# G.Dudchenko, O. Piskun **Power Engineering and Economics**

Belarusian National Technical University Minsk, Belarus

Power engineers are recognized for their knowledge and skills in conceiving, designing, implementing and operating devices, machines, engines and energy systems in the field of power engineering.

Graduates from Power Engineering Department - which is consistently rated in the top 10 departments in Belarus - are part of a new breed of engineer who can take on challenges ranging from traditional industries to areas such as nuclear engineering, sustainable development and alternative sources of energy.

Studying Power Engineering and Economics will help you develop an awareness of the financial and economic aspects of industrial management, including raising capital in the bond markets to finance innovation in the power engineering industry. Such awareness is highly sought-after and rewarded by employers.

## What you'll study

The majority of our students follow five-year courses of study. Program objective is to train students to master modern power engineering technologies and system management, industrial engineering theory and methods, advanced technology and methods to solve engineering problems. The students get the knowledge of economics, management and system engineering theory, and will be able to analyze and solve financial problems in production systems. The program aims to train students to have a team work spirit and innovative

spirit. The graduates will be engaged in project planning, economics and industrial management in domestic and foreign power engineering areas.

#### Years 1, 2

You'll focus on the mainstream core of engineering subjects, together with Applied Mathematics and Information Technology.

First and second-year students learn the fundamental principles and concepts of the following subjects:

- Advanced Mathematics
- Statistics
- Mechanics
- Physics
- Electrical engineering
- Computer science
- Industrial Engineering Foundation
- Microeconomics
- Macroeconomics
- Foreign language
- Structural mechanics and materials
- Management Information System, etc.

#### Year 3

The program aims to train students to master theoretical knowledge and business skills in management, economy, accounting, law and auditing. Students get familiar with domestic and foreign financial analysis methods, policies and regulations.

Main Courses: Financial Accounting, Fundamental Accounting, Auditing, Economic Law, Planning Management and Investment Analysis, Fundamental Decision-making, etc.

#### **Years 4, 5**

In your final years of study, you'll begin operating as an economist in power engineering industry, working closely with

academic staff as mentors. You'll also complete an individual project, which is mandatory for professional accreditation.

Final years broaden students' horizons and deepen their understanding of specialist areas, such as power engineering systems and economics. Students study the following disciplines: Production Management, Engineering Enterprise Financial Statement Analysis, Industrial Management, Project Estimate and Budget of Engineering Enterprises, Power Engineering Marketing, Personnel Management, etc.

### **Postgraduate education**

The Belarusian National Technical University is one of the main centers of postgraduate teaching in the country. Power Engineering graduates may continue their studies working for a Master's degree. All research degree courses help postgraduate students realize their potential as researchers.

In conclusion, it should be noted that Power Engineering graduates learning economics are multi-talented. With a specialized business focus, they can forecast company growth and talk numbers in the board room as well as solve economic problems in business operations. This flexibility has shown greater opportunity and faster upward mobility within organizations than most other business majors.

Power Engineering Management students combine rigorous courses in arts, science, and economics to sharpen strong analytic, business and technical skills. A dedication to continually learning - new processes, technology and skills - is a hallmark of a future specialist.