

## Financial Literacy in Health Economics

- short, credit bearing course -

### General information

Number of ECTS: 2

Language: English

Modality: Online sessions

Proposed period: Winter Semester 2027 and 2028

Duration: 3 days online sessions

Target groups: undergraduate, master and PhD students

Proposed period: Winter Semester

Number of Participants: 40 online

Prerequisites: motivation letter

Lecturers: **Dr Andrea Ivanišević**, Full Professor, Faculty of Technical Sciences, University of Novi Sad

**Dr Maja Petrović**, Associate Professor, Faculty of Technical Sciences, University of Novi Sad

Guest professor **Dr Peter Kovacs**, Associate professor, University of Szeged

### Course Aims

The Financial Literacy in Health Economics course seeks to equip students with a comprehensive understanding of cost structures in healthcare, particularly within hospital settings. With escalating healthcare costs globally, hospital administrators and government regulators need precise knowledge of how funds are allocated to ensure sustainability and profitability. This course provides the tools and insights required to make informed financial decisions in the healthcare sector.

Key Topics:

- Introduction to health economics: Core terms and concepts.
- The significance of cost analysis in healthcare and Cost-Volume-Profit (CVP) analysis.
- Assessing relevant costs and revenues for decisive actions.
- An overview of the budgeting process in healthcare institutions.
- In-depth exploration of standard costing and variance analysis.

- A study of Divisional Financial Performance Measurement.
- Screening programme evaluation.
- Economics of screening.

### **Learning Outcomes**

By the end of this course, students will be able to:

- Recognize the critical role of cost analysis in healthcare.
- Estimate the unit cost of providing various hospital services.

Analyze and potentially optimize cost structures to enhance hospital profitability.

### **Course content**

1<sup>st</sup> session:

- Introduction to health economics: Core terms and concepts.  
An additional explanation is given through the example of an imaginary hospital. In this way, students gain insight into important theoretical issues through a practical example. Students solve the Quick quiz and a discussion follows.  
Calculating marginal costs in Health Economics – tips.  
For example, in an imaginary hospital, students are divided into small groups that can do the task: total cost curves - task. Students are given time to complete the task and are given time to present the solutions they have reached.  
Students solve the economies of scale – case, and a discussion follows.  
Students are divided into teams to solve cases: relevant and irrelevant cost - cases + discussion of obtained solutions.  
Avoidable and unavoidable costs, example.  
Students solve the Sunk costs case and a discussion follows.  
Case in point: The rising costs in Health Economics (students are given time to complete the task and are given time to present the solutions they have achieved).  
Opportunity costs-business case examples.
- The significance of cost analysis in healthcare and Cost-Volume-Profit (CVP) analysis.  
Assignment, short calculations.  
Case Study, CVP analysis.  
Steps in Construction of Break-Even Chart.
- Assessing relevant costs and revenues for decisive actions.

2<sup>nd</sup> session:

- An overview of the budgeting process in healthcare institutions.

The theoretical parts are delivered through lectures. The discussion parts are delivered through questions. A healthcare or hospital budget is an estimation of revenue and expenses over a specified timeframe. Through the healthcare budgeting process, health systems come to an understanding of how much funding must be planned in certain areas, including operating costs and capital equipment. Students solve review problems.

In-depth exploration of standard costing and variance analysis.

- A study of Divisional Financial Performance Measurement.
- Building on the knowledge acquired from the course, students will be tasked with conducting a cost and performance analysis of a specific project in healthcare. This assessment will challenge them to apply theoretical knowledge in a practical context. They will be evaluated based on the depth of their analysis, the clarity of their insights, and their ability to make informed recommendations.

3<sup>rd</sup> session:

- Screening programme evaluation.
- Economic evaluation of alternative use of resources.
- Cost-benefit analysis.
- Screening criteria: Illness, Test, Monitoring and treatment, Economic costs.
- Economics of screening.

Economists use the same analytical tools for screening as they do for a wide range of activities. Students are given time to complete the task and are given time to present the solutions they have reached in the context of cervical screening.

- Conducting screening vs non-conducting.
- Screening opportunity costs.

## **Teaching Methods**

Students will be introduced to foundational concepts through visual presentations, stimulating discussions, and real-life case studies.

Each teaching session is structured as follows:

1. Lecture Segment: Introduction to the day's topic, inclusive of key concept explanations and illustrative case studies.
2. Practical Segment: Students delve into problem-solving exercises based on case studies which are pivotal for their assessments.

Furthermore, participants will collaborate in groups on short project tasks. The continuous presence and interaction of both lecturers throughout the course not only enrich the learning experience but also foster an environment conducive to open discussions.

## **Course design and Assessment Criteria for Students:**

**Course consists of Theoretical Parts, Active Participation, Project-Based Cost and Performance Analysis and In-Class Micro Tests.**

- 1. Theoretical Parts and Active Participation (30% of the total grade):** The theoretical parts are delivered through lectures. The discussion parts are delivered through questions. Students are expected to actively engage during lectures and problem-solving sessions. This includes asking pertinent questions, contributing to discussions, and collaborating effectively during group activities. Active participation will help students assimilate the content and demonstrate their understanding in real-time.
- 2. Project-Based Cost and Performance Analysis (40% of the total grade):** Building on the knowledge acquired from the course, students will be tasked with conducting a cost and performance analysis of a specific project in healthcare. This assessment will challenge them to apply theoretical knowledge in a practical context. They will be evaluated based on the depth of their analysis, the clarity of their insights, and their ability to make informed recommendations.
- 3. In-Class Micro Tests (30% of the total grade):** Throughout the course, students will undergo periodic in-class micro-tests designed to assess their grasp of the key concepts and methodologies taught. These tests aim to reinforce learning, highlight areas for revision, and ensure that students are keeping pace with the course content.

**Grades Marking scale: Fail, Pass.**

**Pass.** A result that satisfies the requirements with regard to theoretical parts and active participation, project-based cost and performance analysis and in-class micro tests.

**Fail.** An inadequate result with regard to theoretical parts and active participation, project-based cost and performance analysis and in-class micro tests.

**Lecturers:**

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