

# INVESTMENT DESIGN INNOVATION IN THE POWER INDUSTRY

## COURSE SYLLABUS ABSTRACT

1-43 80 01 "Power industry and electrical engineering"

	STUDY MODE	
	full-time	part-time
Year	1	1
Semester	1	2
Lectures, hours	36	8
Practical classes (seminars), hours	36	8
Exam, semester	1	2
Contact hours	72	16
Independent study, hours	48	104
Total course duration in hours / credit units	120/3	

### 1. Course outline

To study of new technical solutions for overhead and cable power lines and their elements, substations and their elements; ways and means of automation, search for damage in networks, increasing reliability and survivability, environmental friendliness, safety; methods and tools for diagnosing the technical condition of electrical network elements.

### 2. Course learning outcomes

Upon completion of the course, students will be expected to

**know:**

- the current state of power supply of enterprises and transport installations of the Republic of Belarus and the power industry in general;
- new methods of economical consumption of electrical energy;
- Provisions of the theory of electrical supply of industrial installations;
- modern technology for the production, transmission and distribution of electricity;
- basic methods for calculating power supply schemes for industrial and transport installations;

**be able to:**

- use modern methods of accounting and measurement of active and reactive energy;
- use regulatory documents (standard and technical conditions) when designing new power supply systems for industrial enterprises (workshops, sites) and transport installations;
- build automated power supply systems;

### 3. Competencies

SC-4. To own the economic principles of investment design in the electric power industry, be able to develop, implement and master investment projects that increase the economic efficiency of investments in the energy sector.

### 4. Requirements and forms of midcourse evaluation and summative assessment

To assess the quality of assimilation of educational material by students, including acquired competencies, current certification is carried out in the form of an exam in the academic discipline.

Intermediate control of progress is aimed at ensuring maximum efficiency of the educational process, increasing motivation for learning; provides for the assessment of the performance of control work, the assessment of the performance and protection of practical work.