COURSE DATA

Data Subject	
Code	33304
Name	Physiological psychology I
Cycle	Grade
ECTS Credits	6.0
Academic year	2022 - 2023

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 Psychobiology (Physiological Psychology II, Psychopharmacology, Psychoendocrinology, Neuropsychology, Psychobiological Bases Applied to Social Intervention, Psychobiology of Stress).

Physiological Psychology I deals with three broad areas: the biological bases of perception and motricity, the biological basis of biological rhythms and sleep, and finally the biological bases of motivation. It is clearly connected with the course of Foundations of Psychobiology in which students have acquired the neuroscience knowledge needed to understand this subject properly. Although the basic character of the subject makes it difficult to establish a direct connection to the professional fields, the study of Physiological Psychology I gives the student scientific habits that will be very helpful when working as a professional in any area of 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

RECOMMENDATIONS:
It is recommended that students have basic knowledge of biology from the bachelor's degree in health sciences and those acquired in the subject Fundamentals of Psychobiology. It is also recommended that students have user-level computer skills.

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

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 (RD 1393/2007) // NO CONTENT (RD 822/2021)

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 its biological mechanisms.

13. Students will be able to identify the neurohormonal mechanisms of sexual behavior and its disorders.

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

15. 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

Active and participative methodology, integrating different instructional methods to enhance the significant learning of the knowledge and the development involved the goals of the field.

Among the basic instructional techniques it is included (1) Exhibitions and presentations of the contents of the subject, (2) Performance of practical activities (anatomical models, use of optical microscopes), (3) scheduled group tutoring, (4) Preparation of papers independently, reports of the practical sessions (individual and grouped), (5) formative and summative evaluation.

EVALUATION

MINIMUM REQUIREMENTS

- To pass the subject it is necessary 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 examination.
- Only the different sections included in the evaluation will be added when the minimum requirements established for each of them are exceeded.

Assessment systems

ES1- Exams

1. Assessment of theoretical contents: performance tests on the level of theoretical knowledge acquired by the student through a test that will constitute 50% of the final grade.

2. Assessment of practical contents: performance tests on the level of practical knowledge acquired by the student through an examination that involves the resolution of 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 assignments that imply that the student has developed competences of knowledge, understanding and application of the contents of the subject that will constitute 30% of the final grade, distributed in two reports (15% each). This percentage is broken down into: assignments delivered in class at the end of the face-to-face session and assignments delivered throughout the course within the deadline set for each case.

30% corresponds to 3 points of the final grade (of 10) of the subject, of which 1 point will be work / activities that can not be recovered and will be specified at the beginning of the course by the teacher.

GRADING SCHEME

The grade of the subject will incorporate the grade obtained in **first call** according to the following rules:

- If there is no qualification of the section of evaluation with greater weighting, the qualification will be NOT PRESENTED, independently of the rest.

- If there is a qualification in the section of evaluation with greater weight, and this does not reach minimum requirements, it will be recorded SUSPENSO (NOT PASSING) and numerical note in base 10 of the qualification of this section.

- If there is a qualification in the evaluation section with the greatest weight, and this exceeds the minimum requirements established, but these requirements are not met in any of the remaining sections, a SUSPENSO (NOT PASSING) and numeric note will be recorded on the basis of the 10 Which does not exceed the subject.

- The student will have to choose one of the two options: 1. Keep the note of the deliveries made (including recoverable and non-recoverable); 2. To be evaluated of the contents of the recoverable deliveries (2 points out of 10), by means of a test that will evaluate all the recoverable contents (it is not possible the partial evaluation of those contents), keeping the notes of the deliveries Not recoverable in case of having done them.

In the **second call**, proceed according to the following rules:

- Only the option NOT PRESENTED, when it has not been submitted to more than one of the sections of evaluation, including among them the one of greater weight.

- If there are qualifications in all the sections of evaluation and no minimum requirements are fulfilled in any of them, it will be SUSPENSO and the note in base 10 corresponding to the section that has not been exceeded. If more than one section is not exceeded, the maximum note will be included in the base 10 suspense.

- If one or more of the minimum requirements is not exceeded and an evaluation section is missing, a SUSPENSO and numerical note will be recorded on base 10 of the qualification of the section not exceeded.

- The student will have to choose one of the two options: 1. Keep the note of the deliveries made (including recoverable and non-recoverable); 2. To be evaluated of the contents of the recoverable deliveries (2 points out of 10), by means of a test that will evaluate all the recoverable contents (it is not possible the partial evaluation of those contents), keeping the notes of the deliveries Not recoverable in case of having done them.

Review of and appeals against assessment results shall be subject to the Regulations for Appealing against Marks (ACGUV 108/2017).
(http://www.uv.es/graus/normatives/2017_108_Reglament_avaluacio_qualificacio.pdf)

If the teacher considers it necessary, he/she may set an additional test before awarding an Honours qualification.

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

REFERENCES

Basic

- - CARLSON, N.R. & BIRKETT, M.A. (2021). Physiology of Behavior (13th Edition). Pearson. (Manual específico para grupo AR en inglés).
- - PINEL, J.P.J. & BARNES, S. (2021). Biopsychology (11th Edition). Pearson. (Manual específico para grupo AR en inglés).
- CARLSON, N.R. y BIRKETT, M.A. (2018). Fisiología de la Conducta (12ª edic.). Pearson - Addison Wesley, Madrid.
- MONLEÓN VERDÚ, S., REDOLAT IBORRA, R., VINADER CAEROLS, C., MESA GRESA, P. y DUQUE MORENO, A. (2019). Psicología Fisiológica I Prácticas-. Ed. Tirant lo Blanch, Valencia.

- 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 edic.). LWW Lippincott Wolters Kluwer, Madrid
- KANDEL, E.R., SCHWARTZ, J.H., JESSELL, T.M., SIEGELBAUM, S.A., HUDSPETH, A.J. y MACK, S. (2013). Principles of Neural Science (4/5 edition). McGraw Hill, USA.
- 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.
- 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.