grade of 5 (out of 10) in each part. Those Students who do not pass one of the two parts will have a grade of Failure. I know will take a formative test throughout the first 8 weeks of class (which will have a weight 20% in the final grade) and an evaluation test at the end of the course on the day that you establish the official exam calendar of the Faculty (40%). Both will consist of objective questions and essay questions. Those students who do not attend class will not be able to opt for the 10% of assistance and active participation. An Honors Degree will be awarded for every 20 students if they have evidenced levels of excellence in all competencies and learning outcomes. On the qualification of activities and development questions will take into account both the formal and content.

### Online teaching

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2, R3, R4, R5, R6, R7, R8	70,00%	Final evaluation consisting of essay questions and hypothetical scenarios.
R6, R7	5,00%	Submitted tasks
R4, R6, R7	5,00%	Periodical assessment through questionnaires
R2	20,00%	Attendance and participation in synchronic communication activities.



## Observations

To pass the course it will be necessary to have passed the evaluation tests and practical activities with a minimum grade of 5 (out of 10) in each part. A formative test will be carried out throughout the first 8 weeks of class (which will have a weight of 5% in the final grade) and an evaluation test at the end of the subject on the day established by the official exam calendar of the Faculty (70%). Both will consist of objective questions and essay questions. Those students who do not attend class will not be eligible for 20% attendance and active participation, except for justified reasons. In the qualification of activities and development questions, both formal aspects (writing, presentation, spelling) and content will be taken into account. An Honors Degree will be awarded for every 20 students if levels of excellence have been demonstrated in all competencies and learning outcomes.

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded.

Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

## 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.
- M9 Students' independent study: individual preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be presented or handed in during theory lessons, practical lessons and /or small-group tutoring sessions. Tasks 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
<p><b>ON-CAMPUS CLASS</b> Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge. M1</p>	R1, R2, R3, R4, R5, R6, R7, R8	40,00	1,60
<p><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</p>	R2, R3, R4, R5, R6	10,00	0,40
<p><b>SEMINAR</b> Supervised monographic sessions with shared participation. M3</p>	R5	2,50	0,10
<p><b>LABORATORY</b> Activities carried out in spaces with specialized equipment. M5</p>	R6	2,50	0,10
<p><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. M5</p>	R1, R2, R3, R4, R5, R6, R7, R8	2,50	0,10
<p><b>ASSESSMENT</b> Set of oral and/or written tests used in initial, formative or additive assessment of the student. M7</p>	R1, R2, R3, R4, R5, R6, R7, R8	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 M8	R1, R2, R3, R4, R5, R6, R7, R8	15,00	0,60
<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. M9	R1, R2, R3, R4, R5, R6, R7, R8	75,00	3,00
<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) M11	R1, R2, R3, R4, R5, R6, R7, R8	25,00	1,00
Virtual practical session (distance learning) M12	R4, R5, R6, R7	12,50	0,50
Seminar and virtual videoconference (distance learning) M13	R5	6,25	0,25
In-person or virtual assessment (distance learning) M14	R1, R2, R3, R4, R5, R6, R7, R8	2,50	0,10
Individual tutoring sessions (distance learning) M16	R1, R2, R3, R4, R5, R6, R7, R8	7,50	0,30
Discussion forums (distance learning) M18	R7	5,00	0,20
Continuous assessment activities (distance learning) M19	R1, R2, R3, R4, R5, R6, R7, R8	6,25	0,25
<b>TOTAL</b>		<b>65,00</b>	<b>2,60</b>

### ASYNCHRONOUS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Individual work activities (distance learning) M15, M19	R1, R2, R3, R4, R5, R6, R7, R8	50,00	2,00
Teamwork (distance learning) M17	R7	35,00	1,40
<b>TOTAL</b>		<b>85,00</b>	<b>3,40</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
UNIT 1. INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY	Behavioral Neuroscience Foundations Natural Selection and Evolution
UNIT 2. SLEEP AND RHYTHMS BIOLOGICAL	Psychophysiology of Sleep Behavior. Physiological and behavioral description of sleep. Phases of sleep. Why do we sleep?
UNIT 3. SEXUAL BEHAVIOR, PARENTAL AND SUBSIDIARY	Development of the sexual organs. Sexual maturation. Hormonal and neural control of sexual behavior. Parental and filial conduct
UNIT 4. EMOTION and AGGRESSION	Emotions as response patterns. Communication of emotions. Neural control of emotion. Feelings of excitement
UNIT 5. INTAKE BEHAVIOR. HUNGER AND THIRST	Neurobiological mechanisms involved in regulation from thirst. Neurobiological mechanisms involved in regulation of hungry
UNIT 6. PSYCHOPHYSIOLOGY OF THE STRESS	Anatomy and physiology of the Autonomous Nervous System. General Adjustment Syndrome. Effects of prolonged stress on health
UNIT 7. ADDICTIVE BEHAVIOR	Addiction. Neurobiological mechanisms linked to addiction. Action mechanisms



## Temporary organization of learning:

Block of content	Number of sessions	Hours
UNIT 1. INTRODUCTION TO PHYSIOLOGICAL PSYCHOLOGY	4,00	8,00
UNIT 2. SLEEP AND RHYTHMS BIOLOGICAL	5,00	10,00
UNIT 3. SEXUAL BEHAVIOR, PARENTAL AND SUBSIDIARY	4,00	8,00
UNIT 4. EMOTION and AGGRESSION	5,00	10,00
UNIT 5. INTAKE BEHAVIOR. HUNGER AND THIRST	3,00	6,00
UNIT 6. PSYCHOPHYSIOLOGY OF THE STRESS	5,00	10,00
UNIT 7. ADDICTIVE BEHAVIOR	4,00	8,00



## References

### **BASIC BIBLIOGRAPHY**

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### **RECOMMENDED BIBLIOGRAPHY**

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BRIZENDINE, L. (2013) El cerebro masculino. Las claves científicas de cómo piensan los hombres y los niños. RBA Libros.

BRIZENDINE, L. (2013) El cerebro femenino. Comprender la mente de la mujer a través de la ciencia. RBA Libros.

CARRETIE, L. I. (2001). Psicofisiología. Ed. Pirámide.

HERCULANO-SOUZEL, S. (2018). La ventaja humana. Una nueva interpretación del carácter extraordinario del cerebro humano. Editorial: Intervención cultural.

GIGERENZER, G (2018) Decisiones instintivas. La Inteligencia del subconsciente. Editorial Ariel

GUILLÉN-SALAZAR, F. y GOODALL, J. (2005). Existo, luego pienso: los primates y la evolución de la inteligencia humana. Ateles Editores, S.L

GOODALL, J. (2019) Jane Goodall : una vida dedicada al estudio de los chimpancés salvajes de África. Barcelona. Ed. RBA

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ORTIZ, E; PRATS, J.I Y AROLAS, G. (2015) Ni el hombre sin la mujer, ni la mujer sin el hombre. Ed. Edicep

SAPOLSKY, R.M. (2019) ¿Por qué las cebras no tienen úlceras? Madrid. Ed. Alianza

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