

# COURSE GUIDE – short form

Academic year 2017-2018

Course name <sup>1</sup>	<b>Fluid Mechanics</b>					Course code	2ISI02DID			
Course type <sup>2</sup>	DID	Category <sup>3</sup>	DI	Year of study	2	Semester	3	Number of credit points		4

Faculty	Material Science and Engineering					Number of teaching and learning hours <sup>4</sup>					
Field	Industrial Engineering					Total	L	T	LB	P	IS
Specialization	Safety Engineering in Industry					108	14		14	-	80

Pre-requisites from the curriculum <sup>5</sup>	Compulsory	Physics, Mathematics									
	Recommended	-									

General objective <sup>6</sup>	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 <sup>7</sup>	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 <i>Security Engineering in Industry</i> . 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 <sup>8</sup>	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 <i>Security Engineering in Industry</i> (4 hours).										

Assessment			Schedule <sup>9</sup>	Percentage of the final grade (minimum grade) <sup>10</sup>
Continuous assessment	Class tests along the semester		-	%
	Activity during tutorials/laboratory works/projects/practical work		Weeks 1-14	50 %
	Assignments		-	%
Final assessment	Final assessment form <sup>11</sup>	Colloquium	Week 14	50 %
	Examination procedures and conditions: 1. First subject; T; percent of the colloquium grade 50% 2. Second subject; T; percent of the colloquium grade 25% 3. Third subject; T; percent of the colloquium grade 25%			

Course organizer	Ass. Professor, Ph. D., Aurora Alexandrescu	
Teaching assistants	Ass. Professor, Ph. D., Aurora Alexandrescu	

<sup>1</sup>Course name from the curriculum

<sup>2</sup>DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

<sup>3</sup>DI – imposed, DO – optional, DL – facultative (from the curriculum)

<sup>4</sup>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)

<sup>5</sup>According to 4.1 – Pre-requisites - from the Course guide – extended form

<sup>6</sup>According to 7.1 from the Course guide – extended form

<sup>7</sup>According to 7.2 from the Course guide – extended form

<sup>8</sup>Short description of the course, according to point 8 from the Course guide – extended form

<sup>9</sup>For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

<sup>10</sup>A minimum grade might be imposed for some assessment stages

<sup>11</sup>Exam or colloquium