



Teaching Guide

| Teaching Guide | | | | |
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| Identifying Data | | | | 2020/21 |
| Subject (*) | Psychopharmacology | Code | 652438013 | |
| Study programme | Mestrado Universitario en Psicoloxía Aplicada | | | |
| Descriptors | | | | |
| Cycle | Period | Year | Type | Credits |
| Official Master's Degree | 2nd four-month period | First | Obligatory | 3 |
| Language | SpanishGalician | | | |
| Teaching method | Face-to-face | | | |
| Prerequisites | | | | |
| Department | Psicoloxía | | | |
| Coordinador | Laffon Lage, Blanca | E-mail | blanca.laffon@udc.es | |
| Lecturers | Laffon Lage, Blanca | E-mail | blanca.laffon@udc.es | |
| Web | | | | |
| General description | In this subject the student will learn the neurophysiological basis of psychopharmacotherapy, the pharmacokinetic and pharmacodynamic aspects underlying the pharmacological action, and the main groups of psychodrugs and their therapeutic use. | | | |



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| Contingency plan | <p>1. Modifications to the contents: No modifications.</p> <p>2. Methodologies. *Teaching methodologies that are maintained: Keynote speeches. Seminars. Supervised projects. Problem solving. Mixed test.</p> <p>*Teaching methodologies that are modified: The keynote speeches, seminars and problem solving will be conducted by Teams. The mixed test will be conducted by Moodle.</p> <p>3. Mechanisms for personalized attention to students: -E-mail: Daily. It will be used to make questions, request virtual meetings to solve doubts and follow up the supervised projects. -Teams: Weekly. Sessions to discuss the contents of the keynote speeches and control the progress of the supervised projects, in the time scheduled for the subject by the faculty. Moreover, the students may make questions by the Teams group, and different channels may be created for different discussion topics. According to the students' requests, there will be meetings with small groups to follow up and support the supervised projects.</p> <p>4. Modifications in the evaluation: No modifications. Regular attendance and participation will be considered only until the interruption of face-to-face activity in case the students do not have connectivity that allow synchronous access to Teams.</p> <p>*Evaluation observations:</p> <p>5. Modifications to the bibliography or webgraphy: No modifications.</p> |
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| Study programme competences | |
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| Code | Study programme competences |
| A2 | To identify the personal, psycho-social and / or educative factors that may put human health at risk. |
| A3 | Being able to elaborate a scientific report which involves defining a research problem, the hypotheses and variables, and defining the design, the sample and its method of selection, the tools for collecting data and their subsequent analysis and discussion. |
| A7 | Knowing to track on a case by choosing appropriate and realistic objectives. |
| A12 | To acquire a basic theoretical knowledge about the state of the art in the different areas involved in applied psychology. |
| A13 | Knowing and being able to use the different models, theories, methods and assessment and intervention techniques that are specific of the different areas of research in Applied Psychology, and developing a critical attitude typical of the scientific spirit. |
| A16 | To acquire the knowledge and skills necessary for the exposition and defence of a research paper. |
| B1 | Capacity for analysis and synthesis. |
| B2 | Capacity for organization and planning. |
| B3 | Teamwork. |
| B5 | Skills in interpersonal relations. |
| B6 | Critical thinking. |



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| B8 | Autonomous learning. |
| B15 | Ability to work with an interdisciplinary team. |
| B16 | Ability to communicate with non-experts in the field. |
| C1 | To express oneself, both orally and in writing, in the official languages of the autonomous region. |
| C3 | Using the basic tools of information and communication technologies (ICT) necessary for the exercise of the profession and for lifelong learning. |
| C6 | To critically assess the knowledge, technology and information available to solve the problems they face. |
| C7 | To assume as professionals and citizens the importance of lifelong learning. |
| C8 | Assessing the importance of research, innovation and technology development in the socio-economic and cultural progress of society. |

| Learning outcomes | | | |
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| Learning outcomes | Study programme competences | | |
| Learning the neurophysiological basis of psychodrugs action. | AR12 | | |
| Learning the features and main factors affecting each of four pharmacokinetic processes. | AR12 | | |
| Learning the general action mechanisms of psychodrugs, the utility of the dose-response curves, and the factors involved in the interindividual variability to psychodrug response. | AR2 AR12 | | |
| Learning the main groups of psychodrugs, their action mechanisms and their clinical applications. | AR2 AR7 AR12 | | |
| Learning the stages in new psychodrug development. | AR12 | | CC7 CC8 |
| Skills to express in scientific language and communicate in an effective manner. | AR3 AR13 | | CC1 CC6 |
| Working in group in a collaborative manner. | | BR2 BR3 BR5 BR6 BR8 BR15 | CC3 |
| Skills for speaking in public. | AR16 | BR1 BR2 BR16 | |

| Contents | |
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| Topic | Sub-topic |
| I. Introduction | 1. Neurophysiological bases of psychopharmacology: cell neurophysiology, interneuron communication, psychopharmacotherapy principles. |
| II. Pharmacology | 2. Essential concepts in Pharmacology. 3. Pharmacokinetics: absorption, distribution, metabolization and excretion processes. 4. Pharmacodynamics: drug mechanisms of action, dose-response curves, pharmacologic response variability. |
| III. Psychodrugs | 5. Psycholeptic drugs: hipnotic drugs, anxyolitic drugs, neuroleptic drugs. 6. Psychoanaleptic drugs: antidepressant drugs, psychostimulating drugs, nootropes. 7. Psychodysleptic drugs. |
| IV. Advances | 8. Development of new psychodrugs. |



| Planning | | | | |
|---------------------------------|---------------------------------|----------------------|-------------------------------|-------------|
| Methodologies / tests | Competencies | Ordinary class hours | Student?s personal work hours | Total hours |
| Guest lecture / keynote speech | A2 A12 B6 B8 C6 C7 C8 | 16 | 28 | 44 |
| Seminar | A16 B1 B3 B5 B6 B15 B16 C1 | 2 | 4 | 6 |
| Supervised projects | A3 A16 B1 B2 B3 B5 B15 C1 C3 C8 | 0 | 20 | 20 |
| Problem solving | A2 A7 A13 B1 B6 B8 C3 C6 | 1 | 2 | 3 |
| Mixed objective/subjective test | A2 A12 B1 B6 C1 | 1 | 0 | 1 |
| Personalized attention | | 1 | 0 | 1 |

(*)The information in the planning table is for guidance only and does not take into account the heterogeneity of the students.

| Methodologies | |
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| Methodologies | Description |
| Guest lecture / keynote speech | The teacher will introduce the programme contents with the aid of multimedia stuff. She will answer the questions raised by the students. |
| Seminar | Bibliographic seminars: students will present their projects. Then a debate on the topic of their presentation will be conducted. |
| Supervised projects | Supervised projects carried out by groups of students about a topic proposed by the teacher. Personalized attention will be given in order to provide support and orientation on the contents to be included in each project. The files corresponding to each project and its presentation will be delivered through Moodle before the fixed deadline. Later, all projects will be available in Moodle. |
| Problem solving | Practical session dealing with solving problems related to different topics addressed in this subject. |
| Mixed objective/subjective test | At the end of the programme, an exam consisting of short answer and/or test-type questionnaire will be conducted. |

| Personalized attention | |
|------------------------|---|
| Methodologies | Description |
| Supervised projects | Part-time students: materials used in lectures, and any other useful material, will be available in Moodle. Deadlines for supervised projects and questionnaires will be the same than for regular students, and will be specified in Moodle. Upon students' request, personalized attention will be given in order to provide support and orientation on the contents to be included in each project, to answer questions, and to help for developing specific, basic and transversal study programme competencies. |

| Assessment | | | |
|--------------------------------|---------------------------------|---|---------------|
| Methodologies | Competencies | Description | Qualification |
| Guest lecture / keynote speech | A2 A12 B6 B8 C6 C7 C8 | Regular attendance and participation will be evaluated, only when the student pass the exam. | 8 |
| Seminar | A16 B1 B3 B5 B6 B15 B16 C1 | Regular attendance and participation will be evaluated, only when the student pass the exam. | 1 |
| Supervised projects | A3 A16 B1 B2 B3 B5 B15 C1 C3 C8 | It is mandatory to carry out a supervised project in group (providing there are enough students). Marks obtained will be the same for all group members. It will be evaluated only when the students pass the exam. | 40 |



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| Problem solving | A2 A7 A13 B1 B6 B8 C3 C6 | Regular attendance and participation will be evaluated, only when the student pass the exam. | 1 |
| Mixed objective/subjective test | A2 A12 B1 B6 C1 | Exam: short answer and/or test-type questionnaire. For tudents not attending the lectures due to attendance exemption, this exam will represent 60% of the total marks. It is mandatory to pass this exam for passing the whole subject. | 50 |

Assessment comments

Requirements to pass the subject: to deliver and present the supervised project, to obtain a minimum of 50% marks in the exam, and to obtain a minimum of 50% marks in the total subject.

Second opportunity evaluation: students must deliver and present a supervised project (in case they did not do it before) and conduct the exam.

Sources of information

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| Basic | <p>Brunton, L.L.; Lazo, J.S.; Parker, K.L. (2007) Goodman & Gilman Las bases farmacológicas de la terapéutica. México D.F.: McGraw-Hill Interamericana. Cabrera Bonet, R.; Mencías Rodríguez, E.; Cabrera Forneiro, J. (1993) Toxicología de los psicofármacos. Madrid: Mosby. Flórez, J. (2001) Farmacología humana. Barcelona: Masson. Gómez-Jarabo, G. (2007) Farmacología de la conducta. Manual básico para psicoterapeutas y clínicos. Madrid: Síntesis. Janicak, P.G.; Davis, J.M.; Preskorn, S.H.; Ayd, F.J. Jr.; Marder, S.R.; Pavuluri, M.N. (2006) Principles and practice of psychopharmacotherapy, 4th edition. Philadelphia: Lippincott Williams & Wilkins. López Sáez, J.A. (2017) Los alucinógenos. Serie ¿Qué sabemos de? Madrid: CSIC-Catarata. Pödingner, W. (1984) Compendio de psicofarmacoterapia. Basilea: Roche. Rahola, J.G. (2012) Lo que siempre quiso saber de los psicofármacos... y nunca se atrevió a preguntar. Madrid: Aulamédica. Salazar, M.; Peralta, C.; Pastor, J. (2005) Tratado de psicofarmacología. Bases y aplicación clínica. Madrid: Panamericana. Schatzberg, A.F.; Nemeroff, C.B. (2006) Tratado de psicofarmacología. Barcelona: Masson Elsevier. Snyder, S.H. (1992) Drogas y cerebro. Barcelona: Prensa Científica. Stahl, S.M. (2002) Psicofarmacología esencial. Bases neurocientíficas y aplicaciones clínicas. Barcelona: Ariel. Zarranz, J.J. (2011) Neurofarmacología contemporánea. Barcelona: Elsevier.</p> |
| Complementary | <p>Bayés, R. (1977) Iniciación a la farmacología del comportamiento. Barcelona: Fontanella. Bear, M.F.; Connors, B.W.; Paradiso, M.A. (1998) Neurociencia. Explorando el cerebro. Baltimore: Williams & Wilkins. Bravo Ortiz, M.F. (2008) Psicofarmacología para psicólogos. Madrid: Síntesis. Carlson, N.R. (2006) Fisiología de la conducta (8ª Edición). Madrid: Pearson Educación. Mulder, G.J.; Dencker, L. (2006) Pharmaceutical Toxicology. Scarborough: Pharmaceutical Press. Pies, R.W. (2000) Manual de psicofarmacología básica. Barcelona: Masson. Pinel, J.P.J. (2007) Biopsicología. Madrid: Pearson Educación. Raviña Ruvira, E. (1987) Introducción al diseño de fármacos. Santiago de Compostela: Servicio científico Roche. Rosenzweig, M.R.; Leiman, A.L.; Breedlove, S.M. (2001) Psicología Biológica. Barcelona: Ariel. Salazar, M.; Peralta, C.; Pastor, J. (2005) Guía de estudio del Tratado de psicofarmacología. Madrid: Panamericana.</p> |

Recommendations

Subjects that it is recommended to have taken before

Biopsychology/652438010

Subjects that are recommended to be taken simultaneously

Subjects that continue the syllabus

Other comments

-Computer skills (user level) are recommended in order to use the Moodle platform and prepare the supervised project and its presentation.-English language is recommended, in order to read the bibliographic stuff.-In order to contribute to a sustainable environment and fulfil the objectives of the Faculty of Education Sciences Environmental Declaration, in the frame of the Green Campus, documents prepared for this subject must be delivered in digital format. In case of using paper: Plastics must not be used. Printing must be both sides. Recycled paper must be used. Draft printing must be avoided.



(*)The teaching guide is the document in which the URV publishes the information about all its courses. It is a public document and cannot be modified. Only in exceptional cases can it be revised by the competent agent or duly revised so that it is in line with current legislation.