

ID	435
Curricular Unit	Methods of Scientific Research
Regent	Duarte Fernando da Rosa Belo Patronilho de Araújo
Learning Outcomes	<ol style="list-style-type: none"> 1) to understand the phasing of a research project; 2) to know different kinds of research; 3) to know different experimental designs; 4) to understand effects and problems of sport science research.
Syllabus	<ol style="list-style-type: none"> 1 - Knowledge and science; Theories, models, hypothesis; Inductive and deductive thinking; Qualitative and quantitative research. 2 - Methodological organization of research; Types of research; Ecological validity and the problem of the observer's interference. 3 - Experimental designs, quasi-experimental designs and naturalistic designs; Sampling in sport; Types of variables. 4 - Single shot designs, pre-post designs, and repeated measurement designs; Case studies, Criterion sampling, and randomly selected samples. 5 - Sources of error in research: the researcher, the subject and the instruments; Common effects in research. 6 - Theoretical frameworks and the discussion of results. 7 - The dissertation structure; Common errors and writing techniques.
Evaluation	<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>
Bibliography	Thomas, J., & Nelson, J. (2001). Research methods in physical activity (5 ^a ed.). Champaign: Human Kinetics.