

# STUDY GUIDE

## Introduction to R

organized by University of Catania

1. IDENTIFYING DATA	
Course name	Introduction to R
Coordinating university	UniCT
Course discipline	Not applicable
Study level	PhD

Number of ECTS credits allocated	1 ECTS
Mode of delivery	self-study (recorded sessions)
Language of instruction	English
Delivery period	summer semester 2023/2024
Course dates	from February 08, 2024 to March 31, 2024
Precise schedule of the lecturers	Recorded sessions will be available from February 08, 2024 to March 31, 2024 Consultation meetings will be held on the MS TEAMS platform (link will be sent to PhD students) on the following days: <ul style="list-style-type: none"> <li>February 26, 2024, from 10:00 CET to 11:00 CET</li> <li>March 22, 2024, from 10:00 CET to 11:00 CET</li> </ul> Total workload is 25 hrs: <ul style="list-style-type: none"> <li>4 hrs of recorded lectures</li> <li>2 hrs of consultation meetings</li> <li>19 hrs of PhD student's own work</li> </ul>
Keywords	Statistical learning with R, open source software, statistical computing

Prerequisites and corequisites	English B2, Basic probability, statistics and mathematics
Number of PhD students that can attend the Course	30
Course inscription procedure(s)	Application Portal

2. CONTACT DETAILS	
Department	Economics and Business, University of Catania
Name of lecturer	Roberto Di Mari, PhD
e-mail	roberto.dimari@unict.it
Short biography of lecturer (optional)	-

3. COURSE CONTENT	
<ol style="list-style-type: none"> <li>Preliminaries – setting a working directory, basic math operations.</li> <li>Creation and manipulation of objects.</li> <li>Elaboration of descriptive statistics.</li> <li>Regression and Classification on real data sets.</li> </ol>	

4. LEARNING OUTCOMES	
<ol style="list-style-type: none"> <li>The successful Phd student will be able to understand the basics of R.</li> <li>The successful Phd student will be able to perform a statistic analysis on a real data set from data cleaning to output production.</li> </ol>	

# STUDY GUIDE

## Introduction to R

organized by University of Catania

### 5. OBJECTIVES

The course aims at providing the PhD student with an essential toolkit to perform real data statistical analysis with R.

### 6. COURSE ORGANISATION

#### LEARNING RESOURCES AND TOOLS

Moodle – documents, videos and consultations.

#### PLANNED LEARNING ACTIVITIES AND TEACHING METHODS

Lectures combined with consultation meetings.

### 7. ASSESSMENT METHODS, CRITERIA AND PERIOD

The PhD students will be asked to perform an example analysis on a real data set at their choice, and to prepare a short paper (about 5 pages) to discuss the results. The assessment will be based on the paper.

### 8. BIBLIOGRAPHY AND TEACHING MATERIALS

#### BASIC

- Slides (from the instructor);
- G. James, D. Witten, T. Hastie, R. Tibshirani. An Introduction to Statistical Learning: with Applications in R. Springer Science & Business Media, 2013.

#### ADDITIONAL

-