COURSE DATA

Data Subject	
Code	33304
Name	Physiological psychology I
Cycle	Grade
ECTS Credits	6.0
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1319 - Degree in Psychology	Faculty of Psychology and Speech Therapy	1	Second term

Subject-matter

Degree	Subject-matter	Character
1319 - Degree in Psychology	6 - Physiology I	Basic Training

Coordination

Name	Department
VINADER CAEROLS, CONCEPCION	268 - Psychobiology

SUMMARY

Physiological Psychology I is a basic course. Here, basic should be understood as essential. The students will achieve the necessary knowledge to undertake the forthcoming courses in the field of Biopsychology (Physiological Psychology II, Psychopharmacology, Psychoendocrinology, Neuropsychology, Biopsychological Bases Applied to Social Intervention, Biopsychology of Stress).

Physiological Psychology I deals with three broad areas: the biological bases of perception and motricity, the biological bases of biological rhythms and sleep, and the biological bases of motivation. It is strongly connected to Foundations of Biopsychology in which students have acquired the neuroscientific knowledge needed to properly understand this course. The course in Physiological Psychology I will provide the students with scientific habits that will be very helpful in all fields of professional development in Psychology.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

PREREQUISITES
Relationship to other subjects of the same degree
There are no requirements for enrollment rin this course.

Other requirements
RECOMMENDATIONS:
. Students should have good English language skills and should have acquired basic knowledge and skills in Foundations of Biopsychology.

OUTCOMES

1319 - Degree in Psychology

- Students must have acquired knowledge and understanding in a specific field of study, on the basis of general secondary education and at a level that includes mainly knowledge drawn from advanced textbooks, but also some cutting-edge knowledge in their field of study.
- Students must be able to communicate information, ideas, problems and solutions to both expert and lay audiences.
- Be able to describe and measure variables (personality, intelligence, attitudes, aptitudes, etc.) and cognitive, emotional, psychobiological and behavioural processes.
- Know how to select and manage tools, products and services, and identify stakeholders.
- Be able to establish the goals of intervention and develop a basic work plan according to its purpose (prevention, therapy, rehabilitation, insertion, guidance, etc.).
- Be able to plan the assessment of programmes and interventions.
- Know how to analyse and interpret the results of assessment.
- Be able to prepare oral and written reports.
- Know and comply with professional ethics of Psychology.
- Understand the biological foundations of human behaviour and psychological functions.

LEARNING OUTCOMES

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1. Students will be able to discern how the nervous system processes the sensory information and to identify primary sensory pathways on neuroanatomical diagrams.

2. Students will be able to describe the neurobiological mechanisms of attention.

3. Students will be able to describe the hierarchical organization of sensory-motor system and to mark the route of the main descending motor pathways on neuroanatomical diagrams.

4. Students will be able to describe the biological rhythms and their neural basis.

5. Students will be able to describe the different phases of sleep with their main characteristics.

6. Students will be able to describe the neurophysiological mechanisms of sleep and wakefulness.

7. Students will be able to identify the main sleep disorders and their causes.

8. Students will be able to describe the characteristics, phases and types of motivated behavior.

9. Students will be able to describe the water balance and its neurohormonal regulation.

10. Students will be able to explain the body's energy balance and describe the determinants of intake.

11. Students will be able to identify the neural mechanisms that control hunger and satiety and their involvement in eating disorders.

12. Students will be able to describe the different phases in sexual development and their disorders.

13. Students will be able to explain the neuroendocrine basis of parental and filial behaviors.

14. Students will be able to describe the brain structures and neurotransmitter systems involved in the addiction to the main drugs of abuse.

DESCRIPTION OF CONTENTS

1. BIOLOGICAL BASES OF PERCEPTION AND MOTRICITY

1. Biological mechanisms of perception and attention
Introduction. Vision. Audition. Chemical senses: olfaction and taste. Somatosenses. Attention.

2. Biological bases of the sensoriomotor system.
Sensoriomotor function. Neural bases of motor control.

2. BIOLOGICAL BASES OF BIOLOGICAL RITHMS AND SLEEP

3. Biological bases of biological rithms
Definition and classification. Neural bases. Cronobiology.

4. Psychophysiological bases of sleep
Sleep-wake cycle. Neurophysiological bases of sleep and wakefulness. Sleep disorders.

3. BIOLOGICAL BASES OF MOTIVATION

5. Biological bases of intake behavior
Liquid intake: hydric balance and its regulation, neural mechanisms of drinking behavior. Solid intake: energetic equilibrium in the organism, determining factors of food intake, mechanisms of satiety, neural mechanisms of hunger, eating disorders.

6. Biological bases of sexual behavior
Hormones and sexual development. Menstrual cycle. Neural control of sexual behavior. Sexual dysfunctions.

7. Biological bases of parental behavior
Parental behavior. Neuroendocrine bases of parental behavior. Filial behavior.

8. Biological bases of drug addiction
Basic concepts. Animal models in the study of addictions. Brain reward system. Mechanism of action of main street drugs.

WORKLOAD

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	60,00	100
Attendance at events and external activities	10,00	0
Development of group work	15,00	0
Development of individual work	10,00	0
Study and independent work	30,00	0
Readings supplementary material	5,00	0
Preparation of evaluation activities	5,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	5,00	0
TOTAL	**150,00**	

TEACHING METHODOLOGY

INSTRUCTIONAL STRATEGIES

This course combines lecture instructions with active learning strategies to engage students in the learning process through active participation.

Instructions strategies include: (1) lectures on the course content, (2) practical activities performed in the classroom and at home, (3) tutoring, (4) preparation of independent work individually and in groups.

EVALUATION

REQUIREMENTS

To pass the subject students will have to reach 50% of the maximum mark. As a minimum, a grade of 4 (out of 10) will be required for both theoretical and practical examinations.

The different sections included in the assessment will be added only if the requirements established for each of them are met.

Assessment systems

ES1- Exams

1. Assessment of theoretical content: tests on the level of theoretical knowledge acquired by the student through an exam that will constitute 50% of the final grade.

2. Assessment of practical content: tests on the level of practical knowledge acquired by the student through an exam that involves solving problems similar to those raised in the face-to-face classes that will constitute 20% of the final grade.

ES2- Reports

Assessment of individual or group work that implies that the student has developed competences of knowledge, understanding and application of the contents of the course will constitute 30% of the final mark, distributed in two reports (15% each). This percentage is broken down into: work delivered in class at the end of the face-to-face session and work delivered throughout the course within the deadlines established for each case.

30% is equivalent to 3 points of the final grade (out of 10) for the course, of which 1 point will be non-recoverable work/activities and that will be specified at the beginning of the course by the instructor.

GRADING SCHEME

The grade obtained in the first call will be included in the course report with the following rules:

- 0 to 4.9: Unsatisfactory/Fail

- from 5 to 6.9: Satisfactory

- from 7 to 8.9: Good

- from 9 to 10: Outstanding/Very Good-Outstanding With Honours (MH)

- If there is no qualification of the evaluation section with the highest weighting, the qualification will be NO PRESENTED.

- If there is a rating in the evaluation section with the highest weighting, and it does not meet the requirements, UNSATISFACTORY/FAIL and a numerical score out of 10 points will be recorded.

- If there is a grade in the evaluation section with the highest weighting, and it meets the established requirements, but these requirements are not met in any of the remaining sections, UNSATISFACTORY/FAIL and a numerical score out of 10 points will be recorded.

- The student will have to choose one of the two options: 1. Keep the score of the deliveries made (including both, recoverable and non-recoverable); 2. Be evaluated on the contents of the recoverable deliveries (2 points out of 10), by taking an examination on all of the recoverable contents (partial evaluation of these contents will not be available), while keeping the scores of the non-recoverable deliveries.

The **second call** will proceed according to the following rules:

- The NOT PRESENTED option will only fit, if the student has not submitted more than one of the sections evaluation, including the one with the highest weighting.

- If there are qualifications in all the evaluation sections and minimum requirements are not met in any of them, will include UNSATISFACTORY/FAIL and the score (out of 10 points) corresponding to the section that has not been overcome. If more than one section was not passed, the highest grade will be included.

- If one or several of the minimum requirements are not met and an evaluation section is missing, the grade UNSATISFACTORY/FAIL and a score out of 10 will be issued.

- The student will have to choose one of the two options: 1. Keep the mark of the performed deliveries (both, recoverable and non-recoverable); 2. Be evaluated on the contents of the recoverable deliveries (2 points out of 10), by carrying out an examination that will evaluate all the recoverable contents (partial evaluation of these contents will not be available), while keeping the scores of the non-recoverable deliveries if they have been submitted.

Review of and appeals against assessment results shall be subject to the Regulations for Appealing against Grades (ACGUV 108/2017).

(http://www.uv.es/graus/normatives/2017_108_Reglament_avaluacio_qualificacio.pdf)

If the instructor considers it necessary, students may have to take an additional test before awarding an Honours qualification.

In the event of fraudulent practices, the Action Protocol for fraudulent practices at the University of València will be applied (ACGUV 123/2020): https://www.uv.es/sgeneral/Protocols/C83sp.pdf

REFERENCES

Basic

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- MONLEÓN VERDÚ, S., VINADER-CAEROLS, C., REDOLAT IBORRA, R. y MESA-GRESA, P. (2023). Prácticas de Psicología Fisiológica I. Tirant lo Blanch, Valencia.
- CARLSON, N.R. y BIRKETT, M.A. (2021). Physiology of Behavior (13th Edition). Pearson. (Manual específico para grupo AR en inglés)
- PINEL, J.P.J. y BARNES, S. (2021). Biopsychology (11th Edition). Pearson. (Manual específico para grupo AR en inglés)
- COLLADO, P., GUILLAMÓN, A., ORTIZ, J., CARO, F., RODRÍGUEZ, M., PINOS, H., CARRILLO, B. y cols. (2017). Psicología Fisiológica. UNED, Madrid.

Additional

- BEAR, M.F., CONNORS, B.W. y PARADISO, M.A. (2016) Neurociencia. La exploración del cerebro (4ª ed.). LWW Lippincott Wolters Kluwer, Madrid.
- DEL ABRIL, A., AMBROSIO, E., DE BLAS, R., CAMINERO, A., GARCIA, C., HIGUERA, A. y DE PABLO, J.M. (2016). Fundamentos de Psicobiología. Sanz y Torres - UNED, Madrid.
- KOLB B. y WHISHAW I.Q. (2016). Neuropsicologia Humana. Medica Panamericana, Madrid.
- REDOLAR RIPOLL, D. (2023). Neurociencia Cognitiva (2ª ed.). Panamericana, Madrid.
- También se pueden utilizar para el desarrollo de la docencia: // També es poden utilitzar per al desenvolupament de la docència// It can be used for the development of teaching:
  -Modelos animales de conducta. //-Models animals de conducta. //-Animal behavior models.
  -Técnicas psicofisiológicas. //-Tècniques psicofisiològiques. //-Psychophysiological techniques.
  -Modelos neuronales. //-Models neuronals. //-Neuro Models