

3.00 credits

22.5 h

Q2

Teacher(s)	Hardwick Robert (coordinator) ;Patris Sophie ;Reychler Gregory ;
Language :	French
Place of the course	Louvain-la-Neuve
Prerequisites	Interaction with statistical classes <i>The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.</i>
Main themes	<ul style="list-style-type: none"> <li>* Basic notions of scientific methods</li> <li>* Defining research hypotheses</li> <li>* Classical research plans and protocols</li> <li>* Data analysis and presentation, e.g.:                             <ul style="list-style-type: none"> <li>§ Concept of sample, indicators of average and dispersion, interpretation of a level of probability and significance...)</li> <li>§ Dependent and independent variables</li> <li>§ Notion of distribution normality (parametric and non-parametric tests)</li> <li>§ Relations between continuous variables, calculation of correlation and interpretation of correlation coefficients</li> <li>§ Construction and interpretation of graphs</li> </ul> </li> <li>* Notions of Evidence-Based Medicine (EBM)                             <ul style="list-style-type: none"> <li>§ Ethical considerations</li> <li>§ Use of 'ClinicalTrials.gov'</li> <li>§ Logistical and organisational issues</li> </ul> </li> <li>* Search for library materials, database consultation and construction of a thematic bibliography</li> <li>* Acquisition of basic writing skills (including the use of tools such as Endnote)</li> <li>* Presentation of the research groups related to the FSM</li> </ul>
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <p>This class aims at familiarizing students with the scientific approach (in general) and at preparing them to the use of procedures and techniques specific to research in Rehabilitation and Motor Sciences. After this educational entity, the student will have sufficient knowledge to correctly interpret graphs and key indicators of descriptive statistics. He will be able to read scientific articles with a critical mind, to extract the hypotheses and evaluate the relevance of the experimental paradigms used to test them. He will be able to build up simple research plans while accounting for the basic rules and ethical considerations underlying any research in the biomedical field. He will also be able to find his way in the library and have access to the available research databases.</p> <p>1</p>
Evaluation methods	Exam with multiple choice questions (MCQ)
Teaching methods	ex-cathedra course in classroom, practical work and podcasts
Content	This tuition will allow students to acquire more autonomy in their scientific work and enhanced critical reasoning. After this class, they will be able to find information in the appropriate databases available in the library. They will also be able to understand and apply the basic principles of written and oral scientific communications. Importantly, most of the abilities acquired in this class will find a direct application as they will help students in all steps of their final work.
Inline resources	Available on UCLouvain Moodle.
Other infos	Language used for the course: French and English Support: Powerpoint slides, podcasts/videos Coaching: Persons entitled

Faculty or entity in charge	FSM
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<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Physiotherapy and Rehabilitation	<a href="#">KINE1BA</a>	3	<a href="#">LIEPR1003</a> AND <a href="#">LANGL1851</a>	