

DESCRIPTION OF THE COURSES

- Course code: ELR3161
- Course title: CONSTRUCTION AND TECHNOLOGY OF ELECTRIC MACHINES
- Language of the lecturer: Polish

<i>Course form</i>	<i>Lecture</i>	<i>Classes</i>	<i>Laboratory</i>	<i>Project</i>	<i>Seminar</i>
<i>Number of hours/week*</i>	2				
<i>Number of hours/semester*</i>	22				
<i>Form of the course completion</i>	<i>Written test</i>				
ECTS credits					
Total Student's Workload					

- Level of the course (basic/advanced):
 - Prerequisites: Courses of Electric machines part I and II
- Name, first name and degree of the lecturer/supervisor: Jan Zawilak Ph.D., D.Sc. Eng.
- Names, first names and degrees of the team's members:

Ludwik Antal D.Sc. Ph.D. Eng., Tomasz Zawilak M.Sc. Eng.

- Year: II Semester:..III
- Type of the course (obligatory/optional): optional

Aims of the course (effects of the course): Coming to know of the principles of construction and basic sub-assemblies manufacture of AC and DC electric machines.

- Form of the teaching (traditional/e-learning): traditional
- Course description: Basic overall dimensions, construction types, production technology of basic parts of DC and AC electric machines (stators, rotors, solid and laminated magnetic cores, rotor and stator windings, shafts and frames).
- Lecture:

<i>Particular lectures contents</i>	<i>Number of hours</i>
<i>1. Introduction to the course, curriculum, demands.</i>	<i>2</i>
<i>2. Basic overall dimensions of electric machines, type , batch.</i>	<i>2</i>
<i>3. Construction types of electric machines.</i>	<i>2</i>
<i>4. Basic components of electric machines Construction types of electric machines.</i>	<i>2</i>
<i>5. Construction and production technology of DC machines magnetic.</i>	<i>1</i>
<i>6. Construction and production technology of AC machines magnetic cores.</i>	<i>1</i>
<i>7. Construction and production technology of distibuted windings (armture) low voltage electric machines.</i>	<i>2</i>
<i>8. Construction and production technology of distibuted windings (armture) high voltage electric machines.</i>	<i>2</i>
<i>9. Construction and production technology of distibuted special windings.</i>	<i>2</i>
<i>10. Construction and production technology of excitation windings</i>	<i>1</i>

<i>(DC and AC machines).</i>	<i>1</i>
11. <i>Construction and production technology of special windings.</i>	<i>2</i>
12. <i>Frames and magnetic cores of stators.</i>	<i>1</i>
13. <i>Shafts and magnetic cores mount of rotors.</i>	<i>1</i>
14. <i>Sliding contact (commutator, slip rings, brushes, brush rockers).</i>	

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:
- Project – the contents:
- Basic literature:
 - Dąbrowski M. - *Projektowanie maszyn elektrycznych prądu przemiennego* WNT, Warszawa 1994 r.
 - Dąbrowski M. – *Konstrukcja maszyn elektrycznych* WNT Warszawa 1978 r.
 - Kordecki A.: - *Budowa maszyn prądu stałego* WNT Warszawa 1973 r.
- Additional literature:
 - Zawilak J.- *Uzwojenia przełączalne maszyn elektrycznych prądu przemiennego* Wydaw. Politechniki Wrocławskiej 1986 r.
- Conditions of the course acceptance/creditation:
 - Passing of a written test.

* - depending on a system of studies