

# SUBJECTS TAUGHT AT THE DEPARTMENT

## Bachelor's degree

Item Title	Summary of the subject
1. Electrotechnical materials	Acquaintance and selection of materials used in electrical devices and protective equipment.
2. Installation and adjustment of electrical equipment	The installation works for installation and adjustment of electrical equipment and equipment are being trained. Calculations are made for the selection of wires and the cross-section of wires.
3. Electricity supply of water industry	The power supply system teaches the selection of electrical equipment, the calculation of consumer loads, voltage losses, short-circuit currents, the choice of transformers and grounding systems, as well as economic calculation.
4. Designing of electrical systems	The discipline teaches the design of the installation of electrical installations and electrical appliances, and supply them with electrical power. Calculations are carried out for the choice of electrical equipment.
5. Basics of energy saving	In the discipline, the methods of energy saving in power supply systems are taught, calculations of the election of compensating installations, short circuit currents are conducted, and a schedule of the regime of electric energy consumption is made.
6. Operation of electrical equipment and repair	The discipline teaches effective and proper use of electrical equipment and ensures their uninterrupted operation, as well as assembling, asynchronous, synchronous electric motors.
7. High-voltage technology	The discipline learns how to determine the current in the electricity system, high-voltage currents, short-circuit currents, and the choice of power transformers as well as protection of high voltage.
8. Auxiliary electrical appliances in the production of electricity	In the discipline, repairs and proper use of household electrical appliances are taught
9. Renewable Energy Sources	The discipline teaches the use of non-traditional power sources, the conversion of natural energy into electrical energy and teaches new technologies.
10. Introduction to the specialty	General concepts of the specialty.
11. Transition processes	Voltage, current, power and power and useful coefficients; power transformers; distribution and distribution equipments

12. Electrical components of the station and pst	Principles of Electricity Distribution and Distribution; electrical supply systems, alternative, portable, backup power stations, substations; teaches different types of power distribution networks and their elements.
13. Electricity supply of agriculture	Principles of distribution and distribution of electricity; power supply systems, alternative, portable, backup power plants, substations; teaches various types of distribution networks and their elements.
14. Power supply and relay protection	Voltage, current, power and power and useful factors; power transformers; Distribution and distribution of equipment

### Master's degree

Item Title	Summary of the subject
1. Scientific Research in Electric Industry	Creation of skills in the methods of scientific research in the field of electric power industry, conducting normative measurements, analysis of the obtained results and adoption of appropriate scientific solutions are learned in this course.
2. Supply and Distribution of Electrical Energy	Studying the structure of stations and substations in the power system, the calculation of trunk networks, determining the loads of consumers, and determination of economic efficiency are taught by the course.
3. Testing Norms and Volumes of Electrical Appliances	Energy volume and norms of electric installations of electric stations, substations and lines of electric transfer are studied.
4. Relay Protection and Automation of Electric Supply Systems	Calculation of short-circuit currents, selection of equipment and equipment for protection, development of a relay protection system and selection of relays.
5. Electrical Networks and Systems	Electric networks and modes in electrical networks, electrical equipment, loads of electricity consumers and quality improvement as well as indicators.