

UNIVERSITY OF PETROSANI

Faculty MECHANICAL AND ELECTRICAL ENGINEERING

Field ELECTRICAL ENGINEERING

 Study Program **Electromechanics**

Engineers - IF, 4 years x 2 sem./year x 14 weeks./sem. x 28 hours/week., 4 weeks. main exam's sessions/sem.

MINISTRY of NATIONAL EDUCATION

STUDY PLAN
valid beginning with academic year 2009 - 2010

No.	FIRST YEAR		Semester 1				Semester 2				Prepare hours	Credit points		Ex, C, V		No. of hours			
	Courses	Courses code	C	S	L	P	C	S	L	P		Sem.1	Sem.2	Sem.1	Sem.2	Class	Apl.	Tot.	
1	Linear Algebra, Analytical and Differential Geometry	2EE1OF01	2	2							2	5		E1		28	28	56	
2	Mathematical Analysis	2EE1OF02	2	2							2	5		E1		28	28	56	
3	Elements of Theoretical Mechanics	2EE1OD03	2		1						1	3		E1		28	14	42	
4	Computer Programming	2EE1OF04	2		3						2	5		E1		28	42	70	
5/6	Optional course OP 11 - I,II	2EE1/2AX05/06		2				2			1	1	2	2	V1	V2	0	56	56
7	Theory of Electromagnetic Field	2EE1OD07	3	2							2	5		E1		42	28	70	
8	Optional course OP12	2EE1AX08	1	1							1	2		V1		14	14	28	
9	Chemistry	2EE1OF09	2		2						1	3		V1		28	28	56	
10	Computer Aided Graphics	2EE2OF10					1		2		1		4		V2	14	28	42	
11	Physics	2EE2OF11					2		2		1		4		E2	28	28	56	
12	Theory of Electric Circuits I	2EE2OD12					2	2	2		3		6		E2	28	56	84	
13	Special Mathematics	2EE2OF13					2	2			2		4		E2	28	28	56	
14	Technological Methods and Procedures	2EE2OD14					2		1		2		4		E2	28	14	42	
15	Analog and digital electronics	2EE2OD15					3		2		2		6		E2	42	28	70	
TOTAL hours C, S, L, P /week.			14	9	6	0	12	6	9	0	12/12	30	30	5E,3V	5E,2V	364	420	784	
16	Sport*	2EE1/2OX16			2				2						A/R		56		

No.	SECOND YEAR		Semester 3				Semester 4				Prepare hours	Credit points		Ex, C, V		No. of hours			
	Courses	Courses code	C	S	L	P	C	S	L	P		Sem.1	Sem.2	Sem.1	Sem.2	Class	Apl.	Tot.	
17	Numerical Methods	2EE3OF17	2	1	1						2	4		E3		28	28	56	
18	Optional course OP21	2EE3AF18	2	1							1	3		V3		28	14	42	
19	Theory of Electric Circuits II	2EE3OD19	2	2	2						2	6		E3		28	56	84	
21/21	Electrical and electronic measurements I, II	2EE3/4OD20/21	2		2		3		2		2	2	5	5	E3	E4	70	56	126
22	Materials Strength	2EE3OS22	2		1						1	4		E3		28	14	42	
23/24	Optional course OP22 - I,II	2EE3/4AX23/24		2				2			1	1	2	2	V3	V4	0	56	56
25	CAD Techniques in Electrical Engineering	2EE4OF25					2		3		2		4		E4	28	42	70	
26	Electrotechnical Materials	2EE4OD26					2		1		1		3		V4	28	14	42	
27	Optional course OP 23	2EE4AS27					2		2		2		4		E4	28	28	56	
28	Programming Languages	2EE4OF28					2		1		2		4		E4	28	14	42	
29/30	Electrical Machines I,II	2EE3/4OS29/30	3		2		3		2	2	2	2	6	6	E3	E4	84	84	168
31	Practical Training I, 3weeks. x 40 h/week.	2EE4OX31											2		C4			120	
TOTAL hours C, S, L, P /week.			13	6	8	0	14	2	11	2	12/12	30	30	5E,2V	5E,2V, 1C	378	406	904	

No.	THIRD YEAR		Semester 5				Semester 6				Prepare hours	Credit points		Ex ,C, V		No. of hours		
	Courses	Courses code	C	S	L	P	C	S	L	P		Sem.1	Sem.2	Sem.1	Sem.2	Class	Apl.	Tot.
			32	Optional course OP31	2EE5AD32	3		2							2.5	5		E5
33	Lifting and Haulage Installations	2EE5OS33	2		2						1.5	5		E5		28	28	56
34	Mechanics of Fluids and Heat Engineering	2EE5OS34	2		2						2	4		V5		28	28	56
35	Measurement of Non - Electrical Values	2EE5OS35	2		2						2	4		E5		28	28	56
36	Numeric Equipment for Eletromechanical Inatallations	2EE5OS36	2		1						1	3		E5		28	14	42
37	Industrial Machines and Installations	2EE5OS37	2		2						2	3		V5		28	28	56
38/39	Electric Drives Systems I,II	2EE5/6OD38/39	3		2		3		2	2	2	2	6	E5	E6	84	84	168
40	Quality and Reliability	2EE6OD40					2		1		1.5		4		V6	28	14	42
41	Hydraulic and Pneumatic Drives	2EE6OD41					2		2		2		4		E6	28	28	56
42	Optional course OP32	2EE6AS42					2		1	1	2		4		E6	28	28	56
43	Optional course OP33	2EE6AS43					2		2		2		5		E6	28	28	56
44	Systems Theory and Automatic Control	2EE6OD44					3		2		2.5		5		E6	42	28	70
45	Practical Training II, 3weeks. × 40 h/week.	2EE6OX45											2		C6			120
TOTAL hours C, S, L, P /week.			16	0	13	0	14	0	10	3	12/12	30	30	5E,2V	5E,1V, 1C	420	364	904

No.	FOURTH YEAR		Semester 7				Semester 8				Prepare hours	Credit points		Ex ,C, V		No. of hours			
	Courses	Courses code	C	S	L	P	C	S	L	P		Sem.1	Sem.2	Sem.1	Sem.2	Class	Apl.	Tot.	
			46/47	Electrical Installations I,II	2EE7/8OS46/47	2		1		2			1	1	2	2	4	4	E7
48/49	Static Convertors I,II	2EE7/8OD48/49	2		1		2		1	1	2	2	4	3	E7	E8	56	42	98
50	Modelling and Simulation in Electrical Engineering	2EE7OS50	3		2						2		6		E7		42	28	70
51	Servosystems	2EE7OS51	2		1						1		3		V7		28	14	42
52	Optional course OP41	2EE7AD52	2	1							1		2		V7		28	14	42
53	Microprocessor Systems	2EE7OD53	3		1						2		4		E7		42	14	56
54	Optional course OP42	2EE7AS54	3		1						2		4		E7		42	14	56
55	Optional course OP43	2EE8AS55					2		1		2		3		E8		28	14	42
56/57	Electroenergetica I,II	2EE7/8OS56/57	2		1		2		1		2.5		3	4	V7	E8	56	28	84
58	Compatibilitate electromagnetica	2EE8OS58					2		1		1.5		3		V8		28	14	42
59	Optional course OP44	2EE8AS59					2		1		2		3		E8		28	14	42
60	Elaboration of graduation paper, 14 weeks × 8 h/week.	2EE8AS60								8			10		C8		0	112	112
TOTAL hours C, S, L, P /week.			19	1	8	0	12	0	6	10	12/12	30	30	5E,3V	5E,1V, 1C	434	350	784	

Annex I

	Facultative Courses	Courses code	Sem.	C	S	L	Credit Points	Ex, C, V	No. of hours		
									Class	Apl.	Tot.
									61	Pedagogy I,II	2EE1/2LX61
62	School Psychology	2EE2LX62	2	2	1		3	C2	28	14	42
63	Methodology	2EE3LX63	3	1	2		3	C3	14	28	42
64	Sport	2EE3/4LX64	3,4		2		2	C3,4		28	28
65	Foreign Languages V-VIII	2EE5-8LX65	5-8		2		2,2,2,2	C5-8		112	112
66	Teaching Practice	2EE6LX66	6		2		2	C6		28	28

Annex II

Optional Courses		Courses	
An	Code		
I	OP11 - I,II	Foreign Languages (English, French, German, Russian, Spanish)	
I	OP12	History of Culture and Civilization	Professional Communication
II	OP21	Basics of Economy	Economic Analysis
II	OP22 - I,II	Foreign Languages (English, French, German, Russian, Spanish)	
II	OP23	Electrotechnologies	Special Electrical Technologies
III	OP31	Electrical Equipments	Electrical Apparatus
III	OP32	Engineering of Mechanical Systems	Theory of Mechanisms and Precision Mechanics
III	OP33	Maintenance and Repair of Electromechanical Equipment	Technologies for use and Repair of Electrical Equipment
IV	OP41	Power Management	Marketing
IV	OP42	Optimization of Electrical Power Consumption	Optimizing the operation of electromechanical systems
IV	OP43	Electric Traction	Electrical Micromachines
IV	OP44	Construction and design of electrical equipment	Aided Design of Electrical Machines

Legend: C – class; S – seminar; L – laboratory; P – project; Ex. (E1...8) – exam in semester 1...8; Cv. (C1...8) – colloquy in semester 1...8

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