



## COURSE DATASHEET

<b>Semester:</b>	2025/26/2
<b>Course:</b>	Fundamentals of Quantitative Methods
<b>Code:</b>	PEDIECON110
<b>Responsible department:</b>	
<b>Department code:</b>	DIGDI
<b>Responsible instructor:</b>	Dr. Attila Imre Katona

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### Course objectives:

Acquisition of the most important knowledge of the basic statistics I-II and the quantitative methods and research methodology subjects of the MA/MSc.

### Course content:

#### **Thematic:**

Knowledge of Statistics I-II

- Basics of probability calculation
- Descriptive statistics
- Hypothesis testing
- Basics of regression analysis

Knowledge of quantitative methods and research methodology

- Multivariate statistical methods
- Basic dimension reduction procedures
- Basic data reduction procedures
- Basic time series analyses

### Requirements, evaluation and grading:

### Required and recommended readings:

### Suggested textbooks:



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### Required and recommended readings:

Rafael A. Irizarry (2019): Introduction to Data Science: Data Analysis and Prediction Algorithms with R, Amazon, ISBN: 978-0367357986  
Christopher M. Bishop (2016): Pattern Recognition and Machine Learning. ISBN 1493938436

E-learnings on moodle system

### Learning outcome: