

ELECTRICAL ENGINEERING MATERIALS

COURSE SYLLABUS ABSTRACT

Specialty 6-05-0713-04 Automation of technological processes and productions

Profiling Automated electric drives

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	2	2	2
Semester	3	3	3
Lectures, hours	16	4	4
Laboratory classes, hours	16	4	4
Pass/fail, semester	3	3	3
Contact hours	32	8	8
Independent study, hours	76	100	100
Total course duration in hours / credit units	108/3		

1. Course outline

The purpose of the academic discipline is to develop in students' knowledge about the basic processes occurring in electrical materials under the influence of electric and magnetic fields, ideas about the properties and technical purpose of materials used in the electric power industry.

2. Course learning outcomes

Upon completion of the course, students will be expected to know:

- the structure and properties of structural and operational materials used in repair, operation and maintenance;
- the essence of the phenomena occurring in materials under operating conditions of the product;
- modern methods for producing materials and products from them with a given level of performance properties;

be able to:

- to use the physical processes occurring in electrical materials when using them in various electronic devices;
- to use methods for assessing the basic properties of electrical materials;
- to use reference apparatus for the use of required materials in specific devices;

to possess a skill:

- instrumental measurements,
- research of the main characteristics of electrical materials.

3. Competencies

Know electrical materials, be able to select them for the development and production of electrical products

4. Requirements and forms of midcourse evaluation and summative assessment

Current monitoring of progress involves assessing the implementation and protection of laboratory work. The form of intermediate certification is a test.