

ÓBUDA UNIVERSITY						
Light Industry and Environmental Engineering		Faculty	Environmental Engineering and Natural Sciences			Institution
Course name:	Electrotechnics				Neptun code:	RKXEL1EBNE
					Credit:	3
Type(mandatory/optional):	mandatory	Type of education	full-time	Semester in curriculum:	3.	
Courses in which the subject is taught:	Environmental Engineer, Industrial Design Engineer					
Subject responsible:	Rita Boda-Kendrovics Dr.		Lecturer:	Norbert Berecz		
Prerequisites:	-					
Weekly classes:	Lecture:	2	Practice:	1	Laboratory:	0
Számokérés módja (s; v, é)	é	Course language:	english	Place of the subject in the timetable:	Professional core material	
THE CURRICULUM						
Aim:						
<p>The aim of teaching the subject is to expand the students' technical outlook. Learning basic electrotechnical knowledge. Getting to know basic components and circuits, getting to know the conditions of their operation. Acquiring basic knowledge for the subjects that are built on in each major.</p> <p>Introduction to electrical engineering, electronics and electrical machines.</p>						
Detailed description of the subject, schedule:						
Lecture/practice topics						
Week	Topic					
1.	DC quantities (charge, voltage, current, resistance, work, power)					
2.	Notable basic circuits and basic laws (Kirchoff I.-II., voltage and current distribution)					
3.	Rector's break					
4.	Passive circuit elements (coil, capacitor) Introduction of alternating current quantities					
5.	Behavior of circuit elements in alternating current circuits I. (RC and RL)					
6.	Behavior of circuit elements in alternating current circuits II. (RLC)					
7.	Mid-term test					
8.	The magnetic property of current					
9.	Basics of electrical machines					
10.	Physical and electrochemical foundations of semiconductors					
11.	Factory visit					
12.	Types of diodes and their applications					
13.	Project presentation					
14.	Retake					

The method of obtaining the midterm grade:

The basis of the mid-year grade:

- participation in the practice and absences may be to the extent permitted by the Student Requirements System of Óbuda University, both for the performance and the practice, according to points III.23.§(1)-(4) of the Student Requirements System
- one mid-term test from the semester course material (min. requirement 41% for both closed papers).
- Group project work (1 project for 3 people), which must be presented in the 14th week.
- The project work is the creation of a model/maquette related to electricity (magnetic phenomenon, simple circuit, etc.) and its presentation.

A student who has not written either the mid-term or its replacement and/or has reached the maximum number of absences permitted by the TVSZ will be registered as disabled.

If the mid-semester grade turns out to be insufficient, it is possible to replace it according to the provisions of § 17(6) of the TVSZ.

The subject-reduced study plan can ONLY be requested if the conditions specified in § 29 of the TVSZ are met.

A félévzárás módja:

The condition for a successful end of the semester is the completion of the mid-semester assessments at least at a sufficient level.

The grades are created according to the following percentage distribution:

0-40%: insufficient (1)

41-55%: sufficient (2)

56-70%: medium (3)

71-85%: good (4)

86-100%: excellent (5)

LITERATURE

Kötelező:

Előadás: *Darren Ashby – Electrical Engineering 101*

Quality assurance methods:

In relation to the subject, there is an instructor review every year, during which knowledge transfer is taken into account effectiveness, as well as information from the evaluation of the opinions given by students and graduates. The on the basis of evaluation, development actions related to the subject can be initiated, the areas of which

- the methodology of knowledge transfer,
- the content of the curriculum,
- the lectures and exercises are built on each other.

We carry out an annual evaluation of the changes and their results, we prepare a record of this and the proven results elements are made part of the subject program with the schedule organized by the specialist.