

TABLE 2: COURSE DISTRIBUTION PER SEMESTER

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS
1st Semester - Α' Εξάμηνο								
1	Theoretical	Mathematics I	MEM 101	2	2	13	26	5
2	Theoretical	Physics I	MEM 104	2	2	13	26	5
			Laboratory	1	1.5	13	13	
						Module total	39	
3	Theoretical	General Chemistry	MEM 106	2	2	13	26	6
4	Theoretical	English for Engineers	LCE 117	2	1.5	13	26	4
5	Theoretical	Introduction to Mechanics	MEM 107	2	1.5	13	26	5
			Laboratory	1	3	13	13	
						Module total	39	
6	Theoretical	MEM_111 Programming Principles I	MEM 111	1	3	13	13	5
			Laboratory	1	3	13	13	
						Module total	26	
							Semester ECTS	30

2 nd Semester - Β' Εξάμηνο								
1	Theoretical	Mathematics II	MEM 102	2	2	13	26	6
2	Theoretical	PhysicsII	MEM 105	2	2	13	26	5
			Laboratory	1	1.5	13	13	
						Module total	39	
3	Theoretical	Programming Principles II	MEM 114	1	3	13	13	5
			Laboratory	1	3	13	13	
						Module total	26	
4	Theoretical	English for Engineers	LCE 118	2	1.5	13	26	4
5	Theoretical	Introduction to Materials Science and Engineering	MEM 112	2	2	13	26	5
6	Theoretical	Computer aided design	MEM 213	2	1.5	13	26	5
			Laboratory	1	3	13	13	
						Module total	39	
							Semester ECTS	30

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS
3rd Semester - Γ' Εξάμηνο								
1	Theoretical	Mathematics III	MEM 103	2	2	13	26	5
2	Theoretical	Mechanics - Statics	MEM 211	2	2	13	26	5
3	Theoretical	Introduction to Thermodynamics	MEM 212	2	2	13	26	5
4	Theoretical	Engineering Materials	MEM 214	2	2	13	26	5
5	Theoretical	Engineering Management and economics	MEM 216	2	1.5	13	26	5
6	Theoretical	Introduction to Electrical Engineering	MEM 245	2	2	13	26	5
							Semester ECTS	30

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS
4th Semester - Δ' Εξάμηνο								
1	Theoretical	Differential Equations	MEM 201	2	2	13	26	6
2	Theoretical	Mechanics and Testing of Materials	MEM 215	2	2	13	26	6
			Laboratory	2	1.5	13	26	
						Module total	52	
3	Theoretical	Manufacturing Engineering I	MEM 311	2	1.5	13	26	6
			Laboratory	1	3	13	13	
						Module total	39	
4	Theoretical	Dynamics	MEM 221	2	2	13	26	6
5	Theoretical	Applied Thermodynamics	MEM 217	2	2	13	26	6
							Semester ECTS	30

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS
5th Semester - Ε' Εξάμηνο								
1	Theoretical	Fluid Mechanics I	MEM 321	2	2	13	26	5
2	Laboratory	Engineering Measurements I	MEM 222	2	1.5	13	26	5
			Laboratory	1	1.5	13	13	
						Module total	39	
3	Theoretical	Dynamics of Mechanical Systems	MEM 324	2	2	13	26	5
4	Theoretical	Stress Analysis	MEM 414	2	2	13	26	5
5	Theoretical	Numerical Methods	MEM 329	2	1.5	13	26	5
			Laboratory	1	2	13	13	
						Module total	39	
6	Theoretical/Laboratory	One Technical elective from the subjects below (Module 1, TABLE2.1)						
	Theoretical	Applied Petroleum and Reservoir Engineering	MEM_443	2	2	13	26	5
	Theoretical	Mechanical Vibrations	MEM_428	2	2	13	26	5
	Laboratory	Materials Laboratory	MEM_335	1	3	13	13	5
							Semester ECTS	30

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS	
6th Semester - Στ' Εξάμηνο									
1	Theoretical	Heat Transfer	MEM 323	2	1.5	13	26	5	
				1	1.5	13	13		
						Module total	39		
2	Theoretical	Automatic Control	MEM 322	2	2	13	26	5	
3	Theoretical	Design of Machine Elements	MEM 326	2	2	13	26	5	
4	Theoretical	Heating, ventilation, air conditioning	MEM 423	2	2	13	26	5	
5	Theoretical	One Technical elective from the subjects below (Module 2, TABLE2.1)							
	Theoretical	Fluid Mechanics II	MEM_460	2	2	13	26	5	
	Laboratory	Engineering Measurements II	MEM_325	2	1.5	13	26	5	
		Laboratory		1	1.5	13	13		
						Module total	39		
	Theoretical	Phase Transformations	MEM_333	2	2	13	26	5	
6	Theoretical	One Technical elective from the subjects below (Module 3, TABLE2.1)							
	Theoretical	Phase Transformations	MEM_333	2	2	13	26	5	
	Theoretical	Quantum Mechanics	MEM_231	2	2	13	26	5	
							Semester ECTS	30	

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS	
7th Semester - Η' Εξάμηνο									
1.	Theoretical	One Technical elective from the subjects below (Module 4, TABLE2.1)							
		Mechatronics	MEM_328	2	2	13	26	5	
		Solid State Physics	MEM_332	2	2	13	26	5	
2.		One Technical elective from the subjects below (Module 5, TABLE2.1)							
	Theoretical	Mechanical Vibrations	MEM_428	2	2	13	26	5	
	Theoretical	Finite Element Methods in Engineering Design	MEM_416	2	2	13	26	5	
		Laboratory		1	2	13	13		
						Module total	39		
	Theoretical	Organic Chemistry	MEM_202	2	2	13	26	5	
3.	Theoretical	Manufacturing Engineering II	MEM 421	2	1.5	13	26	5	
		Laboratory		1	3	13	13		
						Module total	39		
4.	Theoretical	Design of Machine Elements	MEM 415	2	2	13	26	5	
5.		Final Year Project	MEM 424					10	
							Semester ECTS	30	

A/A	Module Type	Module Name	Code	Periods / week	Period duration (Hours)	Number of weeks / semester	Total periods / semester	ECTS	
8th Semester - Θ' Εξάμηνο									
1		One Technical elective from the subjects below (Module 6, TABLE2.1)							
	Theoretical	Energy Sources and Building Performance	MEM_426	2	2	13	26	5	
	Theoretical	Mechanics of Complex Materials	MEM_461	2	2	13	26	5	
	Theoretical	Polymers	MEM_434	2	2	13	26	5	
2		One Technical elective from the subjects below (Module 7, TABLE2.1)							
	Theoretical	Internal Combustion Engines	MEM_439	2	2	13	26	5	
	Theoretical	Introduction to Εμβιομηχανική	MEM_433	2	2	13	26	5	
	Theoretical	Energy Sources and Building Performance	MEM_426	2	2	13	26	5	
3		MEM_XXX Free Technical Elective*						5	
4	Theoretical	Advanced Materials Synthesis	MEM 336	2	2	13	26	5	
5	Theoretical	Final Year Project	MEM 425					10	
							Semester ECTS	30	

* The Free Elective Technical Course can be any lesson from Tables A, B, C (in Table 2.1) or MEM_444 Industrial Training. In some cases the Undergraduate Committee may approve enrollment in a course in another Department or School.

Table2.1. TECHNICAL ELECTIVES

Technical Electives			
	TABLEA	TABLEB	TABLEΓ
	Technical Subjects - Energy Systems	Technical Subjects - Mechanics and Dynamical Systems	Technical Subjects - Materials Science and Engineering
1	MEM_443 Applied Petroleum and Reservoir Engineering	MEM_428 Mechanical Vibrations	MEM_335 Materials Laboratory
2	MEM_460 Fluid Mechanics II	MEM_325 Engineering Measurements II	MEM_333 Phase Transformation
3	MEM_333 Phase Transformation	MEM_231 Quantum Mechanics	MEM_231 Quantum Mechanics
4	MEM_328 Mechatronics	MEM_328 Mechatronics	MEM_332 Solid State Physics
5	MEM_428 Mechanical Vibrations	MEM_416 Finite Element Methods in Engineering Design	MEM_202 Organic Chemistry
6	MEM_426 Energy Sources and Building Performance	MEM_461 Mechanics of Complex Materials	MEM_434 Polymers
7	MEM_439 Internal Combustions Engines	MEM_433 Introduction to Biomechanics	MEM_426 Energy Sources and Building Performance