



## COURSE DATA

### Data Subject

<b>Code</b>	42465
<b>Name</b>	Drug dependence in the social and health sphere
<b>Cycle</b>	Master's degree
<b>ECTS Credits</b>	15.0
<b>Academic year</b>	2024 - 2025

### Study (s)

Degree	Center	Acad. year	Period
2225 - Master's Degree in Research, Treatment and Associated Pathologies in Drug A	Faculty of Psychology and Speech Therapy	1	First term

### Subject-matter

Degree	Subject-matter	Character
2225 - Master's Degree in Research, Treatment and Associated Pathologies in Drug A	1 - Drug dependence in the social and health sphere	Obligatory

### Coordination

Name	Department
ARENAS FENOLLAR, M.CARMEN	268 - Psychobiology

## SUMMARY

The course "Drug Addiction in the field of social and health" describes the anatomy and physiology of the brain reward system and the interactions between structures involved in such circuits. We will discuss the pharmacology and drug interactions of drugs of abuse, the biological basis of learning and motivational processes in drug use as well as psychosocial characteristics related to drug use. Further epidemiological and sociological aspects of drug addiction and studied literature search.



## PREVIOUS KNOWLEDGE

### Relationship to other subjects of the same degree

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

### Other requirements

No restrictions

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

### 2096 - Master's Degree in Research, Treatment and Associated Pathologies in Drug A

- Students should be able to integrate knowledge and address the complexity of making informed judgments based on incomplete or limited information, including reflections on the social and ethical responsibilities associated with the application of their knowledge and judgments.
- Students should demonstrate self-directed learning skills for continued academic growth.
- Aplicar los conocimientos adquiridos y su capacidad de resolución de problemas en entornos nuevos o poco conocidos dentro de contextos más amplios (o multidisciplinares) relacionados con las drogodependencias.
- Demostrar una comprensión sistemática del campo de las drogodependencias y el dominio de las habilidades y métodos de investigación relacionados con dicho campo.
- Saber identificar estructuras y circuitos del sistema nervioso central que constituyen la base de los diferentes sistemas funcionales, específicamente del sistema de recompensa cerebral.
- Conocer y saber los principios básicos de la organización funcional corporal y los fundamentos de la excitabilidad neuronal en relación a la acción de las drogas de abuso.
- Saber capaz de desarrollar el conocimiento y la capacidad de trabajo sobre los aspectos cinéticos y el mecanismo de acción de las drogas en el organismo vivo y en relación con los fármacos de prescripción médica.
- Conocer los procesos biológicos que sustentan las conductas motivadas en relación con el consumo de drogas.
- Poder relacionar las funciones del sistema nervioso central, endocrino y los procesos neurobiológicos que subyacen en estos procesos.
- Ser capaz de analizar con crítica, contrastando diversas hipótesis sociales acerca de los posibles mecanismo sociales que favorecen el consumo de drogas.

## LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)



Knowing the anatomical structures and central nervous system circuits involved in drug addiction.

Learn the basic principles of functional organization, kinetic aspects and the mechanism of action of psychoactive drugs in relation to drug addiction.

Knowing the biological interaction between behavior, nervous and endocrine system in relation to addictive behaviors.

Knowing the social basis in relation to addictive behaviors.

Knowing how to perform the necessary literature searches depending on the subject under study.

## **DESCRIPTION OF CONTENTS**

**1. General anatomy of the brain reward system: circuits and mesolimbic mesocortical system, extended amygdala circuit, circuit neurobiological relapse.**

**2. Functional physiology of brain circuits involved in drug action. Interactions and dynamic operation of the structures involved in the action of drugs on the central nervous system.**

**3. Specific pharmacology and drug interactions with drugs of abuse. Farmacodinamia Pharmacokinetics and drug abuse and drug interactions.**

**4. Psychobiology and motivational processes in drug use: frontal lobe and decision making.**

**5. Neuroscience and involvement in drug addictive processes: learning and synaptic plasticity related to drug use, enhancement and long-term depression.**

**6. Psychosocial evidence involved in addiction to drugs of abuse. Social and peer characteristics that identify an increased risk in drug use.**

**7. Sources of information and epidemiology in drug addiction**

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theory classes	150,00	100
Attendance at events and external activities	20,00	0
Development of group work	10,00	0
Development of individual work	40,00	0
Study and independent work	40,00	0
Readings supplementary material	20,00	0
Preparation of evaluation activities	40,00	0
Preparing lectures	50,00	0
Preparation of practical classes and problem	30,00	0
Resolution of online questionnaires	0,00	0
<b>TOTAL</b>	<b>400,00</b>	

**TEACHING METHODOLOGY**

Sessions. They consist of the corresponding theoretical exposition of the subject. This lecture model that allows the teacher to present the most relevant aspects of each topic. The involvement, as they provide knowledge. Also, in these sessions, students who have worked independently of theoretical and practical aspects related to the topics studied, may submit and present in the classroom work. Also in these sessions, students will undertake practical activities related to the theoretical purchased.

Non-contact sessions. Are intended to encourage the construction of knowledge by the student. It calls for the student in activities to their own learning activity may be to search for documentary information specialist, a proven and justified reflection on a particular topic in class apply knowledge.

Tutorials. The student has a large number of hours of tutoring in which the teacher guides the students individually or in small groups to build their knowledge. The guidance in the preparation of the work, solves doubts or difficulties related to the subject. It also provides the forum for consultation of the Virtual Classroom. Moreover, in this virtual space, students can find documents, information and news relevant to the materials of different modules.

In addition to these methods of learning, there will be "complementary activities" to supplement the education of students with Conferences, Expert Panel, seminars, workshops, visits, teaching Cineforum.

**EVALUATION**



The knowledge, skills and competencies acquired are assessed continually through student participation in individual and group training activities of the module materials. In addition to the continued evaluation of the theoretical and practical work of students in different subjects of the module. The student will perform a test on the contents and learning activities.

In the syllabus of the different subjects included in this module, the weight that each assessment section (attendance, projects, exam, etc.) has in the final grade is explicitly specified. In addition, it also specifies the differences in the assessment between the first and second call, as well as the sections that can or cannot be retaken and the existence of any minimum requirements to pass the subject.

## REFERENCES

### Basic

- Arenas, M.C.; Miñarro, J. (coordinadores) (2022). *Drogodependencias en el ámbito social y de la salud I: Neuroanatomía, Fisiología y Farmacología* 2ª edición. Editorial: Ángeles Carrillo Baeza. ISBN: 978-84-125962-2-9

Arenas, M.C.; Miñarro, J. (coordinadores) (2022). *Drogodependencias en el ámbito social y de la salud II: Aspectos psicobiológicos, psicosociales y epidemiológicos* 2ª edición. Editorial: Ángeles Carrillo Baeza. ISBN: 978-84-125962-3-6

Bear, M.F., Connors, B.W. y Paradiso, M.A. (2016) *Neurociencia. La exploración del cerebro* (4ª edición). LWW Lippincott Wolters Kluwer, Madrid.

Carlson, N.R. y Birkett M.A. (2018). *Fisiología de la conducta* (12 ed.). Pearson Educación SA, Madrid.

Colado, M.I.; Farré, M.; Leza, J.C.; Lizasoain, I. (coordinadores) (2023). *Drogodependencias* 4ª edición. Editorial Médica Panamericana. ISBN: 978-84-9110-706-4

Haines, D.E., Mihailoff, G.A. (2019) *Principios de Neurociencia: Aplicaciones básicas y clínicas* 5ªed. Elsevier, Barcelona, España.

Miller, P.M. (Editor) (2013) *Biological Research on Addiction*. Academic Press, Elsevier, USA.

Stahl, S.M. (2023). *Psicofarmacología Esencial de Stahl. Bases neurocientíficas y aplicaciones prácticas* 5ªedición. Editorial Aula Médica formación en salud. Madrid.

Uhl, G.R., Koob, G.F., & Cable, J. (2019). The neurobiology of addiction. *Annals of the New York Academy of Sciences*, 1451(1), 528. <https://doi.org/10.1111/nyas.13989>