

## Semester 2. 2021/22 Obuda University

Name of teacher/leader expert: Enikő Nagy Phd

### 1. Educational contents

#### 1.1. Name of subject: **Databases**

Aims/Objectives:

In the framework of the subject, students get acquainted with the theoretical foundations and implementation of database management systems, the database design process, and modern data management methods.

#### 1.2. Name of subject: **Introduction to financial technologies by Excel**

Aims/Objectives:

The aim of the course is to introduce the basic concepts and processes of financial technologies in a practical way with the help of the Excel spreadsheet. Students gain the necessary knowledge and routine through real-life application examples taken from practical life. The fundamental goal of financial technologies is to increase the efficiency of financial services with innovative IT solutions. Therefore, by completing this course, the student will be prepared to understand the specific Fintech environments located between interdisciplinary financial and engineering activities.

### 2. Research

Topic: **Efficiency testing, applicability, technical and infrastructural integration of educational robots in relevant disciplines and educational environments**

Aim of research: The aim of our exploratory study is to take a systemic approach to the role of robotics in education, the current situation, the problems related to it and the ways to solve them.

Main questions are:

1. We situate the functions offered by robots in direct and indirect cognitive learning processes, examining the level of learning effectiveness (affective and cognitive) of this innovative technology.
2. We explore the role of robots as teaching methodological tools in different disciplines and explore the untapped potentials, be it in engineering, arts or even science education at secondary and tertiary levels.
3. We attempt to design optimal teaching and learning spaces, by designing a robotic teaching laboratory, so that knowledge transfer processes are in line with innovations in pedagogical value transmission.