

<b>Title of Course</b>	<b>Bases of Electrotechnics and Electronics- lecture</b>		
<b>Semester</b>	<b>Spring</b>		
<b>Teaching Hours per Course:</b>	<b>Total</b>	<b>- Lectures:</b>	<b>- Tutorials:</b>
	45	45	0
<b>ECTS Credits</b>	2		
<b>The content of education</b>			
<b>Aims of Course</b>	The aim of teaching the subject is to obtain by students basic knowledge of simple electric circuits of direct and alternating current, operating characteristics of electric devices and drives and their control. Students learn the basics of the operation of typical sensors and actuators..		
<b>Program</b>	Lectures Basic concepts, electric circuit, Ohm's law, Kirchhoff's laws. AC and DC circuits. Power and energy in single-phase circuits. Basic semiconductor elements. Structure and functioning of bipolar and field transistors. Rectifier and power supply systems. Power and energy in three-phase circuits. Electric machines of direct current and alternating current. Electric drive control systems.		
<b>Conditions of completion</b>	The condition for passing the lectures is to obtain a positive grade from two written tests on issues discussed during lectures.		
<b>Teacher</b>	Mariusz Szreder		