

**COURSE DATA****Data Subject**

<b>Code</b>	33324
<b>Name</b>	Behavioral endocrinology
<b>Cycle</b>	Grade
<b>ECTS Credits</b>	4.5
<b>Academic year</b>	2023 - 2024

**Study (s)**

<b>Degree</b>	<b>Center</b>	<b>Acad. year</b>	<b>Period</b>
1319 - Degree in Psychology	Faculty of Psychology and Speech Therapy	4	First term

**Subject-matter**

<b>Degree</b>	<b>Subject-matter</b>	<b>Character</b>
1319 - Degree in Psychology	23 - Psychoendocrinology	Obligatory

**Coordination**

<b>Name</b>	<b>Department</b>
GONZALEZ BONO, ESPERANZA	268 - Psychobiology
MANZANEDO PEREZ, CARMEN	268 - Psychobiology
SALVADOR FERNANDEZ-MONTEJO, OTILIA ALICIA	268 - Psychobiology

**SUMMARY**

Behavioral Endocrinology is a biopsychological discipline which focuses on the bidirectional relationship between activity of the neuroendocrine system and behavior, considered at observable, private, cognitive or emotional levels. This relationship is described in thematic blocks combining metabolic, developmental, social and experiential aspects of the individual.

The knowledge and skills acquired in this course are essential along scientific training and research in Psychology, especially in the field of Neuroscience. Additionally, this course will provide a better understanding of the neuroendocrine substrate of human behavior in the different fields of applied Psychology, that will be helpful in order to improve the overall health of the individual. To achieve this goal, both social context of the individual (bonding, group dynamics) and its own individual development (issues of development, feeding behavior, sexual behavior, mood, cognitive function and stress management) will be considered. Finally, the course will allow students to acquire some skills that will be



needed to work in multidisciplinary teams in the fields of health care and human resources management.

## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

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

### Other requirements

It is recommended to have passed the subject 33296 - Fundamentals of Psychobiology and to have knowledge and skills from the previous subjects taught by the Department of Psychobiology. Likewise, it is recommended to have basic computer knowledge and skills, at the user level.

## OUTCOMES

### 1319 - Degree in Psychology

- Be able to describe and measure variables (personality, intelligence, attitudes, aptitudes, etc.) and cognitive, emotional, psychobiological and behavioural processes.
- Know how to provide appropriate feedback to patients.
- Be able to prepare oral and written reports.
- Know and comply with professional ethics of Psychology.
- Know the main processes and stages of development throughout the life cycle within contexts of normality and abnormality.
- Understand the biological foundations of human behaviour and of the psychological functions related to the processes of thinking and language.

## LEARNING OUTCOMES

Students should be able to:

Describe the hormonal processes throughout the life cycle.

Identify and describe the hormonal patterns associated with sexual dimorphism, stress, mood, social behavior and cognitive function.

Discriminate between primary psychological disruption and psychological alterations, secondary to endocrine alterations to establish differential diagnosis.



## DESCRIPTION OF CONTENTS

### 1. Introduction to Behavioral Endocrinology

Concept of Behavioral Endocrinology. Brief historical notes of the discipline. Techniques. General organization of the endocrine system.

### 2. Hormones and metabolism

Introduction. The thyroid axis and metabolic aspects. Behavioral aspects and imbalances of the thyroid axis. Anabolism, catabolism and hormones involved.

### 3. Hormones, development and life cycle

Introduction. Dymorphism, prenatal development and birth. Sexual orientation and sexual identity. Growth hormone, functions and alterations. Aging and hormonal imbalances.

### 4. Hormones and social behavior

Social interaction and hormones. Status and dominance. Hormones and interpersonal conflict. Anabolic and aggressive behavior

### 5. Stress and adaptation

The adaptive response to stress: adrenal medullary system and hypothalamus-pituitary-adrenal axis. Modulating factors of the stress response. Chronic stress and health. Psychobiological indicators of stress.

### 6. Hormones and mood

Endocrine disorders and mood: glucocorticoids and thyroid hormones. Hormonal correlates of mood.

### 7. Hormones and cognition

Sex hormones and cognitive aspects. Adrenal hormones and cognition

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	45,00	100
Attendance at events and external activities	5,00	0
Development of group work	10,00	0
Development of individual work	10,00	0
Study and independent work	5,00	0
Readings supplementary material	2,50	0
Preparation of evaluation activities	15,00	0
Preparing lectures	10,00	0
Preparation of practical classes and problem	10,00	0
<b>TOTAL</b>	<b>112,50</b>	

**TEACHING METHODOLOGY**

Lectures given by the teacher in order to developed the contents. Participatory involvement of students through the resolution of the proposed issues will be promoted throughout the lecture.

Theoretical and practical classes will be carried out employing audiovisual support, links to different websites, textbooks and scientific articles, as well as other readings and materials.

Individual or group scheduled tutoring will be performed to supervise practical work, guidance and resolution of doubts.

Practical sessions in laboratories and seminars are focused on applied aspects in which the student, individually or in groups, has to work with the materials provided (tests, articles, scientific equipment to record variables) in order to achieve specific goals.

**EVALUATION****EVALUATION SYSTEMS**

The student assessment includes:

1.- Examinations of theoretical and practical contents by means of multiple-answer tests, short questions, or skills acquisition questions (80%)



2.- Class participation. Students are expected to attend and actively participate in class. Assessment of academic works that imply that the student has developed competences of knowledge, comprehension and application of the contents, which will constitute 20% of the final grade. This percentage may include homework delivered at the end of the face-to-face session, homework delivered throughout the course, within the deadlines established for each case, and public presentations, individually or as a team. This section can be recovered in the second call by carrying out the evaluation that the professor deems appropriate.

## REQUIREMENTS

To pass this course, students have to achieve at least 50% of the maximum score possible at the examination (first section of the assessment) as well as in the evaluation of the works.

## WARNING

Manifest copying or plagiarism of any task that is part of the evaluation entails the impossibility to pass the subject, and may involve immediate submission to the appropriate disciplinary procedures. It should be noted that, in accordance with Article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of the student to refrain from using, or to cooperate in the use of fraudulent procedures in the tests of evaluation, in the assignments or in official university documents.

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>

During tutoring, the professor may require individual or group interviews, in order to verify the degree of participation and achievement of the objectives set for any task performed. Failure to accept this verification would imply failing the task or activity in question.

## GRADING

The evaluation of the subject and the challenge of the grade obtained are subject to what is included in the Regulations of Evaluation and Qualification of the University of Valencia for titles of Degree and Master (ACGUV 108/2017 de 30 de maig de 2017).  
[https://www.uv.es/graus/normatives/2017\\_108\\_reglament\\_avaluacio\\_qualificacio.pdf](https://www.uv.es/graus/normatives/2017_108_reglament_avaluacio_qualificacio.pdf)

## REFERENCES

### Basic

- Nelson, R.J. & Kriegsfeld, L.L. (2017): An Introduction to Behavioral Endocrinology, Fifth Edition. Sinauer Associates: Sunderland





- Murphy, P.N. (2021) The Routledge International Handbook of Psychobiology. Routledge

#### **Additional**

- Buss, D. M. (2016). The evolution of desire: Strategies of human mating. Basic books
- Ehrlenspiel, F. & Strahler, K.: Psychoneuroendocrinology of Sport and Exercise, Routledge, 2012
- Guillamón, A. (2022) Identidad de género. Una aproximación psicobiológica. Sanz y Torres
- Luck, M. (2014). (Vol. 394). Oxford University Press, USA. Hormones: A very short introduction