

## SUBJECT TEACHING GUIDE

### 456 - Biological Basis of Psychiatric Disorders

#### Master's Degree in Mental Health Research

Academic year 2023-2024

1. IDENTIFYING DATA					
Degree	Master's Degree in Mental Health Research			Type and Year	Optional. Year 1
Faculty	Faculty of Medicine				
Discipline	Subject Area: Basis of Psychiatric Pathology: Recent Advances in the Chemical and Molecular Foundations of Psychiatric Pathology				
Course unit title and code	456 - Biological Basis of Psychiatric Disorders				
Number of ECTS credits allocated	4	Term	Semester based (1)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Online Training

Department	DPTO. FISILOGIA Y FARMACOLOGIA
Name of lecturer	ALVARO MARCELINO DIAZ MARTINEZ
E-mail	alvaro.diaz@unican.es
Office	Facultad de Medicina. Planta: + 2. DESPACHO (2120)
Other lecturers	MARIA AMOR HURLE GONZALEZ MARIA ELENA CASTRO FERNANDEZ CARMEN MARTINEZ-CUE PESINI LUIS FELIPE CALLADO HERNANDO REBECA VIDAL CASADO MARIA FUENCISLA PILAR CUELLAR LEYRE URIGUEN ECHEVARRIA ALBERT ADELL CALDUCH ANNA CASTAÑE ANALIA BORTOLOZZI BIASSONI REBECA DIEZ ALARCIA ANNE GABILONDO URKIJO

### 3.1 LEARNING OUTCOMES

- 1. Knowing and understanding the structure and function of the central nervous system (CNS).
- 2. Knowing the latest research advances in CNS diseases at biochemical, molecular, cellular, tissue, organ and body systems levels .
- 3. Understanding and knowing the latest developments regarding the effects , mechanisms and manifestations of structural and functional CNS diseases.
- 4. Knowing the scientific advances in factors that determine mental health (genetic and sex -dependent, lifestyle, demographic, environmental, social, economic, psychological and cultural ones).

### 4. OBJECTIVES

- 1. Review and deepen into the knowledge on CNS structure and function.
- 2. Know the latest advances in CNS research at biochemical, molecular cellular, tissue, organic and system levels.
- 3. Understand and know the latest developments on the effects, mechanisms and manifestations of CNS structural and functional diseases.
- 4. Recognize the scientific advances on the determinants of mental health in the population (genetic background, sex, lifestyle , demographic issues, environmental, social factors, economical status, psychological and cultural variables).

### 6. COURSE ORGANIZATION

#### CONTENTS

1	<ul style="list-style-type: none"> <li>Functional CNS neurochemistry</li> <li>Biological and molecular basis of mood disorders (depression)</li> <li>Biological and molecular basis of anxiety</li> <li>Biological and molecular basis of bipolar disorder.</li> <li>Biological and molecular basis of stress disorders.</li> <li>Biological and molecular basis of obsessive-compulsive disorders.</li> <li>Biological and molecular basis of schizophrenia.</li> <li>Biological and molecular basis autism and attentional deficits.</li> <li>Biological and molecular basis of eating disorders.</li> <li>Biological and molecular basis of drug-dependence.</li> <li>Biological and molecular basis of impulse control disorders.</li> <li>Biological basis of electric and magnetic brain stimulation in psychiatric disorders.</li> <li>Biological basis of gene silencing in psychiatric disorders.</li> <li>Development of new drugs in psychiatry: finding new targets.</li> </ul>
---	---

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Final examination -test-type exam.-60% in the final grade of the subject (on-line exam): ordinary and extraordinary calls (end of 1st trimester).	Written exam	Yes	Yes	60,00
Participation in scientific forums (5% in the final grade of the subject).	Others	No	No	5,00
Student's self-assessment (5% in the final grade of the subject). Test -type questions.	Activity evaluation with Virtual Media	No	No	5,00
Student's portfolio (5% in the final grade of the subject).	Others	No	No	5,00
Individual essay-type work about a scientific topic of the course (15% in the final grade of the subject).	Work	No	Yes	15,00
Collaborative essay-type work about a scientific topic of the course (10% in the final grade of the subject).	Work	No	Yes	10,00
TOTAL				100,00
Observations				
N/A				
Observations for part-time students				
N/A				

## 8. BIBLIOGRAPHY AND TEACHING MATERIALS

### BASIC

Los distintos profesores participantes irán proporcionando la bibliografía básica y documentación apropiada a lo largo del desarrollo de este curso virtual.