Subject: Methodology of Scientific Research

I. General information

Organization unit	Faculty of Physical Education Department of Philosophy and Sociology Chair: Prof. dr hab. Zbigniew Dziubiński Supervisor:
Course name	Methodology of Scientific Research
Subject code	3/1/II/PE
Teaching language	English
Type of subject (obligatory/ facultative)	obligatory
Level of studies (eg. bachelor, master)	master
Study year	I
Semester	I
ECTS points	3
Teacher/e-mail	Dr hab. Michal Lenartowicz prof. AWF michal.lenartowicz@awf.edu.pl
Studies program in which the subject is realized	PHYSICAL EDUCATION
Method of realization (stationary/ distance learning)	stationary
Prerequisites	Bachelor degree in sport sciences or social sciences. The course requires real English language reading and writing capacity. Students are requested to read and analyze methodology text and case studies for every class.

II. Detailed Information

Course aims and objectives

A1	Providing students information on the rules of science and scientific work..
A2	Practicing skills related to research projects design, carrying out research using research methods suitable for solving research problems stated and writing research reports
A3	Presenting key research methods, including qualitative research methodology and learning their applicability, designing selected research tools
A4	Learning rules of ethical conduct in scientific research
A5	Learning students primary rules of writing of scientific paper, report and dissertation

Learning outcomes

Learning outcome	Subject's learning outcomes
Knowledge	
K_W01 Analyses and evaluates processes, relations and causes of changes that occur in the human body during ontogenesis as a result of civilization changes and adopted lifestyle and knows general principles of ecosystem functioning. Understands the impact of human activity on nature and knows the current strategies and forms of nature conservation.	Student knows and understands the rules of science and main research methods, techniques and research tools. He/she knows how to use existing data and literature resources.
K_W02 Knows and understands basic ethical problems and comprehends the biological and cultural concepts of man. Knows and understands general history of thoughts, ideas and philosophical views related to sport (physical culture).	Student knows requirements and determinants of sample design, knows scientific research stages and schemes and ethical rules for scientific research.
K_W03 Knows objectives and functions of sport sciences - subjects and methods. Knows and understands basic principles of logic, principles of scientific research, research workflows and basic methods, techniques and research tools. Understands the sampling method. Knows the rules of writing a research paper and ethical principles applicable in research.	Knows and understands the structure of research reports and dissertations
Skills	
S_U01 Ability to assess causes of changes that take place in the human body as a result of adopted lifestyles and to recognize dangers for natural environment resulting from human activities.	Student is able to plan and carry out scientific research in social sport sciences
S_U02 Ability to logical analysis to solve problems of general nature. Ability to assume appropriate attitude towards important philosophical issues relating to the sense of life and biological values associated with it.	Student is able to use scientific language of sport sciences and formulate end express his/her professional opinions using logical rationale and scientific evidences.
S_U03 Ability to formulate and solve research	Student is able to formulate research questions and

problems in the context of physical culture sciences. Ability to use basic methods of research and to use research tools available, as well as to evaluate accepted research procedures and to interpret results achieved.	solve research problems. He/she is capable of applying various research methods and research tools and interpret obtained data.
S_U04 Ability to create projects and plans of own professional development and select or devise teaching programs. Ability to measure the quality of the functioning of diverse organizations and institutions, including educational ones. Ability to make use of values related to sport (physical culture), Olympism and health in physical education and the prevention of social pathologies.	Student is capable of designing basic research tools (such as questionnaire or observation sheet), testing them and applying in field research.
S_U05 Ability to use basic motivation techniques in promoting a healthy lifestyle.	Student is able to co-operate with other in the process of planning and carrying out scientific research in the field of sport, PE and tourism.
S_U06 Ability to evaluate the accuracy of selected exercise and effort programs depending on the age and physical fitness of people exercising.	Student is capable of writing research plans, proposals and literature reviews needed for the purpose or scientific research.
Social Competences	
K_K05 Ability to express his opinions in a persuasive way, can negotiate effectively and use basic communication techniques.	Student is capable of presenting his/her views, conduct academic discussion with presentation of own arguments, accepting other points of view, negotiating commonly agreed solutions.
K_K06 Ability to establish social relations in the desired manner making effective use of available communication channels with individuals and social groups.	Students understand respondent-researcher relationship and the role of proper communication in the process of scientific research
K_K08 Promotion of the value of life and health including popularisation of ecological behaviour in educational activities and local community. Strong skill for the dissemination of knowledge related to benefits of practicing sport throughout the entire life and its impact on the physical condition and state of health.	Student knows how do organise the group for solvin the research task, how do delegate tasks and how t control their execution
K_K10 Ability of independent and critical complementing of own knowledge and skills. Use of interdisciplinary approach to the field of specialisation during the execution of assigned tasks.	Student is able to independently and critically analyse scientific literature and research reports results, knowing multidisciplinary character of sport science and tourism research.

Syllabus contents

No	Title
Lectures	
SC1	Science and rules of scientific research
SC2	Research approaches to sports, leisure and tourism
SC3	Research plans and proposal, importance of literature retrieval and analysis
SC4	Research methods - observation
SC5	Research methods - experiment

SC6	Research methods - interview
SC7	Questionnaire survey and questionnaire design
SC8	Research methods - secondary data analysis and qualitative approaches
SC9	Sampling
SC10	Basics of quantitative and qualitative data analysis
SC11	Preparing research report

Assessment criterion:

The course finishes with a written exam (closed and open questions and problem solving case studies) checking information and skills acquainted during methodology classes.

Obligatory literature:

Babbie E. (2007) *Badania społeczne w praktyce [The Practice of Social Research]*, Warszawa, PWN.

Jankowski K., Lenartowicz M. (2012) *Metodologia badań empirycznych [Methodology of Empirical Research],* Warszawa, AWF.

Nooij A. T. J. (1995) Social Methodology. Normative and descriptive methodology of basic designs of social research, WAU, Wageningen.

Popper K. R. (1977) *Logika odkrycia naukowego [Logic of Scientific Discovery]*, Warszawa, PWN.

Silverman, D. (2009). *Interpretacja danych jakościowych [Interpreting Qualitative Data]*. Warszawa: PWN.

Veal A.J. (1992) Research Methods for Leisure and Tourism: A Practical Guide, London: Pitman Publishing.

1ECTS point = 30 hours students work (contact + self study)

TYPES OF CLASSES	HOURS
Contact hours	22
Self study	38
Total = 60 hours = 3 ECTS	

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