C O U R S E G U I D E – s h o r t f o r m

Academic year 2024-2025

Course name[1]	Fluid Mechanics					Course code		2.ISI.02.DD	
Course type[2]	DID	Category[3]	DI	Year of study	2	Semester	3	Number of credit points	3

Faculty	Material Science and Engineering	Number of teaching and learning hours[4]					
Field	Industrial Engineering	Total	L	T	LB	P	IS
Specialization	Safety industrial engineering	75	14		14	-	47

Pre-requisites from the curriculum[5]	Compulsory	Physics, Mathematics
	Recommended	-

General objective [6]	Knowledge of methods for the characterization of fluid motion, the mechanical interaction between the fluid and the external systems and the links between them.
Specific objectives[7]	The aim of course is the qualitative and quantitative study of fluid movement for the "control" current flows encountered in practice: 1. Knowing the movement of fluid characterization processes, the mechanical interaction between the fluid and external systems and links between them. 2. Direct the laws of fluid mechanics applications for the preparation in the engineer specialty of *Safety industrial engineering*. 3. Addressing general fluid motion and rest which can be solved by the methods of fluid mechanics (absolute and relative rest, fluid action to stand on solid walls, floating bodies, rolling movements). 4. Detailed study of miscarriages and local distribution.
Course description[8]	1. The physical properties of the fluid (2 hours); 2. General equations of fluid mechanics (4 hours); 3. Movement of the effluent (2 hours); 4. Calculation of the pipes (2 hours); 5. Problems solved by methods specific specialty fluid mechanics of *Safety industrial engineering* (4 hours).

Assessment			Schedule[9]	Percentage in the final grade(minimum grade)[10]
A. Final assessment form[11]: Colloquium	Class tests along the semester	%		50 % (minimum 5)
	Home works	%		
	Other activities	%		
	Examination procedures and conditions: 1. The first subject: tasks: case solving; working conditions T: weight 50%; 2. Subject 2: Tasks: case solving; working conditions T: weight 25%; 3. Subject 3: Tasks: case solving; working conditions T: weight 25%.	100 %	Week 13÷14	
C. Laboratory	Activity during laboratory			50 %(minimum 5)

Course organizer	Lecturer PhD. Eng. Eugen-Vlad NĂSTASE	
Teaching assistants	Lecturer PhD. Eng. Eugen-Vlad NĂSTASE	

[1]Course name from the curriculum
[2] DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)
[3] DI – imposed, DO –optional, DL – facultative (from the curriculum)
[4] Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)
[5]According to 4.1 –Pre-requisites - from the Course guide – extended form
[6] According to 7.1 from the Course guide – extended form
[7] According to 7.2 from the Course guide – extended form
[8] Short description of the course, according to point 8 from the Course guide – extended form
[9]For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period
[10]A minimum grade might be imposed for some assessment stages
[11]Exam or colloquium