The curriculum of undergraduate Energetics studies lasting three years (6 semesters) totalling 180 ECTS credits.

Study course: Energy Management and Energy Efficiency

1. year – I. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	0	3
	Total in semester	14	1	13	30

1. year – II. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	14		13	30

2. year – IV. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2		2	5
6	Chemistry	2	-	1	4
	Total in semester	13		13	30

3. year – V. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical Mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	The Energy Science: Principles and Technology Influence	2	-	2	7
2	Energy Consumption and Efficiency	2	-	2	4
3	Quality of Electric Energy	2	-	2	4
4	Energy Efficiency in the Construction Industry	2	-	2	5
	Elective course:				
5	Power Plants Energy Transport	2	-	2	5
6	Final thesis				5
	Total in semester	12		11	30

The curriculum of undergraduate Energetics studies lasting four years (8 semesters) totalling 240 ECTS credits.

Study course: Energy Management and Energy Efficiency

1.year – I. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semestar

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	2	4
	Total in semester	15	-	12	30

2. year – III. semestar

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	15		12	30

2. year – IV. semestar

No.	Course	Hours per week P	S	V	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic Systems	2	-	2	5
6	Chemistry	2		1	4
	Total in semester	13		11	30

3. year – V. semestar

No.	Courses	Hours per week L	S	E	ECTS Courses
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical Mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semestar

No.	Courses	Hours per week L	S	E	ECTS Courses
1	The Energy Science: Principles and Technology Influence	2	-	2	7
2	Energy Consumption and Efficiency	2	-	2	4
3	Energy Efficiency in the Construction Industry	2	-	2	5
4	Power Plants				
5	Transport energy	2	-	2	5
6	Quality of Electric Energy	2	-	2	5
	Total in semester	2	-	2	4
		12		11	30

4. year – VII. semestar

No.	Courses	Hours per week L	S	E	ECTS Courses
1	Electrical Lightening	2	-	2	8
2	Measurements and Simulation of Energetic Processes	2	-	2	4
3	Managing Energy Consumption	2	-	2	5
4	Smart Electrical Installations Electric Efficiency of Electrical	2	-	2	5
5	Machines and Devices Project	2	-	2	4
6	Total in semester	2		3	4
		12		13	30

4. year – VIII. semestar

No.	Courses	Hours per week L	S	E	ECTS Courses
1	Heating and Air conditioning	2	-	2	5
2	Cooling Devices	2	-	2	5
3	Electrical Efficiency in Industry	2	-	3	6
4	Environment Protecting Practice	2	-	2	5
5	Final Thesis	-	-	-	5
6		-	-	-	4

Total in semester	8	9	30

The curriculum of undergraduate Energetics studies lasting three years (6 semesters) totalling 180 ECTS credits.

Study course: Maintenance of Power Plants

1. year – I. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of Electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	14		13	30

2. year – IV. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2	-	2	5
	Chemistry				
6	Total in semester	2		1	4
		16		13	30

3. year – V. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical Mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Maintenance	2	-	3	6
2	Power Plants	2	-	2	4
3	Energy Transport	2	-	2	4
4	Electrical Switching Devices	2	-	2	4
5	Monitoring and Maintenance of Electro Energetic Systems Power Plants Projecting	2	-	2	5
6	Final thesis	2	-	3	3
7					4
	Total in semester	14	-	17	30

The curriculum of undergraduate Energetics studies lasting four years (8 semesters) totalling 240 ECTS credits.

Study course: Maintenance of Power Plants

1.year – I. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of Electrotechnics II	3	-	2	5
5	Basic of Electroenergetics	2	-	2	5
6	Physics	2		1	4
	Total in semester	14		13	30

2. year – IV. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	S	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2	-	2	5
6	Chemistry	2		1	4
	Total in semester	16		13	30

3. year – V. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical Mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semester

No.	Course	Hours per week P	S	V	ECTS Credits
1	Maintenance	2	-	3	6
2	Power Plants	2	-	2	4
3	Energy Transport	2	-	2	4
4	Electrical Switching Devices	2	-	2	4
5	Monitoring and Maintenance of Electro Energetic Systems	2	-	2	5
6	Power Plants Projecting	2	-	3	3
7	Project	2	-	3	4
	Total in semester	14	-	17	30

4. year – VII. semester

No	Course	Hours per week P	S	V	ECTS Credits
1	Turbines	2	-	2	5
2	Boilers	2	-	2	4
3	Technical Diagnostics	2	-	2	5
4.	Liability of Electroenergetical Systems and Elements	2	-	2	5
5	Maintaining and Examination of Electrical Equipment	2	-	2	5
6	Pump fans and Turbocompressors	2	-	1	3
7	Project	2		3	3
	Total in semester	14		14	30

4. year – VIII. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1.	Small Power Plants and Wind	2	-	2	5
2.	Turbines	2	-	2	4
3.	Technical Diagnostics II	2	-	2	5
4.	Pressure Vessels and Piping				
5.	Maintaining and Examination of Electric Installations	2	-	2	5
6.	Maintaining and Examination of Electric Machines	2	-	2	5
7.	Mechanical Systems and Components	2	-	1	3
		2	-	3	3
	Total in Semester	14		14	30

The curriculum of undergraduate Energetics studies lasting three years (6 semesters) totalling 180 ECTS credits.

Study course: Renewable Energy Sources

1. year – I. semester

No.	Courses	Hours per week			ECTS Credits
		L	S	E	
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No.	Courses	Hours per week			ECTS Credits
		L	S	E	
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2-		2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Courses	Hours per week			ECTS Credits
		L	S	E	
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	15		12	30

2. year – IV. semester

No.	Courses	Hours per week P	S	V	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems Chemistry	2	-	2	5
6	Total in semester	2		1	4
		16		13	30

3. year – V. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Energy Science: Principles and the Impact of Technology	3	-	2	8
2	Small Power Plants and Wind Turbines	2	-	2	5
3	Power Plants	2	-	2	5
4	Elective courses: Power Plants Management and Exploitation of Electroenergetic system Final thesis	2	-	2	6
5	Total in semester	11		10	6 30

The curriculum of undergraduate Energetics studies lasting four years (8 semesters) totalling 240 ECTS credits.

Study course: Renewable Energy Sources

1.year – I. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No	.Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	11	30

2. year – III. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	15		12	30

2. year – IV. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2	-	2	5
	Chemistry				
6	Total in semester	2		1	4
		13		17	30

3. year – V. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3. year – VI. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Energy Science: Principles and the Impact of Technology	3	-	2	8
2	Small Power Plants and Wind Turbines	2	-	2	5
3	Power Plants Management and Exploitation of	2	-	2	6
4	Electroenergetic system	2	-	2	6
5	Renewable and Secondary Energy Sources	2	-	2	5
	Total in semester	11		10	30

4. year – VII. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Power Plants Projecting	2	-	3	8
2	Conversion of Electrical Energy	3	-	2	6
3	Distribution Networks	3	-	2	6
4	The Electricity Market	3	-	2	3
5	Project	2		3	4
	Total in semester	13		12	30

4 year – VIII. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	The Impact of Distributed Generation on Power Grid	3	-	2	6
2	Projecting of Distributed Sources and Connection on Electricity Grid	2	-	3	5
3	Energetic Eletronics Digital Electronics	2	-	2	5
4	Switchyards and Substantions	2	-	2	5
5	Final Thesis	2	-	2	5
6	Total in semester	-	-	-	4
		11	-	11	30

The curriculum of undergraduate Energetics studies lasting three years (6 semesters) totalling 180 ECTS credits.

Study course: Thermotechnics

1. year – I. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Course	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	14		13	30

2. year – IV. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2	-	2	5
6	Chemistry	2		1	4
	Total in semester	16		13	30

3. year – V. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3 year – VI. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Heating and Air Conditioning	2	-	2	7
2	Cooling Devices	2	-	2	4
3	Renewal and Secondary Energy Sources District Heating Systems	2	-	2	4
4	Elective courses:	2	-	2	5
5	Theory of Ignition and Combustion Energy efficiency in Construction Industry Final thesis	2	-	2	5
6	Total in semester	12		12	5 30

The curriculum of undergraduate Energetics studies lasting four years (8 semesters) totalling 240 ECTS credits.

Study course: Thermotechnics

1.year – I. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics I	4	-	3	8
2	Statics	2	-	3	5
3	Graphic Communications	2	-	2	4
4	Basic Informatics	2	-	3	5
5	Materials	2	-	2	5
6	Foreign Language I	2	1	-	3
	Total in semester	14	1	13	30

1. year – II. semester

No	.Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics II	4	-	3	8
2	Kinematics	2	-	1	4
3	Programming	2	-	2	4
4	Basic of electrotechnics I	3	-	2	5
5	Material Resistance	2	-	2	5
6	Foreign Language II	2	-	1	4
	Total in semester	15	-	12	30

2. year – III. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Mathematics III (Numeric Mathematics and Statistics)	4	-	3	8
2	Dynamics and Oscillation	2	-	2	4
3	Machine Elements I	2	-	2	4
4	Basic of electrotechnics II	3	-	2	5
5	Basic of electroenergetics	2	-	2	5
6	Physics 1)	2		1	4
	Total in semester	14		13	30

2. year – IV. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Thermodynamics	2	-	3	6
2	Fluid Mechanics	2	-	2	5
3	Machine Elements II	2	-	2	5
4	Electric machines	3	-	1	5
5	Basic elements of electroenergetic systems	2	-	2	5
	Chemistry	2		1	4
6	Total in semester	16		13	30

3. year – V. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Engineering measurements	2	-	3	6
2	Engineering projecting	2	-	3	5
3	Heat and Mass Transfer	2	-	2	4
4	Ecology	2	-	1	4
5	Electrical mains	2	-	2	5
6	Electrical Drives	2	-	1	3
7	Engineering Economics	2	-	1	3
	Total in semester	14	-	13	30

3 year – VI. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Heating and Air Conditioning	2	-	2	7
2	Cooling Devices	2	-	2	4
3	District Heating Systems	2	-	2	5
4	Theory of Ignition and Combustion	2	-	2	5
5	Energy efficiency in Construction Industry	2	-	2	5
6	Renewal and Secondary Energy Sources	2	-	2	4
	Total in semester	12		12	30

4 year – VII. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Boilers	2	-	2	8
2	Pump fans and Turbocompressors	2	-	2	4
3	Measuring and simulation of Energy Processes	2	-	2	5
4	Smart Electrical Installations	2	-	2	5
5	Energy Consumption and Efficiency	2	-	2	5
6	Project	2	-	3	3
	Total in semester	12		13	30

4 year – VIII. semester

No.	Courses	Hours per week L	S	E	ECTS Credits
1	Maintaining	2-		2	6
2	Projecting of Heating and Air Conditioning Systems	2	-	3	5
3	Maintaining and Examination of Electrical Installations	2	-	2	5
4	Pressure Vessels and Piping	2	-	2	5
5	Energy Efficiency of Electrical Appliances and Machines	2	-	2	5
6	Final Thesis	-	-	-	4
	Total in semester	10	-	11	30