Title	Code
Electrical engineering and electronics(Elektrot.i elektron.)	**1010401151010320743**

Field	Year / Semester
Edukacja Techniczno-Informatyczna	**3 / 5**

Specialty	Course
-	**core**

Hours	Number of credits
Lectures: **2** Classes: **2** Laboratory: **-** Projects / seminars: **-**	**4**

	Language
	polish

Lecturer:

dr hab. inż. Grażyna Jastrzębska, prof nadzw. PP
Instytut Elektrotechniki i Elektroniki Przemysłowej
Poznań, ul. Piotrowo 3A
Tel.:61 6652388
Grazyna.Jastrzebska@put.poznan.pl

Faculty:

Faculty of Technical Physics
ul. Nieszawska 13A
60-965 Poznań
tel. (061) 665-3160, fax. (061) 665-3201
e-mail: office_dtpf@put.poznan.pl

Status of the course in the study program:

Core course of the study for Education in Technology and Informatics, Faculty of Technical Physics.

Assumptions and objectives of the course:

The student should obtain knowledge of theoretical and practical problems of electrical engineering and electronics. Attainment of competence of solving of electrical direct and sinusoidal variable circuits and analyse of work of electrical devices.

Contents of the course (course description):

Fundamental dependences. Direct current circuits: methods of solving, work and power of current. Sinusoidal variable current circuits, solving of circuits using complex numbers, phase diagrams, active, reactive and apparent power, voltage and current resonance, 3- phase circuits. Principle of construction and operation of electric devices, transformer, induction electric motor. Principle of electronics, rectifier systems, filters amplifiers. Renewable sources of energy (energy of wind, water, biomass, geothermal, solar) and methods of its conversion into electrical energy. Classes exercises beings in line with the basic course.

Introductory courses and the required pre-knowledge:

Basic knowledge of electrical engineering and electronics.

Courses form and teaching methods:

Lecture, classes, individual work with students

Form and terms of complete the course - requirements and assessment methods:

Oral and written examination

Basic Bibliography:

-

Additional Bibliography:

-