General Information:

Name of Course: # ENGINEERING FLUID MECHANICS 2.

Course Code: MSB283ANEP

Semester: 2nd

Number of Credits: 2

Allotment of Hours per Week: 1 Lecture, 1 Practice

Evaluation: Exam (with grade)

Prerequisites: **None**

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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	Topic of lecture
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 (Homework part3)

Week 8	Archimedes's principle
Week 9	*Spring Break – no classes*
Week 10	Archimedes's principle in practice (Homework part4)
Week 11	**Exam Test**
Week 12	Check **Homeworks (Submission date)**
Week 13	*1th of May– no classes*
Week 14	**Practical Test**
Week 15	**Retake exam test, retake practical test** (if required)

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

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

Students with Special Needs:

Students with a disability and needs to request special accommodations, please, notify the Deans Office. Proper documentation of disability will be required. All attempts to provide an equal learning environment for all will be made.

Readings and Reference Materials:

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