



FACULTY OF **AGROTECHNOLOGIES**



VILNIAUS | UNIVERSITY OF
KOLEGIJA | APPLIED SCIENCES

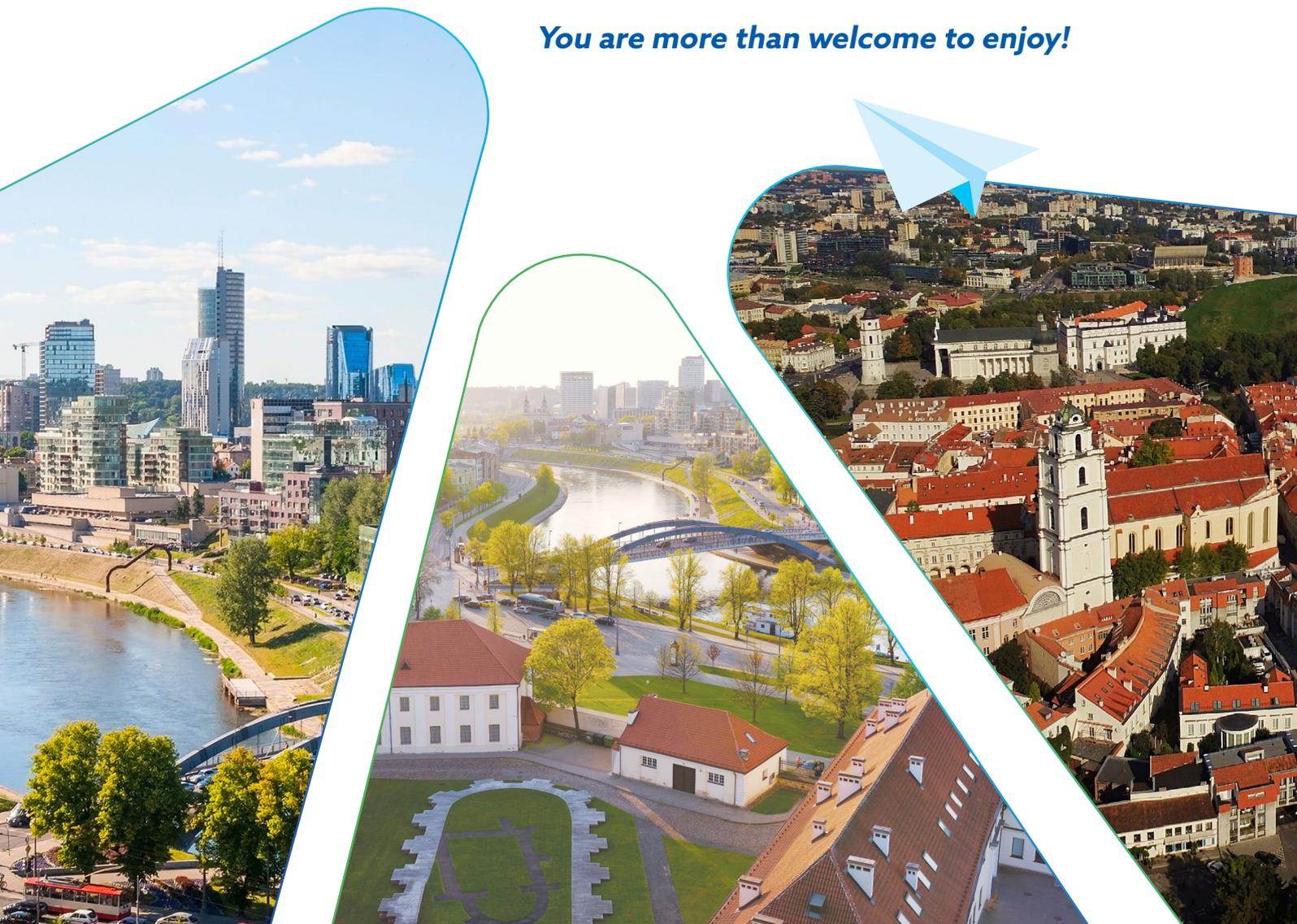
ABOUT THE CITY

Vilnius Kolegija/University of Applied Sciences is situated in Vilnius, the capital and the largest city in Lithuania. Relatively small and cosy, with a population of less than a million, Vilnius is the most international city in Lithuania and the second youngest city (after Copenhagen) in Nordic European countries. In 2019 Vilnius made the top 100 Best Student Cities list taking into account university rankings, student mix, desirability, employer activity and affordability.

Here the historic and modern come together. Vilnius medieval old town is famous for its baroque and gothic architecture and is a UNESCO World Heritage Site. On the other hand, Vilnius is full of modern sites to discover.

Throughout the year the capital hosts numerous cultural events, such as the Vilnius International Film Festival, Capital Days, Vilnius Jazz Festival and Culture Night. Moreover, it is a magnificent location to explore the Baltics.

You are more than welcome to enjoy!



ABOUT VIKO

Vilniaus kolegija/University of Applied Sciences (hereinafter VIKO) was established in 2000, when the best schools in Vilnius merged into one professional higher education institution. Currently VIKO is one of the largest and leading professional higher education institutions in Lithuania.

- ▶ 39 Professional Bachelor study programmes, 8 of them in English.
- ▶ Highly competent and experienced academic staff.
- ▶ Active cooperation with social partners.
- ▶ Over 31 thousand graduates having entered the national and international labor market.
- ▶ Qualification development courses for different field specialists.
- ▶ Membership in numerous international associations and networks.

Students and teachers gain valuable experience in Erasmus+ and other international exchange programmes. VIKO provides each student with the opportunity to develop his/her creative learning approach in the student-centered learning environment.

Creative, proactive and curious individuals are welcome to join VIKO community and make it their Alma Mater!



ABOUT THE FACULTY

The Faculty of **Agrotechnologies** offers study programmes that bring together the sectors of the environment, food, technology, business, and agriculture. The faculty develops intellectual capacity of young students and equip them with knowledge, practical skills, and attitudes to positively influence sustainable agricultural development and judicious utilization of environmental resources. The faculty itself boasts of green parks and open spaces that make it a very picturesque setting for the studies.

WHAT DO WE OFFER?

- 1 The faculty offers two unique study **programmes** in the college sector: Chemical Analysis and Veterinary Medicine.
- 2 For the implementation of practical training the faculty uses its own veterinary clinic, that provides veterinary services to small pets and exotic animals, as well as consult on animal housing, care and feeding.
- 3 VikoFlora Ornamental Plants and Planting Centre grows and sells ornamental plants, consults on planting and plant care issues, and organizes floristry training courses. It is an excellent practical training base for Landscape Design students.



WE INVITE

Vilniaus Kolegija/ University of Applied Sciences welcomes Erasmus exchange students selected for Erasmus+ mobility by their home higher education institutions in Programme and Partner countries: https://ec.europa.eu/programmes/erasmus-plus/about/who-can-take-part_en

- ▶ Join VIKO for Erasmus+ **studies** if you are enrolled at least in the second year at your higher education institution.
- ▶ Do a **traineeship** with us or our social partners (enterprises and companies) if you have finished at least your 1st year of studies.

LANGUAGE

The language of instruction at VIKO is Lithuanian, and studies for incoming students are offered in English. Therefore, a certain level of English is required (preferably B2).



STUDY OFFERS

No	Subject Title	ECTS Credits
Study programme AGRIBUSINESS TECHNOLOGIES		
1.	Basics of Communication	4
2.	Basics of Economics, Marketing and Market Research	6
3.	Agricultural Business Management	8
4.	Horticulture and Animal Husbandry Production Economy	5
5.	Agricultural Market and Trade in Agricultural Products	5
Study programme CHEMICAL ANALYSIS		
1.	Biochemistry	3
2.	Extraction and Purification of Bioproducts	6
3.	Methods of Biochemical Analysis	6
4.	Microbiology	3
5.	Physical Chemistry	6
6.	Practice of Validation of Chemical Analysis Methods	3
7.	Quality of Chemical Analysis	3
Study programme LANDSCAPE DESIGN		
1.	Applied Dendrology	5
2.	Ornamental Herbaceous Plant	5
3.	Small Landscape Architectural Structures and Site Amenities	7
4.	Professional English Language	5
5.	Architectural Graphic	5
6.	Landscaping Practice (In the company)	4
Study programme FOOD TECHNOLOGY		
1.	Food Safety and Quality	10
2.	General Technological and Food Quality Practical Training	10
3.	Fruit, Berries Processing Technology and Equipment	6
4.	Vegetables Processing Technology and Equipment	4
5.	Communication	10
Study programme VETERINARY MEDICINE		
1.	Animal anatomy	13
2.	Epizootology	5
3.	Obstetrics and Gynaecology	5
4.	Surgery	10
5.	Professional Practice in Therapy and Disease Prevention	10

1. Basics of Communication

The aim of the subject is to overview the background and importance of communication science, characteristics of perception schemes, operating principles of attitudes, values, and expectations. Students discuss practical aspects, forms and tools of communication, learn to analyse communication factors in business companies, principles of negotiation and corporate image formation, practically apply the principles of communication and cooperation, learn to form teams, organise and conduct negotiations, resolve conflicts.

2. Basics of Economics, Marketing and Market Research

Students apply microeconomic methodological principles, define possibilities for meeting the needs in the context of limited resources, and address the problem of choice in different economic systems. Applying macroeconomic methodological principles, they examine the dynamics of national product, evaluate citizens' socio-economic well-being, study the influence of the shadow economy on the national economy. The main macroeconomic indicators are analysed, marketing and market research principles and methods are applied when dealing with agricultural production and marketing problems.

3. Agricultural Business Management

Students analyse corporate management indicators, quality and social responsibility. They plan production, conclude product pricing and organise marketing, carry out business accounting, evaluate investment, control and regulate agricultural enterprises, measure risks and look for solutions. Students get acquainted with human resource management, analyse work organisation and payment systems, employee motivation and job satisfaction, equal opportunities and diversity in agricultural enterprises. Management and leadership issues, the importance of teamwork and conflict management are discussed. Students apply project management skills in planning, optimising and managing project activities using project management software programme.

4. Horticulture and Animal Husbandry Production Economy

The aim of the subject is to introduce crop and livestock production processes and agricultural production conditions, as well as investment calculation and reasoning methods. Students analyse economic aspects of production and profit maximisation models, learn to apply economic evaluation models of crop and livestock production methods, evaluate manufacturing productivity and efficiency, learn about the optimisation of crop and livestock production structure.

5. Agricultural Market and Trade in Agricultural Products

Students analyse agricultural demand and supply, price formation, and agricultural protectionism, discuss the theory of domestic and international trade. They also study international trade policy and its impact on the development of domestic agricultural and food trade. Students get the know-how to start and conduct domestic and international trade.

1. Biochemistry

Students get introduced to the object of biochemistry, research areas and objectives. They study the role of water in biological systems, energy of living systems, the structure and biological function of nucleic acid, analyse the structure and biological function of protein, familiarise with protein biosynthesis in the cell, specific protein functions, classification of enzymes, discuss kinetics of enzymatic reactions, define enzymes modifying nucleic acids, become acquainted with the structure, distribution and function of hydrocarbons as well as the structure and functions of lipids.

2. Extraction and Purification of Bioproducts

Students get acquainted with the sources of bioproducts, their characteristics and application, analyse quality requirements for bioproducts and the requirements for water used in bioproduction. They study the extraction methods of end products, exoproducts and nucleic acid, the application of chromatographic purification method, develop practical chromatographic purification skills, get familiarised with the operating principles and opportunities of the equipment used, analyse exceptional set of requirements for working in a controlled environment, as well as bioproduct storage and transportation conditions.

3. Methods of Biochemical Analysis

Students learn about the most important bioorganic compounds used in biotechnology, master modern methods of protein and nucleic acid analysis and application, analyse qualitative and quantitative parameters and detection methods of molecular biology reagents, form skills to apply basic methods used in biotechnology laboratory: electrophoresis of protein and nucleic acid and their concentration assessment.

4. Microbiology

Students examine the objects, aims and objectives of microbiology, get acquainted with microorganism cell structure, physical, chemical, and biological factors on microorganisms, their physiology, the systematics of microorganisms. Students are introduced to the microscopic structure, working principle of the microscope, microscopic preparations, develop initial microscope skills, get acquainted with microorganism cultivation principles, learn to prepare the nutrient media and develop microorganism quantitative determination skills, study sterilisation and disinfection principles, as well as microorganism preservation and storage techniques.



5. Physical Chemistry

The aim of the course is to acquaint students with differences between ideal and real gases, application of the ideal gas equation for real gas, gas liquefaction, gas mixtures, physical properties of liquids and crystalline state. Students learn the fundamentals of thermodynamics, basic laws and findings of thermochemistry, develop the ability to perform thermochemistry calculations, apply phase rule equation for single-component and two-component systems, make phase diagrams, analyse physical properties of solid materials in solution liquids, liquid solutions in liquids and gas solutions in liquids. The subject provides students with the knowledge of chemical equilibrium, equilibrium shifts, chemical affinity of substances, influence of various factors on the speed of chemical analysis, classification of reactions and the molecular activation theory. Students also perform the analysis of surface phenomena, application of catalytic processes in modern technology; study the electrolysis, electric conductivity of solutions and practical application, galvanic cells; learn to classify disperse systems, create and analyse micro-heterogeneous systems and apply them practically.

6. Practice of Validation of Chemical Analysis Methods

In the laboratory students carry out chemical analysis measurements to determine the characteristics of method validation, examine control and blank samples, construct the calibration curve (for spectrophotometric analysis methods), make control charts, determine method detection limits, correctness, cohesion, expanded uncertainty of the method, and evaluate the results obtained by using statistical methods.

7. Quality of Chemical Analysis

Students learn about the quality policy and legitimising normative documents of a testing laboratory. They discuss the need and advantages of the quality system in modern economic system, examine the progress of chemical analysis, learn to quantify the quality of chemical study applying the analysis uncertainty calculation, examine internal and external relations of the laboratory, study legal aspects of the analysis, as well as internal and external control systems of the quality of the laboratory.

1. Food Safety and Quality

In this module students analyse legal acts of the EU and Lithuania, general, compulsory, veterinary, food safety and quality requirements. They study self-control system and principles, foodstuff labelling, storage and transportation requirements, product detention and withdrawal from the market, freshness of raw materials and foodstuff, possible contamination, ways to protect consumers from potential illness, environmental bacteria, microorganism metabolic features. Students analyse modern sensory food quality research and evaluation methods, their influence on the development process of a new food product, the improvement of existing products and the selection of new raw materials.

2. General Technological and Food Quality Practical Training

The aim of the subject is to provide students with the knowledge and skills needed for a food technologist, to project and organize the assessment of raw materials, production process and production quality, as well as to manage the technological process of food production. During their traineeship students get acquainted with food industry activities, improve professional skills by working in production units, examine different stages of food production and technological parameters, learn about the equipment, raw materials, finished product quality, hygiene and sanitation requirements.

3. Fruit, Berries Processing Technology and Equipment

The aim of the subject is to provide knowledge in processing of fruit and berries. Modern technologies of processing of fruit and berries are reviewed. Production quality based on standard requirements is analysed.

4. Vegetables Processing Technology and Equipment

The aim of the subject is to provide knowledge in vegetable processing. Modern technologies of vegetable processing and production quality based on standard requirements are analysed.

5. Communication

The aim of the module is to introduce students to the correct use of the official and foreign language in social and professional activities while communicating with company personnel and business partners. Changes in traditional culture are discussed, exploring the phenomenon of culinary heritage and contemporary food culture. Students are introduced to cultural and intercultural communication processes, as well as to certain communication obstacles.

1. Applied Dendrology

Students are provided with morphological and systematic background knowledge; the most common genera of gymnosperms and woody angiosperms in Lithuania, their species, and cultivars are studied. Students learn about the possibilities of using woody ornamental plants in landscaping and develop their abilities in plant identification.

2. Ornamental Herbaceous Plant

The application area, purpose and classification of herbaceous ornamental plants are reviewed. Students are introduced to flower cultivation, maintenance, propagation technologies. The selection of flower assortment for flower gardens and their combination principles are studied.

3. Small Landscape Architectural Structures and Site Amenities

Students learn about stylistic development of modern architecture and design. Practical skills of creating an architectural composition are developed by preparing projects of original simple structures. Students are introduced to legal acts regulating the construction and design of simple structures as well as learn about the preparation of design documentation.

4. Architectural Graphic

Principles of architectural graphics, rules of performance, methods, and techniques are reviewed. Drawing and composing skills are developed. Students learn to process, evaluate, and summarize graphic data and use it in landscape design projects.

5. Professional English Language

During the foreign language course, the following topics are analysed: studies, work, and career; the role of plants in human life; the art of gardening; the concept of design; landscape design. Communication and presentation skills are developed.

6. Landscaping Practice

Special skills of landscaping activities are provided and skills to work independently in organizing landscaping works are developed.

1. Animal Anatomy

The subject of animal anatomy includes the learning of Latin anatomical terms and the study of the anatomical structure of animals. Using a microscope, students observe cells and tissues, study animal skeletons and get acknowledged with models, learn the benefits of biologicals.

2. Epizootology

The morphology, physiology, and prevalence of microorganisms in nature as well as the infectious diseases they cause are reviewed. Methods of diagnosing these diseases and prophylactic-anti-epizootic measures are shown. Students develop knowledge and skills necessary for the differentiation and identification of these diseases and the use of pre-epizootic measures.

3. Obstetrics and Gynaecology

The principles and methods of treatment of obstetric and gynaecological diseases are reviewed; the morphology, physiology, pathological processes of animal genital system and their causes are studied. Students get acknowledged with obstetric-gynaecological instruments and tools, proper use of pharmaceutical veterinary medicines and equipment for the prevention and treatment of diseases. Clinical equipment, different diagnostic methods of genital system, and obstetric surgery techniques are analysed.

4. Surgery

The principles and methods of treatment of surgical diseases are reviewed; pathological processes, their causes and auxiliary measures are studied. Students get acknowledged with prophylaxis of surgical infection, surgical diseases of the skin, blood vessels, lymph nodes, head, muscles, and internal organs. The usage of surgical instruments, tools, and pharmaceutical veterinary medicines is studied. Clinical equipment, different diagnostic methods of surgical diseases and surgery techniques are analysed.

5. Professional Practice in Therapy and Disease Prevention

Preventive disinfection procedures, deratisation and disinsectisation of livestock premises are demonstrated. The whole organism and individual systems, sampling techniques are studied. Students get acknowledged with the provision of the first aid to an animal, the use of physiotherapy equipment and treatment procedures.

APPLICATION PROCEDURE

A few steps are to be taken to start your exchange journey with us.



Apply for **Erasmus exchange studies or traineeship** at your home institution and get nominated. To approve your nomination your coordinator will have to fill VIKO online nomination form.

- ▶ The deadlines for nominations are:
Spring Semester: 1st May.
Autumn Semester: 1st November.



Send the **required documents** (including passport copy, and health insurance copy) as well as fill-in some online forms such as application form and online learning agreement.

- ▶ The deadlines for documentation are:
Spring semester: 31st May.
Autumn semester: 30th November.



Make sure you **keep in touch with Incoming students' coordinator** while planning your trip. Some international regulations might change during your preparation stage. However, we will do our best to keep you updated.



Follow us at <https://en.viko.lt/> and **VIKO International Facebook** page to get a glimpse at our community and connect with your future fellow students.

For more information visit <https://en.viko.lt/international-relations/admission-procedure/>

ACCOMMODATION

VIKO offers **comfortable and affordable** housing for Erasmus exchange students in a hostel situated close to the city centre.

Address: Giedraičių Str. 81, LT-08213, Vilnius

Prices:

- ▶ Single room: 150 EUR/month (a limited number of rooms)
- ▶ Double room shared: 125 EUR/month (price for 1 person)
- ▶ Double room single use: 230 EUR/month

For more information visit

<https://en.viko.lt/practical-information/accommodation/>



**ERASMUS
COORDINATOR**

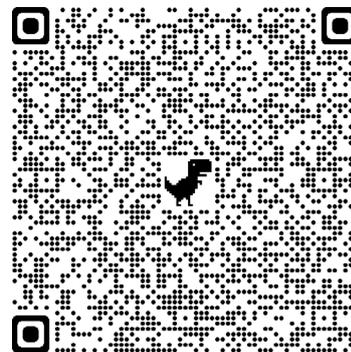
Nijolė Ružienė
n.ruziene@atf.viko.lt

**FACULTY LOCATION +
CONTACTS**

Faculty of Agrotechnologies
Studentu str. 39A
08106, Vilnius
Lithuania
administracija@atf.viko.lt
www.atf.viko.lt

**IRO LOCATION +
CONTACTS**

Saltoniškių str. 58
08105, Vilnius
Lithuania
incoming@viko.lt;
international@viko.lt
www.en.viko.lt



Location ↗

