

3.0 credits	22.5 h	2q
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Teacher(s) :	Mahaudens Philippe ; Duque Julie (coordinator) ; Reychler Gregory ;
Language :	Français
Place of the course	Louvain-la-Neuve
Prerequisites :	Interaction with statistical classes
Main themes :	<p>* Basic notions of scientific methods</p> <p>* Defining research hypotheses</p> <p>* Classical research plans and protocols</p> <p>* Data analysis and presentation, e.g.:</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Concept of sample, indicators of average and dispersion, interpretation of a level of probability and significance...)</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Dependent and independent variables</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Notion of distribution normality (parametric and non-parametric tests)</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Relations between continuous variables, calculation of correlation and interpretation of correlation coefficients</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Construction and interpretation of graphs</p> <p>* Notions of Evidence-Based Medicine (EBM)</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Ethical considerations</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Use of 'ClinicalTrials.gov'</p> <p>& ect;& bsp;& bsp;& bsp;& bsp; Logistical and organisational issues</p> <p>* Search for library materials, database consultation and construction of a thematic bibliography</p> <p>* Acquisition of basic writing skills (including the use of tools such as Endnote)</p> <p>* Presentation of the research groups related to the FSM</p>
Aims :	<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><i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i></p>
Evaluation methods :	Written or oral evaluation review and elements of continuous assessment
Content :	<p>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 master thesis.</p>

Other infos :	Support: Powerpoint slides Coaching: Persons entitled
Cycle and year of study :	> Bachelor in Physiotherapy and Rehabilitation > Preparatory year for Master in Physiotherapy and Rehabilitation and for Master in Motor Skills: General
Faculty or entity in charge:	FSM