

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

Level of qualification: **Bachelor studies**

Field of study: **Engineering and Management**

Programme of Study: **Economical Engineering in Mechanics**

Conferred title: engineer degree

Study duration: 4 years, 240 ECTS

Form of education: *full-time*

CURRICULUM - 1st year of study

No.	Course name	Course code	Type	Prere- quisites	1 st semester							2 nd semester						
					No of hours				Hours	Ev	K	No of hours				Hours	Ev	K
					C	S	L	P	SI			C	S	L	P	SI		
1	Linear Algebra, Analytical and Differential Geometry	CMMI-L-1.01	MC	-	3	2	0	0	65	E	5							
2	Mathematical Analysis 1	CMMI-L-1.02	MC	-	2	1.5	0	0	59	E	4							
3	Computer Programming	CMMI-L-1.03	MC	-	1	0	2	0	39	E	3							
4	Descriptive Geometry and Technical Drawing 1	CMMI-L-1.04.b	MC	-	2	2.5	0	0	72	C	5							
5	Chemistry	CMMI-L-1.05	MC	-	1	0	1	0	26	C	2							
6	Materials Science	CMMI-L-1.06	MC	-	2.5	0	2	0	79	E	5							
7	Fundamentals of Economics	CMMI-L-1.07.b	MC	-	2	1	0	0	39	C	3							
8	Physical Training and Sports 1	CMMI-L-1.08	MC	-	0	1	0	0	13	C	1							
9	Professional Communication	CMMI-L-1.09	OC	-	2	0	0	0	26	C	2							
	History of Technics	CMMI-L-1.10	OC	-														
10	Mathematical Analysis 2	CMMI-L-2.01	MC	C1,C2								2.5	1.5	0	0	79	E	5
11	Computer-Aided Engineering Graphics and Applied Informatics	CMMI-L-2.02	MC	C3								1	0	4	0	65	C	5
12	Descriptive Geometry and Technical Drawing 2	CMMI-L-2.03	MC	C4								2	3	0	0	65	C	5
13	Theoretical Mechanics 1	CMMI-L-2.04	MC	C1,C2								4	1.5	1	0	71	E	6
14	Materials Technology	CMMI-L-2.05	MC	C5								2.5	0	1	0	59	E	4
15	Physical Training and Sports 2	CMMI-L-2.06	MC	-								0	1	0	0	13	C	1
16	Structured Programming Languages	CMMI-L-2.07	OC	-								1.5	0	2	0	66	E	4
	Object-Oriented Programming Languages	CMMI-L-2.08	OC	-														
17	Elementary Mathematics 1	CMMI-L-2.09	FC	-	0	3	0	0	39	C	3							
18	Psychology of Education	DPPD-SPU-01	FC	-	2	2	0	0	64	E	5							
19	Elementary Mathematics 2	CMMI-L-2.10	FC	-								0	2	0	0	53	C	3
20	Elements of Metric Spaces with Applications	CMMI-L-2.11	FC	-								2	2	0	0	79	C	5
21	Pedagogy 1	DPPD-SPU-02	FC	-								2	2	0	0	64	E	5
	Total hours per week, total evaluations and credits per semester				15.5	8	5	0	418	4E	30	13.5	7	8	0	418	4E	30
						28				5C			28				3C	

Abbreviation: MC - Mandatory Course; OC- Optional Course; FC - Free Course;

SI - Individual (Non Assisted) Study; C – Course; S – Seminary;

L – Laboratory; P - Project; Ev - evaluation type (E-exam, C-colloquium), K- ECTS credits

Prerequisites: C1 - Mathematical Analysis 1; C2 - Linear Algebra, Analytical and Differential Geometry;

C3 - Computer Programming; C4 - Descriptive Geometry and Technical Drawing 1; C5 - Materials Science.

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Form of education: *full-time*

CURRICULUM - 2nd year of study

					1 st semester								2 nd semester							
No.	Course name	Course code	Type	Prere- quisites	No of hours				Hours	Ev	K	No of hours				Hours	Ev	K		
					C	S	L	P	SI			C	S	L	P	SI				
1	Special Mathematics	CMMI-L-3.01	MC	C1	2.5	1.5	0	0	52	E	4									
2	Accountancy	CMMI-IEDM-3.02	MC	C2	2	1	0	0	66	C	4									
3	Physics	CMMI-L-3.03	MC	C3	4	1.5	2	0	91	E	7									
4	Operational Research	CMMI-IEDM-3.04	MC	C1	2	0	2	0	32	C	3									
5	Strength of Materials 1	CMMI-L-3.05	MC	C3,C1	2.5	1	1	0	72	E	5									
6	Mechanisms	CMMI-L-3.06	MC	C3	2	1	1	0	79	E	5									
7	Physical Training and Sports 3	CMMI-L-3.07	MC	-	0	1	0	0	13	C	1									
8	English Language 1	CMMI-L-3.08	OC	-	0	1	0	0	13	C	1									
	French Language 1	CMMI-L-3.09	OC	-																
	German Language 1	CMMI-L-3.10	OC	-																
9	Strength of Materials 2	CMMI-L-4.01	MC	C4								2.5	2	0	0	45	E	4		
10	Machine Elements	CMMI-L-4.02	MC	C4								3	0	0	2	65	E	5		
11	Fluid Mechanics 1	CMMI-L-4.03	MC	C3								3	1.5	1	0	58	E	5		
12	Tolerances and Dimensional Control	CMMI-L-4.04	MC	-								2.5	0	2	0	45	E	4		
13	Marketing	CMMI-IEDM-4.05	MC	C2								2	1	0	0	39	C	3		
14	Physical Training and Sports 4	CMMI-L-4.06	MC	-								0	1	0	0	13	C	1		
15	Field of Study Practical Training (3 weeks x 30 hours = 90 hours)	CMMI-IEDM-4.07	MC	-												18	C	4		
16	Thermodynamics	CMMI-L-4.08	OC	C6								2	0	1	0	39	C	3		
	Heat and Mass Transfer	CMMI-L-4.09	OC	C6																
17	English Language 2	CMMI-L-4.10	OC	-								0	1	0	0	13	C	1		
	French Language 2	CMMI-L-4.11	OC	-																
	German Language 2	CMMI-L-4.12	OC	-																
18	Elementary Physics	CMMI-L-3.11	FC	-	0	2	0	0	53	C	3									
19	Computational Geometry	CMMI-L-3.12	FC	-	2	2	0	0	79	C	5									
20	Pedagogy 2	DPPD-SPU-03	FC	-	2	2	0	0	64	E	5									
21	Ethics and Academic Integrity	CMMI-L-4.13	FC	-								2	1	0	0	39	C	3		
22	Specialty Didactics	DPPD-SPU-04	FC	-								2	2	0	0	64	E	5		
	Total hours per week, total evaluations and credits per semester				15	8	5	0	418	4E	30	15	6.5	4	2	335	4E	30		
						28				4C			27.5				5C			

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Prerequisites: C1 - Mathematical Analysis 1, 2; C2 - Accountancy;

C3 - Theoretical Mechanics 1; C4 - Strength of Materials; C5 - Mechanisms; C6 - Physics

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CURRICULUM - 3rd year of study

No.	Course name	Course code	Type	Prere- quisites	1 st semester							2 nd semester						
					No of hours				Hours	Ev	K	No of hours				Hours	Ev	K
					C	S	L	P	SI			C	S	L	P	SI		
1	Theory of Cutting Manufacturing	CMMI-IEDM-5.01	MC	-	2	0	2	0	106	E	6							
2	Industrial and Intellectual Property	CMMI-IEDM-5.02	MC	-	2	1	0	0	39	C	3							
3	General Management	CMMI-IEDM-5.03	MC	-	2	1	0	0	39	C	3							
4	Quality Management	CMMI-IEDM-5.04	MC	-	2	2	0	0	52	E	4							
5	Marketing Management	CMMI-IEDM-5.05	MC	-	2	1	0	0	39	C	3							
6	Elements of Law and Legislation	CMMI-IEDM-5.06	MC	-	1	3	0	0	52	E	4							
7	Electrical Engineering and Electronics	CMMI-L-5.07.a	OC	C1	4	0	2	0	78	E	6							
	Industrial Electrical Engineering	CMMI-L-5.08.a	OC	C1														
8	English Language 3	CMMI-L-5.15	OC	-	0	1	0	0	13	C	1							
	French Language 3	CMMI-L-5.16	OC	-														
	German Language 3	CMMI-L-5.17	OC	-														
9	Machine Tools	CMMI-IEDM-6.01	MC	C2								2	0	1	1	52	E	4
10	Cutting Tools and Tools Systems	CMMI-IEDM-6.02	MC	C2, C3								2	0	1	2	65	E	5
11	Experimental Techniques	CMMI-IEDM-6.03	MC	C1								2	0	2	0	25	E	3
12	Industrial Management	CMMI-L-6.07	MC	-								2	1	0	0	39	C	3
13	Simulated Enterprise Management	CMMI-IEDM-6.04	MC	C4								1	0	2	0	39	C	3
14	Specialty Practical Training (3 weeks x 30 hours = 90 hours)	CMMI-IEDM-6.05	MC	-												18	C	4
15	Finances and Credit	CMMI-IEDM-6.08	OC	C4								2	2	0	0	25	C	3
	Financial Management	CMMI-IEDM-6.09	OC	C4														
16	Commercial Law	CMMI-IEDM-6.10	OC	C5								3	1	0	0	52	E	4
	Labour law	CMMI-IEDM-6.11	OC	C5														
	English Language 4	CMMI-L-6.15	OC	-								0	1	0	0	13	C	1
17	French Language 4	CMMI-L-6.16	OC	-														
	German Language 4	CMMI-L-6.17	OC	-														
18	Computer-Aided Training	DPPD-SPU-04	FC	-	1	1	0	0	32	C	2							
19	Pedagogic Training 1	DPPD-SPU-05	FC	-	0	0	3	0	48	C	3							
20	SME's Management	CMMI-IEDM-6.12	FC	-								2	1	0	0	39	C	3
21	Classroom Management	DPPD-SPU-06	FC	-								1	1	0	0	30	C	3
22	Pedagogic Training 2	DPPD-SPU-07	FC	-								0	0	3	0	32	C	2
23	Entrepreneurial education	CMMI-L-6.18	FC									2	0	1	0	93	C	5
	Total hours per week, total evaluations and credits per semester				15	9	4	0	418	4E	30	14	5	6	3	328	4E	30
						28				4C			28				5C	

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L – Laboratory; P - Project; Ev - evaluation type (E-exam, C-colloquium), K- ECTS credits

Prerequisites: C1 - Physics; C2 - Machine Elements; C3 - Theory of Cutting Manufacturing; C4 - Accountancy; C5 - Elements of Law and Legislation.

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Form of education: *full-time*

CURRICULUM - 4th year of study

No.	Course name	Course code	Type	Prere- quisites	1 st semester								2 nd semester							
					No of hours				Hours	Ev	K	No of hours				Hours	Ev	K		
					C	S	L	P	SI				C	S	L	P	SI			
1	Manufacturing Technologies	CMMI-IEDM-7.01	MC	C1,C2	3	0	0	1	52	E	4									
2	Maintenance Management	CMMI-IEDM-7.02	MC	C3	2	2	0	0	79	E	5									
3	Project Management	CMMI-IEDM-7.03	MC	C3	2	0	0	2	52	C	4									
4	Jigs and Fixtures	CMMI-IEDM-7.04	MC	C4	3	0	1	2	105	E	7									
5	Computer-Aided Design	CMMI-IEDM-7.05	MC	C5	2	0	4	0	51	E	5									
6	Logistics Management	CMMI-IEDM-7.06	OC	C3	2	2	0	0	79	C	5									
	Innovation Management	CMMI-IEDM-7.07	OC	C3																
7	Human Resources Management	CMMI-IEDM-8.01	MC	C3								2	1	0	0	39	E	3		
8	Flexible Manufacturing Systems	CMMI-IEDM-8.02	MC	C2								3	0	0	1	79	E	5		
9	Economic Statistics	CMMI-IEDM-8.03	MC	C6								3	0	2	0	65	E	5		
11	Finances of economic operator	CMMI-IEDM-8.04	MC	C7								2	2	0	0	52	E	4		
12	Modelling and Simulation of Production Systems	CMMI-IEDM-8.05	OC									2	1	0	0	39	C	3		
	Information Systems in Management	CMMI-IEDM-8.06	OC																	
13	Strategic Management	CMMI-IEDM-8.07	OC									2	1	0	0	39	C	3		
	International Management	CMMI-IEDM-8.08	OC																	
14	Diploma Project 1	CMMI-IEDM-8.09	MC									0	0	0	4	52	C	4		
15	Diploma Project 2 (2 weeks x 30 hours = 60 hours)	CMMI-IEDM-8.10	MC													21	C	3		
16	English Language 5	CMMI-L-7.15	FC		0	1	0	0	13	C	1									
17	French Language 5	CMMI-L-7.16	FC		0	1	0	0	13	C	1									
18	German Language 5	CMMI-L-7.17	FC		0	1	0	0	13	C	1									
19	Stock Exchange and Commodities	CMMI-IEDM-7.11	FC		2	1	0	0	39	C	3									
20	Entrepreneurial education	CMMI-L-7.18	FC		1	0	2	0	93	C	5									
21	English Language 6	CMMI-L-8.15	FC									0	1	0	0	13	C	1		
	French Language 6	CMMI-L-8.16	FC									0	1	0	0	13	C	1		
	German Language 6	CMMI-L-8.17	FC									0	1	0	0	13	C	1		
22	Applied Entrepreneurial education	CMMI-L-8.18	FC									2	0	0	1	39	C	3		
	Total hours per week, total evaluations and credits per semester				14	4	5	5	418	4E	30	14	5	2	5	386	4E	30		
						28				2C			26				4C			
23	Bachelor's Thessis Exam	CMMI-IEDM-ED	MC														E	10		

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L – Laboratory; P - Project; Ev - evaluation type (E-exam, C-colloquim), K- ECTS credits

Prerequisites: C1 - Cutting Tools and Tools Systems; C2 - Machine Tools; C3 - General Management ; C4 - Machine Elements;