THE AMERICAN UNIVERSITY
GIRNE CYPRUS

CIT332 Data analysis with SPSS Course Syllabus

Course Name	**Data analysis with SPSS**
Course Code	CIT332
Type of Course	Major Area Elective
Course Level	undergraduate
ECTS Credits	3
Weekly Theory Hour	2
Weekly Practice Hour	2
Weekly Laboratory Hour	-
Year	2013 -2014
Term	SPRING
Instructor (s)	Assist. Prof. Dr. Seren Başaran
Teaching System	Lecturing. This course utilizes the Moodle course management system to share information and resources. To access the course site, log on to this link: http://elearning.gau.edu.tr and select the course from list of courses. All course materials will be posted here.
Education Language	ENGLISH
Prerequisite Course	-
Other Recommended Matters	-
Training Status	-
Course Objectives	This course is designed to introduce students to fundamental concepts and statistical procedures used in social work research. It also introduces students to computer applications for data analysis and helps them develop basic skills in data file construction and manipulation, data definition, and statistical analysis. The primary focus of the course is on developing a conceptual and mathematical understanding of statistics needed for advanced work in research design, model development, model fitting and estimation, hypothesis testing, multivariate techniques, and interpretation of data.
Learning Outcomes	Upon successful completion of the course, students should be able to: 1. Develop basic proficiency with computer data analysis including construction of data files, SPSS for data analysis, and development of an analysis plan; 2. Understand fundamental concepts of statistical analysis; 3. Develop basic skills necessary to organize, present, and interpret data; 4. Develop the ability to evaluate and interpret the results of

		statistical analysis; 5. Understand the relationship between research design and statistical methods.
Course Content		During the course, students will learn how to record survey data, clean the data and transform the data. They will master procedures of descriptive analysis (perform computations): univariate analysis; comparison of means; t-test; analysis of variance; inferential statistics and hypothesis testing; bivariate analysis - crosstabulation and measurement of the strength of association/correlation between two variables; elaboration and partial correlation; regression analysis; factor analysis. At the end of the course student should be able to understand basic statistical concepts and models and understand and perform statistical analysis of surveys' data – to assess and apply particular statistical techniques in SPSS, which are relevant to research questions. He/she is also able to reflex of all process surveys' data preparation and analysis in the critical way.
Weekly Detailed Plan	**WEEK**	**TOPICS**
		Theoretical / **Lab (Practical)**
	1	Basic strategies of quantitative research: research questions, operationalisation, variables;
	2	How to prepare data for the analysis using SPSS -(module files; edit, view, utilities)
	3	Distribution of categorical data and univariate analysis (module descriptive statistics - frequencies, explore);
	4	Distribution of interval data and their analysis;
	5	Transformation of data (module transform, recode, compute, count, rank cases);
	6	Revision
	7	**Midterm**
	8	Normal Distribution and hypothesis testing - statistical inference;
	9	Comparison of means: t-test, one-sample t-test; independent-samples t-test); analysis of variance;
	10	Bivariate analysis - crosstabulation;
	11	Strength of association - coefficients of association and correlation; Spurious correlations, elaboration, partial correlation;

	12	Linear regression;	
	13	Factor analysis.	
	14	Revision	
	15	**Final**	
Textbook/Recommended Readings	Hinkle, D. E. Wiersma, W. Jurs, S.G. (1988) Applied Statistics for the Behavioral Sciences. Boston. Houghton Mifflin Company George, D., & Mallery, P. (2010). SPSS for Windows Step by Step: A simple guide and reference, 17.0 update (10th ed.). Boston: Pearson		

ASSESSMENT METHODS

Term Activities	**Number**	**Semester(Year) Contribution %**
Project	**1**	**40**
Midterm	**1**	**20**
Final	**1**	**40**
TOTAL		**100**
Percentage of Classroom Activities		**60**
Percentage of Final Activities		**40**
	TOTAL	**100**

Calculation work load within the framework of learning, teaching and evaluation activities

Activities	**Number**	**Time (Hour)**	**Total Work Load (hour)**
Weekly Theory Hour	14	2	28
Weekly Practice Hour	14	2	28
Term Project	1	10	25
Midterm	1	10	12
Final	1	20	20
TOTAL WORKLOAD (hour)= 96			

COURSE ECTS CREDIT=Total Work Load (hour) /(30 hour/ECTS)= 96 / 30 = 3.2

Programme and learning outcomes

Learning Outcomes (LO)	Programme Outcomes (PO)																
	PO 1	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO 10**	**PO 11**	**PO 12**	**PO 13**	**PO 14**	**PO 15**	**PO 16**	**PO 17**
LO1	5	5	3	4	3	5			5		5	5					
LO2	5	5	3	4	5	5			5		5	5					
LO3	5	5	3	4	5	5			5		5	5					
LO4	5	5	3	4	5	5			5		5	5					
LO5	5	5	3	4	5	5			5		5	5				5	

Contribution Level:
1 very low
2 low
3 medium
4 high

CITT Department Programme Outcomes

1. Having adequate level of knowledge and skills in current/new computing and educational technologies.
2. Having sufficient communication and teaching skills in teaching profession.
3. Being able to teach updated computing technologies efficiently in English.
4. Being able to identify information technology problems through using various analysis and synthesis.
5. Being pragmatic to develop and apply persistent information technology solutions to educational and business problems.
6. Being able to use critical and computational thinking skills to produce alternative solutions at every level of project development life-cycle.
7. Being capable to work in disciplinary and interdisciplinary teamwork.
8. Being sensitive, reactive and responsive to professional, social and ethical issues. Having social and ethical awareness in teaching and in providing solutions to problems.
9. Having adequate level of knowledge and skills in current/new computer hardware, operating systems and computer networks.
10. Adequate level of knowledge and skills in current/new programming languages, programming paradigms (procedural and object-oriented) and programming environments (visual, console-based programming).
11. Being able to analyse, plan and manage educational software design and project development.
12. Having the capability of evaluating and criticising educational software design and development.

13. Adequate level of knowledge in using and integrating current/new e-learning and distance education systems such as learning management systems (LMS).
14. Having sufficient skills and knowledge in using instructional technology and material design.
15. Having skills to apply and use special teaching approaches, theories, teaching strategies, methods and techniques (such as to those people with disabilities).
16. Using appropriate measurement and evaluation techniques to assess students' learning and development in addition to supporting them with good level of feedback.
17. Having sufficient knowledge in the process of establishment of Republic of Turkey. Identifying social, cultural, political and economic problems through understanding Ataturk's principles and revolution.