ID	2345
Curricular Unit	Methods of Scientific Research
Regent	Duarte Fernando da Rosa Belo Patronilho de Araújo
Learning Outcomes	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	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, quai-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	The teaching methodology folows 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. Evaluation is made through the presentation of a written research project.
Bibliography	Thomas, J., & Nelson, J. (2001). Research methods in physical activity (5ª ed.). Champaign: Human Kinetics.