

Energy and Power Engineering

Energy and Power engineering, a full-time undergraduate major of 4 years, is dedicated to the utilization and development of new energy technologies on the basis of traditional energy research. It mainly to meet the social demand for talents of energy and power in scientific research, design, teaching, engineering technology, commercial operation, management, etc.. This major is to cultivate talents who has the basic knowledge of thermal engineering, heat transfer, fluid mechanics, power machinery, power engineering, etc. with all-round development of morality, intelligence, physique and beauty. The graduates can be engaged in the design, manufacturing, operation, management, experimental research and installation, development and marketing of power machinery (such as thermal power plant engineering, petroleum and petrochemical supporting thermoelectric equipment, hydroelectric power engineering, refrigeration and low temperature engineering, air conditioning engineering) in all sectors of the national economy. The major of Energy and Power engineering is to train senior application-oriented technical personnel with solid theoretical foundation, strong ability of practice, adaptation and innovation, high moral quality and cultural quality in the field of energy conversion and utilization as well as thermal environmental protection.

Curriculum Design:

Specialized courses: engineering thermodynamics, heat transfer, engineering fluid mechanics, pump and fan, thermal instruments and automatic regulation, heat exchanger, heating engineering, energy saving technology, heat source system and equipment, refrigeration technology, etc.

Elementary courses:

electrical and electronic technology, advanced mathematics, physics, automatic control principle, single-chip principle and application, testing

technology, etc.

Graduates of this major can be engaged in the development and application of new energy technology, such as the design and research of new energy technology products, the management of new energy industry, etc.. It is suitable to work in industries of electric power, heating power, power, HVAC, etc. and manufacturing enterprises of boiler, steam turbine, fan, heat exchange equipment, refrigeration machinery, etc.. The graduates also can be employed in the power and energy management departments in large enterprises of chemical industry, medicine, building materials, steel etc..

List of Core Curriculum

1	Engineering thermodynamics
2	Heat transfer
3	Engineering fluid mechanics and equipment
4	Thermal power plant
5	Principle of automatic control
6	Steam turbine equipment and operation
7	Boiler equipment and operation
8	Electrical and Electronic foundation
9	Engineering graphics
10	Test technology of energy power