Universitat de les Illes Balears

Teaching guide

Academic year	2016-17
Subject	11246 - Pain and the Brain
Group	Group 1, 2S
Teaching guide	C
Language	English

Subject identification

Subject	11246 - Pain and the Brain
Credits	1.2 de presencials (30 hours) 3.8 de no presencials (95 hours) 5 de totals (125 hours).
Group	Group 1, 2S (Campus Extens)
Teaching period	Second semester
Teaching language	Spanish

Professors

Lecturers	Horari d'atenció als alumnes					
	Starting time	Finishing time	Day	Start date	Finish date	Office
Pedro José Montoya Jiménez	12:00	13:00	Tuesday	06/09/2016	28/02/2017	#015 IUNICS
pedro.montoya@uib.es	12:00	13:00	Tuesday	07/03/2017	25/07/2017	pedro.montoya@uib.es

Contextualisation

This course is elegible in the Master of Neuroscience at the University of Balearic Islands. The course offers 5 credit points (ECTS)(equivalent to 125 hours). The course will discuss following topics about brain processing of pain: Brain correlates of acute and chronic pain, neuropsyvhological assessment of chronic pain, therapeutic strategies for multidisciplinary intervention in chronic pain.

Basically, this course will address following aims:

- To understand neurobiological basis of nociceptive processing.

- To lear the major and more recent research lines about brain processing of pain.

- To acquire the necessary skills for the design and the completion of a simple clinical research on cognitive and affective processing in patients with chronic pain.

Requirements

Recommendable

You should expect to be reading original research articles as well as textbooks in English. It is also highly recommended to have basic knowledge on functioning of the central nervous system.

Skills

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Specific

* To understand the neurobiological basis of nociceptive processing.
* To know the major research lines about brain processing of pain.
* To acquire necessary skill for the design and completion of a simple clinical research on the influence of chronic pain on affective and cognitive processing.

Generic

* To develop skills of critical analysis and evaluation to assess how experimental paradigms are adequate to explore scientific problems.
* To develop advanced skills you will need if you intend to undertake research.

Basic

* You may consult the basic competencies students will have to achieve by the end of the Master's degree at the following address: http://estudis.uib.cat/master/comp_basiques/

Content

Theme content

Unit 1. Nociception and pain
Peripheral mechanisms. Brain circuits involved in pain. Representation of pain in the brain.

Unit 2. Psychobiological aspects of pain
Assessing and measuring pain. Analgesia and placebo effect. Emotion and cognitive factors.

Unit 3. Explanation models of pain chronification
Central hyperexcitability and brain plasticity. Psychological factors (catastrofism, depression, fear of pain).

Unit 4. Psychobiological intervention in chronic pain: clinical aspects
Back pain and fibromyalgia. Neuropathic pain. Migraine.

Teaching methodology

In-class work activities

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Lectures	Large group (G)	The teacher will present and discuss the major research lines in the topic.	9
Seminars and workshops	Seminars with active participation	Medium group (M)	Students will be encouraged to prepare and to present one topic of the syllabus, together with some recent research paper.	10
Practical classes	Lab activities	Medium group (M)	Practical demonstration of how data can be collected and	10

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Modality	Name	Typ. Grp.	Description	Hours
			analyzed in a human pain lab.	
ECTS tutorials	ECTS tutorial	Medium group (M)	To explain the major points of the syllabus and to discuss difficulties regarding the learning process. One session will be scheduled at the beginning of the course,	1

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Campus Extens platform.

Distance education work activities

Modality	Name	Description	Hours
Individual self-study	Study of the course units	Time for preparation of course units.	30
Group or individual self-study	Reading and preparing seminar activities	Time for preparation of written assignments about the research papers which will be discussed in the seminar.	65

Specific risks and protective measures

The learning activities of this course do not entail specific health or safety risks for the students and therefore no special protective measures are needed.

Student learning assessment

Lectures

Modality	Theory classes
Technique	Attitude scales **(non-retrievable)**
Description	The teacher will present and discuss the major research lines in the topic.
Assessment criteria	The active participation in the lectures will result in one addition point in the grade.

Final grade percentage: 10%

Seminars with active participation

Modality	Seminars and workshops
Technique	Oral tests **(non-retrievable)**
Description	Students will be encouraged to prepare and to present one topic of the syllabus, together with some recent research paper.
Assessment criteria	Oral presentation of a research paper during the seminars. Grading will be made according with following criteria:

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- Grade from 0 to 4.9 (fail): The presentation was poor and disorganized.
- Grade from 5 to 6.9 (pass): The presentation was very simple and provided no personal comments or suggestions.
- Grade from 7 to 8.9 (remarkable): The presentation contained additional information, but with poor critical comments and suggestions.
- Grade from 9 to 10 (outstanding): Very good presentation of all contents, with indication of shortcomings and personal suggestions and comments .

Final grade percentage: 40%

Lab activities

Modality	Practical classes
Technique	Student internship dissertation **(non-retrievable)**
Description	Practical demonstration of how data can be collected and analyzed in a human pain lab.
Assessment criteria	Students will be encouraged to write a lab report (1-2 pages) about what they learn during the lab activities. The lab report should consist of the following sections: - Title: The student should select one title for the lab report (it must be different from any other title already used in posters and publications of the lab). - Introduction: It should contain a brief description of what is the relevant research problem and what hypotheses are being tested. - Materials and methods: It should contain a brief description of what kind of subjetcs are usually examined in the lab, and what kind of procedures and techniques are mainly used in the lab. - Results: It should contain a brief summary of relevant findings from the lab (please take this information from posters or publications of the lab). - Discussion: It should contain a brief description about the meaning of results. - Conclusion: Explain what did you learn from the lab activities The assistance to all lab sessions is required to submit a lab report. Grading of the lab report will be made according with following criteria: - Grade from 0 to 4.9 (fail): The lab report was partially or totally plagiarized. - Grade from 5 to 6.9 (pass): The lab report was very simple and provided no personal comments or suggestions. - Grade from 7 to 8.9 (remarkable): The lab report contained additional information, but with poor critical comments and suggestions. - Grade from 9 to 10 (outstanding): Very good presentation of all contents, with indication of shortcomings and personal suggestions and comments .

Final grade percentage: 20%

Reading and preparing seminar activities

Modality	Group or individual self-study
Technique	Learning file **(non-retrievable)**
Description	Time for preparation of written assignments about the research papers which will be discussed in the seminar.
Assessment criteria	Students will submit a portfolio with individual comments about topics discussed in the seminars. The student must assist at least to 80% of all sessions and to submit the written assignmet on-time (submission deadline will be announced on Campus Extens). The portfolio will be graded according with following criteria: - Grade from 0 to 4.9 (fail): The portfolio was partially or totally plagiarized. - Grade from 5 to 6.9 (pass): The portfolio was very simple and provided no personal comments or suggestions.

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- Grade from 7 to 8.9 (remarkable): The portfolio contained additional information, but with poor critical comments and suggestions.
- Grade from 9 to 10 (outstanding): Very good presentation of all contents, with indication of shortcomings and personal suggestions and comments .

Final grade percentage: 30%

Resources, bibliography and additional documentation

Basic bibliography

- Wall, P., & Melzack, R. (2005). Textbook of Pain. London: Elsevier.

Complementary bibliography

- Charlton, J.E. (2005). Core Curriculum for Professional Education in Pain (3rd edition). The International Association for the Study of Pain.
- Dworkin, R.H., & Breitbart, W.S. (2003). Psychosocial Aspects of Pain: A Handbook for Health Care Providers. The International Association for the Study of Pain.
- Pain. Elsevier Ltd. (www.elsevier.com/locate/pain)

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