

SUBJECT TEACHING GUIDE

456 - Biological Basis of Psychiatric Disorders

Master's Degree in Mental Health Research

Academic year 2024-2025

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
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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. SUBJECT PROGRAM

CONTENTS

1	<p>Functional CNS neurochemistry</p> <p>Biological and molecular basis of mood disorders (depression)</p> <p>Biological and molecular basis of anxiety</p> <p>Biological and molecular basis of bipolar disorder.</p> <p>Biological and molecular basis of stress disorders.</p> <p>Biological and molecular basis of obsessive-compulsive disorders.</p> <p>Biological and molecular basis of schizophrenia.</p> <p>Biological and molecular basis autism and attentional deficits.</p> <p>Biological and molecular basis of eating disorders.</p> <p>Biological and molecular basis of drug-dependence.</p> <p>Biological and molecular basis of impulse control disorders.</p> <p>Biological basis of electric and magnetic brain stimulation in psychiatric disorders.</p> <p>Biological basis of gene silencing in psychiatric disorders.</p> <p>Development of new drugs in psychiatry: finding new targets.</p>
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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.