

**COURSE DATA****DATA SUBJECT**

Code: 40147
Name: Communicating neurosciences
Cycle: Master's Degree
ECTS Credits: 3
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2074 - Master's Degree in Basic and Applied Neurosciences	Facultat de Ciències Biològiques	1	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2074 - Master's Degree in Basic and Applied Neurosciences	Communicating neurosciences	COMPULSORY

COORDINATION

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SUMMARY

The course Communicating Neuroscience is located in the second semester of the Master's Degree in Basic and Applied Neuroscience at the University of Valencia. It shares the course period with the two itineraries: Experimental Neurobiology and Cognitive and Affective Neuroscience, and with the Master's Final Project.

The objective of this course is to understand the foundations of applying the scientific method to understanding the structure, function, and dysfunctions of the nervous system, and to be able to communicate the empirical work carried out and its results, using the different modalities in the field of Neuroscience: article (original and review), poster, and conference/seminar.

This course has two functions: on the one hand, it facilitates academic performance in other courses (specifically the Master's Final Project) and, on the other, it contributes to acquiring some of the basic skills proposed for this Master's Degree.

PREVIOUS KNOWLEDGE



RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

COMPETENCES / LEARNING OUTCOMES

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Adquirir destrezas en el manejo de las metodologías empleadas en las neurociencias y en el registro anotado de actividades, así como en el manejo de programas informáticos para la obtención y análisis de los datos y la exposición de los resultados

Comprender las aproximaciones experimentales y sus limitaciones, así como interpretar resultados científicos en neurociencias y saber elaborar y redactar informes que los describan

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Conocer los principios éticos y legales de la investigación científica en neurociencias

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Entender la finalidad de los distintos formatos de comunicación científica y las estrategias y metodologías que emplean.

Saber aplicar el método científico a los estudios en neurociencias y poseer el espíritu crítico requerido para distinguir la información científica rigurosa de la pseudociencia

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Saber comunicar el conocimiento sobre neurociencia y sus implicaciones a públicos especializados y no especializados de un modo claro y sin ambigüedades, usando la lengua propia y el inglés

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Saber trabajar en equipos multidisciplinares y diseñar estrategias experimentales multidisciplinares en el ámbito de las neurociencias para la resolución de problemas biológicos complejos

Ser capaz de aplicar las técnicas de búsqueda, identificación, selección y recogida de información científica especializada, así como de los métodos que se han de tener en cuenta a la hora de examinar críticamente cualquier clase de fuentes y documentos científicos.

Ser capaz de elaborar y estructurar una presentación en los distintos formatos de comunicación científica.



Students should apply acquired knowledge to solve problems in unfamiliar contexts within their field of study, including multidisciplinary scenarios.

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 communicate conclusions and underlying knowledge clearly and unambiguously to both specialized and non-specialized audiences.

Students should demonstrate self-directed learning skills for continued academic growth.

Students should possess and understand foundational knowledge that enables original thinking and research in the field.

DESCRIPTION OF CONTENTS

Classroom Sessions

Session 1. Course presentation. How to work in Neuroscience: Learn about the different possibilities for starting a scientific career in Neuroscience. Review of the main calls for proposals.

Session 2. The poster. Analyze the usefulness of the poster and review some ideas about its structure.

Session 3. Talks, seminars, and conferences. Objectives of a conference. How to organize it. The presentation, slides, attitude, timing. Dos and don'ts.

Session 4. The scientific article: type and structure. Letters to the editor, original article, review article. The peer review process and publication.

Lectures

Throughout the course, 10-12 lectures will be given by neuroscientists from national and international laboratories on various topics. Attendance, which will be mandatory and controlled by signature (maximum number of absences 3), will allow the student to familiarize themselves with various aspects of current neuroscientific research and discern its potential implications and future applications.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	25,00
Seminar	5,00



Total hours	30,00
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NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	2,00
Individual or group project	23,00
Independent study and work	21,00
Preparation of lessons	0,00
Preparation for assessment activities	5,00
Resolution of case studies	0,00
Total hours	51,00

TEACHING METHODOLOGY

Classroom sessions and Associated Activities

Classroom sessions will be accompanied by practical activities. Each session will begin with a presentation of the theoretical aspects of the corresponding topic (30-45 minutes). Group or individual exercises will be assigned, consisting of the development of a scientific communication item in the format corresponding to the current topic on a specific material.

Conference attendance

Throughout the semester, 10-12 lectures will be given by specialists in different fields of neuroscientific research. Students will be able to consult the bibliography provided by the lecturer and will be required to take notes on the content and formal aspects of the lectures. At the end of the semester, a summary of the three lectures that most interested the student will be submitted.

Conference of Students of the Master in Basic and Applied Neurosciences

A few weeks before the June Master's Thesis defense, a Neuroscience Conference will be held. The conference will consist of the presentation, discussion, and defense of the posters each student will prepare on their Master's Thesis topic, or, alternatively, for relevant works in the field of Neuroscience. One week in advance, students will provide the faculty with the poster in PDF format for printing.

EVALUATION

For evaluation, the attendance to conferences will be considered. In the Conference of Students, the poster of each student will be assessed by at least two members of the Faculty and two fellow students. The final mark will be calculated as follows:

Attendance to conferences and delivery of summaries: 10%



Delivery of exercises: 25%

Structure and poster defence: 65%

REFERENCES

F. Ecarnot, M.-F. Seronde, R. Chopard, F. Schiele, N. Meneveau. Writing a scientific article: A step-by-step guide for beginners, *European Geriatric Medicine*, Volume 6, Issue 6, 2015, Pages 573-579, ISSN 1878-7649, <https://doi.org/10.1016/j.eurger.2015.08.005>.

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França TFA, Monserrat JM. Writing Papers to Be Memorable, Even When They Are Not Really Read. *Bioessays*. 2019 May;41(5):e1900035. doi: 10.1002/bies.201900035. Epub 2019 Apr 18.

Kiefer JC. Tips for success: giving an effective research talk. *Dev Dyn*. 2010 Dec;239(12):3492-6. doi: 10.1002/dvdy.22472.

Seals DR. Talking the talk: tips for effective oral presentations in biomedical research. *Am J Physiol Regul Integr Comp Physiol*. 2022 Oct 1;323(4):R496-R511. doi: 10.1152/ajpregu.00179.2022.