COURSE SYLLABUS AND COURSE REQUIREMENTS
ACADEMIC YEAR 2022/2023. SEMESTER 01.

Course title	***METHODS OF ENGINEERING ANALYSIS***
Course Code	**MSM085ANEP**
Hours/Week: le/pr/lab	**2/0/0**
Credits	2
Degree Programme	*SE MSc 1.s*
Study Mode	*In person*
Requirements	-
Teaching Period	Autumn
Prerequisites	-
Department(s)	*Institute of Smart Technology and Engineering - Department of Civil Engineering*
Course Director	*Dr. Sándor DANKA*
Teaching Staff	*2*
Hours/Week: le/pr/lab	

COURSE DESCRIPTION

A short description of the course (max. 10 sentences).
Neptun: Instruction/Subjects/Subject Details/Basic data/Subject description

The course within the program of Structural Engineering Msc belongs to the group of Civil Engineering Mathematics. The course introduces the basics of modern information and analytical techniques required to use in a day-to-day operational, administrative and analytical procedures. Lectures, real life examples and case studies are used to provide all the information, analytical and management skill that are required by the labor market in an IT-supported world.

SYLLABUS

Neptun: Instruction/Subjects/Subject Details/Syllabus

1. GOALS AND OBJECTIVES

Goals, student learning outcome.
Neptun: Instruction/Subjects/Subject Details/Syllabus/Goal of Instruction

The course intends to present knowledge on modern information technology in general and also with a focus on engineering and business like application and an overview on applications to establish the necessary level of understanding, the roles and potential of these technologies and methods in everyday engineering and business life.
The course covers the uses of data, information, technology, software, networking, manpower, organization, and will conclude by discussing information management, IT business planning, competitiveness and the problems of the Information Society.

Learning Outcomes:

Knowledge

On completion of this module the successful student will be able to:

1. Understand the role and characteristics of IT tools and methods in engineering and business life.
2. Know how to leverage up-to-date technology development (hardware and software) and trends.
3. Apply relevant ICT terms like hardware, software, data, information, information system, information management, information society in managing business
4. Critically evaluate IS and modern info-communication technologies in the context of the organization
5. Discuss the IS development process, different approaches, advantages and risks in operation

Skills

By completing this course students will be able

1. To discuss the role and types of stand-alone and networked IT solutions
2. To demonstrate how to use information technology to design competitive organizations
3. To discuss dilemmas and controversies on IT and Information Management
4. To select PC-based managerial support tools in their individual work.

2. COURSE CONTENT

Neptun: Instruction/Subjects/Subject Details/Syllabus/Subject content

	TOPICS
LABORATORY PRACTICE	*1. topic: MS Excel practical skills* *2. topic: MS Access practical skills*

DETAILED SYLLABUS AND COURSE SCHEDULE

ACADEMIC HOLIDAYS INCLUDED

week	Topic
1.	Introduction
2.	Practice with spreadsheets (calculations, adjustments, formatting)
3.	Practice with spreadsheets (functions and formulas)
4.	Practice with spreadsheets (modelling)
5.	Practice with spreadsheets (data manager, simulations)
6.	Practice with spreadsheets (optimisation)
7.	First Test
8.	Practice with databases (practice with sample databases)
9.	Autumn break
10.	Practice with databases (building blocks of databases)
11.	Practice with databases (relations and design)
12.	Practice with databases (simple and complex queries)
13.	Practice with databases (creating reports)
14.	Q & A session, wrap -up
15.	Second Test

3. ASSESSMENT AND EVALUATION

(Neptun: Instruction/Subjects/Subject Details/Syllabus/Examination and Evaluation System)

ATTENDANCE

In accordance with the Code of Studies and Examinations of the University of Pécs, Article 45 (2) and Annex 9. (Article 3) a student may be refused a grade or qualification in the given full-time course if the number of class absences exceeds 30% of the contact hours stipulated in the course description.

Method for monitoring attendance *(e.g.: attendance sheet / online test/ register, etc.)*

Attending is required all classes, and will impact the grade (max. 10%). Unexcused absences will adversely affect the grade, and in case of absence from more than 30% of the total number of lesson will be grounds for failing the class. To be in class at the beginning time and stay until the scheduled end of the lesson is required, tardiness of more than 20 minutes will be counted as an absence. In the case of an illness or family emergency, the student must present a valid excuse, such as a doctor's note

ASSESSMENT

Cells of the appropriate type of requirement is to be filled out (course-units resulting in mid-term grade or examination). Cells of the other type can be deleted.

- **Two tests will be occur during the semester with 50-50% weight that will build up the final grade of the**

student. Both Tests have to be at least 50,1% in order to pass the course.

Course resulting in mid-term grade *(PTE TVSz 40§(3))*

Mid-term assessments, performance evaluation and their ratio in the final grade *(The samples in the table to be deleted.)*

Type	Assessment	Ratio in the final grade
Test 1	*20 points*	*50%*
Test 2.	*20 points*	*50%*

Opportunity and procedure for re-takes (PTE TVSz 47§(4))

The specific regulations for improving grades and resitting tests must be read and applied according to the general Code of Studies and Examinations. E.g.: all tests and assessment tasks can be repeated/improved at least once every semester, and the tests and home assignments can be repeated/improved at least once in the first two weeks of the examination period.

There is one retake possibility of the tests.

Grade calculation as a percentage

based on the aggregate performance according to the following table

Course grade	Performance in %
excellent (5)	85 %
good (4)	70 % ... 85 %
satisfactory (3)	55 % ... 70 %
pass (2)	40 % ... 55 %
fail (1)	below 40 %

The lower limit given at each grade belongs to that grade.

4. SPECIFIED LITERATURE

In order of relevance. (In Neptun ES: Instruction/Subject/Subject details/Syllabus/Literature)

COMPULSORY READING AND AVAILABILITY

Gardner, C.-Rathswohl, E.: MIS Cases using application software Wiley, 2011; ISBN: 978-0-470-10122-3
Jeffry D. Ullman-Jennifer Widom: First course in database systems, , Pearson, ISBN: 0138613370