Course title: Quantitative Analysis and Statistics	**Credits 5**	**Course code**
Type of the course **EQFS level: 6th** Lecture Seminar Practice X	**Assessment:** Examination X Performance-based grade X Approval	
Semester (according to the standard curriculum): 3-4		
Course availability (according to the standard curriculum): Autumn		
Language of instruction (if not in Hungarian): English		
Prerequisites (according to the standard curriculum): -		
Type of the course (compulsory, obligatory elective, free elective): compulsory		
Course schedule: http://www.kodolanyi.hu/neptun/		

Course objectives:
In this course students learn all the most important descriptive statistical concepts, metrics, measurements, tools, methods, the use of which is indispensable for all disciplines of the economic vertical. The aim of the subject is, that students are able to: 1. Identify the methods necessary to examine the economic and social phenomena, selectively analyze the different data according to the desired criteria and interpret the results. 2. To read and understand the statistical literature, to acquire technical knowledge about economics, business, financial statistics. 3. With the knowledge of statistical analysis methods, to better understand the curriculum for all subjects, to analyze data, to reveal new information.

Learning outcomes (based on professional competences):
Knowledge:
1.3. There is an expectation that degree programme should provide a broad, analytical and highly integrated study of business and management, its comprehensive terms, concerning national and international economics, relevant actors, functions and processes.
1.4. Graduates are familiar with micro-and macro-level theories and practices, and engaged in basic information gathering, mathematical and statistical analyse methods.
1.5. Graduates should be able to demonstrate relevant knowledge and understanding of organisations, the business environment in which they operate. Programmes are to put the emphasise on understanding, responding and shaping the dynamic and changing nature of business and the consideration of the future of organisations within the global business environment, including the management of risk.
Skills:
2.2. Graduates are capable to make decision preparatory reports and drawing decisions by using different theories, tools in routine and non-routine environment.
2.3. Graduates are capable to understand, analyse and adapt to relevant international business processes, functional policies, monitor changing law environment.
2.4. Graduates are capable to understanding impacts on economic processes and organisational changes.
Attitudes:
3.2. Problem solving and critical analysis: analysing facts and circumstances to determine the cause of a problem and identifying and selecting appropriate solutions.
3.3. Research: the ability to analyse and evaluate a range of business data, sources of information and appropriate methodologies, which include the need for strong digital literacy, and to use that research for evidence-based decision-making.
3.6. Numeracy: the use of quantitative skills to manipulate data, evaluate, estimate and to model business problems, functions and phenomena.
Generic competencies:
4.2. Ability to work with people from a range of cultures
4.5. Conceptual and critical thinking, analysis, synthesis and evaluation.

Foreign language competences
Students can function independently and with a great deal of precision on a wide variety of subjects and in almost any setting without any prior preparation.

1. Can understand a wide range of demanding, longer texts, and recognize implicit meaning.
2. Can express ideas fluently and spontaneously without much obvious searching for expressions.
3. Can use language flexibly and effectively for social, academic and professional purposes.
4. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.

Teaching methods:
Lectures and personalized seminar, computer assisted data analysis, and research tasks.

Requirements (exam's evaluation criteria and list of topics):
Students should be able to understand and use the general statistical concepts, methods of data analysis and apply them to socio-economic tasks. Understand the metrics and the relationships based on the calculations and give written and verbal interpretation with tables and graphs. Apply statistical computer programs to capture outputs.

- A 6-pages Homework data analysis from Eurostat databases (50%).
- Two written tests (25%+25%).

To pass the course minimum 50% of total result is needed.

Assessment & Grading:
Insufficient
Student can not apply statistical formulas or distinguish between certain types of problems. Written answer is unordered, incoherent, formulas and methods are incomplete or inappropriate.
Pass
Student's knowledge is sufficient to describe the learned concepts. He/she finds the right statistical method, can solve simple tasks but is not able to handle and interpret complex problems.
Satisfactory
Student is able to use most of the material acquired, understands the content behind the individual concepts, has a good example solving skills of the learned / understood themes. However, the presentation of the results is less smooth, the interpretation of the tasks is incomplete or defective.
Good
Problem and situation analysis is good, it recognizes and uses the statistical tools that can be used to solve a given topic or task. But the analysis of the solved task, the textual evaluation shows weaknesses, the practical application is not error-free.
Excellent:
Student gives a high level of theoretical knowledge, is able to solve the problems and tasks correctly, to understand relationships, and to explain the diagrams and analyzes. Written professional communication is perfect.

Department/faculty responsible for the course:
Department of Economics and Management

Required average students' working hours (number of credits multiplied by 30): 150
Individual assignments (expected number of hours and list of activities):

- Reading and understanding scientific statistical literature
- Pass through two written exams in working session (25%+25%)
- Collecting data for original research and Creating 6 pages Homework study about it (50%)
- Participation on Lessons

Course leader: Gizella Kontó PhD
Lecturers: Gizella Kontó PhD