Research Methods in Clinical Pharmacology

Code: 42360
ECTS Credits: 9

<table>
<thead>
<tr>
<th>Degree</th>
<th>Type</th>
<th>Year</th>
<th>Semester</th>
</tr>
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<tr>
<td>4311309 Pharmacology</td>
<td>OT</td>
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The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

**Contact**

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**Teachers**

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Caridad Pontes García
Clara Perez Maña

**External teachers**

D. Capellà
G. Cereza
I. Danés
M. Sabaté
S. Grau

**Prerequisites**

It is recommended to have passed the Module 2.
Basics in statistics and epidemiological methods can help to understand the material taught in this module.

**Objectives and Contextualisation**

Apply basic pharmacological and methodological knowledge to develop clinical drug research and interpret the results.

**Use of Languages**

Principal working language: **spanish (spa)**
Apply basic pharmacological and methodological knowledge to carry out a critical analysis of clinical research.

**Competences**

- Design and conduct research on drugs.
- Generate innovative ideas.
- Interpret one’s own and other results of research on drugs.

**Learning Outcomes**

1. Apply and interpret multivariate statistical techniques, the different regression models and the analysis of repeated-measure designs.
2. Generate innovative ideas.
3. Plan and design clinical and epidemiological studies. (pharmacovigilance and use of medicines).
4. Plan and design clinical trials with medicines.
5. Plan and design pharmacoeconomic studies.
6. Recognise and apply the ethical and quality requirements for conducting clinical research with drugs.
7. Use the results obtained in clinical research to justify decisions on pharmacological treatment.

**Content**

2733/5000


d) Limitations of the investigation in view of its clinical impact. Evidence-based medicine and critical evaluation of medical publications. Instruments that facilitate the clinical application of research results (meta-analysis, clinical practice guides, systematic reviews). The clinical practice guides: methodology and quality assessment. Critical evaluation of observational safety and efficacy research.


**Methodology**
The teaching methodology used in the different training activities of Module 3 includes master classes, design of clinical studies and discussion in a group of them during practical seminars, as well as practices on critical reading of published studies and strengthening a critical attitude towards the information available in order to enhance the skills and willingness to research.

The module's note is the arithmetic mean of the notes of the matters that make up it.

**Activities**

<table>
<thead>
<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning Outcomes</th>
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<tbody>
<tr>
<td><strong>Type: Directed</strong></td>
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<tr>
<td>Classroom Practices (PAUL)</td>
<td>40</td>
<td>1.6</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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<tr>
<td>Seminars of case studies (SCC)</td>
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<td>0.48</td>
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<td>Theory (TE)</td>
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<td>1, 2, 7, 4, 3, 5, 6</td>
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<td><strong>Type: Supervised</strong></td>
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<tr>
<td>Interactive case resolution</td>
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<td>0.52</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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<tr>
<td>Unscheduled tutoring</td>
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<td>0.12</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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<tr>
<td>review of written works</td>
<td>24</td>
<td>0.96</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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<td><strong>Type: Autonomous</strong></td>
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<td></td>
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<tr>
<td>Study, writing papers ...</td>
<td>113</td>
<td>4.52</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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**Assessment**

The module's note is the arithmetic mean of the notes of the matters that make up it.

**Assessment Activities**

<table>
<thead>
<tr>
<th>Title</th>
<th>Weighting</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning Outcomes</th>
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<tr>
<td>Attendance and participation</td>
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<td>0</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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<tr>
<td>Presentations</td>
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<td>0.06</td>
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<tr>
<td>Written examination</td>
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<td>0.04</td>
<td>1, 2, 7, 4, 3, 5, 6</td>
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</tbody>
</table>

**Bibliography**

bibliographical and documentary resources:
- [www.pubmed.org](http://www.pubmed.org)
- [www.sietes.org](http://www.sietes.org)

**Textbooks:**
- Laporte JR. Principios básicos de investigación clínica. Acceso on-line gratuito:

- Laporte JR, Tognoni G. Principios de epidemiología del medicamento. Acceso gratuito:

- Figueras A, Narváez E, Vallano A. Estudios de utilización de medicamentos. Acceso gratuito:
