



COURSE UNIT DESCRIPTION

Course Unit Title	QUALITATIVE & QUANTITATIVE RESEARCH METHODS	
Course Unit Code	GD530	
Type of Unit	Core	
Level of Course Unit	Second cycle	
Year of Study	First/second year	
Semester	On demand	
Number of ECTS Credits	9 ECTS	
Course Unit Objectives	The objective of this course is to introduce the fundamental concepts and tools of qualitative methods and statistics and to provide the appropriate theoretical and practical skills necessary for collecting, analyzing, and interpreting data to conduct research and data analysis.	
Learning Outcomes	On completion of the course the students are expected to be able to:	
	CILO 1	Identify the different types of business problems that can be addressed through quantitative and qualitative research
	CILO 2	Apply the steps involved in the qualitative research process to solve specific business problems
	CILO 3	Develop questionnaires that increase response rates and reduce biases
	CILO 4	Apply tabular, graphical, and descriptive methods in order to study and understand a variable
	CILO 5	Identify the basic concepts of probability theory and probability and sampling distribution
	CILO 6	Analyze and draw conclusions using a confidence interval and a hypothesis test.
	CILO 7	Apply statistical methods in order to study and understand the relationship between two or more variables
	CILO 8	Analyze data using Microsoft Excel
Mode of delivery	Face to Face	
Name of Lecturers	Dr Paris Cleanthous and	
Prerequisites	Some very basic algebra and Microsoft Excel knowledge.	
Course Content	1. Introduction to Qualitative & Quantitative Research: The 1 st part of the course discusses the type of problems that can be solved through qualitative and quantitative research (exploratory, descriptive, and causal research)	CILO 1
	2. Types of Research Methods & Examples: The 2 nd part of the course deals with the various types of research methods:	CILO 2 CILO 3

	Exploratory (e.g., focus groups, depth interviews, observation, projective techniques), Descriptive (e.g., asking questions, building questionnaires and carrying out surveys) and Causal Research (e.g., experiments).	
	3. Qualitative Research Cases & Examples: The 3 rd part of the course analyzes cases and examples of qualitative research	CILO 1 CILO 2 CILO 3
	4. Introduction to Statistics: The 4 th part of the course deals with preliminary notions of statistics, including data types, scales of measurement, types of statistics, and sampling.	CILO 1
	5. Descriptive Statistics: The 5 th part of the course deals with the ways of organizing, presenting and describing data. Additionally, it studies the measures of location and variability, and the relationship between 2 variables using the correlation coefficient. Finally, Microsoft Excel is introduced, along with tools for the study of descriptive statistics.	CILO 4 CILO 8
	6. Introduction to Probability and Sampling Distributions: The 6 th part of the course deals with the preliminary notion of probability theory (e.g., sets, experiments, sample space, events). Furthermore, it demonstrates the ways to assign probability to events. Finally, it introduces the notions of random variables, probability distribution and deals with discrete distribution (bernoulli, binomial, and poisson) and continuous distribution (normal and standard normal).	CILO 5
	7. Interval Estimation: The 7 th part of the course demonstrates the way of creating a confidence interval for the population mean, the population proportion, the population mean and proportion with two populations and the population variance and standard deviation.	CILO 6
	8. Hypothesis Testing: The 8 th part of the course demonstrates the way of performing a hypothesis test for the population mean, the population proportion, the population mean and proportion with two populations and the population variance and standard deviation.	CILO 6
	9. Linear Regression: The final part of the course presents the way to estimate the population relationship between two variables through the use of the least squares method. Finally, it examines the way to estimate the relationship between two or more independent variables and a dependent variable through the use of the multiple linear regression.	CILO 7 CILO 8
Recommended or required reading	<p><u>Suggested Textbooks:</u></p> <ul style="list-style-type: none"> ➤ Anderson, D.R, Sweeney D.J., Williams T.A., Camm J.D., and Cochran J.J. (2018). Essentials of Modern Business Statistics with Microsoft Office Excel. Cengage Learning. ➤ Illowsky, B. and Dean, S. (2012). Collaborative Statistics. http://cnx.org/content/col10522/latest/ ➤ Groebner, D.F., Shannon, P.W., and Fry, P.C. (2017). Business Statistics: A Decision Making Approach. Pearson Education 	

- Anderson, D.R, Sweeney D.J., and Williams T.A., (2008). Statistics for Business and Economics. Pearson Education
- Cavusgil, T., et al (2009). Conducting Market Research for International Business (Chapter 6). Harvard Business Publishing
- Harvard Business School Press (2006). Marketer's Toolkit: The 10 Strategies You Need to Succeed (Chapter 3)
- Fairfax County (2012). Survey Questionnaire Design, August

Online Reading: Useful online materials can be found in the Khan Academy webpage (<https://www.khanacademy.org>):

➤ **Descriptive Statistics:**

<https://www.khanacademy.org/math/statistics-probability/analyzing-categorical-data>

<https://www.khanacademy.org/math/statistics-probability/displaying-describing-data>

<https://www.khanacademy.org/math/statistics-probability/summarizing-quantitative-data>

<https://www.khanacademy.org/math/statistics-probability/describing-relationships-quantitative-data>

➤ **Introduction to Probability:**

<https://www.khanacademy.org/math/statistics-probability/probability-library>

<https://www.khanacademy.org/math/statistics-probability/counting-permutations-and-combinations>

➤ **Probability and Sampling Distributions:**

<https://www.khanacademy.org/math/statistics-probability/random-variables-stats-library>

<https://www.khanacademy.org/math/statistics-probability/sampling-distributions-library>

➤ **Interval Estimation:**

<https://www.khanacademy.org/math/statistics-probability/confidence-intervals-one-sample>

➤ **Hypothesis Testing:**

<https://www.khanacademy.org/math/statistics-probability/significance-tests-one-sample>

<https://www.khanacademy.org/math/statistics-probability/significance-tests-confidence-intervals-two-samples>

➤ **Linear Regression:**

<https://www.khanacademy.org/math/probability/regression/regression-correlation/v/regression-line-example>

<https://www.khanacademy.org/math/probability/regression/regression-correlation/v/correlation-and-causality>

<https://www.khanacademy.org/math/statistics-probability/advanced-regression-inference-transforming>

Planned learning activities and teaching methods	Formal presentation of the basic concepts and theories with exercises In-class discussions and debates; case studies; role play; presentations Videos and other multimedia tools; experiments Individual and team-work Demonstration of statistical use on a computer
Assessment methods and criteria	20% - Individual Class Participation 30% - Individual Assignment 40% - Group Project (Deadline: Final Lecture) <u>10% - Presentation of the Group Project (Final lecture)</u> 100% total
Language of Instruction	English