uc3m | Universidad **Carlos III** de Madrid

Advanced research methods in political science

Academic Year: (2020 / 2021)   **Review date: 31-07-2020**

Department assigned to the subject: Social Sciences Department

Coordinating teacher: TORRE FERNANDEZ, MARGARITA

Type: Compulsory ECTS Credits : 6.0

Year : 4 Semester :

Branch of knowledge: Social Sciences and Law

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Basic knowledge of statistics

OBJECTIVES

At the end of the course, students must be proficient in the following tasks:
1) operationalization of research hypotheses
2) handling and preparation of data
3) use of the main quantitative techniques in social research:
a. Selecting the most appropriate technique for each type of research question and data
b. Data Analysis
c. Interpretation of the analyses
4) a working knowledge of Stata/R/SPSS and basic programming skills

DESCRIPTION OF CONTENTS: PROGRAMME

Quantitative research techniques are a key element in the training of future professionals. This course
delves into the learning of quantitative social research techniques from an applied perspective. All
topics will be approached in a theoretical/practical way, using the statistical package Stata
The course is structured as follows:
1.   Introduction to quantitative social research
2.   Descriptive Analysis
3.   Bivariate analysis
4.   Multivariate Analysis:
4.1.   Linear Regression
4.2.   Logistic Regression
5.   Visualización and reporting

LEARNING ACTIVITIES AND METHODOLOGY

Master Classes (3 ECTS credits):
Lecture on the theoretical content of the subject.

Reduce Classes (3 ECTS credits):
Practical classes in the computer room using Stata/R/SPSS

ASSESSMENT SYSTEM

Theory and practical exercises, and other activities conducted in the classroom
Percent of continuous assessment (assignments, labs, etc.): 60%.

Final exam: includes both theory and practice content
Percent of end-of-term examination: 40%.

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

BASIC BIBLIOGRAPHY

- Cameron, Colin A. & Pravin K. Trivedi Microeconometrics using Stata, Stata Press, 2010

- Long, Scott J. & Jeremy Freese Regression Models for Categorical Dependent Variables Using Stata, Stata Press, 2014

ADDITIONAL BIBLIOGRAPHY

- James, Gareth, Daniel Witten, Trevor Hastie, & Robert Tibshirani An introduction to Statistical Learning with applications in R, Spinger, 2013