COURSE OUTLINE RESEARCH METHODOLOGY IN SPORTS SCIENCES

1. GENERAL

SCHOOL	PHYSICAL EDUCATION, SPORT SCIENCE AND OCCUPATIONAL THERAPY		
DEPARTMENT	PHYSICAL EDUCATION AND SPORT SCIENCE		
LEVEL OF STUDIES	ISCED level 6 – Bachelor's or equivalent level		
COURSE CODE	C151	**SEMESTER**	**5TH**
COURSE TITLE	RESEARCH METHODOLOGY IN SPORTS SCIENCES		

TEACHING ACTIVITIES *If the ECTS Credits are distributed in distinct parts of the course e.g. lectures, labs etc. If the ECTS Credits are awarded to the whole course, then please indicate the teaching hours per week and the corresponding ECTS Credits.*	**TEACHING HOURS PER WEEK**	**ECTS CREDITS**
	3	6
Please, add lines if necessary. Teaching methods and organization of the course are described in section 4.		

COURSE TYPE *Background, General Knowledge, Scientific Area, Skill Development*	BACKGROUND
PREREQUISITES:	No
TEACHING & EXAMINATION LANGUAGE:	Greek
COURSE OFFERED TO ERASMUS STUDENTS:	No
COURSE URL:	https://eclass.duth.gr/courses/1021376/

2. LEARNING OUTCOMES

Learning Outcomes

Please describe the learning outcomes of the course: Knowledge, skills and abilities acquired after the successful completion of the course.

Upon completion of this course, participants will be able to:

- *Understand the organized research process.*
- *Identify the phases of research (problem identification, formulation of research hypotheses, design, data collection, validity and reliability testing, sampling methods, questionnaire creation, observation, interview).*
- *Know and criticize the basic concepts of research methods.*
- *Design small research procedures.*
- *Evaluate (at a basic level) and detect errors in simple research scenarios.*
- *Know the statistical processing of data (sampling error, significance level, normal distribution test, Z values, confidence interval, difference test and relationship between groups/variables).*

General Skills

Name the desirable general skills upon successful completion of the module

Search, analysis and synthesis of data and information,	*Project design and management*
ICT Use	*Equity and Inclusion*
Adaptation to new situations	*Respect for the natural environment*
Decision making	*Sustainability*
Autonomous work	*Demonstration of social, professional and moral responsibility*

Teamwork *Working in an international environment* *Working in an interdisciplinary environment* *Production of new research ideas*	*and sensitivity to gender issues* *Critical thinking* *Promoting free, creative and inductive reasoning*

- *Adaptation to new situations*
- *Decision making*
- *Autonomous work*
- *Teamwork*
- *Production of new research ideas*
- *Working in an interdisciplinary environment*

3. COURSE CONTENT

1. *The stages of research*
2. *Goal and research hypotheses.*
3. *Limitations and delimitations of research – Threats of internal and external validity of the research.*
4. *Threats of internal and external validity of the research II.*
5. *Variable types in research - Theoretical and functional definitions.*
6. *Sampling.*
7. *Types of research I: experimental designs.*
8. *Types of research II: the use of questionnaires and interviews.*
9. *Types of research III: descriptive research & epidemiology - Qualitative research – Observation*
10. *Types of research IV: review of literature & historical research.*
11. *Sampling error, significance level*
12. *Normal distribution test, Z values, confidence interval*
13. *Test for differences between groups/variables, relationship between groups/variables)*

4. LEARNING & TEACHING METHODS - EVALUATION

TEACHING METHOD *Face to face, Distance learning, etc.*	Face to face Lectures and practical applications as well as distance learning
USE OF INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) *Use of ICT in Teaching, in Laboratory Education, in Communication with students*	Use of ICT in Teaching • digital slides/presentations • video • MsTeams/ e-class, webmail
TEACHING ORGANIZATION *The ways and methods of teaching are described in detail.* *Lectures, Seminars, Laboratory Exercise, Field Exercise, Bibliographic research & analysis, Tutoring, Internship (Placement), Clinical Exercise, Art Workshop, Interactive learning, Study visits, Study / creation, project, creation, project. Etc.* *The supervised and unsupervised workload per activity is indicated here, so that total*	

Activity	*Workload/semester*
Lectures	39
Laboratory exercises	54
Literature study and analysis	54
Exams	3
Total Course	**150**

workload per semester complies to ECTS standards.	
STUDENT EVALUATION *Description of the evaluation process* *Assessment Language, Assessment Methods, Formative or Concluding, Multiple Choice Test, Short Answer Questions, Essay Development Questions, Problem Solving, Written Assignment, Essay / Report, Oral Exam,* *Presentation in audience, Laboratory Report,* *Clinical examination of a patient, Artistic interpretation, Other/Others* *Please indicate all relevant information about the course assessment and how students are informed*	Written exam 100% (multiple choice test, short development questions)

5. SUGGESTED BIBLIOGRAPHY

1. *Smith M. (2024). Research in Exercise and Physical Activity. Konstantara Medical Publications, Athens.*
2. *Thomas J.R., Nelson J.K., Silverman S.J. (2023). Research Methods in Physical Activity. BROKEN HILL PUBLISHERS LTD. ISBN: 9789925350759*
3. *Houser J. (2019). Research in the Sports Sciences of Health. Constantara Medical Publications, Athens. SBN: 9789606080449*
4. *THOMAS, J., & NELSON, J. (2003). Research Methods in Physical Activity. Publications, BROKEN HILL PUBLISHERS LTD. PUBLISHER: PASACHALIDI PUBLISHINGS. ISBN: 9789925350759*
5. *Kampitsis N. Ch. (2004). Research in Sports Sciences. TSIARTSIANIS PRINT AND BIND Publications E.E. ISBN: 9608237270*

ANNEX OF THE COURSE OUTLINE

Alternative ways of examining a course in emergency situations

Teacher (full name):	Papadimitriou Katerina
Contact details:	kpapadim@phyed.duth.gr
Supervisors:	Yes
Evaluation methods:	Written exam 65% (multiple choice test, short development questions)
Implementation Instructions:	At the end of the semester, report to the room on the scheduled day and time.