

<b>ID</b>	1972
<b>Curricular Unit</b>	Methods of Scientific Research
<b>Regent</b>	Duarte Fernando da Rosa Belo Patronilho de Araújo
<b>Learning Outcomes</b>	<ol style="list-style-type: none"> <li>1) to understand the phasing of a research project;</li> <li>2) to know different kinds of research;</li> <li>3) to know different experimental designs;</li> <li>4) to understand effects and problems of sport science research.</li> </ol>
<b>Syllabus</b>	<ol style="list-style-type: none"> <li>1 - Knowledge and science; Theories, models, hypothesis; Inductive and deductive thinking; Qualitative and quantitative research.</li> <li>2 - Methodological organization of research; Types of research; Ecological validity and the problem of the observer's interference.</li> <li>3 - Experimental designs, quasi-experimental designs and naturalistic designs; Sampling in sport; Types of variables.</li> <li>4 - Single shot designs, pre-post designs, and repeated measurement designs; Case studies, Criterion sampling, and randomly selected samples.</li> <li>5 - Sources of error in research: the researcher, the subject and the instruments; Common effects in research.</li> <li>6 - Theoretical frameworks and the discussion of results.</li> <li>7 - The dissertation structure; Common errors and writing techniques.</li> </ol>
<b>Evaluation</b>	<p>The teaching methodology follows a logic of knowledge development centred on the students. For that, students are stimulated to select scientific papers among those studied on the Master course.</p> <p>Evaluation is made through the presentation of a written research project.</p>
<b>Bibliography</b>	Thomas, J., & Nelson, J. (2001). Research methods in physical activity (5 <sup>a</sup> ed.). Champaign: Human Kinetics.