

## Introduction to the Economic Analysis

Estonian Business School

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Module code: ECO134

Year 2015/16 Semester 2

Module covers main topics in the field of data analysis, statistics and econometrics:

- *Data types*: statistic analysis, qualitative and quantitative data.
- *Visualization*: common graphs, best practices.
- *Probability*: probability distributions, normal distribution.
- *Sampling*: sampling methods, sampling distributions, best practices of sampling.
- *Hypothesis testing*: One tailed and two tailed tests.
- *Regression analysis*: setting up regression, explaining regression results, significance tests.
- *Time series analysis*: trend, moving average seasonality.
- *Model building and presentation*: variable selection, other tests.

Students will be able to analyze major economic and financial factors and practically perform tasks of analysis and business modeling using MS Excel.

**Lecture:** According to schedule on OIS, usually in 204A

**Office hours:** Tuesdays 1600 – 1800 in Tallinn 5th floor or by appointment. Please send e-mail to: martins.priede@ebs.ee

**Handouts:** Will be provided on OIS. Any additional material or announcement will be given on module page in OIS.

**Essential text book:** used in module is “Statistics for Business and Economics” David R. Anderson, Dennis J. Sweeney, Thomas A. Williams. West Publishing Company 1996

**Additional text book:**

- Neil J. Salkind “Statistics for People who (think they) hate statistics” (3rd edition) Sage Publications, 2013 which might help with using Excel for statistics.

**Evaluation** is one class MCQ test having weight 20% and final report 70% of the final score, respectively. Class participation is 10%. Final report **due date** is 29.May.2016. Word count is 1500-2000 words. Format according to EBS standard. Indicate word count on the first page. Please save report in pdf or MS Word format, name report yourlastname\_yourfirstname and upload on the OIS. All reports and exams are written in English. No textbooks or notes are allowed into test room, but calculators are allowed.

Week	Lecture topic	Book chapters
1	Introduction. Data types. Working with data and data visualization. Computers in economic analysis.	Ch 1, 2
2	Descriptive statistics. Measures of variability. Correlation	Ch 3
3	Computer lab	Exercises
4	Probability. Probability distributions. Sampling.	Ch 4, 5
5	Continuous probability distributions	Ch 6
6	Sampling. Interval estimation.	Ch 7, 8
7	Hypothesis testing	Ch 9
8	<b>Midterm test.</b> Simple linear regression	Ch 14
9	Multiple regression analysis	Ch 15
10	Computer lab	Exercises
11	Regression analysis. Significance tests	Ch 15
12	Time Series and Forecasting	Ch 18
13	Computer lab	Exercises
14	Model building	Ch 16
15	Final review	

Econometric software used in the module is **Excel** with added Analysis Toolpack. Need to choose Options, Add-ins then Excel Add-ins and click Go. In new window tick Analysis ToolPak. You can find Data Analysis under Data ribbon.

Alternatively some students could use **Google Sheets** <https://www.google.com/sheets/about/> with XLMiner Analysis ToolPak installed. Need to click on Add-ons then Get add-ons, search for XLMiner Analysis ToolPak. Google Sheets works also on tablets and Mac as it is internet based.

You can also use other analysis software which you like and is available to you.

EBS manual of writing can be downloaded <http://ebs.ee/en/discover-ebs/statutes-of-ebs/ebs-documents>

Hope you enjoy the module!