Basic Informatics - BMEEOFTPRE1

I. Subject Specification

1. Basic Data

1.1 Title

Basic Informatics

1.2 Code

BMEEOFTPRE1

1.3 Type

Module with associated contact hours

1.4 Contact hours

Type	Hours/week / (days)
Lab	4

1.5 Evaluation

Midterm grade

1.6 Credits

0

1.7 Coordinator

name	Dr. Barsi Árpád
academic rank	Professor
email	barsi.arpad@emk.bme.hu

1.8 Department

Department of Photogrammetry and Geoinformatics

1.9 Website

https://epito.bme.hu/BMEEOFTPRE1
https://fiek2.mywire.org/course/view.php?id=399

1.10 Language of instruction

english

1.11 Curriculum requirements

Compulsory in Civil Engineering (Pre-engineering) programme

1.12 Prerequisites

1.13 Effective date

5 February 2020

2. Objectives and learning outcomes

2.1 Objectives

During the semester the students are going to learn how to use the Microsoft Windows operation system, and some selected Microsoft Office software: Microsoft Word - word processor, Microsoft PowerPoint - presentation program, Microsoft Excel - spreadsheet program, Microsoft Access - database management system. The greatest focus will be on Excel.

Besides Microsoft software, they will learn some programming routines with Python (data structures, loops, conditions).

The course also provides some basic web development skills: like HTML (Hypertext Markup Language) or CSS (Cascading Style Sheet). For the website creation Notepad and Google Chrome will be used.

Optionally there will be basic numerical computing practices with MATLAB.

During the laboratory practices the students mostly have to work independently. There will be teamwork only a few times (e.g. solving a programming problem).

The results of the laboratory work can be useful in future university life: creating technical description templates, timetables, curriculum vitae, spreadsheets etc.

2.2 Learning outcomes

Upon successful completion of this subject, the student:

A. Knowledge

1. knows the potential civil engineering application fields of a computer
2. knows what kind of software should be chosen for different tasks
3. knows the basics of Microsoft Office software
4. knows versatile faces of contents (text documents, web pages, plots, charts, presentation)
5. knows how to design documents (layout, format, fonts, colours)
6. knows how to manage specific data in tables, databases
7. learns a programming language (Python)
8. knows how to automate tasks, make calculations on big data sets

B. Skills

1. is able to create different documents (docx, xlsx, pdf)
2. is able to write a technical description, a CV
3. is able to create a self-introduction slideshow
4. is able to create a tables (timetable, spreadsheets)
5. is able to write executable scripts for different tasks
6. is able to summarize results in a graphical form (plots, diagrams)
7. is able to create a static website
8. using hotkeys for popular commands

C. Attitudes

1. follows the instructions of the coordinator
2. is able to focus on a demonstration,
3. learns how to work alone or in a team,
4. learns the basics of how to speak/present before audience
5. do not disturb others in work
6. join classes in time
7. ask for assistance in proper quantity

D. Autonomy and Responsibility

1. independently creates specific IT tasks.
2. approves the relevant lecturer opinion and applies it in further works.

2.3 Methods

Laboratory practices in computer lab supported by lecturer guidance and written documentation.

2.4 Course outline

Week	Topics of lectures and/or exercise classes
1.	Work with Microsoft Word
2.	Work with Microsoft Word
3.	Work with Microsoft PowerPoint
4.	Work with Microsoft Excel
5.	Work with Microsoft Excel
6.	Work with Microsoft Excel
7.	Work with Microsoft Excel
8.	Work with Microsoft Access
9.	Work with Microsoft Access
10.	Programming with Python
11.	Programming with Python
12.	Programming with Python
13.	Web development (HTML, CSS)
14.	Web development (HTML, CSS)

The above programme is tentative and subject to changes due to calendar variations and other reasons specific to the actual semester. Consult the effective detailed course schedule of the course on the subject website.

2.5 Study materials

1. Written documentation for each laboratory work
2. Microsoft Windows videos
3. RapidTyping software for typing practice

2.6 Other information

According to lecturer's approval, own laptop can be used.

2.7 Consultation

The instructor is available for consultation during office hours, as advertised on the department website.

This Subject Datasheet is valid for:

2023/2024 semester I

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II. Subject requirements

Assessment and evaluation of the learning outcomes

3.1 General rules

The students can collect maximum 6 points on each laboratory work.
The laboratory points of a task can vary according to:

- attitude - 100 %
- work quality - 100 %

During the semester approximately 160 point can be collected (14 x 2 x 6). Optionally, extra points (maximum 3 per occasion) can be collected by solving difficult geometric/mathematic riddles during lab / at home.

3.2 Assessment methods

Evaluation form	Abbreviation	Assessed learning outcomes
1-28. laboratory tasks	L1-L28	A.1-A.8; B.1-B.8; C.1-C.7; D.1-D.2

The dates of deadlines of assignments/homework can be found in the detailed course schedule on the subject's website.

3.3 Evaluation system

Abbreviation	Score
L1-L28.	100%

3.4 Requirements and validity of signature

No signature can be obtained.

3.5 Grading system

Grade	Points (P)
excellent (5)	90<=P
good (4)	80<=P<90%
satisfactory (3)	60<=P<80%
passed (2)	50<=P<60%
failed (1)	P<50%

3.6 Retake and repeat

The tasks are unable to repeat. The repeat of a few selected tasks can be possible in the last two weeks.

3.7 Estimated workload

Activity	Hours/semester
contact hours	14×2×2=56
preparation for contact hours	13×2=26
Sum	**82**

3.8 Effective date

5 February 2020

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2023/2024 semester I