

„GHEORGHE ASACHI” TECHNICAL UNIVERSITY OF IASI
FACULTY OF MACHINE MANUFACTURING AND INDUSTRIAL MANAGEMENT

Field of study: **Mechanical Engineering**
 Programme of Study: **Applied Fluid Mechanics**
 Conferred title: Master Degree
 Study duration: 4 *semesters*
 Form of education: *full-time*

CURRICULUM

YEAR 1

2019/2020

TYPE	No.	Course name	Course code	Prerequisites	Semester 1						Semester 2										
					No of hours / week / course						Eval.	K	No of hours / week / course						Eval.	K	
					C	S	L	P	PA	SI*			C	S	L	P	PA	SI*			
DI	1	Mathematical Basis of Finite Element Method	CFAC,MFA-SMM-IA-101	-	2	1	0	0	0	78	E	5									
DI	2	Elements of Technological Physics	CFAC,MFA-SMM-IA-102	-	2	0	1	0	0	78	E	5									
DI	3	Computer-Aided Fluid Engineering 1	MFA-IA-103	-	2	0	2	0	0	112	E	7									
DI	4	Design-Research Laboratory 1	MFA-PA-104	-	0	0	0	0	12	0	VP	7									
DI	5	Boundary Layer and Turbulence	MFA-IA-105	-									2	1	0	0	0	78	E	5	
DI	6	Finite Element Analysis in Mechanical Engineering	CFAC,MFA,SMM-IA-106	-									2	0	2	0	0	88	E	6	
DI	7	Hydrodynamic Processes in Control Devices	MFA-IA-107	-									2	0	0	1,5	0	71	E	5	
DI	8	Design-Research Laboratory 2	MFA-PA-108	-									0	0	0	0	10	28	VP	7	
DI	9	Ethics and Integrity	CMMI-IA-111	-									1	1	0	0	0	20	C	2	
DO	10	Real-Time Measuring and Monitoring of Fluid Parameters	MFA-IA-112	-	2	0	1	1	0	88	E	6									
DO		Pneumatic Systems and Equipment	MFA-IA-113	-	2	0	1	1	0	88	E	6									
DO	11	Computer-Aided Fluid Engineering 2	MFA-IA-114	-									1,5	0	2	0	0	71	E	5	
DO		Advanced Turbomachinery Hydrodynamics	MFA-IA-115	-									1,5	0	2	0	0	71	E	5	
DL	12	Complements of Fluid Mechanics	MFA-IA-116	-	2	1	1	0	0	88	E	6									
DL	13	Basics of Turbomachinery Hydrodynamics	MFA-IA-117	-									2	1	1	0	0	71	E	5	
Total hours per week, total evaluations and credits per semester						12	2	6	2	12			9	3	7	0	10		6E		
						22				12	532	6E	42	19				10	498	1C	40
						24						1VP		29						1VP	

Abbreviation: *MC* - Mandatory Course; *OC* - Optional Course; *FC* - Free Course; *SI* - Individual (Non Assisted) Study;
PA - Partially Assisted; *C* – Course; *S* – Seminary; *L* – Laboratory; *P* - Project

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CURRICULUM

YEAR 2

2019/2020

TYPE	No.	Course name	Course code	Prerequisites	Semester 1						Semester 2										
					No of hours / week / course						Eval.	K	No of hours / week / course						Eval.	K	
					C	S	L	P	PA	SI*			C	S	L	P	PA	SI*			
MC	1	Dynamics of Polyphase Fluids	MFA-IA-201	-	1,5	0	0	1,5	0	78	E	5									
MC	2	Modelling of Fluid Power Systems	MFA-IA-202	-	2	0	1	1	0	88	E	6									
MC	3	Systems and Equipment for Water and Air Depollution	MFA-IA-203	-	2	0	0	1,5	0	95	E	6									
MC	4	Design-Research Laboratory 3	MFA-IA-204	-	0	0	0	0	12	0	VP	7									
MC	5	Practical Training in Engineering Research	MFA-PA-205	-									0	0	0	0	12	72	VP	10	
MC	6	Master's Thesis Elaboration	MFA-PA-206	-									0	0	0	0	14	284	VP	20	
OC	7	Wind Turbine Design	MFA-IA-208	-	2	0	0	1,5	0	95	E	6									
		Aerodynamics of Aircraft Propulsion Systems	MFA-IA-209	-	2	0	0	1,5	0	95	E	6									
FC	8	Generalized Models in Fluid Mechanics	MFA-IA-210	-	2	2	0	0	0	88	E	6									
MC	9	Master's Thesis Exam	CFAC-ED																E	10	
Total hours per week, total evaluations and credits per semester					10	2	1	1	12			4E		9	2	2	3.5	10		4E	
					14			12		539	1C	42	16				10		356	2C	40
					26						1VP		26							1VP	

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