

Global Learning Semesters

Course Syllabus

Course: SPSC-270 Research Methods & Statistics in Sports

Department: Liberal Arts

Host Institution: Intercollege, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
SPSC-270	Research Methods & Statistics in Sports	3
Semester Offered	Contact Hours	Prerequisites
Please contact us	42-45	None
Department	Level of Course	Language of Instruction
Liberal Arts	Lower Division	English

Course Description

This course introduces students to research and statistics in sports. The course will help students interpret existing knowledge and data in their other modules, and it will begin the development of the skills of the independent researcher, which will blossom in the final year optional dissertation. The course describes the broad framework of approaches to research in the sports, exercise sciences and physical education, and identifies the steps and iterations of these approaches. Students will be introduced to statistical analysis using SPSS and develop competence in a range of fundamental statistical techniques.

Prerequisites

None

Topic Areas

1. Identifying research methodologies related to different types of research for example highlighting pros and cons of a variety of research styles in terms of reliability, internal/external validity, ethical considerations, samplings etc.
2. Data analysis and presentation – different styles and strategies for analysing data and results and present findings.
3. Philosophy of research.
4. Basic descriptive statistics: measures of central tendency, variation, distribution.
5. Interpreting qualitative data: transcribing interviews; identifying themes, different ways to present qualitative finding and analyse data.
6. Choosing appropriate statistics for various quantitative research designs.
7. Identifying differences between variables and identifying relationships between variables.
8. Identifying a research interest and ascertaining its viability; planning research: action plans; timelines, how to organise a comprehensive review of literature, what to include in a protocol.
9. Ethical considerations in research.

Learning Outcomes

On completion of this module, students should be able to:

1. Understand and apply the various sources of information storage and retrieval.
2. Know and understand the various types of research used in sports, physical education and athletics.
3. Know and understand the basics of "good" experimental design used in research investigations.

4. Interpret and critique research experiments and reports.
5. Present opportunities for the discussion of specific examples of various types of research reports in a seminar setting.
6. Explain basic approaches to research and differentiate between them.
7. Design and conduct the statistical analysis of a basic research investigation.
8. Examine an existing investigation and recognize strengths and weaknesses.
9. Demonstrate competence in the use of SPSS to perform basic statistical procedures and to draw appropriate conclusions from the output (specifically: chi-square, Mann-Whitney, Wilcoxon, paired and unpaired T, linear regression, Spearman's and Pearson's correlation).

Assessment

Midterm Exam:	(30%)
Final Exam:	(40%)
Coursework:	(30%)

Readings and Resources

Required Textbooks

1. Salkind, N.J. Statistics for People who (think they) Hate Statistics London: Sage.
2. Thomas, J. and Nelson, J. (2001) Research methods in physical activity. 4th ed. Human Kinetics, Champaign, IL.
3. Vincent, W.J. (1999) Statistics in kinesiology. 2nd ed. Human Kinetics, Champaign, IL.

Recommended Textbooks

1. Kerr, A.W. (2002) Doing Statistics with SPSS London: Sage
2. Morrow, J.R., Jackson, A.W., Disch, J.G. and Mood, D.P. (2001) Measurement and evaluation in human performance. 2nd ed. Human Kinetics, Champaign, IL.
3. Bland, M. (2000) An introduction to medical statistics. 3rd ed. Oxford University Press, Oxford.
4. Cohen, L. and Holliday, M. (1986) Statistics for social scientists. Harper and Row.
5. Burns, R.B. (2000) Introduction to Research Methods 4th. London: Sage.
6. Cresswell, J.W. (2003) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 2nd. London: California: Sage.
7. Field, A.P. (2000) Discovering Statistics Using SPSS for Windows: Advanced Techniques for the Beginner London: Sage.