

SUBJECT TEACHING GUIDE

456 - Biological Basis of Psychiatric Disorders

Master's Degree in Mental Health Research

Academic year 2023-2024

| 1. IDENTIFYING DATA | | | | | |
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| 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 |

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| 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

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| 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.