



# Faculty of Agrobiology, Food and Natural Resources

# Study in English







# Why should you select the Czech Republic as your study destination?

# Safe country to live in (GLOBAL PEACE INDEX)

The Czech Republic ranks as one of the safest countries to live in the world. In the 2021 Global Peace Index, the country has placed in top twenty safest countries similarly to previous years.

### Cost of living is affordable

The cost of living in the Czech Republic is known to be more affordable compared to other popular study destinations in Europe. Students should expect to budget approximately 500 EUR per month to cover all of their expenses, including accommodation, food, transportation and social activities.

### High quality of education and research

■ If you're looking for academic excellence then you're in the right place. The Czech Republic has a renowned reputation for high-quality education and research, a wide range of exceptional academic opportunities and employment possibilities once you graduate.

# Prague belongs to the top 10 cities in the world (FORBES 2021)

Once you explore the city of a hundred spires (Prague's nickname), you can easily visit the surrounding countries as the Czech Republic is situated in the heart of Europe. The Schengen Area compromising of 26 European states has a common visa policy, which makes crossing borders even easier!

### Come and study at our university

■ The Czech University of Life Sciences is the most ecological university in the Czech Republic and 53rd in the whole world. We will be happy to welcome you at our campus size wise similar to Vatican.

# **Czech Republic** Home to over 2000 castles, 500 breweries and the word "robot"

# Are you interested in changing life on Earth?

### **Our university**

- ranks in top 5% of prestigious world universities according to most respected ranking agencies
- has more than 19 000 students (20% are international students), 6 faculties and 1 institute
- offers over 170 accredited study programmes at Bachelor's, Master's or doctoral levels (in 9 Bachelor's, 20 Master's and 18 doctoral programmes the language of instruction is English)
- is a member of the prestigious European University network
  Euroleague for Life Sciences since 2007 (www.euroleague-study.org)

### **Our faculty**

As the pace of life is getting faster, our faculty has to face new challenges such as the robotization of agriculture, research on food security, ethical ways of breeding animals or breeding new species better adapted to climate and developmental changes, finding alternative ways in crop protection and effective conservation of our natural resources. We are already internationally successful in several research and development areas.



**Czech University of Life Sciences Prague** 6 faculties 1 strategy for sustaining life on Earth

## **Quo vadis?**

Today, the Faculty of Agrobiology, Food and Natural Resources is a modern and respected educational and scientific institution, which accommodates about 4000 students and 300 employees, with a strong position at home and abroad.

Graduates of the faculty are employed in agriculture, horticulture, animal breeding, crop protection, quality of agricultural products, agribusiness, natural resources management, waste management, landscape architecture, rural development, and other areas of importance for the national economy. Our graduates are finding jobs not only as managers, but can work in state administration, research and higher education institutions or as private entrepreneurs.

# Why should you study at our faculty?

Study programmes focus on areas strategic for sustaining life on Earth

Excellence in research - you can contribute to our research with your thesis topics

Personal approach and support prior to, during and after your studies

Practical experience thanks to latest technologies and state-of the art facilities - all located on campus

Joint and double degree study programmes, international mobility support during your study

Merit scholarships available for best students based on academic performance in their first year of study



Faculty of Agrobiology, Food and Natural Resources we have a clear goal - healthy planet, healthy people

## Agriculture and Food (Bachelor's study programme)

Food production faces new challenges with higher consumer pressure on its quality and safety. It is not only determined by manufacturing, but also by agricultural practices. Overuse of pesticides, food additives and the high carbon footprint of current foods will be a future challenge for managers in the food sector and agribusiness. Organic farming and changing consumer preferences open market opportunities for young, enthusiastic organic farmers and innovative small and medium-sized enterprises. The choice is yours.

Learn about what defines sustainable agriculture, agricultural practices, acquire knowledge in both plant and animal biology, nutritional needs, microbes around us, soil and the environment, and also food quality and technology. Take part in practical trainings in food manufacturing at our new food technology centre and well-equipped laboratories.



universityin.eu/b-agrifob

#### IS THE PROGRAMME SUITABLE FOR ME?

Agriculture and Food suits you if:

- you care about food quality and safety and you want to know how our food is actually produced in the field and subsequently processed,
- you want to have hands-on experience in food manufacturing and food analysis,
- you have a passion for the environment, biology, chemistry,
- you want to know how our food is made from "Farm to Fork".





Darya Roslyakova - Kazakhstan

# WHAT WILL BE MY CAREER OPPORTUNITIES?

You will have very flexible career opportunities in the food sector, both nationally and internationally. You will be a strong candidate for

- positions in governmental organisations,
- food industry sectors,

SMEs or other organisations involved in the food and agricultural sector.

Alternatively, you can continue to study a Master's programme in Sustainable Agriculture and Food Security (double degree).

### WHAT ARE WE WORKING ON?





### WHO WILL TEACH ME?

#### Jaroslav Havlík PhD



Expert in the field of nutrition and application of nuclear magnetic resonance in food and nutrition research. Worked as a research fellow at the University of Glasgow, Human Nutrition Group. He mentors student projects and takes part in lectures.

#### Prof. Ivana Capouchová



Expert in the field of sustainable and alternative agriculture. She has a long-established collaboration with small emerging agricultural businesses which want to produce fruits and vegetables in a different way, respecting the environment.

#### Prof. Eva Skřivanová



Expert in the field of animal nutrition, researcher of the Animal Research Institute in Prague. Her main focus are the complex interactions between animal health, milk and meat quality with the gut microbiota and microbial risks in the farms.

#### **EXAMPLES OF FIRST JOBS**

- junior researcher at University of Padova, Italy
- cash collections and credit management representative in Johnson & Johnson Medical Ltd. (healthcare sector)



Università degli Studi di Padova

**Johnson &Johnson** MEDICAL

I enjoyed having classes separated into lectures and seminars, which gave us hands-on experience. The professors were knowledgeable, loved their subjects and knew how to effectively communicate the lectures to students. Thanks to a mandatory specialized practice, which I've done at the Institute of Animal Science, I got a feeling of what my future career might look like. Another great thing was the campus itself, it was very convenient to have all the buildings in one place, and have access to laboratories.



# Sustainable Use of Natural Resources (Bachelor's study programme)

■ The growing civilization faces an extreme challenge regarding its sustainable development. The natural resources are under pressure which never happened before. A management of resources that serve mankind is highly needed. A failure in proper use of natural resources means future failure of the civilization.

Learn how to manage sustainability of natural resources exploitation together with mankind development. The main focus of our programme is exploitation of natural resources tightly connected to food production. Soil and water are the key players in the story.

• Our programme is designed to provide you with a strong theoretical background in specialised classes. Balanced combination of classes, excursions and practical training is targeted to make you a ready to work as specialist in area of natural resources exploitation and protection.



universityin.eu/b-sunbrb

#### IS THE PROGRAMME SUITABLE FOR ME?

It is suitable for you if you care about sustainability of natural resources and you:

- like to know how agriculture production works and how it affects nature,
- feel there is a parallel need for both protection of nature and mankind development,
- like creative work combining indoor and outdoor activities,
- like to learn how new technologies can be used for improvement of your environment.





Arian Majid - Czech Republic

#### WHAT WILL BE MY EMPLOY-MENT OPPORTUNITIES?

After graduation, you can continue to study a master's programme Natural Resources and Environment or a joint degree master's programme Natural Resources Management and Ecological Engineering. Alternatively, you can find employment as:

- a civil servant for (local) governments or ministries of agriculture or environment,
- consultant in private sector or NGOs focused on natural resources management connected mainly to soil, water and waste management,

junior researcher.

#### **EXAMPLES OF FIRST JOBS**

- production manager in Bohempia (textile industry)
- researcher at Institute of Experimental Medicine, Czech Academy of Sciences





For me, the best thing at CZU is its campus; it is vast, modern and it always keeps me in the right student mood. The most important skills I learned during my study were obtained through the final thesis. They included researching scientific literature, critical thinking, self-organisation or self-presenting. I also valued the emphasis on being proactive.

### WHAT ARE WE WORKING ON?





### WHO WILL TEACH ME?

#### Vít Penížek PhD



Specialist in soil science with focus on soil survey and mapping, soil protection focusing on soil erosion. Work experience from the Joint Research Centre of the EU, participated in many national, international research and educational projects.

#### Prof. Luboš Borůvka



Specialist in soil conservation and protection, forest soils and application of modern methods for soil properties sensing. Leader of wide range of national, international research and educational projects.

#### Markéta Miháliková PhD



Specialist in hydrology and soil physics. She participated in many national and international research and educational projects. Her teaching activities are focused on soil physics, soil and water relationship, soil survey.

# **Natural Resources and Environment**

(Master's study programme)

■ Learn how to assess and protect soil and water resources, how soil organisms and plants interact with the soil environment, how contaminants from various resources migrate in the soil and water environments, how these contaminants affect living organisms, and how to improve soil and water conditions with regard to their protection but also for their use.

This programme focuses mainly on soil and water, two most important components of the environment. Without them, life on earth would not be possible. Their quality directly affects plants and animals and thus food quality.

Gain theoretical knowledge and practical experience whilst writing your thesis by working on scientific and practical projects of our departments.

MORE

**INFORMATION** 

#### IS THE PROGRAMME SUITABLE FOR ME?

It is suitable for you if you like natural sciences and are interested in e.g. how to:

- ensure enough water for plant growth,
- prevent soil and groundwater pollution,
- avoid soil degradation,
- remediate degraded soils,
- improve soils with respect to their agricultural use, or how,
- soil conditions can affect plant growth and food quality.



universityin.eu/n-envim





Sreynet Nang - Cambodia

# WHAT WILL BE MY CAREER OPPORTUNITIES?

After graduating, you can continue in doctoral study "Exploitation and Protection of Natural Resources" or work:

- in organizations dealing with the protection and use of natural resources,
- as specialists in environmental monitoring and evaluation of the impact of economic activities on individual components of the biosphere,
- as experts in control bodies of regional / state administration, in national and international research institutes or on international development projects.

#### **EXAMPLES OF FIRST JOBS**

- CEO of Hybrid Agro (small sized enterprise with up to 50 employees in agriculture and food industry)
- technical consultant in 4R Group (waste and agriculture)



When I graduated, I gained abundance of knowledge and experience such as how to prepare experimental design, proceed with laboratory work, analyze data, discuss and explain results and manage time efficiently. Currently, I am doing my Ph.D. in Exploitation and Conservation Natural Resources programme. I am very excited about learning, researching with multi-national colleagues and experienced professors, especially, I have an opportunity to open my vision more about developing agriculture and the environment from a global perspective.

### WHAT ARE WE WORKING ON?



Understanding and modeling compound climate and weather events

### WHO WILL TEACH ME?

#### Prof. Radka Kodešová



Professor of Soil Science, expert in the assessment of water and temperature regime of soils, the behavior of contaminants such as pesticides and pharmaceuticals in the soil environment and contamination of groundwater.

#### Prof. Pavel Tlustoš



Professor of Agrochemistry and Plant Nutrition. Assesses behavior and mobility of toxic elements in the soil and uptake by plants. Focuses on recycling of waste materials of biological origin and the use of biomass as a renewable energy source.

#### Vera Potopová PhD



Associate professor of General Crop Sciences. She is an expert in interdisciplinary research – Climatology/Agrometeorology/ Crop Science. Focus on climate change, modeling compound extreme weather events and its impact on agricultural ecosystems.

# Natural Resources Management and Ecological Engineering (Master's study programme)

The global growth of goods production and consumption increased the standard of living in the last centuries. This led to significant exploitation of natural resources through application of cheap technologies causing soil, water, and air contamination. Our society moves towards a greener and healthier environment, signed international agreements open doors for new jobs in this field. The choice is yours.

■ Learn about environmental protection of all major components of the Earth, with a strong focus on the role of sustainable agriculture and forestry in soil, water and air preservation, and application of environmentally friendly remedial technologies to improve their quality and properties.

This joint degree programme with the University of Natural Resources and Life Sciences, Vienna, Austria ("BOKU") offers students to spend at least one semester at BOKU, build a flexible study plan and receive a joint Master's degree from two universities.



#### universityin.eu/n-narmeem

#### IS THE PROGRAMME SUITABLE FOR ME?

It is suitable for you if you:

- like to use and apply biological and chemical principles to understand the environment,
- wish to gain knowledge about soil, plant, water and their interactions in the environment, and improve their quality,
- are interested in environmental protection and sustainable development,
- like to study and get experience from two internationally recognized universities.





Katarina Kuruc - Slovakia

# WHAT WILL BE MY CAREER OPPORTUNITIES?

You will have flexible career opportunities and can apply for positions of managers in:

- governmental and municipal organisations responsible for the environmental protection,
- state and private companies involved in the monitoring and evaluation of environmental pollution, and in carrying out remediation and restoration of brownfields and damaged sites, or you can become an independent advisor in international watch organisations.

#### **EXAMPLES OF REAL JOBS**

- area Brand Manager in GlaxoSmithKline (pharmaceutical industry)
- PhD student and laboratory technician at CZU





Although I do not work directly in the field of my study, I gained some soft skills which are important in my current position in Marketing department in a pharmaceutical company - patience, resistance, team work, science based critical thinking and analysis. During my study I enjoyed most field trips, some professor's classes (especially from Dr. Mihalikova, professor Tlustoš) and a good group of international classmates.

### WHAT ARE WE WORKING ON?



NutRisk project

### WHO WILL TEACH ME?

#### Prof. Pavel Tlustoš



Professor of Agrochemistry and Plant Nutrition. Assesses behavior and mobility of toxic elements in the soil and uptake by plants. Focuses on recycling of waste materials of biological origin and the use of biomass as a renewable energy source.

#### Prof. Jiřina Száková



Professor of Agrochemistry and Plant Nutrition. Focuses on the behavior of risk elements (arsenic) and organic pollutants in environment (from soil to animals), their mobility in soil, plant production and animal organisms.

#### Markéta Miháliková PhD



Specialist in hydrology and soil physics. She participated in many national and international research and educational projects. Her teaching activities are focused on soil physics, soil and water relationship, soil survey.

# Sustainable Agriculture and Food Security (Master's study programme)

■ Food production faces new challenges towards greater sustainability. There is a huge consumer pressure towards food quality and safety, improved public health and reduced environmental impacts. Future managers of food sector will have to deal with these challenges, contributing to the development and implementation of sustainable food processes and environmentally and socially responsible organisations. It can be you.

Learn about sustainable agricultural practices, acquire knowledge in chemistry to be able to understand food quality, learn about novel biotechnology approaches, food production techniques, sustainability and how to measure sustainability.

This programme can be studied entirely in Prague or as a double degree (DD) with the University of Pisa, Italy. DD students spend one semester in Pisa and receive two diplomas and academic degrees.



#### IS THE PROGRAMME SUITABLE FOR ME?

It is suitable for you if:

- you care about food quality and safety and you want to know how our food is actually produced and processed,
- you want to engage in discussions about the future human diet and sustainability,
- you have a passion for the environment, biology, chemistry,
- you like to travel and study in an international multicultural environment.





Novel Kishor Bhujel - Nepal

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# WHAT WILL BE MY CAREER OPPORTUNITIES?

You will have very flexible career opportunities in the food sector, both nationally and internationally. You will be a strong candidate for

- management positions in governmental organisations,
- food industries,
- SMEs or other organizations involved in the food and agricultural sector.

### **EXAMPLES OF FIRST JOBS**

- PhD candidate at CZU or at University of Chemistry and Technology, Prague (VŠCHT)
- product manager at Soufflet Agro (agribusiness)



UNIVERSITY OF CHEMISTRY AND TECHNOLOGY PRAGUE



My course was mainly focused on sustainability and the application of advanced technologies in agriculture and food production. I gained deep technical skills and learned how to work effectively in a team. I also felt strong support from my professors and thesis supervisor. Participating in the Erasmus+ study stay in Turkey was a great adventure, and an unforgettable cultural and learning experience.

### WHAT ARE WE WORKING ON?



### WHO WILL TEACH ME?

#### Jaroslav Havlík PhD



Expert in the field of nutrition and application of nuclear magnetic resonance in food and nutrition research. Worked as a research fellow at the University of Glasgow, Human Nutrition Group. He mentors student projects and takes part in lectures.

#### Dana Kapitulčinová PhD



Jan Tauchen PhD



Researcher in the area of sustainable diets and food systems at Charles University Environment Centre. Completed Ph.D. in environmental sciences at the University of Bristol, UK and worked in a sustainable development consultancy in Denmark/Sweden.

Researcher and lecturer in the field of plant bio actives, spices, coffee and sustainable production in the tropics. He is the main lecturer of the course Quality of Plant-based Products.

## **Doctoral study programmes**





### Crop Science (ADHA)



### Animal Science (ADBA)



### Applied Animal Science (ADHA)



Agricultural and Forestry Phytopathology and Plant Protection (XADSAF) Graduates gain a deep understanding through theoretical courses, which are important for understanding life processes, and the influence of environmental conditions and farming practices on crop production and product quality.

Traditional study programmes including disciplines that are necessary for effective production of field crops, vegetables and fruits, sustainable grassland management, and garden and landscape architecture.

Study programme has been reflecting changes in society demands and diversification of the animal breeding profession due to a shift from pure economic orientation to a broader understanding of breeding issues.

Programme includes studying the problems of farm animal performance, breeding, reproduction, and techniques and technology of rearing (provides deep theoretical and practical knowledge as well as laboratory skills).

This field focuses mainly on the study of biology, physiology and epidemiology of plant pests and pathogens. The most modern diagnostic and analytical methods are used for the study. Agricultural Chemistry (ADCA)

**Exploitation and Protection** of Natural Resources (XADSPAZ)



### Nutrition and Food (ADVA)

Applied Zoology (ADZA)

Life Sciences (ADLA)

Specific topics are concentrated on the development and application of contemporary novel analytical techniques used for the evaluation of quality of agricultural products and foods.

■ Graduates gain deep expertise in the management of natural resources, utilizing obtained knowledge in soil science, hydrology and hydropedology, environmental chemistry, meteorology, microbiology, toxicology, and remediation.

Students will be able to carry out research in the field of food and human nutrition as well as to be employed on management posts in institutions or companies producing and distributing food.

Programme is focused on the use of combined methods in scientific disciplines of zoology and enables the interconnection of topical issues and scientific approaches in the management of natural resources and their protection.

The interfaculty study programme emphasizes multidisciplinary and interfaculty collaboration in the areas of natural resource management, rural development, crop production, livestock breeding, agricultural technology, and agricultural economics.

# Where can you live?

CZU offers **on-campus dormitories**. There is a variety of room options for a very affordable price. We also have an **off-campus dormitory West** which is located 35 minutes away by public transport from the university campus and 17 minutes from the city centre. Newly renovated rooms (including single rooms) are available.

# How much is the tuition fee? Are there any scholarships?

The tuition fee for Bachelor's and Master's study programmes taught in English amounts to CZK 80 000 (approx. EUR 3 200) per academic year.

Our faculty offers a **merit scholarship** to students of these programmes who achieve excellent study results.

The scholarship ranges from 50% to 10% of annual tuition fee.



agrobiology.eu

**The tuition fee** for **doctoral** study programmes taught in English cost **CZK 13 000** (approx. EUR 520) per academic year.

# What are the living costs in Prague?

The cost of living in the Czech Republic is relatively low compared to other western or central European countries. The monthly cost of living at CZU includes the following:

**Accommodation:** approx. CZK 4 000 (on campus dormitories); from CZK 6 090 (CZU external dormitory WEST); **Meals** (lunch and dinner): approx. CZK 6 500; **Monthly ticket for Prague public transport** (tube, tram, bus) for students below the age of 26: CZK 130; students who are 26 years old or older pay: CZK 550; **Other expenses** (books, cultural events): approx. CZK 1000

It doesn't end with graduation The new life is just beginning and our faculty will stay in touch with you

# How to apply?

The admission procedure into **Bachelor's and Master's study programmes taught in English** consists of two phases. In the first phase, you need to submit required documents in online application. In the second phase, your foreign education is evaluated and needs to be recognised as valid in the Czech Republic.

Applications to study in academic year 2022/2023 can be submitted from **1st November 2021** to **31st March 2022**. Within this period, applications are evaluated three times to enable **early acceptance to study of third-country nationals who need to apply for residence permit in the Czech Republic.** Interim deadlines for submission of applications are **30th November 2021, 15th January 2022** and **28th February 2022**.

Applications to study in **doctoral programmes in academic year 2022/2023** can be submitted from **15th November 2021** to **15th March 2022**.

More information on:







# Join our student organisations!

You do not have to worry about getting bored at our university. There is always an event to go to if you join the **Erasmus Student Network "ESN"** or **"Pupen"** (meaning plant bud), our faculty student organisation!

Just before the start of the semester you can participate in **CZU Welcome week**, where you get all the useful information concerning the university and the city. You will be able to take part in fun activities such as a hike, tour around Prague or a party and get to know everyone right from the start. During the semester we have events such as **Prague Science Film Festival** or **Miss Agro**.

Pupen organises various faculty specific events such as **board game nights**, **sightseeing trips in Prague, roses club, Agro-party, tutoring of other students** etc. More information is available here: https://www.facebook.com/pupenfappz



# **Contacts**

ADMISSIONS BACHELOR'S AND MASTER'S STUDY PROGRAMMES



Dagmar Brožová tel.: +420 224 384 577 e-mail: iro@af.czu.cz room: FAPPZ/AF120 STUDY ADMINISTRATION OFFICE BACHELOR'S AND MASTER'S STUDY PROGRAMMES



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#### ADMISSIONS AND STUDY ADMINISTRATION OFFICE DOCTORAL PROGRAMMES



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## **Social Networks**

- af.czu.cz; universityin.eu
- facebook.com/af.czu.cz
- instagram.com/af.czu.cz
- 🕖 twitter.com/agro\_czu







Faculty of Agrobiology, Food and Natural Resources Czech University of Life Sciences Prague