

X22 DATA ANALYSIS

COURSE OUTLINE

1. GENERAL

SCHOOL	ECONOMIC SCIENCES		
DEPARTMENT	ECONOMICS AND SUSTAINABLE DEVELOPMENT		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	X22	SEMESTER OF STUDY	2nd
COURSE TITLE	DATA ANALYSIS		
COURSEWORK BREAKDOWN		TEACHING WEEKLY HOURS	ECTS Credits
Lectures		2	
Computer Lab		1	
		3	7.5
COURSE UNIT TYPE	Basic Knowledge		
PREREQUISITES :	n/a		
LANGUAGE OF INSTRUCTION/EXAMS:	English		
COURSE DELIVERED TO ERASMUS STUDENTS	YES		
MODULE WEB PAGE (URL)			

2. LEARNING OUTCOMES

Learning Outcomes
<p>On successful <i>completion of this module</i> students will be able to:</p> <ul style="list-style-type: none"> • Describe data analysis processes. • Use data software package in the implementation of data analysis techniques. • Understand appropriate statistical measures for various types of data. • Critically evaluate and assess the results of data analysis approaches.
General Skills
<p>On successful <i>completion of this module</i> students will gain the following general skills:</p> <ul style="list-style-type: none"> • Understand data management approaches • Decision making • Data and information analysis with the use of technology • Working in groups, teamwork

3. COURSE CONTENTS

<p><i>Data analysis is the process of collecting, modeling, and analyzing data to extract insights that support decision-making. There are several methods and techniques to perform analysis depending on the industry and the aim of the analysis. The course aims to familiarize the students of the Department of Economics in gaining a better understanding of different techniques for data analysis, and methods in quantitative research</i></p> <p>Suggested Module Content:</p> <ul style="list-style-type: none"> • Introduction to Essential types of data analysis methods <ul style="list-style-type: none"> ○ Cluster analysis.
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<ul style="list-style-type: none"> ○ Cohort analysis ○ Factor analysis. ○ Big data analysis ○ Individual data analysis ● Introduction to major analysis techniques <ul style="list-style-type: none"> ○ Data cleaning ○ Data management ○ Data visualisation ○ Data interpretation ○ Data analysis tools ○ Preparing an economic analysis plan
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4. TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	Class contact	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	<ul style="list-style-type: none"> ● Dynamic PowerPoint presentations ● e-class support ● Communication via e-mail and course discussion group ● Use of data analysis software 	
TEACHING METHODS	<i>Method description</i>	<i>Semester Workload</i>
	lectures	26
	Computer Lab	13
	Self-directed learning	148.5
	Course total (25 hours of work load per credit)	187.5
ASSESSMENT METHODS	<ol style="list-style-type: none"> 1. Final examination (weighting 50%) that contains: <ol style="list-style-type: none"> 1.1. Multiple Choice Questions 1.2. Theory evaluation 1.3. Problems 2. Group Assignment involving the use of econometric software (weighting 50%). <p><u>Notes:</u></p> <p>The assessment procedure and the assessment criteria will be available on the module's e-class web-page.</p>	

5. RESOURCES

<p><u>- Recommended Book Resources:</u></p> <ul style="list-style-type: none"> ● Bekes G., Kezdi G.(2021), Data Analysis for Business, Economics and Policy. First Edition, Cambridge University Press ● Hardy M., Bryman A (2009) Introductory Econometrics: A Modern Approach. Fifth Edition, Sage Publications. <p>=</p>
