



TECHNICAL UNIVERSITY OF VARNA



MASTER'S DEGREE PROGRAMMES

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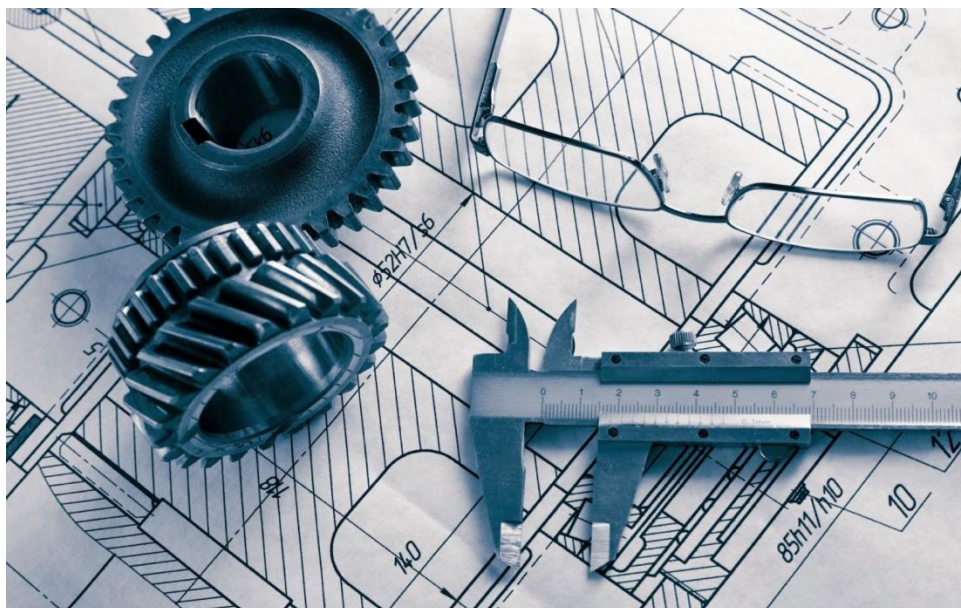
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Contents

FACULTY OF MANUFACTURING ENGINEERING AND TECHNOLOGIES	4
Degree Course: MANUFACTURING ENGINEERING AND TECHNOLOGIES	5
Degree Course: COMPUTERIZED MANUFACTURING TECHNOLOGIES	6
Degree Course: ENGINEERING AND TECHNOLOGY OF PROCESSING OF MATERIALS	7
Degree Course: CHEMICAL MANUFACTURING ENGINEERING	8
Degree Course: TRANSPORT ENGINEERING AND TECHNOLOGIES	9
Degree Course: INTERNAL COMBUSTION ENGINES AND AUTOMOTIVE EQUIPMENT	10
Degree Course: INDUSTRIAL DESIGN	11
Degree Course: INDUSTRIAL MANAGEMENT - EN	13
Degree Course: CORPORATE MANAGEMENT - EN	15
Degree Course: TECHNOLOGICAL ENTREPRENEURSHIP AND INNOVATIONS - EN	16
FACULTY OF SHIPBUILDING	18
Degree Course: THERMAL ENGINEERING AND RENEWABLE ENERGY SOURCES - EN	20
Degree Course: NAVAL ARCHITECTURE AND MARINE TECHNOLOGY - EN	21
Degree Course: MARINE ENGINEERING (*a regulated profession)	23
Degree Course: DESIGN OF MARINE PLANTS AND SYSTEMS	25
Degree Course: NAVIGATION (*a regulated profession) - EN	27
Degree Course: FLEET AND PORTS OPERATION	28
Degree Course: MARITIME TRANSPORT LOGISTICS	29
Degree Course: ENVIRONMENTAL ENGINEERING	30
Degree Course: SEED PRODUCTION AND PLANT PROTECTION - EN	31
Degree Course: SEED AND PLANTING MATERIAL PRODUCTION - EN	32
FACULTY OF ELECTRICAL ENGINEERING	33
Degree Course: ELECTRICAL ENGINEERING	34
Degree Course: RENEWABLE ENERGY SOURCES - EN	36
Degree Course: RENEWABLE ENERGY SOURCES (RES FACILITIES DESIGN)	38
Degree Course: ELECTRICAL ENGINEERING (RENEWABLE ENERGY SOURCES)	39
Degree Course: ELECTRICAL POWER SYSTEMS	40
Degree Course: ELECTRICAL POWER MANAGEMENT	41

Degree Course: POWER GENERATION FROM RENEWABLE ENERGY SOURCES	42
Degree Course: ELECTRIC POWER SUPPLY AND ELECTRICAL EQUIPMENT OF INDUSTRY	43
Degree Course: ELECTRIC POWER SUPPLY AND ELECTRICAL EQUIPMENT OF MARITIME TRANSPORT	44
Degree Course: ELECTRICAL EQUIPMENT OF SHIPS (*a regulated profession)	46
Degree Course: SOCIAL MANAGEMENT - EN	47
Degree Course: CHILD WELFARE SOCIAL WORK	49
Degree Course: SOCIAL WORK WITH INDIVIDUALS WITH DEVIANT BEHAVIOR	51
Degree Course: EUROPEAN SOCIAL INTEGRATION	53
Degree Course: OCCUPATIONAL HEALTH AND SAFETY	55
Degree Course: SOCIAL ENTREPRENEURSHIP	56
FACULTY OF AUTOMATION AND COMPUTING	58
Degree Course: SOFTWARE ENGINEERING - EN	59
Degree Course: COMPUTER TECHNOLOGIES IN BUSINESS	60
Degree Course: INFORMATION SYSTEMS AND TECHNOLOGIES	61
Degree Course: MICROSOFT INFORMATION TECHNOLOGIES	62
Degree Course: COMPUTER NETWORKS AND COMMUNICATIONS - EN	63
Degree Course: AUTOMATION, INFORMATION AND CONTROL SYSTEMS	64
Degree Course: SIEMENS PLC CONTROL TECHNOLOGIES	65
Degree Course: INDUSTRIAL ROBOTICIZED SYSTEMS AND AUTOMATION	66
Degree Course: BUILDING AUTOMATION SYSTEMS	67
Degree Course: ELECTRONICS - EN	68
Degree Course: ELECTRONIC SYSTEMS FOR NEW ENERGY SOURCES	70
Degree Course: MEDICAL ELECTRONICS	71
Degree Course: TELECOMMUNICATION AND MOBILE TECHNOLOGIES - EN	72

FACULTY OF MANUFACTURING ENGINEERING AND TECHNOLOGIES



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Professional field: MECHANICAL ENGINEERING

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor’s Degree in the professional field: 5.1. Mechanical Engineering.

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have a Bachelor’s or Master’s Degree in other fields.

Course Duration: 5 semesters (2,5 years)

Requirements: The course is designed to be accessible by those who have a Professional Bachelor’s Degree in the professional field: 5.1. Mechanical Engineering.

Career path: Upon successful completion of the degree course, the graduates could occupy leading positions as Master-engineers in any department of machine-building companies, in the sphere of certification of machinery and machine-building companies, in the field of technical control of manufacturing companies and products, in research units and institutes and as lecturers at technical universities as well. They could continue their education for acquiring a PhD Degree in Mechanical Engineering (5.1).

Department of Technology of Machine Building and Metal-cutting Machinery

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Professional field: MECHANICAL ENGINEERING

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor’s Degree in the professional field: 5.1. Mechanical Engineering.

Course Duration:3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor’s Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: Upon successful completion of the course, the graduates could work as operational and technical managers in the spheres of application of automated production machinery and equipment, leaders of units in design companies, leaders of units in companies for production analysis, planning, preparation and control or company design, in research departments and institutes and as lecturers at technical universities as well. They could continue their education for acquiring a PhD Degree in Mechanical Engineering.

Department of Technology of Machine Building and Metal-cutting Machinery

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Degree Course: **ENGINEERING AND TECHNOLOGY OF PROCESSING OF MATERIALS**

Professional field: MECHANICAL ENGINEERING

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in the professional field: 5.1. Mechanical Engineering.

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: Upon successful completion of the course, the graduates could work as constructors, designers and technologists in machine building and material processing companies, in specialized laboratories for technical diagnostics and certification of machinery and machine building materials, as managers in companies of the same professional orientation and lecturers in higher and secondary technical schools. They could continue their education for acquiring a PhD Degree in Mechanical Engineering.

Department of Material science and technology of materials

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Professional field: MECHANICAL ENGINEERING

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in Chemical Manufacturing Engineering or other specialties in the professional field: 5.1. Mechanical Engineering.

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: Upon successful completion of the course, the graduates could work as: constructors, designers and technologists in chemical and refinery companies and in specialized laboratories for technical diagnostics and reliability of constructions and facilities, as managers into companies in the same professional field and as lecturers in higher and secondary technical schools. They could continue their education for acquiring a PhD Degree in Mechanical Engineering.

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in the professional field: 5.5. Transport, Navigation and Aviation; 5.1. Mechanical Engineering and 5.13. General Engineering.

Course Duration: 5 semesters (2,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: Upon successful completion of the Master's Degree course in Transport Engineering and Technologies, the graduates could work as:

- Constructors and designers of land transport vehicles with internal combustion engines; assemblies, units, mechanisms and systems of transport vehicles;
- Experts of research, improvement and diversification of transport vehicles and their assemblies, units, mechanisms and systems;
- Experts of control, diagnostics, service and repair of transport vehicles and their assemblies, units, mechanisms and systems;
- Managers of transport organizations;
- Managers of companies for car sale and maintenance, etc.

Department of Transport Engineering and Technologies

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Professional field: MECHANICAL ENGINEERING

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 5 semesters (2,5 years)

Requirements: The course is oriented to graduates who have acquired a Professional Bachelor's Degree in the professional field: 5.1. Mechanical Engineering.

Career path: Upon successful completion of the Master's Degree course in Transport Engineering and Technologies, the graduates could work as:

- Constructors and designers of land transport vehicles with internal combustion engines; assemblies, units, mechanisms and systems of transport vehicles;
- Experts of research, improvement and diversification of transport vehicles and their assemblies, units, mechanisms and systems;
- Expert of control, diagnostics, service and repair of transport vehicles and their assemblies, units, mechanisms and systems;
- Managers of transport organizations;
- Managers of companies for car sale and maintenance;

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Professional field: GENERAL ENGINEERING

Professional qualification: ENGINEER-DESIGNER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: This is a consecutive course oriented to graduates who have successfully completed a Bachelor's Degree Course in Industrial Design or Engineering Design.

Course Duration: 4 semesters (2 years)

Requirements: The course is designed for those who have a Bachelor's or Master's Degree in other professional fields.

Career path: The graduates who acquire the Master's Degree in Industrial Design are qualified for developing design, conducting research and performing creative, managerial and consulting activities in the sphere of:

- development and implementation of strategies in the field of marketing and advertising design of companies in the industrial, tourism and commercial sectors;
- controlling the design processes in industrial organizations;
- development, implementation and evaluation of the product, marketing, manufacturing and technological strategies of the companies in the designing of the products developed;
- intentional establishing of appropriate corporate culture and company style;
- the overall development of design processes and the management of the changes in them.

The training in the Master's Degree in Industrial Design is compliant with the requirements of the individual management levels and units of design, commercial, consultancy and manufacturing companies and organizations in various economic areas.

The Masters in Industrial Design acquire:

- Flexible theoretical, special and specialized training;
- Specialized software knowledge and skills;
- Ability to strategically manage the design process as a whole as well as each of its stages;
- The fundamentals required to continue their education in the consecutive PhD Degree as well as to proceed with their professional development and growth.

The graduates of the Master's Degree course in Industrial Design acquire competencies and skills for resolving complex design tasks independently, as well as in a team. They have the capacity to:

- design products and industrial, polygraphic and textile design items, using traditional and contemporary design principles, methods and technical means;
- organize and manage the designing process, manufacture and installation of the products and items produced;
- carry out consultancy and commercial activity related to the design and redesign of products.

Department of Industrial Design

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Professional field: GENERAL ENGINEERING

Professional qualification: ENGINEER-MANAGER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1.5 years).

Requirements: This is a consecutive course designed for graduates who have successfully acquired a Bachelor's Degree in Industrial Management and Technological Entrepreneurship and Innovations.

The Course of Industrial Management is a Master's Degree programme which objective is associated with training specialists able to organize, plan, control and manage effectively the processes and the activities of companies in various industrial sectors operating in an environment of growing competition and a dynamic market.

Career path: Upon successful completion of the course, the graduates obtain a Master's Degree and a Professional Qualification Degree "Master in Industrial Management". They can develop professionally as:

- high-level managers of companies in the sphere of industry and services;
- specialists in the functional managerial units dealing with the problems of manufacturing, innovations, finances, marketing, human resources, logistics, etc.;
- experts developing, implementing and introducing innovations to the management of enterprises;
- business analysts and experts as well as consultants in the field of small and large enterprise management;
- managers on various levels in national, regional and local public authority institutions, etc.

Course Duration: 4 semesters (2 years).

Requirements: The programme is oriented to graduates who have successfully completed any Bachelor's or Master's Degree courses different from Industrial Management or Technological Entrepreneurship and Innovations.

The training in the Master's Degree Course of Industrial Management is an upgrade of the knowledge and the skills acquired in Bachelor's or Master's courses in other specialties with contemporary management conceptions, technologies, methods and approaches.

Career path: Upon successful completion of the course, the graduates acquire an academic Master's Degree and a Professional Qualification "Master in Industrial Management". They can develop professionally as:

- high-level managers of companies in the sphere of industry and services; specialists in functional units of management dealing with the problems of manufacturing, innovations, finances, marketing, human resources, logistics, etc.;
- experts who develop, implement and introduce innovations to the management of enterprises;
- business analysts and experts as well as consultants in the area of management of small and large enterprises; business analysts and experts as well as consultants in the field of small and large enterprise management;
- managers on various levels in national, regional and local public authority institutions, etc.

Department of Industrial Management

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Professional field: GENERAL ENGINEERING

Professional qualification: ENGINEER-MANAGER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course duration: 3 semesters (1.5 years).

Requirements: This is a consecutive course in Industrial Management and Technological Entrepreneurship and Innovations.

Course Duration: 4 semesters (2 years).

Requirements: The degree course is oriented to graduates who have obtained a Bachelor's or Master's Degree in other field, except for Industrial Management and Technological Entrepreneurship and Innovations.

Career path: Graduates acquire a Master's Degree and the Professional Qualification "Master of Corporate Management", which increases their competitiveness in the labour market and guarantees their successful career development in the field of management of national and foreign corporations, consultancy and expert activities, in scientific and educational institutions and in other areas of regional and national economy. They can develop professionally as:

- high-level managers of large enterprises in the sphere of industry and services;
- leaders of the functional managerial units (marketing manufacturing, human resources, finances, logistics, etc.) on a corporate level;
- business analysts and experts – corporate business development; consultants in the area of large enterprises management;
- managers of various levels of national, regional and local public authority institutions, etc.

Department of Industrial Management

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Professional field: GENERAL ENGINEERING

Professional qualification: ENGINEER-MANAGER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed for those who have acquired a Bachelor's Degree in Industrial Management and Technological Entrepreneurship and Innovations.

The course of Technological Entrepreneurship and Innovations is a completely new Master's Degree Course focused on the preparation of specialists who possess the competences and skills required to create, develop and manage new technology enterprises (ventures) and take the opportunities for introducing innovations to already existing industrial enterprises by developing and offering new technology products and services.

Career path: Upon successful completion of the course, the graduates are granted a Master's Degree Diploma and acquire the Professional Qualification "Master in Technological Entrepreneurship and Innovations".

They can develop professionally as:

- external entrepreneurs establishing their own technology-focused business or as members of entrepreneurial teams; internal entrepreneurs in companies in the sphere of industry and services;
- experts – business development; innovations; technological development, etc. in the sphere of industry and services;
- experts in national, regional and local institutions in the field of entrepreneurship and innovations;
- consultants or members of consultancy teams related to the stimulation of the small and medium-sized enterprises locally, regionally and nationally;
- experts in technological and innovation development in research organizations;
- experts in the field of innovation, technology and entrepreneurship in EU structures and projects, etc.

Course Duration: 4 semesters (2 years).

Requirements: The course is designed for those who have a Bachelor's or Master's Degree in the professional field of technology (Bachelor of Applied Science (BAS)).

The course of Technological Entrepreneurship and Innovations is a completely new Master's Degree Course focused on the preparation of specialists who have acquired a Bachelor's or Master's Degree in various fields of engineering. The curriculum combines the specialized training in the sphere of the technological entrepreneurship and innovations with specialized knowledge of the management in innovative enterprises in the different functional areas.

Career path: Upon successful completion of the course, the graduates are granted a Master's Degree Diploma and acquire the Professional Qualification "Master of technological entrepreneurship and innovations".

They can develop professionally as:

- entrepreneurs developing, organizing and managing enterprises;
- experts who possess in-depth analytical knowledge and skills in the area of management, entrepreneurial networks and knowledge transfer;
- experts in the field of Innovations and Technologies;
- experts in the area of Intellectual Property Rights, etc.

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FACULTY OF SHIPBUILDING



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Degree Course: **THERMAL ENGINEERING AND RENEWABLE ENERGY SOURCES**

Professional field: ENERGETICS

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years), including 2 semesters of academic and practical classes and 1 semester of diploma thesis development.

Requirements: The course is designed to be accessible by those who have a Bachelor's Degree in Thermal Engineering or Thermal Engineering and Renewable Energy Sources.

Course Duration: 6 semesters (3 years), including 5 semesters of academical and practical classes and 1 semester of diploma thesis development.

Requirements:

- The course is designed to be accessible by those who have a Bachelor's or Master's Degree in the Professional field of Pedagogical Science, Humanities and Social, economic and legal sciences, or in the Professional field of Technical science (except for Thermal Engineering and Thermal Engineering and Renewable Energy Sources)
- The course is designed to be accessible by those who have a Professional Bachelor's Degree in Heat and Gas Supply; Industrial Heat Power Engineering, or Heat and Nuclear Energy.

Career path: The career development of the master-engineer in Thermal Engineering and Renewable Energy Sources is related to various industrial branches such as: construction, commerce, tourism, food industry, the household sector, RES sector, etc.

The Master of Engineering in Thermal Engineering and Renewable Energy Sources could occupy the following positions:

- a mechanical engineer, a head of a department responsible for building, operation and repair of thermal engineering systems, a manager and a distributor in engineering and commercial companies;
- a designer in the Heating, ventilation and air conditioning and Energy efficiency sections of investment projects;
- in urban administrative authorities.

The Masters of Engineering in Thermal Engineering and Renewable Energy Sources could be members of the construction supervision company staff and upon the successful completion of a special course in energy auditing of buildings and industrial facilities, they acquire a qualification of energy efficiency consultants and can become part of energy audit teams.

Department of Thermal Engineering

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have successfully completed a Bachelor's Degree Course of Naval Architecture and Marine Technology.

Course Duration: 4 semesters (2 years)

Requirements: The course is oriented to graduates who have successfully completed the Bachelor's or Master's Degree in professional field: 5.1. Mechanical Engineering; 5.5. Transport, Navigation and Aviation (except for the course of Naval Architecture and Marine technology); 5.13. General Engineering and 5.7. Architecture, Construction and Geodesy.

The training is carried out according to a unified curriculum, the first semester being intended for the Bachelors and Masters in different professional fields. It is focused on the basic subjects and acquiring the fundamental knowledge required, which is otherwise provided by the Bachelor's Degree Course of Naval Architecture and Marine technology. The graduates who have completed this course start their training from the second semester. The last semester (forth semester) focuses on the Master's Thesis preparation.

Career path: Upon successful completion of the degree course, the graduates could seek for career development in the fields of design, construction, control, standardization, research and education in the sphere of shipbuilding in the country and abroad.

The training and the knowledge and skill acquired meet the requirements of all the hierarchical levels and units of:

- shipbuilding and ship repair enterprises and companies;
- research institutes and companies in the field of shipbuilding, ship repair, marine technology and water transport;
- classification and standardization organizations;
- ship and marine design organizations, offices and companies;
- technical subdivisions of water transport, construction and technical fleet;
- enterprises, offices and companies for large-scale metal structure design, manufacturing and repair;
- secondary technical schools, colleges and universities.

The curriculum of the Degree Course includes subjects related to the designing and building of small boats (boats and yachts, motor yachts, small passenger ships, specialized ships, etc.)

The students who have successfully completed the course and obtained a Master`s Degree could continue their education by doing a PhD Degree course in Shipbuilding and Ship Repair.

TU-Varna is the only higher education institution in the Republic of Bulgaria that offers and conducts academic course training in Naval Architecture and Marine Technology.

Department of Naval Achitecture and Marine Engineering

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is oriented to graduates who have acquired a Bachelor's Degree Course in Marine Engineering associated with the regulated profession of Ship Engineer

Course Duration: 6 semesters (3 years), including a specialty state examination, in compliance with the requirements of the STCW Convention, as amended, and a state examination in English Language.

Requirements: The Master's Marine Engineering course is oriented to Bachelor's and Master's Degree graduates of other specialties in the field of Technology (Bachelor of Applied Science (BAS)).

The MEng Marine Engineering Course curriculum is approved by the Executive Agency "Maritime Administration" and meet the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW Convention).

The graduates are awarded a MEng Marine Engineering Diploma and the Professional Qualification "Marine Engineer Officer".

Career path: Upon successful completion of the MEng course in Marine Engineering, the graduates could apply their knowledge as:

- chief engineers of seagoing and river ships, floating platforms and marine structures;
- ship power plant installation and repair engineers;
- designers of ship power plants;
- shipyard production managers;
- stationary power plant engineers and managers;
- researchers and educators;
- managers, experts, consultants in institutions, companies and organizations from the public and private sectors.

Their career development involves the area of shipping, shipbuilding, ship repair, ship classification services, ship design and insurance companies, heat and nuclear engineering, power engineering repair, machine building, chemical, gas, petroleum, metallurgical industries, etc.

Marine Engineering graduates have various career options and perspectives, both onboard and ashore (design and insurance companies, ship classification services, etc.). Their professional occupation is concerned with power machinery and installations in all stages of design, construction, test, operation and repair in transport and stationary conditions. Their average income exceeds multiple times the average salary obtained in the country.

Upon successful completion of the Master's Degree course, the graduates can continue their education for obtaining a PhD Degree. International recognition of the knowledge and skills acquired as well as the diplomas awarded is ensured through the European credit transfer system ECTS.

Department of Naval Architecture and Marine Engineering

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: MECHANICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 4 semesters (2 years), including 3 semesters of academic and practical classes and 1 semester of MEng Thesis preparation.

Requirements: The Master's Degree Course of Design of Marine Installations and Systems is oriented to graduates who have obtained a Bachelor's or Master's Degree in the field of Technology (Bachelor of Applied Science (BAS)). The speciality is in the Professional field of Transport, navigation and aviation.

Upon successful completion of this MEng Course, the graduates are awarded a MEng Degree in Design of Maritime Arrangements and Systems and a Professional Qualification 'Master of Engineering'.

Career path: The objective of the Design of Marine Installations and Systems MEng course is to train highly qualified engineers possessing in-depth knowledge and skills in the broad range of design, modelling and studying of ships and marine structures using specialized software CAD/CAM, FEA and CFD programmes and applications. The Design of Marine Installations and Systems graduates could practice their in-depth knowledge in our country or abroad as:

- designers, experts, consultants in institutions, companies and organizations in the public and private sectors;
- researchers and lecturers;
- chief designers of sea and river ships, floating platforms and marine structures;
- heads of industrial design centers / shipbuilders and shipyards;
- chief engineers and managers in the shipping and offshore industry;

A large number of companies in Bulgaria and abroad successfully operate in the field of marine design, with their production being designed exclusively for the world maritime market of newbuild design and retrofit of ships and marine structures in service. These companies which offer excellent working conditions, opportunities for qualification upgrade and specialization in leading companies abroad, and pay for engineering work in line with European standards require that the future engineers have the knowledge and skills to design and use state-of-the-art programming tools and systems.

The MEng Design of Marine Installations and Systems graduates have the option to continue their education for acquiring a PhD Degree. The knowledge and skills acquired during their study are internationally recognized and the Diplomas are in compliance with the European Credit Transfer System ECTS.

Department of Naval Architecture and Marine Engineering

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Technical coordinator: Stela Miteva

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: ENGINEER-NAVIGATOR

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1.5 years)

Requirements: This is a consecutive Master's Degree Course designed for those who have acquired a Bachelor's Degree in Navigation. The graduation procedure is a Master's Thesis Defence, the third (last) semester focusing on the thesis preparation. **No visual acuity and color vision deficiency** is acceptable.

The Training Course meets the requirements of the STCW Convention and complies with IMO Model Course 7.01. The curriculum and the syllabi are approved by the Executive agency "Maritime Administration".

Career path: Upon successful completion of the Master's Degree Course in Navigation, the career opportunities of the graduates include:

- Chief Officers and Captains of seagoing ships, floating platforms and marine structures;
- Shipping agents;
- Shipowner representatives;
- Classification organizations;
- Maritime Administration Inspectors;
- Captains in port fleets;
- Officers at Shipping Control Agencies;
- Crewing agencies;
- Civil servants in government and private companies related to shipping and organizing search and rescue operations;
- Lecturers in training centres for seafarers.

Upon successfully completed examination, the specialists with the Master's Degree Diploma in Navigation could continue their education for acquiring a PhD Degree.

Department of Navigation, Transport Management and Waterways Preservation

HOD: Assos. Prof. eng. Bozhidar Dyakov,

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Technical coordinator: Krasimira Vangelova

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: TRANSPORT ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 2 semesters (1 year)

Requirements: The course is oriented to the graduates of Bachelor's Degree Course of Fleet and ports operation.

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have successfully completed the Bachelor's or Master's Degree programmes in other fields.

The graduation procedure is a state examination.

Career path: Upon successful completion of the Master's Degree Course, the career opportunities of the graduates include employment in:

- ports;
- logistics companies;
- municipality and state administration institutions;
- management of national and international projects, related to the transport;
- customs agencies;
- shipping agent companies.

Department of Navigation, Transport Management and Waterways Preservation

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Technical coordinator: Krasimira Vangelova

Phone: +359 52 383 233, Room: 402 NUK

Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: TRANSPORT ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1.5 years)

Requirements: The Master's Degree Programme is oriented to the graduates of Bachelor's Degree Course of Fleet and ports operation or Logistics. The graduation procedure is a Diploma Thesis, performed in the last (3-rd) semester.

Career path: Upon successful completion of the Master's Degree Course, the career opportunities of the graduates include:

- organization and management of the processes, related to the material production and the organization and management of Control Quality Systems in the production-logistic systems;
- the field of management and marketing of small and medium-sized enterprises as well as the opportunity of starting their own business in all spheres of the transport industry, the exploitation of technical systems, and commerce;
- managers and executives in the field of national economic sector, state administration institutions, and the private sector.
- specialists and experts in the field of Exploitation of Logistics systems; in the field of Control and Assessment of transport and production technology; in the field of transport and control of the different production units;
- lecturers in professional schools, colleges and universities, experts in institutions, related to the executive authority and customs control, district municipality administration, in teams which provide logistics support to non-profit organizations and etc.

Upon successfully completed examination, the specialists with the Master's Degree Diploma in Maritime Transport Logistics could continue their education for acquiring a PhD Degree.

Department of Navigation, Transport Management and Waterways Preservation

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: ENVIRONMENTAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 2 semesters (1 year)

Requirements: The programme is oriented to graduates who have successfully completed a Bachelor's or Master's Degree. The course is designed to be particularly accessible by those who have acquired a university degree in Environmental Engineering; Environmental Protection and Sea Preservation Technologies; Ecology and Sea Preservation and Environment Protection Technologies; Ecology and Environment Protection and Protection of Population in Disasters and Accidents.

The training provided in the MEng course of Ecological Engineering ensures knowledge, skills and competences in the sphere of environment elements quality control: Atmospheric air quality management, Integrated water management, Integrated waste management; Ecological management systems; Minimized Waste and Zero Waste Technology, Biodiversity Conservation. The course focuses on marine environmental protection, Environmental Law, the design of technical systems and the organization and management of ecological projects.

During their study, the students could take part in research projects and academic mobility under Erasmus+. The MEng course is completed either by a final state examination or by a Diploma Thesis defence.

Career path: The career opportunities of the graduates of the Master's Degree Course of Ecological Engineering include: state institutions and control authorities - municipality and regional administrations, Executive Environment Agency, RIEW, Maritime Administration, etc.; companies building and maintaining wastewater and industrial water treatment facilities and installations; the oil, gas and chemical industries; transport, logistics and port activities; RES sector; international standardization companies; insurance companies; research teams.

Department of Ecology and Protection of the Environment.

HOD: Assos. Prof. Eng. Daniela Toneva

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Professional field: PLANT PRODUCTION

Professional qualification: AGRONOMIST

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed for graduates who have successfully completed the Bachelor's or Master's Degree programmes in the professional fields: 6.1. Seed Production or 6.2. Plant Protection.

Course Duration: 4 semesters (2 years)

Requirements: The course is oriented to the graduates of all other Bachelor's Degree programmes. The first semester compensates for the differences in the Bachelor's course of education and ensures the knowledge otherwise acquired during the Bachelor's Degree Course in Agronomy.

Career path: The main goal of the training is to prepare highly qualified agricultural specialists who have obtained competences across the whole range of agricultural seed production and the plant protection.

The graduates of the Degree Course of Seed Production and Plant Protection will acquire a Master's Degree Diploma in addition with the Professional Qualification "Agronomist" and their career perspectives include:

- sowing material manufacturers and merchants;
- consultants in agricultural seed production and plant protection companies;
- experts, inspectors and consultants in the Executive Agency of variety testing, probing and seed control, the Bulgarian agency for food safety and other institutions at national and regional level;
- leading administrative positions at national and regional level in state, municipal and private structures;
- research career in relevant institutions.

Department of Plant Production

HOD: *Assos. Prof. Dragomir Dimitrov*

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Technical coordinator: *Assistant Ruska Dimitrova*

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Professional field: PLANT PRODUCTION

Professional qualification: AGRONOMIST

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed for graduates who have successfully completed the Bachelor's or Master's Degree programmes in the professional fields: 6.1. Seed Production or 6.2. Plant Protection.

Course Duration: 4 semesters (2 years)

Requirements: The course is oriented to the graduates of all other Bachelor's or Master's Degree programmes. The first semester is designed as compensating for the differences in the Bachelor's course of education and ensures the knowledge otherwise acquired during the Bachelor's Degree Course in Agronomy.

Career path:

The main goal of the training is to prepare highly qualified agricultural specialists who have obtained competences across the whole range of agricultural seed production (field, vegetable and perennial crops).

The graduates acquire a Master's Degree Diploma and a Professional Qualification Degree "Agronomist" and their career perspectives include:

- sowing material manufacturers and merchants;
- consultants in agricultural seed production and plant protection companies;
- experts, inspectors and consultants in the Executive Agency of Variety Testing, Probing and Seed Control, the Bulgarian agency for food safety and other institutions at national and regional level;
- leading administrative positions at national and regional level in state, municipal and private structures;
- research career in relevant institutions.

Department of Plant Production

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FACULTY OF ELECTRICAL ENGINEERING



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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATION

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is oriented to graduates who have successfully completed a Bachelor's or Master's Degree Course in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: The graduates of this Master's Degree Course will be provided with theoretical and practical training to organize, execute and manage activities related to electrical devices and systems design, construction, manufacturing, testing and diagnostics both individually and in a team. They will also be prepared to manage electrical industrial enterprises and companies, including electrical power generation using RES and electrical energy conversion. *The training is performed with the help of well-known experts and practitioners.* The in-depth professional preparation enables the graduates to develop as leading designers, directors, managers, experts, consultants, educators in different areas in Bulgarian and international companies. The graduates could successfully obtain *designer certification* and continue their academic education for obtaining a PhD Degree in the field of Electrical Engineering.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed to be accessible by graduates who have successfully completed Bachelor's or Master's Degree Courses different from those provided in the field of Technology (Bachelor of Applied Science (BAS)).

Details: The course includes an additional semester covering basic subjects, such as General Electrical Engineering, Electrical Machinery, Electrical Devices, and Electronics and Microprocessor Engineering. Upon the successful completion of the first semester, the training continues according to the curriculum of Master's Degree Course of Electrical Engineering – 1,5 years.

The practical training of the students is carried out in modern laboratories and in a real production environment with the assistance of leading companies in the industry.

Career path: The graduates of this Master`s Degree Course will be provided with theoretical and practical training to organize, execute and manage activities related to electrical devices and systems design, construction, manufacturing, testing and diagnostics both individually and in a team. They will also be prepared to manage electrical industrial enterprises and companies, including electrical power generation using RES and electrical energy conversion. ***The training is performed with the help of well-known experts and practitioners.*** The in-depth professional preparation enables the graduates to develop as leading designers, directors, managers, experts, consultants, educators in different areas in Bulgarian and international companies. The graduates could successfully obtain ***designer certification*** and continue their academic education by doing a PhD in the field of Electrical Engineering.

Department of Electrical Engineering and Electrotechnologies

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATION

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is oriented to graduates who have successfully completed a Bachelor's or Master's Degree Course in the professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: The students who have successfully obtained the Professional Qualification Degree 'Master of Engineering' in Renewable Energy Sources acquire a qualification in the area of RES power generation systems design, construction and operation, control and monitoring of their performance, economic and legal aspects of their certification and their connection to power networks. The practical training of the students is carried out in modern laboratories and in a real production environment with the assistance of leading companies in the industry. The in-depth professional preparation enables the graduates to develop as leading designers, directors, managers, experts, consultants, educators in different areas in Bulgarian and international companies. The graduates could continue their academic education for obtaining a PhD Degree in the field of Electrical Engineering.

Course Duration: 5 semesters (2.5 years)

Requirements: The course is designed for graduates who have acquired a Professional Bachelor's Degree in the Professional field: 5.2. Electrical Engineering, Electronics and Automation.

Training Activities: Lectures, laboratory exercises and course projects

Career path: The students are provided with knowledge of fundamental subjects, such as Electrical Engineering; Renewable Energy Sources; Electrical Machines; Electrical Devices, etc. in the first year of study, i.e. the first two semesters. Upon successful completion of the first year of study, the training follows the curriculum of the 1,5 years' course of Renewable Energy Sources.

The students who have successfully obtained the Professional Qualification Degree ‘Master of Engineering’ in Renewable Energy Sources acquire a qualification in the area of RES power generation systems design, construction and operation, control and monitoring of their performance, economic and legal aspects of their certification and their connection to power networks. The practical training of the students is carried out in modern laboratories and in a real production environment with the assistance of leading companies in the industry. The in-depth professional preparation enables the graduates to develop as leading designers, directors, managers, experts, consultants, educators in different areas in Bulgarian and international companies.

The graduates could continue their academic education for obtaining a PhD Degree in the corresponding professional field.

Department of Electrical Engineering and Electrotechnologies

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATION

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The programme is oriented to graduates who have acquired a Bachelor's or Master's Degree in RES or who have successfully completed a Bachelor's or Master's Degree course in professional field: 5.2. Electrical Engineering, Electronics and Automation or 5.4. Power Engineering containing a major or specialization in RES.

The Master of Engineering in Renewable Energy Sources (RES Facilities Design) will acquire the knowledge and competence required to organize, execute and manage activities related to electrical devices and systems design, construction, manufacturing, testing and diagnostics both individually and in a team. They will also be prepared to manage electrical industrial enterprises and companies, including electrical power generation using RES and electrical energy conversion. The graduates could also successfully develop in the field of research, education and social management.

The training in Renewable Energy Sources (RES Facilities Design) ensures knowledge and competence related to modelling and design of specialized RES systems based on specific high-voltage electrical systems and equipment - special electrical machines and electric facilities, electric drives, non-contact electrical devices and converters, power electronic systems, etc. Their specialized training is carried out both in the university laboratories and in a real production environment using the university's partner companies' facilities.

The graduates could continue their academic education for obtaining a PhD Degree in the field of Electrical Engineering.

Department of Electrical Engineering and Electrotechnologies

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATION

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 4 semesters (2 years)

Requirements: The course is oriented to those who have obtained a Bachelor's or Master's Degree different from professional field of Technology (Bachelor of Applied Science (BAS)).

Details: The curriculum includes an additional semester provided for covering fundamental subjects, such as Basics of RES, Electrical Machines, Electrical Devices, General Electrical Engineering, Electronics and Microprocessors. Upon successful completion of the first semester, the training continues according to the curriculum of Master's Degree Course of Renewable Energy Sources – 1,5 years.

The training is carried out both in the university laboratories and in a real production environment using the university's partner companies' facilities.

Career path: The graduates who have obtained the Professional Qualification Degree of a Master of Engineering (2 years) will acquire equal knowledge, professional skills, competence and professional opportunities as those provided by the 1,5 years' course discussed above.

The in-depth professional preparation enables the graduates to develop as leading designers, directors, managers, experts, consultants, educators in different areas in Bulgarian and international companies. The graduates could continue their academic education by doing a PhD in the field of Electrical Engineering.

Department of Electrical Engineering and Electrotechnologies

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Professional field: ENERGETICS

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is oriented to graduates who have obtained a Bachelor's Degree in majors such as: Electrical Power Engineering; Electric Power Supply and Electrical Equipment; Electrical Power Engineering and Electrical Equipment.

Career path: Upon successful completion of the studies, the graduates obtain the Professional Qualification Degree 'Master of Engineering' in Electrical Power Systems and acquire the preparation and competence that meet the requirements of all units and levels of the electrical power system. They can develop as associates in research units and lecturers in educational establishments, directors, managers, experts and consultants in power plants, transmission grids, power distribution companies, dispatching departments and headquarters, electrical and power engineering companies and electricians, energy efficiency experts, and acquire a complete *designer certification* - Electrical Engineering Section.

Department of Electrical Power Engineering

HOD: Assos. Prof. eng. Yoncho Kamenov

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Master Degree's Coordinator: Assistant eng. Rositsa Dimitrova

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Technical coordinator: eng. Yanita Koleva

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Professional field: ENERGETICS

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The programme is oriented to graduates who have successfully completed Bachelor's Degree Courses of Electrical Power Engineering; Electric Power Supply and Electrical Equipment; Electrical Power Engineering and Electrical Equipment; Electrical Engineering; Renewable Energy Sources.

Career path: The Masters in Electrical Power Management acquire the preparation and competence that meet the requirements of all units and levels of the electrical power system. Their career opportunities include employment as associates in science departments and lecturers in educational establishments, leaders at all levels of power engineering organizations, managers, experts, consultants, planning and regime management specialists, organizers of operation and repair, power control bodies, electricity efficiency experts.

Department of Electrical Power Engineering

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Professional field: ENERGETICS

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have acquired a Bachelor's Degree in Professional fields: 5.4. Energetics; 5.2. Electrical Engineering, Electronics and Automation and 5.3. Communication and Computer Technology.

Career path: The Masters in Power Generation from RES acquire the preparation and competence that meet the requirements of all units and levels of the electrical power system. Their career opportunities include employment as associates in science departments and lecturers in educational establishments, leaders at all levels of power engineering organizations, managers, experts, consultants, planning and regime management specialists, organizers of operation and repair, power control bodies, electricity efficiency experts. Their specialized training enables them to work in the fields of design, grid connection and operation of renewable power generation facilities and to resolve regulatory, technical, legal and business issues in electricity systems involving public and private sector projects with decentralized power generation from renewable sources.

Department of Electrical Power Engineering

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Degree Course: **ELECTRIC POWER SUPPLY AND ELECTRICAL EQUIPMENT OF INDUSTRY**

Professional field: ENERGETICS

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: semesters (1,5 years)

Requirements: This is a consecutive course designed to be accessible by those who have a Bachelor's or Master's Degree in the Professional fields: 5.2. Electrical Engineering, Electronics and Automation; 5.4. Energetics (particularly courses in Electrical Engineering) and 5.5. Transport, Navigation and Aviation (particularly Electrical Equipment of Ships).

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in other majors in professional field of Technology (Bachelor of Applied Science (BAS)).

Career path: The graduates successfully develop professionally as managers, specialists and organizers in power generation and distribution companies; in the energy departments of industrial, transport and agricultural enterprises and companies; in electric utilities; testing laboratories and research centers. They could professionally develop as experts in power and electrical equipment, lighting, industrial electronics and industrial automation; electricity efficiency experts; technical managers in construction and assembly companies; managers and consultants in state-owned and private companies and organizations. The Master of Engineering in Electric Power Supply and Electrical Equipment is prepared to work in all industrial enterprises; electrical transportation and design and construction companies and units.

The Professional Qualification Degree Master of Engineering in Electric Power Supply and Electrical Equipment of Industry allows the graduates to acquire complete **designer certification** – Electrical Engineering Section, by the Chamber of Engineers in Investment Design (CIMP).

Department of Electric Power Supply and Electrical Equipment

HOD: Ass. Prof. PhD eng. Valentin Gyurov

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Technical coordinator: Mariyana Koleva

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Professional field: ENERGETICS

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: This is a consecutive course designed to be accessible by those who have a Bachelor's or Master's Degree, with a minimum of 240 credits in the Professional fields: 5.2. Electrical Engineering, Electronics and Automation; 5.4. Energetics (particularly courses in Electrical Engineering) and 5.5. Transport, Navigation and Aviation (particularly Electrical Equipment of Ships).

Course Duration: 4 semesters (2 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in other majors in professional field of Technology (Bachelor of Applied Science (BAS), with a minimum of 240 credits.

Career path:

Upon successful completion of the studies, the graduates could find employment as managers, specialists and organizers in enterprises in the fields of shipbuilding and ship repair; in energy departments of port infrastructure, shipbuilding and repair companies, shipowners, design companies in the field of water transport; electric utilities; testing laboratories and research centers.

They can also develop professionally as experts in electric power supply and electrical equipment in water transport; water transport electricity efficiency experts ; managers and consultants in state-owned and private companies and organizations.

The Master of Engineering in Electric Power Supply and Electrical Equipment of Water Transport is properly prepared to work in all enterprises, related to shipbuilding, ship repair and port infrastructure; in design and construction companies and units.

Upon successful completion of additional studies in compliance with the IMO's 7.08 Module Course and in case of fulfilling all requirements and regulations for the competence of seafarers in the Republic of Bulgaria set in Ordinance No. 6 (published by the Ministry of Transport, Information Technology and Communications), the graduates who are awarded a Master's Degree Diploma in

Electric Power Supply and Electrical Equipment of Water Transport may apply for certification and issuing a Marine Electrical Engineer's license in the Maritime Administration Executive Agency (IAMA). The Marine Electrical Engineer License issued in compliance with the International Convention on Standards of Training and Certification of Seafarers - STCW'78 entitles its holder to occupy the position of a Marine Electrical Engineer on vessels flying Bulgarian and foreign flags.

The graduates of this Degree course successfully work as engineers, designers, technologists and collaborators in offices, companies and research centers in the field of marine engineering.

The Professional Qualification Degree master-engineer of "Electric supply and the electrical equipment on the water transport" allows the acquisition of a **full designer certification** – Electrical Engineering Section by the Chamber of Engineers in Investment Design (CIMP).

Department of Electric Power Supply and Electrical Equipment

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Professional field: TRANSPORT, NAVIGATION AND AVIATION

Professional qualification: ELECTRICAL ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: This is a consecutive course designed to be accessible by those who have a Bachelor's Degree in Electrical Equipment of Ships of the list of regulated professions.

Career path: In accordance with Ordinance №59 of the Council of Ministers (OCM) dated 17.03.2015 and the Regulation of the State Requirements for acquiring Higher education in a consecutive Master's Degree course of Electrical Equipment of Ships, the training ensures the knowledge, practical skills and competence for obtaining the Professional Qualification Degree "Marine Electrical Engineer". The training follows curricula and syllabi approved by the Executive Agency "Maritime Administration".

The graduates holding a Master's diploma in Electrical Equipment of Ships may apply for certification and issuing a Ship Electrical Engineer's license in the Maritime Administration Executive Agency (IAMA) provided all the normative requirements set in Ordinance No. 6 on Seafarers Competence in the Republic of Bulgaria of MTITC) are fulfilled. The Marine Electrical Engineer License issued in compliance with the International Convention on Standards of Training and Certification of Seafarers - STCW'78 entitles its holder to occupy the position of a Marine Electrical Engineer on vessels flying Bulgarian and foreign flags.

The graduates holding a Marine Electrical Engineer's certificate of competency could find an employment as electrical engineers aboard a ship and take the leading position of a Chief Electrical Engineer, which may require a Master's Degree.

Department of Electric Power Supply and Electrical Equipment

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Technical coordinator: Mariyana Koleva

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Professional field: SOCIAL ACTIVITIES

Professional qualification: SPECIALIST IN SOCIAL WORK

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the professional field: 3.4.social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses in other fields.

The course ends with a Diploma Thesis preparation and defence.

The specialists who have successfully completed a Master's degree course of Social Management acquire proper professional preparation, involving theoretical and fundamental preparation and an additional broad-based and interdisciplinary training, specific knowledge and competences for working with different target groups, practical skills for an effective organization and management of different social services oriented to individuals in need, for development and management of projects in the social sphere, conflict solving, etc.

Career path:

The areas of professional development of the graduates include:

- municipality, regional and national structures for social care and assistance;
- municipality structures for social activities management;
- child protection services and units;
- national and regional employment services;
- providers of social services to various target groups;
- centres for temporary accommodation of persons at risk;
- specialized institutions;
- social services units for disadvantaged people;
- research units, etc.

During their training, the students could participate in programmes for academic mobility in top universities in Denmark, Belgium, France, Italy, Slovenia and Spain. The graduates of the Master's Degree course of Social Management could

proceed with their studies in Bulgaria or abroad by doing a PhD research and acquiring a PhD Degree. It is ensured that the knowledge and skills acquired are internationally compatible and recognizable.

Department of Social and Legal Science

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Coordinator learning process: Nadezhda Valcheva

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Professional field: SOCIAL ACTIVITIES

Professional qualification: SOCIAL WORK MANAGER (Children)

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the professional field: 3.4.Social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed the Bachelor's or Master's Degree Courses in other fields.

The study process ends with preparation and defence of a Diploma Thesis.

The graduates of this Degree course obtain professional knowledge and practical skills for organizing and management of social activities related to children at risk, disadvantaged children or children with special needs. The graduates acquire the competence required for work in cases of children at risk, risk evaluations and child's needs evaluation, development and execution of an action plan, organization and performance of supporting activities, defining and implementation of child protection measures.

Career path: The graduates of the corresponding Master Degree Programme could develop professionally as specialist in:

- specialized child care institutions;
- municipality, regional and national structures for social support;
- providers of child welfare social services;
- out-of-school child care institutions;
- various authorities of central and local state administration;
- child protection units and structures;
- centres for temporary placement of children at risk or disadvantaged children.

During their training, the students could participate in academic mobility programmes in outstanding universities in Denmark, Belgium, France, Italy, Slovenia and Spain. The graduates awarded a Master's Degree in Child Welfare

Social Work could proceed with their studies to acquire a PhD or a Master's Degree in other fields in Bulgaria or abroad. It is ensured that the knowledge and skills acquired are internationally compatible and recognizable.

Department of Social and Legal Science

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Degree Course: SOCIAL WORK WITH INDIVIDUALS WITH DEVIANT BEHAVIOR

Professional field: SOCIAL ACTIVITIES

Professional qualification: SPECIALIST IN SOCIAL WORK

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the Professional field: 3.4.Social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed the Bachelor's or Master's Degree Courses in other fields.

The study ends with preparation and defence of a Diploma Thesis.

The students, successfully completed the programme acquire practical knowledge and professional skills for social work related to underaged individuals (minors) manifesting deviant behavior, places of detention, social prevention, re-socialization and social integration of criminals, solving and managing conflicts in social and criminogenic environment and etc.

Career path:

The graduates of this Master Course could successfully find employment and develop as specialists in:

- different bodies of central and local government;
- child pedagogical rooms;
- crisis centres for temporary housing of human trafficking victims;
- social services provided to individuals manifesting deviant behavior;
- places of detention (imprisonment);
- specialized children-at-risk institutions;
- international and national non-governmental organizations;
- probation services provided by the Ministry of Justice.

During their training, the students could participate in academic mobility programmes in outstanding universities in Denmark, Belgium, France, Italy,

Slovenia and Spain. The graduates awarded a Master's Degree in Social Work with Individuals with Deviant Behaviour could proceed with their studies to acquire a PhD or a Master's Degree in other fields in Bulgaria or abroad.

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Professional field: SOCIAL ACTIVITIES

Professional qualification: SPECIALIST IN EUROPEAN SOCIAL INTEGRATION

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the professional field: 3.4.Social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed the Bachelor's or Master's Degree Courses in other fields.

The training ends with Preparation and Defence of a Diploma Thesis.

The students who have successfully completed the programme acquire knowledge and practical skills for formulation and implementation of social policies in different public and private structures in Bulgaria or other EU Member States. The graduates are capable of solving various tasks related to social integration practices and knowledge transfer, developing and managing projects under European programs, etc.

Career path: The graduates of this course could successfully find employment and develop as specialist in:

- public and private structures implementing social policy segments and dealing with the European integration process;
- central and local administration bodies, responsible for the development of projects under EU programmes and funds;
- national and international non-governmental organizations and structures in the economic sector conducting social services and activities;
- various units implementing research and knowledge transfer in the social area.

During their training, the students could participate in academic mobility programmes in outstanding universities in Denmark, Belgium, France, Italy, Slovenia and Spain. The graduates awarded a Master's Degree in European Social

Integration could proceed with their studies to acquire a PhD or a Master's Degree in other fields in Bulgaria or abroad. It is ensured that the knowledge and skills acquired are internationally compatible and recognizable.

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Professional field: SOCIAL ACTIVITIES

Professional qualification: SPECIALIST IN OCCUPATIONAL HEALTH AND SAFETY

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the professional field: 3.4.Social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed the Bachelor's or Master's Degree Courses in other fields. The training ends with Preparation and Defence of a Diploma Thesis.

Career path: The graduates of the Master's Degree course of Occupational Health and Safety could successfully occupy senior management and middle-level management positions in:

- municipal, regional and national services institutions and other institutions related to control (monitoring) of the healthy and safe working conditions, labour inspectorates;
- public and private structures in the area of occupational medicine;
- organizations providing advisory services on workplace risk assessment and safety standards certification;
- national and international non-governmental organizations and structures related to the issues of labour safety;
- various units conducting research and educational activity in the field of work environment.

The graduates awarded a Master's Degree in European Social Integration could proceed with their studies to acquire a PhD or a Master's Degree in other fields in Bulgaria or abroad. The knowledge and skills acquired are internationally compatible and recognizable.

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Professional field: SOCIAL ACTIVITIES

Professional qualification: SPECIALIST IN SOCIAL ENTREPRENEURSHIP

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed for graduates who have successfully completed a Bachelor's or Master's Degree Courses from the professional field: 3.4.Social activities.

Course Duration: 4 semesters (2 years)

Requirements: The programme is designed for graduates who have successfully completed the Bachelor's or Master's Degree Courses in other fields.

The course is ended by Preparation and Defence of a Diploma Thesis.

The students who have successfully completed the course acquire practical knowledge and skills for effective management of structures in the public and the private sector operating in the sphere of social economics. They are capable of founding and effectively managing social enterprises, organizing, financing and planning production, providing social services to various target groups, developing and managing national and international projects in the social sphere, etc.

Career path:

The graduates could find employment as specialist in:

- different bodies of central and local administration involved in social management;
- national, regional and local structures facilitating entrepreneurship activities;
- social service providers;
- municipality, regional and national employment agencies and private employment services
- social economy enterprises;
- social services intended for special-needs, at-risk or disadvantaged individuals and children;
- national and international non-governmental organizations and structures in the business sector performing social functions;
- various units conducting research, knowledge transfer and good practices in the area of social services.

During their training, the students could participate in academic mobility programmes in outstanding universities in Denmark, Belgium, France, Italy, Slovenia and Spain. The graduates awarded a Master's Degree in Social Entrepreneurship could proceed with their studies to acquire a PhD or a Master's Degree in other fields in Bulgaria or abroad. The international compatibility and recognition of the knowledge and skills acquired are ensured.

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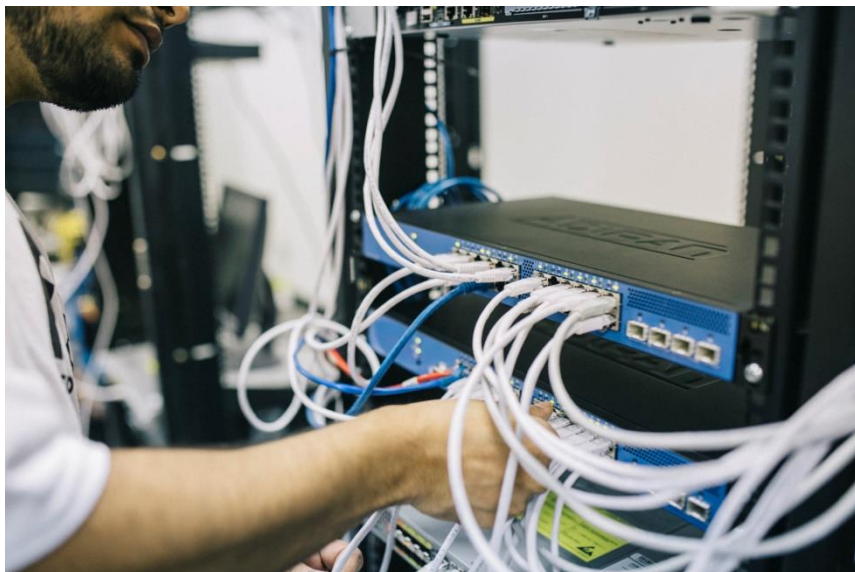
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FACULTY OF AUTOMATION AND COMPUTING



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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: COMPUTER ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed to be accessible to graduates who have successfully obtained a Bachelor's Degree in Computer Systems and Technologies, Software and Internet Technologies and in the professional field of Information and Computer Science.

Course Duration: 5 semesters (2,5 years)

Requirements: The programme is oriented to those who are awarded a Bachelor's Degree in the professional fields: 5. Technology (Bachelor of Applied Science (BAS)); 4. Nature Sciences, Mathematics and Informatics; 3.8. Economics; 3.7. Administration and Management; 3.5. Public Communications and Information Science; or a Professional Bachelor Degree in 5.3. Communications and Computer Technology.

Career path:

The graduates of the Master's Degree Course in Software Engineering could successfully find employment as application and system programmers, Web designers and developers, consultants on software technologies, Internet application, etc.

Department of Software and Internet Technologies

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Technical Coordinator: Anna Hristova

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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: COMPUTER ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed to be accessible to graduates who have successfully obtained a Bachelor's Degree in Computer Systems and Technologies; Software and Internet Technologies; Industrial Management, and in the professional fields: Information and Computer Science; Communications and Computer Technology.

Course Duration: 5 semesters (2,5 years)

Requirements: The programme is oriented to those who are awarded a Bachelor's Degree in the professional fields: 5. Technology (Bachelor of Applied Science (BAS)); 4. Nature Sciences, Mathematics and Informatics; 3.8. Economics; 3.7. Administration and Management; 3.5. Public Communications and Information Science; or a Professional Bachelor Degree in 5.3. Communications and Computer Technology.

Career path:

The graduates of the Master's Degree Course of Computer Technologies in Business could find employment and develop as Web designers or developers, consultants of application of Software Technologies in Business and Finances, etc. in companies and banking institutions with predominant application of software systems and technologies.

Department of Software and Internet Technologies

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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: COMPUTER ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed to be accessible to graduates who have successfully obtained a Bachelor's Degree in the professional fields: 5.3. Communications and Computer Technology; 4.6. Information and Computer Science; or 5.2. Electrical Engineering, Electronics and Automation (specialites: Automation, Information and Control Computer Systems or Electronics).

Course Duration: 5 semesters (2,5 years)

Requirements: The Course is oriented to graduates awarded a Bachelor's Degree in the professional fields: 5. Technology (Bachelor of Applied Science (BAS)); 4. Nature Sciences, Mathematics and Informatics; 3.8. Economics; 3.7. Administration and Management; 3.5. Public Communications and Information Science; or a Professional Bachelor Degree in 5.3. Communications and Computer Technology.

Career path:

The graduates of the Master's Degree Course of Information Systems and Technologies could find employment as developers of modern Information systems for general or very specialized purposes, as Information Technologies specialists in various spheres of human activities, including mobile, multimedia, geographic and other Information Systems that use business intelligence and Cloud Technologies.

Department of Software and Internet Technologies

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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: COMPUTER ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course duration: 3 semesters (1,5 years)

Requirements: The programme is designed to be accessible to graduates who have successfully obtained a Bachelor's Degree in the professional field of Information and Computer Science: Computer Systems and Technologies; Software and Internet Technologies; Mathematics and Informatics.

Course Duration: 5 semesters (2,5 years)

Requirements: The Course is oriented to graduates awarded a Bachelor's Degree in the professional fields: 5. Technology (Bachelor of Applied Science (BAS)); 4. Nature Sciences, Mathematics and Informatics; 3.8. Economics; 3.7. Administration and Management; 3.5. Public Communications and Information Science; or a Professional Bachelor Degree in 5.3. Communication and Computer Technology.

Career path:

The graduates of the Master's Degree Course of Microsoft Information Technologies could develop successfully as Microsoft operating system and network administrators, .NET developers, Web designers and developers, or find career opportunities in other spheres of software engineering.

Department of Computer science and technologies

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Technical Coordinator: eng. Violeta Ivanova

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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: COMPUTER ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course duration: 3 semesters (1,5 years)

Requirements: The Course is designed to be accessible to graduates who have successfully obtained a Bachelor's Degree in the professional fields: 5.3. Communications and Computer Technology or 5.2. Electrical Engineering, Electronics and Automation (specialities: Electronics or Automation, Information and Control Computer Systems).

Course Duration: 5 semesters (2,5 years)

Requirements: The Course is oriented to graduates awarded a Bachelor's Degree in the professional fields: 5. Technology (Bachelor of Applied Science (BAS); 4. Nature Sciences, Mathematics and Informatics; 3.8. Economics; 3.7. Administration and Management; 3.5. Public Communications and Information Science; or a Professional Bachelor Degree in 5.3. Communication and Computer Technology.

Career path: The graduates could find employment as system and network administrators, computer applications software engineers, microprocessor systems engineers, Internet applications engineers, virtual platforms and infrastructures engineers, IT security specialists, etc.

Department of Computer science and technologies

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: AUTOMATION ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1.5 years)

Requirements: The course is oriented to graduates awarded a Bachelor's or Master's Degree in the professional field: 5.2. Electrical Engineering, Electronics and Automation.

Course Duration: 5 semesters (2.5 years)

Requirements: The programme is oriented to graduates who have successfully completed a professional Bachelor's Degree in the Professional field: 5.2. Electrical Engineering, Electronics and Automation.

Form of conducting: Lectures, laboratory exercises and course projects.

Career path: Upon successful completion of the course of Automation, Information and Control Systems, the graduates could develop in local or hierarchical information systems and automation systems design, and operation and setting of automatic and automated control systems of manufacturing and technological processes, complex technologies and man-machine systems. The main objective of the course is the preparation of highly qualified specialists in the area of automation systems based on PLC and PC control technologies. Obtaining the qualification allows the graduates to occupy executive and management job positions.

Department of Automation

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Technical coordinator: Assist. eng. Elena Draganova

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: AUTOMATION ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1.5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Course Duration: 5 semesters (2.5 years)

Requirements: The programme is oriented to graduates who have successfully completed a Professional Bachelor's Degree in the professional field: 5.2. Electrical Engineering, Electronics and Automation.

Form of training: Lectures, laboratory exercises and course projects.

Career path: Masters of Engineering in Automation who have successfully completed the course of Siemens PLC Control Technologies could develop professionally in the management of processes and technological objects by means of programmable logic controllers manufactured by Siemens. The main objective of the programme is the preparation of highly qualified specialists in the field of industrial automation in all economic sectors based on Siemens industrial controller. The training follows a curriculum which is coordinated with the company and complies with the company's policy. The Master of Engineering in Automation could conduct activities related to the design, maintenance and operation of automated control systems of manufacturing technologies and plants, automated technological processes and technical complexes. Obtaining the qualification allows the graduates to occupy executive and management job positions.

Department of Automation

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: AUTOMATION ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1.5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in the professional field of Technology (Bachelor of Applied Science (BAS)).

Form of training: Lectures, laboratory exercises and course projects and practice in business environment.

Career path: During their study in this Master of Engineering programme, the students have the opportunity to participate in various practical projects and practice, develop and specialize in the field of robotics and automation in different industries through innovative technologies, software platforms, artificial intelligence and robots. The main objective of the course is to introduce the latest industrial process control technologies, their implementation, programming and setting, and to prepare the students for career development in different professional sectors. Obtaining this qualification allows the graduates to occupy executive and management job positions.

During the course, each student could be awarded a scholarship of up to 3000 lv. provided by MOS Consult Ltd.

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: AUTOMATION ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1.5 years)

Requirements: The course is oriented to graduates who have completed a Bachelor's or Master's Degree in the professional fields: 5.2. Electrical Engineering, Electronics and Automation; 5.3. Communication and Computer Technology; 5.4. Energetics.

Form of training: Lectures, laboratory exercises and course projects.

Career path:

The area of professional development of the Masters of Engineering in Building Automation Systems is the designing, building and implementing of systems for complete building automation comprising video control; biometric access control; fire or dust detection and warning systems; heating, ventilation and air-conditioning systems; intelligent building automation systems (Building Management Systems and Intelligent Home Systems).

The graduated Masters of Engineering could apply for *design qualification certification* for building automation (of Category Three inclusive).

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: ELECTRONIC ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1.5 years)

Requirements: The course is oriented to graduates awarded a Bachelor's or Master's Degree in the professional field: 5.2. Electrical Engineering, Electronics and Automation; 5.3. Communication and Computer Technology; 5.4. Energetics.

Course Duration: 5 semesters (2.5 years)

Requirements: The programme is oriented to graduates who have successfully completed:

- a Bachelor's or Master's Degree in the Professional field of Technology (Bachelor of Applied Science (BAS) (except for the Professional field 5.2. Electrical Engineering, Electronics and Automation; 5.3. Communication and Computer Technology; 5.4. Energetics).
- a Professional Bachelor's Degree in the Professional field: 5.2. Electrical Engineering, Electronics and Automation.

Career path:

The Master of Engineering in Electronics is well prepared to conduct research, design, manufacturing, operation, commercial and management activities in their professional field in the public and private sectors of industry, power engineering, medicine, science and education.

In the general part of the course the Master of Engineering in Electronics acquires in-depth knowledge of power electronic devices, advanced electronic measurement equipment, control and automation, digital signal processing, and digital systems design, including FPGA, using a hardware design language.

The learners become acquainted with European directives, standards and systems for electronic equipment certification as well as management and marketing issues related to company's activities.

The established international contacts of the department provide the opportunity for specializations and Diploma Thesis development in various European countries such as Belgium, Finland, England, France, Germany and Spain under the ERASMUS+ programme.

The graduates of the Master's Degree Programme have the opportunity to choose of the following specialisations:

- **Specialisation in INDUSTRIAL ELECTRONICS** providing additional professional knowledge and skills related to the modern analysis methods, modelling and designing of electronic converters and components, including the up to date electronic systems for renewable energy sources. The training is conducted under the ERASMUS+ mobility programme and in close collaboration with universities in Ghent, Belgium and in Nottingham, England.
- **Specialisation in MEDICAL ELECTRONICS** providing additional professional specialised preparation in the area of the medicine and medical equipment, allowing successful career development in servicing, repair and maintenance of medical electronic equipment in the technical departments of health facilities. Other possible career path involves companies operating in the field of medical electronic equipment commerce, repair and maintenance as well as companies dealing with new medical equipment development and manufacture.
- **Specialisation in MICROELECTRONICS** providing preparation in the field of analogue, digital and mixed integrated circuits design. The graduates acquire the skills required to apply and use up to date electronic systems computer design technologies. They could execute schemotechnical design, simulation, verification, topological design of integrated circuits. They are familiarised and can work with Cadence, Synopsys, Xilinx design environments. They could work in companies which design and implement integrated circuits and electronic systems, such as the high-tech companies operating in Bulgaria, i.e. Melexis, AMIS, IDT (former ZMDI), ASIC Depot, SENSATA, etc. The training is conducted in close collaboration with the Technical University of Sofia, IDT – Varna, ASIC Depot, etc.

Department of Electronic Equipment and Microelectronics

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Technical coordinator: *eng. Hristina Gancheva*

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: ELECTRONIC ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The programme is oriented to graduates who have acquired a Bachelor's Degree in the professional fields: 5.2. Electrical Engineering, Electronics and Automation; 5.3. Communication and Computer Technology; 5.4. Energetics or 5.13. General Engineering

Carer path: The graduates of the Master's Degree Course are capable of resolving research, applied, operational and management tasks by means of applying a systematic and scientifically based approach (research, analysis, synthesis, development, experimentation, implementation) based on the latest developments in the field of electronic systems for new energy sources (NES). The graduated Masters of Engineering are well prepared to make decisions complying with the multi-criteria optimality conditions and grounded predictions of the aspects of NES implementation related to energy capacity, economic, environmental and performance parameters. They are prepared to carry out research, manufacturing, assembly, operation and management activities in the field of his specialty and NES.

The Master must be capable of dealing with various technical and economic documentation related to the development of engineering projects at all stages as well as to the organization, manufacture and maintenance of technical projects in the field of NES. The training conducted in the Master's Degree Course allows the graduates to easily adapt to the requirements of the individual hierarchical levels in companies and institutions performing a diverse range of activities, and to transfer their knowledge and skills to other specialists using modern forms, methods and tools . The training is carried out in close collaboration with the University in Ghent, Belgium as well as other European educational and research centres.

Department of Electronic Equipment and Microelectronics

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Professional field: ELECTRICAL ENGINEERING, ELECTRONICS, AUTOMATION

Professional qualification: ELECTRONIC ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian

Course Duration: 3 semesters (1,5 years)

Requirements: The programme is oriented to engineers who have successfully completed a Bachelor's Degree Course in Electronics as well as graduates of other specialties in the professional fields: 5.2. Electrical Engineering, electronics and Automation or 5.3. Communication and Computer Technology.

Career path: In the course, the students acquire additional basic knowledge of human anatomy and physiology, biophysics and biochemistry facilitating the internalising of the medical equipment principles and solutions as well as the more successful professional development. At the same time, the programme provides engineering knowledge and skills in the fields of biomedical signal and image processing, medical equipment principles, features and circuit solutions, requirements and approaches to medical apparatus certification. Attention is paid to company management and marketing.

The graduates of the Master's Degree in Medical Electronics have opportunities for career development related to servicing, repair and maintenance of medical electronic equipment in the technical departments of health facilities. Other possible career path involves companies operating in the field of medical electronic equipment commerce, repair and maintenance as well as companies dealing with new medical equipment development and manufacture.

The training in this course is conducted in close collaboration with the Medical University of Varna. Some of the most prominent students will have the opportunity to develop their Diploma Thesis in the University of Deusto, Spain.

Department of Electronic Equipment and Microelectronics

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Professional field: COMMUNICATIONS AND COMPUTER ENGINEERING

Professional qualification: TELECOMMUNICATION ENGINEER

Type of training: FULL-TIME

Language of instruction: Bulgarian, English

Course Duration: 3 semesters (1,5 years)

Requirements: The course is designed to be accessible by those who have a Bachelor's or Master's Degree in the Professional field of Technology (Bachelor of Applied Science (BAS)).

Course Duration: 4 semesters (2 years)

Requirements: The programme is oriented to graduates who have successfully completed a Bachelor's or Master's Degree Course in any Professional field, except for the professional field of Technology (Bachelor of Applied Science (BAS)).

Course Duration: 5 semesters (2,5 years)

Requirements: The programme is oriented to graduates who have successfully completed a Professional Bachelor's Degree in the professional field: 5.3. Communication and Computer Technology.

Career path: The graduates of the relevant degree course could find their professional realization in each area of the contemporary/modern communication and computer technology.

The Master of Engineering in Telecommunications and Mobile Technologies acquires the skills and competence to:

- Develop and participate in engineering projects, develop mobile applications;
- Develop professionally in the area of Information and Communications Technologies;
- Participate in the development and maintenance of corporate information and communications networks and systems.

Department of Communication Engineering and Technologies

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