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| Name of Course | ENGINEERING FLUID MECHANICS 2. |
| Course Code | MSB283ANEP |
| Allotment of Hours per Week | 1 Lecture, 1 Practice |
| Number of Credits | 2 |
| Program | Civil Engineer BSc. |
| Evaluation | Exam (with grade) |
| Semester | 2nd |
| Prerequisites | Engineering Fluid Mechanics 1. |
| Department | Civil Engineering |
| Instructor | Dr. Judit PÁL-SCHREINER |

INTRODUCTION, GENERAL COURSE DESCRIPTION

This course exposes students to an expansive suite of topics and methods within the field of water resources engineering, emphasizes engineering fluid mechanics (Hydrostatics).

LEARNING OBJECTIVES

Engineering fluid mechanics concepts include the properties of fluid, static fluid pressure, Euler's principle, manometers, hydrostatic forces, Pascal law, Archimedes's principle

Methodology:

- Lectures: Lectures will give an introduction to the basic knowledge of the engineering fluid mechanics (hydrostatics).
- Practical classes: Students will be able to practice the basic calculations and design through sample examples.
- Exam test: Accumulated knowledge is tested in an exam test.
- Practical test: Accumulated practice in basic calculations is tested in a practical test.

Schedule:

- Week 1 Course description; Orientation
- Week 2 The properties of fluid (Homework part1)
- Week 3 Hydrostatics's principle
- Week 4 Euler's principle
- Week 5 Euler's principle in practice, manometers (Homework part2)
- Week 6 Hydrostatic forces
- Week 7 Hydrostatic forces in practice 1
- Week 8 Hydrostatic forces in practice 2 (Homework part3)
- Week 9 Archimedes's principle

- Week 10 Spring Break – no classes
- Week 11 Archimedes's principle in practice (Homework part4)
- Week 12 Exam Test
- Week 13 Check Homeworks (Submission date)
- Week 14 Practical Test
- Week 15 Retake exam test, retake practical test (if required)

ATTENDANCE AND GRADING

Attendance:

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.

Grading:

Grading will follow the course structure with the following weight

10% - Class attendance, class activity

30% - Homeworks

30% - Practical test

30% - Exam test

A minimum of 55% is required to pass the exam

Offered exam grade:

| Evaluation in percents | Numeric grade |
|------------------------|---------------|
| 89%-100% | 5 |
| 77%-88% | 4 |
| 66%-76% | 3 |
| 55%-65% | 2 |
| 0-54% | 1 |

READINGS AND REFERENCE MATERIALS

- [1.] Ernest Brater, Horace King, James Lindell, C. Wei: Handbook of Hydraulics 7th Edition
 ISBN-13: 978-0070072473; ISBN-10: 0070072477