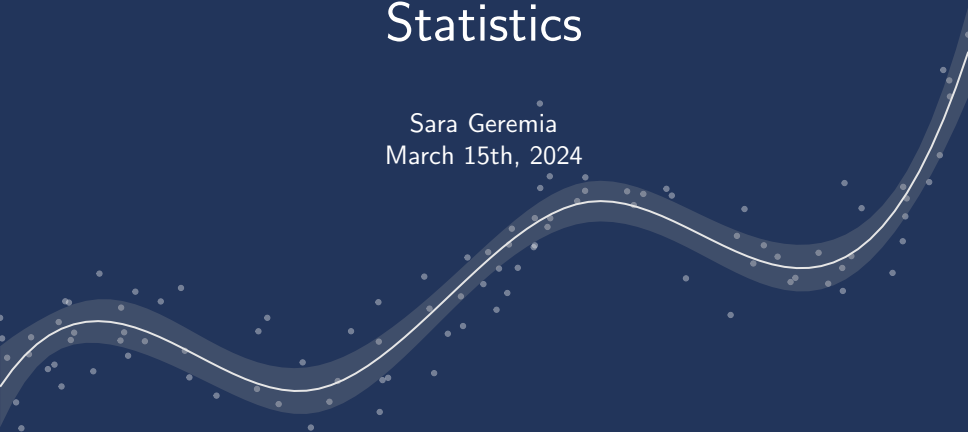




UNIVERSITÀ
DEGLI STUDI
DI TRIESTE

Statistics

Sara Geremia
March 15th, 2024



Lecture Plan

Class schedule: 9.00-11.30 am (online)

	Wed	Thu	Fri	
March	13/3	14/3	15/3	Decriptive
	20/3	21/3	22/3	
	27/3	28/3	29/3	R - Intro
April	3/4	4/4	5/4	Probability
	10/4	11/4	12/4	Inference
	17/4	18/4	19/4	
	24/4	25/4	26/4	
	1/5	2/5	3/5	
May	8/5	9/5	10/5	Linear Regression
	15/5	16/5	17/5	
	22/5	23/5	24/5	R - Regression
	29/5	30/5	31/5	Time Series Regression
June		6/6	7/6	

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Course Contents

- ▶ **Descriptive Analysis** (about 7 hours): frequency distributions, graphical displays, measures of location, spread and shape, relationship existing between two variables;
- ▶ **Elements of Probability** (about 7 hours): events, axioms of probability and probability theorems, discrete and continuous variables, and random variables;
- ▶ **Elements of Statistical Inference** (about 7 hours): sampling distributions, point and interval estimation and parametric hypothesis testing on population mean.
- ▶ **Linear Regression** (about 10 hours): Estimation and interpretation of coefficients, performance measures and assumptions, significance of coefficients, multiple linear regression.
- ▶ **Time Series Regression** (about 5 hours): Basic concepts of time series and correlation, trend, seasonality and cyclical components, prediction and autoregression.
- ▶ **R** (about 8 hours): Fundamentals of R programming language, data visualization, hypothesis testing and regression.

During class

Textbooks:

- ▶ Stock J, Watson M. **Introduction to Econometrics**, 3rd edition (2015). Addison Wesley Longman.
- ▶ Cicchitelli G., D'Urso P., Minozzo M., **Statistics: Principles and methods**, 1st Edition (2021), Pearson

Lecture: Lectures will be given as frontal lessons, following the slides and the related materials (textbooks). They are mainly theoretical.

Lab: Practical sessions with R will offer the opportunity to analyze real-world data to generate research outcomes.

Lectures are online on MSTeams.

In early June, I will come to visit you and conduct the final lessons in-person!