



COLLECTION OF DECISIONS AND ORDINANCES OF THE FACULTY OF AGRICULTURE AND TECHNOLOGY UNIVERSITY OF SOUTH BOHEMIA IN ČESKÉ BUDĚJOVICE

number: 3/2024

12. January 2024

Dean's Ordinance issuing the rules for the admission procedure and the conditions of admission to studies in doctoral degree programmes starting in the academic year 2024/2025

Article 1 General Provisions

1. This ordinance announces the rules for the admission procedure for studies in doctoral degree programmes at the Faculty of Agriculture and Technology of the University of South Bohemia in České Budějovice (USB) starting in the academic year 2024/2025.
2. The rules for the admission procedure are announced based on Sections 48 to 50 and Section 58(1) of Act No. 111/1998, on Higher Education Institutions (hereinafter the 'Act') and Article 18 of the Statutes of the University of South Bohemia in České Budějovice (hereinafter the 'Statutes').

Article 2 Degree programmes for which it is possible to submit applications for admission

1. In the academic year 2024/2025, applications for admission to studies may be submitted only **for the full time form of study** in the following doctoral degree programmes at the USB Faculty of Agriculture and Technology:
 - Plant Science,
 - Agricultural Chemistry and Biotechnology,
 - Animal Science,
 - Agroecology and Applied Ecology
 - Agriculture and Technologies 4.0
2. The expected numbers of students to be admitted to studies are listed in Annexe 1.
3. The applicants will not be offered to study in the combined form in doctoral study programmes in the academic year 2024/2025, i.e. the applicants will not be accepted in the combined form of study.



Article 3

Rules for submitting and processing study applications

1. Applications for studies are submitted only on **the electronic forms** "Application for studies at a higher education institution" available electronically on the website of the Faculty of Agriculture and Technology of the University of South Bohemia.
2. The applicant attaches his/her CV and a proof of successful completion of a master's degree (diploma) to the application. If the applicant is unable to submit this document together with the application (e.g. due to the fact that he/she has not yet completed his/her studies in the master's degree programme), he/she will provide the diploma no later than on the day of enrolment.
3. **Applicants can submit applications for doctoral degree programmes until 31st March 2024.** The Faculty of Agriculture and Technology reserves the right to extend the period for accepting applications. The FAT USB also reserves the right to terminate the admission of applications before 31st March 2024 in case the number of applicants exceeds the capacity of doctoral degree study programmes.
4. The framework topics of the dissertations are listed in Annexe 2. The Faculty of Agriculture and Technology recommends applicants to contact the relevant supervisors and consult the study options before applying. If necessary, another topic according to the applicant's interests may be added to the list. International applicants contact the International Relations Office of the FAT USB. The application process will be described step by step on the website of the IRO.
5. If the application suffers from formal shortcomings, the Faculty of Agriculture and Technology will return it to the applicant for correction or supplementation. The application will be considered filed only when the FAT receives the electronic application with all requisites, required attachments and the fee paid. An incomplete application will be considered invalid and will not be taken into account in the admission process.
6. The applicant who does not pay the fee set according to Section 58(1) of the Act in the prescribed manner (bank transfer), and Article 18 of the Statutes by the set deadline of 31 March 2023 is assessed as if he/she had not applied. If the Faculty of Agriculture and Technology extends the period for submitting applications, the deadline for payment of the fee will be postponed accordingly. **The administration fee is 500, - CZK. The foreign applicants shall pay the fee only after they receive an invitation to do so by the international relations officer of the FAT USB.** The invitation will be based on the evaluation of the materials submitted.

Article 4

Admission examination

1. Applicants are to demonstrate that they meet the requirements for studies of a doctoral degree programme during an admission examination.
2. The admission examination takes place in an oral form unless otherwise stated. Candidates shall demonstrate their aptitude for scientific work in the given field. The interview is focused on general and current issues of the relevant scientific field and the knowledge of methodology and state of knowledge in a narrow scientific field of the selected topic of research work. An overview of the framework topics of dissertations for individual degree programmes is given in the annexe.



3. Admission examinations for international applicants can take place remotely through MS Teams.
4. Admission examinations include an English exam. The form of the English exam is to be determined by a committee.
5. The Dean may waive the admission examination in whole or in part. If the Dean waives the examination completely, it is considered that the candidate has demonstrated that he/she meets the requirements for studies.
6. **There are two dates for the admission examinations, one distance-based for foreign applicants on April 17, 2024, and one face-to-face for Czech applicants on April 24, 2023.**
7. **The dean may announce another date of admission examinations in addition to the abovementioned main date at any time during the academic year, at least one month before the admission examinations are to take place.**
8. The specific date of the admission examination according to the chosen degree programme and the form of study is communicated to each applicant in writing as well as other information about the admission examination including confirmation of receipt of the study application.
9. The alternative date of the admission examination, equivalent to the regular date of the admission examination, is intended only for those candidates who could not attend the regular date for serious reasons (substantiated by an appropriate confirmation). The seriousness of the reason will be assessed by the Dean of the faculty, who will decide whether the student will take the admission examination on an alternative date. Participation in admission examinations to another higher education institution is not considered an excuse.
10. The admissions committee operates in accordance with the following basic rules:
 - a) The admission committee (at least three members) and its chairperson are appointed by the Dean of the faculty upon a proposal from the doctoral studies board. The chair of the committee is usually the chair of the doctoral studies board. Committee members can be members of the doctoral studies board or other important experts.
 - b) The quorum of the committee is to be a minimum of three of its members. The committee's decision must be approved by a simple majority of those present. The admissions committee will evaluate the candidates' abilities in a closed meeting and determine the order of admissions. The committee passes the results of the admission procedure to the Dean of the faculty.
 - c) A record must be made of the course and result of the admission procedure, which the members of the committee confirm by affixing their signatures.

Article 5

Decision on admission of the applicant to the studies and the option to file an appeal

1. Verification of the information stated in the documents from the applicant for admission to studies will be provided by the Study Department of the Faculty of Agriculture and Technology.
2. The Study Department of the Faculty of Agriculture and Technology USB is in charge of the preparation of materials necessary for the decision on the admission of an applicant to studies.
3. The Dean of the Faculty of Agriculture and Technology decides on the admission of an applicant to studies based on the fact that the applicant meets the conditions for the admission of an applicant to studies and on the basis of the order set by the committee pursuant to Section 50(4) of the Act.
4. The decision of the dean of the Faculty of Agriculture and Technology on the admission or non-admission of the applicant to studies will be sent by the Study Department of the Faculty of



Agriculture and Technology on May 13, 2023, at the latest. The applicant can also collect the decision in person at the Study Department. In the event of an extension of the deadline for submitting applications for admission to studies pursuant to Article 3(2), the deadline for sending the letter with a decision on admission or non-admission to studies will be postponed accordingly.

5. If it is relevant (i.e. especially for applicants from abroad), the Rector's Ordinance R 450 on assessing the fulfilment of the condition of previous education of applicants for study, dated November 18, 2020, shall be applied when deciding on the admission of an applicant to studies.
6. In accordance with Section 50(5) 5 of the Act, the applicant has the right to inspect the materials that were the basis for the decision on his admission or non-admission to studies at the Study Department of the Faculty of Agriculture and Technology on May 22, 2023, or upon an agreement by phone.
7. The applicant may request the Dean of the faculty to review the decision. The request is to be submitted within 30 days from the date of the delivery of the decision. The Dean himself may grant the request and change the decision, otherwise, he forwards the request for a review to the rector of the University of South Bohemia. The rector is to change the dean's decision if it was issued in violation of the law, the internal regulations of the university or the conditions set according to Section 49(1)(3) of the Act. Otherwise, the request is to be rejected and the original decision is to be confirmed.

Article 6

Conditions for the enrolment of applicants to studies

1. Applicants are to submit documents concerning the successful completion of studies in a master's degree programme, or other original or officially verified documents, no later than on the day of enrolment.
2. Only those students who have been issued a decision on admission to study can enrol.
3. The transfer of students from other faculties of the University of South Bohemia in České Budějovice to doctoral degree programmes accredited at the Faculty of Agriculture and Technology is possible after the end of the first year at the earliest and only when the student follows an individual study plan. The application is approved by the Dean of the faculty after a discussion with the corresponding doctoral studies board. The corresponding doctoral studies board sets bridging examinations and discusses and approves an adjusted individual study plan.

Article 7

Final Provisions

1. Rules for the admission procedure and the conditions for admission to studies in doctoral degree programmes starting in the academic year 2024/2025 were discussed and approved by the Academic Senate of the Faculty of Agriculture and Technology of the University of South Bohemia in České Budějovice at its meeting on 12. 1. 2024.

doc. RNDr. Petr Bartoš, Ph.D.
Dean of the faculty



Annex 1

Numbers of admitted students for the academic year 2024/2025

In accordance with Section 49(5) of Act No. 111/1998, on Higher Education Institutions, the highest number of applicants to be admitted is stated as follows:

Degree programme	Number of domestic students to be admitted
General plant production	10
General zootechnics	10
Agricultural chemistry and agrobiotechnology	5
Agroecology and applied ecology	5
Agriculture and technologies 4.0*	10

Degree programme	Number of foreign students to be admitted
General plant production	5
General zootechnics	5
Agricultural chemistry and agrobiotechnology	5
Agroecology and Applied Ecology	5
Agriculture and technologies 4.0*	5



Annex 2

Proposed dissertation topics

Doctoral degree programme: Plant Science

Programme guarantor: doc. Ing. Jan Bárta, Ph.D.

Place of training: **Department of Plant Production (KROV) FAT USB**

Departments: Department of Genetics and Biotechnology (KGB)

Department of Agroecosystems KAES)

Department of Technology and Cybernetics KTK)

Framework topics for domestic applicants	Supervisor
Izolace vybraných bílkovin semen olejnin a jejich technologické aplikace (Isolation of selected oilseed proteins and their technological application)	doc. Ing. Jan Bárta, Ph.D. (KROV)
Molekulární detekce virů u fytopatogenních hub (Molecular detection of viruses in phytopathogenic fungi)	školitel bude přidělen OR (KROV)
Hodnocení environmentálních dopadů v zemědělství (Evaluation of environmental impacts of agriculture)	doc. Ing. Jan Moudrý, Ph.D. (KAES)
Udržitelná produkce potravin (Sustainable food production)	doc. Ing. Jan Moudrý, Ph.D. (KAES)
Globální možnosti využití guána ve výživě a hnojení plodin vč. nádobového experimentu (Global possibilities of using guano in crop nutrition and fertilization incl. pot experiment)	prof. Ing. Tomáš Lošák, Ph.D. (KAES)
Programy hybridního šlechtění mrkve založené na samčí sterilitě (Hybrid breeding of carrot based on male sterility)	prof. Ing. Vladislav Čurn, Ph.D. (KGB)

Framework topics for foreign applicants	Supervisor
Evaluation of environmental impacts of agriculture	doc. Ing. Jan Moudrý, Ph.D.
Sustainable food production	doc. Ing. Jan Moudrý, Ph.D.
Efficiency of organic farming under different climatic conditions	doc. Ing. Jan Moudrý, Ph.D.
Global possibilities of using guano in crop nutrition and fertilization incl. pot experiment	prof. Ing. Tomáš Lošák, Ph.D.



Doctoral degree programme: Agricultural Chemistry and Biotechnology

Programme guarantor: prof. Ing. Roman Kubec, Ph.D.

Place of training: Department of Applied Chemistry
Department of Genetics and Biotechnology
Department of Food Biotechnology and Agricultural Products' Quality

framework topics for domestic applicants	Supervisor
Tvorba biogenních aminů ve vybraných druzích poživatin (Formation of biogenic amines in selected foodstuffs)	prof. Ing. Martin Křížek, CSc.
Organosírné sekundární metabolity zemědělských produktů (Organosulfur secondary metabolites of agricultural products)	prof. Ing. Roman Kubec, Ph.D.
Studium nežádoucích změn organoleptických vlastností během zpracování česnekovitých zelenin (Study of undesirable changes of organoleptic properties during processing of alliaceous vegetables)	prof. Ing. Roman Kubec, Ph.D.
Akumulace vybraných rizikových a esenciálních prvků v plodnicích méně běžných druhů jedlých a medicínálních hub (Bioconcentration of selected risk and essential elements in fruiting bodies of less common edible and medicinal mushrooms)	doc. Ing. Jan Šíma, Ph.D.
Vliv vybraných polymorfismů na mléčnou užitkovost (Effect of gene polymorphisms on the utility of milk)	prof. Ing. Jindřich Čítek, CSc.
Molekulárně genetická analýza vybrané dědičné poruchy zdraví skotu (Analysis of some loci of bovine inherited diseases)	prof. Ing. Jindřich Čítek, CSc.
Molekulárně genetická analýza vybrané dědičné poruchy zdraví prasat – koní – psů (bude specifikováno dle zájmu doktoranda) (Analysis of some loci of swine – horse – dog inherited disease)	prof. Ing. Jindřich Čítek, CSc.
Využití moderních vícerozměrných statistických metod při zpracování dat z biotechnologických experimentů (Modern multidimensional statistical methods in evaluation of data from biotechnological experiments)	doc. Ing. Michael Rost, Ph.D.
Aplikace hydrolytických enzymů při produkci bílkovinných koncentrátů/izolátů z výlisků olejnatých semen (Application of hydrolytic enzymes in the production of protein concentrates/isolates from oilseed pomace)	doc. Ing. Jan Bárta, Ph.D.
Prospěšné mikroorganismy ve fermentovaných výrobcích v závislosti na technologii výroby a obsahu přídatných látek (Nutritionally beneficial microorganisms in fermented products depending on the technology process and additives content)	doc. MVDr. Lucie Hasoňová, Ph.D.
In vivo studie antimikrobiálních účinků vybraných přírodních látek (In vivo study of antimicrobial effect of selected natural substances)	doc. MVDr. Lucie Hasoňová, Ph.D.
Vliv bylinných extraktů a dalších rostlinných doplňků na kvalitu vybraných mléčných produktů (The effects of herbal extracts and other plant supplements on the quality of selected dairy products)	prof. Ing. Eva Samková, Ph.D.
Vliv technologického procesu na vybrané kvalitativní vlastnosti potravin rostlinného a živočišného původu (The influence of the technological process on selected qualitative properties of foods of plant and animal origin)	prof. Ing. Eva Samková, Ph.D.



Posouzení vlivu přítomnosti vybraných inhibičních látek na technologické vlastnosti mléka (Evaluation of the presence of selected inhibitory substances on the technological properties of milk)	prof. Ing. Eva Samková, Ph.D.
Studium genetického založení samčí sterility u cibule (The study of genetic basis of male sterility in onion)	prof. Ing. Vladislav Čurn, Ph.D.

Framework topics for foreign applicants	Supervisor
Organosulfur secondary metabolites of agricultural products	prof. Ing. Roman Kubec, Ph.D.
Modern multidimensional statistical methods in evaluation of data from biotechnological experiments	doc. Ing. Michael Rost, Ph.D.
Nutritionally beneficial microorganisms in fermented products depending on the technology process and additives content	doc. MVDr. Lucie Hasoňová, Ph.D.
<i>In vivo</i> study of antimicrobial effect of selected natural substances	doc. MVDr. Lucie Hasoňová, Ph.D.
The effects of herbal extracts and other plant supplements on the quality of selected dairy products	prof. Ing. Eva Samková, Ph.D.
The influence of the technological process on selected qualitative properties of foods of plant and animal origin	prof. Ing. Eva Samková, Ph.D.
Evaluation of the presence of selected inhibitory substances on the technological properties of milk	prof. Ing. Eva Samková, Ph.D.



Doctoral degree programme: Animal Science

Programme guarantor: prof. Ing. Jindřich Čítek, CSc.

Place of training: Department of Zootechnical Sciences
Department of Genetics and Biotechnology
Department of Food Biotechnology and Agricultural Products' Quality
Department of Technology and Cybernetics

Framework topics for domestic applicants	Supervisor
Asociační analýza vybraných kandidátních lokusů a plemenných hodnot pro ukazatele mléčné užitkovosti u holštýnského a českého strakatého skotu (Association analysis of candidate loci and breeding values in Holstein and Czech Simmental breeds)	prof. Ing. Jindřich Čítek, CSc.
Asociační analýza vybraných kandidátních lokusů a ukazatelů reprodukce skotu (Association analysis of candidate loci and reproduction in cattle)	prof. Ing. Jindřich Čítek, CSc.
Nelineární závislosti mezi sledovanými vlastnostmi u dojeného skotu, stanovení genetických parametrů a upřesnění sestavení souhrnných selekčních indexů (Non-linear relationships among traits in milk cattle, assessment of genetic parameters and construction of selection indexes)	prof. Ing. Jindřich Čítek, CSc., školitel specialista prof. Ing. Josef Příbyl, DrSc., Ing. Ludmila Zavadilová, CSc., VÚŽV Praha
Algoritmy genomického hodnocení hospodářských zvířat s využitím všech dostupných zdrojů o jedincích a genotypech (Algorithms of genomic evaluation of farm animals using all information sources on individuals and genotypes)	prof. Ing. Jindřich Čítek, CSc., školitel specialista prof. Ing. Josef Příbyl, DrSc., Ing. Ludmila Zavadilová, CSc., VÚŽV Praha
Vliv klimatologických charakteristik na užitkovosti a plemenné hodnoty masného skotu (The effect of climatological characteristics on performance and breeding values of beef cattle)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Zdeňka Veselá, Ph.D., VÚŽV Praha
Začlenění mezinárodních plemenných hodnot do národního genetického hodnocení masného skotu (Incorporation of international breeding values into the national genetic evaluation of beef cattle)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Zdeňka Veselá, Ph.D., VÚŽV Praha
Genetické hodnocení býků masných plemen pro křížení s dojenými plemeny (Genetic evaluation of beef sires for crossing with milk breeds)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Zdeňka Veselá, Ph.D., VÚŽV Praha
Genetické hodnocení masné užitkovosti u masných plemen skotu (Genetic evaluation of carcass traits in beef cattle)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Zdeňka Veselá, Ph.D., VÚŽV Praha
Analýza vztahu dlouhověkosti a onemocnění u dojeného skotu (Analysis of relationship between longevity and disease in dairy cattle)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Ludmila Zavadilová, Ph.D., VÚŽV Praha
Genetický polymorfismus funkčních molekul imunitního systému malých přežvýkavců a jeho vliv na vnímavost k vybraným nákazám (Genetic polymorphisms of functional molecules of immune system of small ruminants and its influence on the susceptibility to some infections)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Dr. Ing. Jitka Kyselová, VÚŽV Praha
Konvenční a nekonvenční způsoby uchování spermií u koní (Conventional and non-conventional sperm conservation in horse)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Josef Fulka, DrSc., VÚŽV Praha



Kritická stádia vývoje embryí skotu produkovaných <i>in vitro</i> (Critical phases of embryo development produced <i>in vitro</i>)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Josef Fulka, DrSc., VÚŽV Praha
Kvalita kolostra v závislosti na vybraných biologických a environmentálních faktorech (Colostrum quality regarding selected biological and environmental factors)	doc. MVDr. Lucie Hasoňová, Ph.D.
Dopad různé alimentární expozice bisfenolu na morfologické a funkční parametry potkanů (Effect of different alimentary exposure of bisphenol on morphological and functional parameters in rats)	doc. Ing. Roman Konečný, Ph.D.
Rezistence parazitů na veterinární léčivé preparáty (Resistance of parasites to veterinary medicaments)	prof. Ing. Martin Kváč, Ph.D.
Hostitelská a tkáňová specifita kryptosporidií savců (Host and tissue specificity of <i>Cryptosporidium</i> in mammals)	prof. Ing. Martin Kváč, Ph.D.
Hostitelská a tkáňová specifita kryptosporidií ptáků (Host and tissue specificity of <i>Cryptosporidium</i> in birds)	prof. Ing. Martin Kváč, Ph.D.
Hostitelská a tkáňová specifita kryptosporidií plazů (Host and tissue specificity of <i>Cryptosporidium</i> in reptiles)	prof. Ing. Martin Kváč, Ph.D.
Využití funkcionální analýzy dat při hodnocení mléčné užitkovosti krav (The use of functional data analysis in the evaluation of milk productivity of cows)	doc. Ing. Michael Rost, Ph.D.
Vliv zdravotního stavu a genetického založení dojnic na kvalitativní a technologické parametry mléka (The effect of dairy cow health and genetic on the composition and other qualitative parameters of milk)	prof. Ing. Eva Samková, Ph.D.
Po dohodě jiné téma týkající se kvality syrového kravského mléka či mléčných produktů (By appointment, also another topic concerning the quality of raw cow's milk or dairy products)	prof. Ing. Eva Samková, Ph.D.
Fytobiotika jako účinná aditiva ve výživě dojnic pro zaprahování a následnou produkci (Phytobiotics as effective additives in the nutrition of dairy cows for fattening and subsequent production)	Ing. Luboš Zábranský, Ph.D.
Inovativní trendy v technologii krmení telat a využití nekonvenčních krmných aditiv v jejich výživě (Innovative trends in calf feeding technology and the use of unconventional feed additives in their nutrition)	Ing. Luboš Zábranský, Ph.D.
Vyhodnocení změn v denní době aktivit potravního chování krav (Evaluation of changes in daily time of food behaviour)	doc. Ing. Mojmír Vacek, CSc.

Framework topics for foreign applicants	Supervisor
Effect of different alimentary exposure of bisphenol on morphological and functional parameters in rats	doc. Ing. Roman Konečný, Ph.D.
Resistance of parasites to veterinary medicaments	prof. Ing. Martin Kváč, Ph.D.
Host and tissue specificity of <i>Cryptosporidium</i> in mammals	prof. Ing. Martin Kváč, Ph.D.
Host and tissue specificity of <i>Cryptosporidium</i> in birds	prof. Ing. Martin Kváč, Ph.D.
Host and tissue specificity of <i>Cryptosporidium</i> in reptiles	prof. Ing. Martin Kváč, Ph.D.
The effect of dairy cow health and genetic on the composition and other qualitative parameters of milk	prof. Ing. Eva Samková, Ph.D.



By appointment, also another topic concerning the quality of raw cow's milk or dairy products	prof. Ing. Eva Samková, Ph.D.
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Doctoral degree programme: Agroecology and Applied Ecology

Programme guarantor: prof. RNDr. Hana Čížková, CSc.

Place of training: Department of Agroecosystems
Department of Biological Disciplines
Department of Applied Ecology
Department of Plant Production

Framework topics for domestic applicants	Supervisor
Uplatnění vybraných biostimulantů v odolnosti rostlin proti stresům (Application of selected biostimulants in plant resistance to stress)	doc. Ing. Jana Pexová Kalinová, Ph.D.
Vliv zemědělského hospodaření na kvalitu povrchových vod (Impact of agricultural management on surface water quality)	doc. Ing. Jakub Brom, Ph.D.
Optimalizace návrhu prostředí v souladu s principy hodnocení životního cyklu (Environmental design optimization in accordance with life cycle assessment principles)	doc. Ing. Jaroslav Bernas, Ph.D.
Environmentální návrh systému potravinového řetězce na základě hodnocení životního cyklu (Environmental design of food chain system based on life cycle assessment)	doc. Ing. Jaroslav Bernas, Ph.D.

Framework topics for foreign students	Supervisor
Short supply chain and farm to fork strategy potential within food production with relation to the public catering	doc. Ing. Jan Moudrý, Ph.D.
Greenhouse gases emissions from selected crops growing within organic and conventional system of farming	doc. Ing. Jan Moudrý, Ph.D.
Impact of agricultural management on surface water quality	doc. Ing. Jakub Brom, Ph.D.
Desiccation stress in oil seed rape	prof. RNDr. Hana Čížková, CSc.
Environmental engineering of food and energy systems with a focus on life cycle assessment	doc. Ing. Jaroslav Bernas, Ph.D.



Doctoral degree programme: Agriculture and Technologies 4.0

Programme guarantor: doc. RNDr. Petr Bartoš, Ph.D.

Place of training: Department of Technology and Cybernetics

Framework topics for domestic students	Supervisor
Využití počítačových simulací při návrhu a optimalizaci stájových technologií (Use of computer simulations in the design and optimization of stable technologies)	doc. RNDr. Petr Bartoš, Ph.D.
Pokročilé výpočetní metody a jejich aplikace v technologiích pro chov hospodářských zvířat (Advanced computational methods and their applications in technologies in livestock breeding)	doc. RNDr. Petr Bartoš, Ph.D.
Hodnocení parametrů chovu aplikací metod strojového vidění (Evaluation of breeding parameters by application of machine vision methods)	doc. RNDr. Petr Bartoš, Ph.D.
Nejlepší dostupné techniky (BAT) v chovech hospodářských zvířat (Best Available Technologies (BAT) in livestock production)	doc. RNDr. Petr Bartoš, Ph.D.
Využití metod umělé inteligence v rostlinné produkci (Application of artificial intelligence methods in plant production)	doc. RNDr. Petr Bartoš, Ph.D.
Grafové neuronové sítě pro optimalizaci senzorů v precizním zemědělství Graph neural networks for sensor optimization in precision agriculture	doc. Ing. Ladislav Beránek, CSc. MBA
Využití počítačového modelování v systémech vertikálního pěstování rostlin (Use of computer modelling in vertical plant growing systems)	Ing. Mgr. Pavel Olšan, Ph.D.
Systém pro sledování a řízení klimatických podmínek v oblasti vertikálního pěstování rostlin (System for monitoring and controlling climatic conditions in vertical plant cultivation)	Ing. Mgr. Pavel Olšan, Ph.D.
Vývoj inteligentních technických řešení s aplikacemi při pěstování hospodářských plodin (Development of smart technologies with applications in plant production)	doc. RNDr. Petr Bartoš, Ph.D.
Optimalizace činnosti zemědělské nebo dopravní techniky v oblasti rostlinné produkce (Optimization of agricultural or transport machinery in plant production).	doc. RNDr. Petr Bartoš, Ph.D.
Využití technologií pro zpracování obrazu v rostlinné produkci (Application of image processing methods in plant production)	doc. RNDr. Petr Bartoš, Ph.D.



Framework topics for foreign students	Supervisor
Use of computer simulations in the design and optimization of stable technologies	doc. RNDr. Petr Bartoš, Ph.D.
Advanced computational methods and their applications in technologies in livestock breeding	doc. RNDr. Petr Bartoš, Ph.D.
Evaluation of breeding parameters by application of machine vision methods	doc. RNDr. Petr Bartoš, Ph.D.
Best Available Technologies (BAT) in livestock production	doc. RNDr. Petr Bartoš, Ph.D.
Application of artificial intelligence methods in plant production	doc. RNDr. Petr Bartoš, Ph.D.
Graph neural networks for sensor optimization in precision agriculture	doc. Ing. Ladislav Beránek, CSc. MBA
Use of computer modelling in vertical plant growing systems	Ing. Mgr. Pavel Olšan, Ph.D.
System for monitoring and controlling climatic conditions in vertical plant cultivation	Ing. Mgr. Pavel Olšan, Ph.D.
Development of smart technologies with applications in plant production	doc. RNDr. Petr Bartoš, Ph.D.
Optimization of agricultural or transport machinery in plant production	doc. RNDr. Petr Bartoš, Ph.D.
Application of image processing methods in plant production	doc. RNDr. Petr Bartoš, Ph.D.