

Faculty of Electrical Engineering and Electronics

General Outline

The Faculty of Electrical Engineering and Electronics /EEE/ was founded in 1983 by a Decree of the Council of Ministers and it is a basic structural unit of the Technical University of Gabrovo.

Training in electrical engineering started with the opening of the Technical University in 1964. Electrical engineers - part-time majors in Electrical Machines and Apparatus were the first to be taught. In 1967 the degree course in Semiconductor and Industrial Electronics was introduced, full-time courses, and later - Computer Science and Electrical Equipment and Power Supply. In 1983 the University was restructured and two faculties were established: Electrical Engineering and Mechanical and Precision Engineering. In 1987 the Faculty of Electrical Engineering was given the name: Electrical Engineering and Electronics by Provision No 24/11.03.1987 of the Bureau of the Council of Ministers. At that time the Faculty organized and provided training for undergraduates and postgraduates in the following major subjects:

- **Automation and Computer Science and Technologies /ACST/**
- **Electronic and Communication Equipment and Technologies /ECET/**
- **Communication Equipment and Technologies /CET/**
- **Electronic Equipment and Technologies /EET/**
- **Electrical and Power Engineering /EPE/**

Since academic year 1997/1998 the Faculty has provided training in major subjects in section 8.6 Electrical Engineering and Electronics, according to the State Register of Educational Qualification Degrees, namely:

**8.6.2 Power Engineering and Electrical Equipment
/PEEE/**

8.6.3 Electronics /E/

**8.6.4 Communication Equipment and Technologies
/CET/**

8.6.5 Computer Systems and Technologies /CST/

**8.6.6 Automation, Information and Control
Equipment /AICE/**

Both full-time and part-time courses are provided. Since 2000 the major subject: Ecology and Protection of Environment /ECE/ has been taught in EEE Faculty.

From 1983 to 2000 over 3400 electrical engineers have graduated from the University.

Here is a list of the Deans of this Faculty so far:

Assoc. Prof. Dr. Pencho Georgiev, eng. /1983-1989/

Assoc. Prof. Dr. Lyuben Tsekov, eng. /1989-1993/

Assoc. Prof. Dr. Andrey Iliev, eng. /1993-1995/

Assoc. Prof. Dr. Dimitar Petrov, eng. /1995 - /

Assoc. Prof. Dr. Dimitar Petrov, eng. /1995 to present/

Faculty of Electrical Engineering and Electronics

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TECHNICAL UNIVERSITY

Phone: /066/32195, ext.396

Dean: Assoc. Prof.Dr. Toshko Nenov,eng.

Phone: 32195, ext. 396, 307.

Vice Deans: Assoc.Prof.Dr. Petko Zhechev Todorov,eng. Phone: 21931, ext. 287, 302.

Assoc.Prof. Dr. Toshko Ganchev Nenov,eng. Phone: 21931, ext. 390, 578.

ECTS Coordinator for EEE Faculty:

Assoc.Prof.Dr. Petko Zhechev Todorov,

phone: 21931, ext. 287, 302.

E-mail: jechev@tugab.bg

Faculty Structures

The organization and management of the Faculty and its subdivisions is provided by collective organs: Faculty General Assembly, Faculty Board, Deans Board, Department Boards and personal organs: Dean and Heads of Departments, elected and constructed according to the requirements of the Law of Higher Education and the Interior Regulations of TU Gabrovo.

The faculty and department organs in charge have limited independence defined by the Law of Higher Education and especially by the Internal Regulations of the University.

The Faculty has limited financial and economic independence. The university buildings are shared by all faculties and the departments have separate rooms for laboratories, staff offices, workshops, additional facilities. The lecture and seminar rooms are allocated by the Admission Service of the University. The funding coming from the state subsidy and tuition fees, goes to the Accountants Office of the University and only a small part is controlled by the Faculty Management.

In the faculty there are 67 laboratories, 3350 sq. m. in total area; storage rooms and workshops, 383 sq.m. in total area; staff rooms, 737 sq.m.; measuring equipment used in the study process - about 1300 units; models, laboratory stands and other sort of equipment - about 800 items; computer facilities - 174 items.

The academic staff of EEE Faculty comprises 91 lecturers, among them: 1 full regular professor and 1 professor extraordinary, 29 associate professors and 4 associate professors extraordinary and 20 more lecturers hold doctoral degrees.

The Electrical Engineering and Electronics Faculty comprises 8 departments and 6 of them provide degree courses:

■ Department of Computer Systems and Technologies

For contacts:

5300 Gabrovo

4 Hadji Dimitar

TU study block 3, room 3407

ECTS coordinator:

Sen.Lect.Dr. Valentina Stoyanova Kukenska

Tel 066/223-456

E-mail: valli@tugab.bg

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Lyuben Ivanov Tsekov
Assoc.Prof.Dr.	Raycho Todorov Ilarionov
Assoc.Prof.Dr.	Anton Georgiev Donchev
Sen.Lect.Dr.	Valentina Stoyanova Kukenska
Sen.Lect.Dr.	Oleg Dimitrov Asenov
Sen.Lect.Dr.	Elena Ivanova Stoyanova
Sen.Lect.	Yordan Simeonov Yordanov
Sen.Assist.Prof.	Boncho Ivanov Alexandrov
Sen.Assist.Prof.	Ivan Simeonov Simeonov
Sen.Assist.Prof.	Rosen Stefanov Ivanov
Sen.Assist.Prof.	Dilyan Georgiev Genkov
Sen.Assist.Prof.	Paolina Andreeva Radeva

■ **Department of Automation, Information and Control Systems**

For contacts:

5300 Gabrovo

4 Hadji Dimitar

TU study block 3, room 3313

ECTS coordinator:

Assoc.Prof.PhD Evgeniy Lyudvig Skopalic

Tel 066/223-571

E-mail:es@tugab.bg

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Radoslav Hristov Radev
Assoc.Prof.Dr.	Toshko Ganchev Nenov
Assoc.Prof.Dr.	Evgeniy Lyudvig Skopalic
Sen.Assist.Prof.	Stanimir Yordanov Yordanov
Sen.Assist.Prof.	Dragomir Penkov Chantov
Assist.Prof.	Yasen Dimitrov Rayanov
Assist.Prof.	Aldeniz Enverov Rashidov

■ **Department of Communication Equipment and Technologies**

For contacts:

5300 Gabrovo
 4 Hadji Dimitar
 TU study block 2, room 2208
 ECTS coordinator:
 Sen.Lect.. Pesho Daneva Petrova
 Tel 066/223-375
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List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Kiril Radev Koychev
Assoc.Prof.Dr.	Iliya Neykov Nemigenchev
Assoc.Prof.Dr.	Petko Penchev Petkov
Sen.Lect.Dr.	Pencho Kolev Penchev
Sen.Lect.	Pesho Daneva Petrova
Sen.Lect.	Stefan Nanev Baltiev
Sen.Assist.Prof.	Iliya Veselinov Nedelchev
Assist.Prof.	Stanimir Mihaylov Sadinov
Assist.Prof.	Boyan Dimitrov Karapenev

■ **Department of Electronics**

For contacts:

5300 Gabrovo
 4 Hadji Dimitar
 TU study block 2, room 2209
 ECTS coordinator:
 Sen.LectDr. Velimira Dimitrova Todorova
 Tel 066/223-526
 066/223-302
 E-mail: vili@tugab.bg

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Prof., Dr.Sc.	Todor Stoykov Todorov
Assoc.Prof.Dr.	Mincho Vanev Simeonov
Assoc.Prof.Dr.	Petko Zhechev Todorov
Assoc.Prof.Dr.	Andrey Kirchev Iliev

Assoc.Prof.Dr.	Dimitar Hristov Girginov
Assoc.Prof.Dr.	Ivan Stanchev Kolev
Assoc.Prof.Dr.	Pencho Venkov Georgiev
Assoc.Prof.Dr.	Hristo Zahariev Karailiev
Assoc.Prof.Dr.	Hristo Petrov Hinov
Assoc.Prof.Dr.	Tsanyo Todorov Tsanev
Sen.Lect.Dr.	Anatoliy Trifonov Alexandrov
Sen.Lect.Dr.	Velimira Dimitrova Todorova
Sen.Lect.Dr.	Nikolay Dimitrov Madjarov
Sen.Lect.	Stefan Kolev Stanev
Sen.Assist.Prof.	Petur Tomchev Ivanov
Sen.Assist.Prof.	Valentina Vasileva Rankovska

■ **Department of Power Engineering and Electrical Equipment**

For contacts:

5300 Gabrovo
 4 Hadji Dimitar
 TU study block 4, room 4106
 ECTS coordinator:
 Assist.Prof Plamen Tsenkov Tsankov
 Tel 066/223-271
 E-mail: plamen.tzankov@tugab.bg

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Milka Gancheva Konsulova
Assoc.Prof.Dr.	Deshka Malcheva Markova
Assoc.Prof.Dr.	Lyubomir Vasilev Genchev
Assoc.Prof.Dr.	Pencho Vladimirov Yordanov
Assoc.Prof.Dr.	Stoyo Kolev Platikanov
Assoc.Prof.Dr.	Todor Dimitrov Petrov
Assoc.Prof.Dr.	Totylo Iliev Iliev
Sen.Lect.Dr.	Stefan Vasilev Genchev
Sen.Lect.Dr.	Stefan Nedev Kavardjikov
Sen.Assist.Prof.	Svilen Radoslavov Rachev
Assist.Prof.	Plamen Tsenkov Tsankov

■ Department of Chemistry and Environmental Studies

For contacts:

5300 Gabrovo
 4 Hadji Dimitar
 TU study block 1, room 1328
 ECTS coordinator:
 Sen.Assist.Prof. Milena Natkova Koleva
 tel 066/223-321
 E-mail: kolevamilena@tugab.bg

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Grigor Alexandrov Boyadjyski
Prof.Dr.Sc.	Evgeniy Dimitrov Kunchev
Sen.Lect.Dr.	Nikolay Hristov Nenov
Sen.Lect.	Ivanka Kirova Filekova
Sen.Lect.	Tsanko Mitev Tsankov
Sen.Assist.Prof.	Milena Natkova Koleva
Sen.Assist.Prof.	Milka Ivanova Nikolova
Sen.Assist.Prof.	Pencho Angelov Stoychev

General technical and general education departments:

■ Department of Physics

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Zvezditsa Petrova Nenova
Sen.Lect.Dr.	Lyubomir Kostadinov Lazov
Sen.Lect.Dr.	Penka Ivanova Stoyanova
Sen.Lect.Dr.	Tsonka Nikolova Korkinova
Sen.Lect.Dr.	Maria Ivanova Barbova
Sen.Lect.	Dimitrina Mitkova Demireva
Sen.Lect.	Dora Stoyanova Platikanova
Sen.Lect.	Emil Dimitrov Tsokev
Sen.Assist.Prof.	Plamen Borisov Danailov
Sen.Assist.Prof.	Nikolay Angelov Petrov

■ Основи на електротехниката и електроенергетиката

List of the teaching staff in the department

Academic rank	Staff member (Name, surname, family name)
Assoc.Prof.Dr.	Georgi Yanakiev Trendafilov
Assoc.Prof.Dr.	Dimitar Petkov Petrov
Assoc.Prof.Dr.	Georgi Ivanov Venkov
Assoc.Prof.Dr.	Iliya Vlaykov Stanev
Sen.Lect.Dr.	Anka Ivanova Zheglova
Sen.Lect.Dr.	Krasimir Marinov Ivanov
Sen.Lect.Dr.	Petur Kolev Petrov
Sen.Lect.Dr.	Petur Milkov Uzunov
Sen.Lect.	Nikolay Vasilev Kolev
Sen.Assist.Prof.	Tsvyatko Kolev Vurbov

Information on the training process

The course of studies for receiving Bachelor's Degree is 4 years (8 semesters) and for Master's Degree it is 5.5 years (11 semesters), according to the state requirements for full-time undergraduate students.

The course of studies for part-time students is 10 semesters for Bachelor's Degree and 13 semesters for Master's Degree.

The academic year is divided of two semesters. Each semester for full-time students lasts 15 weeks and part-time students have contact hours for 15 days each semester.

Full-time students sit examinations for 4 weeks and resit for 1 week after each semester and a last resit for a week in September.

Part-time students sit examinations from 20 to 30 October and November, from 10 to 20 December, from 20 to 30 February, March, April and from 10 to 20 May.

Part-time students resit examinations for 4 weeks in June, except fifth-year students who resit for a week in January.

Full-time students have up to 28 contact hours per week. The number of examinations per semester is up to 6:

- Examinations - up to 4;
- Continuous assessments - up to 2.

The total number of projects for Bachelor's Degree is 3 and the number of course work assignments and projects per semester should not exceed 2.

Full-time students have practice hours:

- Study practice - 60 hours after the fourth semester;
- Study-production practice - 60 hours after the sixth semester.

The training of engineering majors is completed by carrying out a diploma project for Bachelor's and Master's Degree. For the other majors it can be a final state exam.

The diploma project is to be developed for 10 weeks from May to July for Bachelor's Degree.

Variety of contact hours:

- Lectures;
- Seminars;
- Laboratory practice;
- Course work assignments;
- Projects;
- Practice hours;
- Research.

The lecture/seminar hours ratio in the curricula is 1:1.

Each course is completed by knowledge assessment within a semester.

An academic period lasts 45 minutes and the periods are grouped in twos or threes for the classes. They start at the quarter past the hour with a break of 15 min.

Classes start at 7.15 at the earliest and finish at 20.00 at the latest.

The evaluation and giving marks to the knowledge and skills acquired by the students is regulated by the curricula and syllabi. Examinations are conducted in regular and resit sessions, fixed by the schedule of the training process. Each year an exam calendar is formed co-ordinated with students and teaching staff and it is approved and signed by the Rector. The marks obtained at the exams or the current testing are entered in exam protocols, student's mark report and the principal register of the Faculty which is signed by the examiner.

The basic evaluation method is the written exam, but higher exactingness, impartiality and some specific features of some courses require additional oral discussion on the examination material. When the final mark is formed, the marks from previous tests, homework assignments, etc., done during the semester are taken into consideration.

The diploma work/project is defended in front of State Board of Examiners which consists of not fewer than 5 examiners of high academic rank, at least 3 experts in this field and one member of the Board comes from another department. Each diploma work/project is reviewed in advance. The State Board of Examiners gives two marks: for writing/developing the work/project and for the defense of the diploma work/project.

Students' performance is assessed by means of a 5-stage scale which ranges from:

- Excellent - 6;
- Very good - 5;
- Good - 4;
- Fair/satisfactory - 3;
- Poor/fail - 2.

Students who fail an examination have to resit.

At TU Gabrovo the language of instruction is Bulgarian.

Degree Courses

Power ENGINEERING AND ELECTRICAL EQUIPMENT

Qualification Characteristics

Degree of Bachelor

Professional standard: *electrical engineer*

Professional field: *Electrical engineering and electronics*

Electrical engineers who have received Bachelor's Degree have been trained to perform the following activities:

- Design of the electrical section of electric power stations and substations, of electric networks of industrial, transport, mining and agricultural firms and factories, of power supply systems of built-up areas, of devices for control, automation and relay protection of power supply entities, of lighting fittings, lighting systems, etc.;
- Design of electric drives, equipment and automation of production machines, lines and production processes, of electric means of conveyance and transport, etc.;
- Manufacture, assemblage and adjustment of production machines and units, lines, installations, technological and lighting systems in power stations, substations, electric networks and systems in industrial, transport, mining and other types of factories and firms;
- Operation, diagnostics and maintenance of machines, plants, lines, electric equipment, of technological, lighting, etc. in industrial, power, transport and other types of factories and firms;
- Organization and inspection of observing the standards of labour safety, precaution measures, protection of environment in the field of power engineering and electric equipment.

The graduates should have adequate knowledge of general, technical and specializing character:

- General education knowledge comprises languages, philosophy, sociology, protection of environment, economics, management, etc.;
- Fundamental knowledge is indispensable theoretical basis and includes: mathematics, physics, electrical engineering, electronics, computer programming, digital and microprocessor equipment, etc.;
- General technical knowledge form a foundation in the field of chemistry, materials science, technical documentation, mechanics, etc.;
- General professional knowledge comprises: electrical measurements, electric machines, electric apparatuses, fundamentals of automation, automatic electric drives, electric networks and systems, the electric section of electric power stations and substations, machine parts and mechanisms, heat technology and heat-power engineering, hydraulic machines and pneumatics, etc.;
- Specialists' professional knowledge include: lighting and wiring installations, power supply, industrial power supply systems, electric equipment of production processes, technical operation of electric systems, power technologies and

environment, electrical technologies and operation of automatic devices and systems.

Specialists should be able to:

- Develop and use technical, advertising and other types of documentation in the field of power and electrical engineering equipment and systems;
- Test, mount, adjust and operate power and electrical engineering equipment and systems;
- Organize and run the manufacture, diagnostics and repair of power and electrical engineering equipment and systems;
- Train and qualify staff.

Electrical engineers, graduates from this Faculty can be employed as:

- Specialists, organizers, dispatchers and heads at plants for manufacture and distribution of electric power, repair shops for power equipment;
- Power engineers at industrial, transport, mining, economic, etc., firms and factories;
- Designers, technologists and associates at offices, companies and research centers;
- Supervisors and contractors at building- installation companies;
- Experts and consultants at state and public institutions, commercial firms and organizations;
- Teachers at technical secondary schools after certain additional training to be certified.

ELECTRONICS

Qualification Characteristics

Degree of *Bachelor*

Professional standard: *electronic engineer*

Professional field: *Electrical engineering and electronics*

Electronic engineers who have received Bachelor's Degree have obtained sufficient theoretical knowledge and practical experience to perform the following activities:

- Design, technology and manufacture of electronic devices for industry and consumers, control systems, supervision and diagnostics of production machines and processes;
- Design, and software of microprocessors, microcomputer systems and controllers for running production processes;
- Maintenance, repair and modernization of electronic devices and systems, in industry, transport, the home, etc.;
- Management of firms dealing with manufacture, development, repair and trade in the field of electronics.

The training of electronic engineers with Bachelor's Degree meets modern European requirements for broad specialist in the field of electronics. They

receive general engineering training including courses in mathematics, physics, fundamentals of electrical engineering, computer programming and implementation, electrical measurements, materials science and languages. Besides, they acquire fundamental knowledge of the element basis in electronics, microelectronics, analog and digital circuits, microprocessors, converters, power supply devices, design and technology of electronic devices, measurements in electronics.

The final stage of studies includes elective courses in the field of industrial electronics, automation of production machines, mechanisms and technological processes and their computerization.

The electronic engineer is prepared and can work as a designer, technologist and maintenance engineer at various firms dealing with production, service, trade in the field of electronics.

COMMUNICATION EQUIPMENT AND TECHNOLOGIES

Qualification Characteristics

Degree of *Bachelor*

Professional standard: *communication engineer*

Professional field: *Electrical Engineering and Electronics*

Communication engineers can perform the following activities in the field of communication equipment and technologies: design, introduction in production, engineering and service of telecommunication devices and systems.

The graduates are prepared for:

- Design, engineering, technology and manufacture of radioelectronic modules, devices and systems for telecommunications;
- Design, engineering and software of computerized controls of telecommunications, multimedia and radio protection systems, cable and satellite equipment;
- Operation and maintenance of communication equipment, facilities for contacting stationary and mobile objects and specialized technologic equipment, etc.

The communication engineer obtains fundamental knowledge in the field of computers, measurement and communication equipment, specific knowledge of organization and operation of communication systems, theory and implementation of modern radioelectronic element basis in discrete and integral versions, implementation of microprocessors, receiving/ transmitting radio and television devices and systems, antenna feeder devices, measurement technique of UHF devices, digital processing of radio signals, etc.

The communication engineer acquires knowledge of automation and control methods and means of communication systems, of development methods and technological equipment and measurement of parameters of modern UHF elements and communication systems, also coding, decoding and protection of information as well as legislation concerning telecommunication and information transfer.

COMPUTER SYSTEMS AND TECHNOLOGIES

Qualification Characteristics

Degree of *Bachelor*

Professional standard: *computer engineer*

Professional field: *Electrical engineering and*

electronics

Computer engineers are of broad profile and can perform the following activities:

- To organize, control and perform all operations involved in the development, introduction and implementation of computer systems and technologies;
- To carry out professional survey, introduction and operation of computer systems and technologies;
- To design, test and manufacture hardware and software;
- To organize and perform operating and maintaining of computer systems and technologies;
- To organize and fulfil basic parts of system-engineering, production and management of various automatic systems and computers.

Computer engineers should have high professional qualifications, foreign language competence, humanitarian schooling, good knowledge in the field of economics, management and marketing.

These requirements are satisfied by:

- Fundamental training in the field of natural sciences, general technical courses, electrical engineering, electronics, economics, management, philosophy, sociology and foreign languages.
- Specialist courses in: system engineering, computer circuit engineering; algorithms and programming; computer architecture; software; computer aided manufacture, automatic systems in production and non-production spheres, etc.
- Specialized courses including a module of elective courses in one of the fields: computer systems or computer technologies supplemented by a set of optional courses.

Computer engineers who have received Bachelor's Degree can adapt themselves to the changing and developing computer technologies. They can retrain and improve in concrete areas and applications of computer systems and technologies and also can continue their education for Master's Degree.

AUTOMATION, INFORMATION AND CONTROL SYSTEMS

Qualification Characteristics

Degree of *Bachelor*

Professional standard: *automation engineer*

Professional field: *Electrical engineering and electronics*

Students who have successfully completed this programme are grounded to perform the following activities:

- Development, introduction and operation of automation systems for electromechanical systems, technological processes, production machines and mechanisms;
- To implement the achievements in modern computers and information technologies in the automation of production processes and machines;

- To use software for analysis and design of automation systems, operation control, information provision.

Students who have graduated from TU, majors in Automation, Information and Control Systems have general knowledge of electronics, electromechanical devices, electrical engineering, mechanics and computer applications.

On the basis of training in Control Theory, sensors and their application, automation facilities, the students become competent in the field of control of production processes and electromechanical systems.

Students take courses in foreign languages, humanities, economics, management.

Graduates can:

- Continue their education to receive Master's Degree;
- Work at design offices for control systems of machines, mechanisms and processes;
- Introduce and operate various technological control systems, etc.

ECOLOGY AND PROTECTION OF ENVIRONMENT

Qualification Characteristics

Degree of *Bachelor*

Professional standards: *ecologist*

Professional field: *Ecology*

Graduates are trained to:

- Work at organizations and dynamic teams engaged in ecology and protection of environment;
- Participate in teams for evaluating the impact on environment;
- Participate as consultants and experts in developing technologies and designing installations in various fields;
- Take part as experts in teams which operate, maintain and repair ecological equipment;
- Be in charge of teams, projects, organizations concerned with ecology and protection of environment;
- Do research in the field of environment, etc.

Students take courses in: fundamentals of geology, climatology, botany, zoology, physics, biophysics, mathematics, informatics, computer applications, mechanics, heat engineering, fluid mechanics, electrical engineering, electronics, ecology and environmental problems, environmental legislation and standards. They are provided knowledge of the physical, chemical and biological bases of processes and phenomena in ecosystems, all kinds of contaminants as a result of human activities and their impact on ecosystems, methods of analysis and control of substances, contaminants, basic production processes, environment parameters, renewable and alternative power sources, types of industrial wastes, methods, technologies and equipment for their processing, recycling and usage, fluid treatment technologies, principles of low-pollution and nonwaste technologies, evaluation and analysis statistical methods, mathematical simulation and optimization of technological and ecological objects, environmental monitoring, electronic and communication systems for collecting, processing and exchange of information, ecological expertise, sustainable development of ecosystems, economics, management and protection of environment, etc.

The majors acquire skills in using a computer, languages, team work, in taking part in the design of environmentally friendly technologies and installations. They can write adequate documentation, service apparatuses and systems for ecological analysis, to provide ecological recommendations to projects, technologies and equipment being developed, to make ecological analysis and expertise, to make forecasts, to create standard specifications in the field of protection and recovery of environment and sustainable development, etc.

The graduates can be employed at sewage treatment plants, factories, firms, state and municipal organs, regional inspection agencies, foundations, etc. They can be licensed experts in evaluating new productions and privatization transactions. They can work as teachers in ecology and protection of environment at all levels (after certain additional training in order to be certified).