



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

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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 2025/2026

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 2025/2026.
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 Articles 24 - 27 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 2025/2026, 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:
 - Agroecology and Applied Ecology,
 - Plant Science,
 - Animal Science,
 - Agricultural Chemistry and Biotechnology,
 - 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 2025/2026, 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 form** "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. International applicants shall submit an internationally recognized certificate to prove their knowledge of Czech or English. The minimum level of knowledge required is B2. The list of the internationally recognized certificates is published at the website of the FAT: <https://www.fzt.jcu.cz/en/admissions/admission-procedures>.
4. **Applicants can submit applications for doctoral degree programmes until March 31, 2025.** 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 March 31, 2025, in case the number of applicants exceeds the capacity of doctoral degree study programmes.
5. 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 of the FAT.
6. 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.
7. 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 27 of the Statutes by the set deadline of **March 31, 2025**, 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 700, - 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

Conditions for Graduates of Studies Abroad

1. For the admission of foreigners to study under international agreements binding the Czech Republic, the aforementioned conditions shall apply correspondingly, allowing for modifications, particularly regarding the deadlines for the admission process and the method of recognition of prior education.
2. The conditions for assessing foreign higher education in the admission process for the academic year 2025/2026 are defined by the Rector's of the USB Ordinance on the assessment of applicants' prior education, No. R 450, dated November 18, 2020.
3. The applicant for a doctoral study program listed in Article 2, Paragraph 1, is required to send a copy of the nostrified document certifying the completion of a state final examination equivalent to a master's degree awarded by a university in the Czech Republic (master's diploma) to the Department of International Relations of FZT JU in České Budějovice.



4. The procedure for recognizing foreign higher education is governed by Article 6, Paragraph 2 of the Rector's Ordinance No. R 450. Its annex includes a list of countries the issued documents of which must be accompanied by a so-called superlegalization clause, an apostille, or where an officially verified copy is sufficient.
5. The FAT USB has the right to request a nostrification or other original or officially verified documents within the admission procedure to entirely eliminate any doubts:
 - a. Supplementary information about the content and scope of foreign higher education;
 - b. Supplementary information that the study program was conducted by an institution authorized to provide education comparable to higher education under the Higher Education Act, i.e., **a scanned confirmation of the accreditation of the foreign university attended**, indicating that it is allowed to engage in educational activities in the field of higher education. This document must be translated into Czech by a certified translator;
 - c. Confirmation from the relevant foreign university or another appropriate foreign authority (e.g., the Ministry of Education) that the graduate of the higher education program at the given foreign university is entitled to apply for admission to a doctoral study program;
 - d. the web address of the school's website, i.e., a direct link to the website of the university from which the applicant graduated and completed their master's degree.

Article 5

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 annex.
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 16, 2025, and one face-to-face for Czech applicants on April 23, 2025.**
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 6

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. If the amendment to the Higher Education Act comes into effect on January 1, 2025, all documents prepared by the Faculty of Agriculture and Technology or the University of South Bohemia in České Budějovice shall be delivered via the IS STAG system, regardless of whether the applicant consented to this in their application or not. This will primarily concern decisions on admission or non-admission to study, as well as requests for additional information regarding the application, or resolutions concerning the suspension or termination of the admission process.
5. Documents delivered in this manner (via IS STAG) will be considered received at the moment the applicant logs into IS STAG after the documents are made available. If the applicant does not log in within 10 days from the date the document was made available in IS STAG, the document will be deemed received on the 10th day from the date of availability.
6. In case the amendment to the Higher Education Act fails to come into effect as on January 1, 2025, 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 12, 2025, 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.
7. 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.
8. 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 27, 2025, or upon an agreement by phone.
9. 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 7

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 8

Final Provisions

1. Rules for the admission procedure and the conditions for admission to studies in doctoral degree programmes starting in the academic year 2025/2026 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 November 21, 2024.

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



Annex 1

Numbers of admitted students for the academic year 2025/2026

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.

The Faculty of Agriculture and Technology, The University of South Bohemia in České Budějovice reserves the right to accept a lower number of applicants than listed in the following table.

Degree programme	Number of students to be admitted
Agroecology and Applied Ecology	6
Plant Science	12
Animal Science	6
Agricultural Chemistry and Biotechnology	6
Agriculture and Technologies 4.0	12



Annex 2

Proposed dissertation topics

Doctoral degree programme: Agroecology and Applied Ecology

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

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

Framework topics for domestic applicants	Contact person
Uplatnění vybraných biostimulantů v odolnosti rostlin proti stresům (Application of selected biostimulants in plant resistance to stress)	doc. Ing. Jana Pexová Kalinová, Ph.D.
Analýza kvality vody pomocí metod dálkového průzkumu Země (Water quality analysis using the methods of remote sensing)	doc. Ing. Jakub Brom, Ph.D.
Význam hospodaření v krajině na kvalitu povrchových vod (Impact of landscape management on surface water quality)	doc. Ing. Jakub Brom, Ph.D.

Framework topics for foreign students	Contact person
Water quality analysis using the methods of remote sensing	doc. Ing. Jakub Brom, Ph.D.
LCA application in the agricultural sector	doc. Ing. Jaroslav Bernas, Ph.D.



Doctoral degree programme: Plant Science

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

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

Framework topics for domestic applicants	Contact person
Produkční parametry současných odrůd brambor pro výrobu škrobu a bílkovin (Production parameters of current potato varieties for processing into starch and protein)	doc. Ing. Jan Bárta, Ph.D. (KROV)
Studium bioaktivních peptidů připravených z bílkovin olejnatých semen (Study of bioactive peptides prepared from oilseed proteins)	doc. Ing. Jan Bárta, Ph.D. (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)
Vliv organické hmoty na půdní úrodnost (The influence of organic matter on soil fertility)	doc. Ing. Marek Kopecký, Ph.D. (KAES)
Význam vodostálých makroagregátů pro půdní úrodnost (The importance of water-stable macroaggregates for soil fertility)	doc. Ing. Marek Kopecký, Ph.D. (KAES)

Framework topics for foreign applicants	Contact person
The influence of organic matter on soil fertility	doc. Ing. Marek Kopecký, Ph.D. (KAES)
The importance of water-stable macroaggregates for soil fertility	doc. Ing. Marek Kopecký, Ph.D. (KAES)
Evaluation of environmental impacts of agriculture	doc. Ing. Jan Moudrý, Ph.D. (KAES)
Sustainable food production	doc. Ing. Jan Moudrý, Ph.D. (KAES)
Efficiency of organic farming under different climatic conditions	doc. Ing. Jan Moudrý, Ph.D. (KAES)
Microplastic Pollution in Urban and Rural Soils: A Study on the Impact of Land Use on Soil Contamination Levels	doc. Ing. Petr Konvalina, Ph.D. (KAES)



Doctoral degree programme: Animal Science

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

Place of training: Department of Genetics and Biotechnology FAT USB
Department of Zootechnical Sciences
Department of Food Biotechnology and Agricultural Products' Quality

Framework topics for domestic applicants	Contact person
Polyfenoly a jejich vliv na trvanlivost zpracovávaných zemědělských produktů (Polyphenols and their effect on the shelf life of agricultural products)	doc. Ing. Pavel Smetana, Ph.D.
Využití moderních vícerozměrných statistických metod při zpracování dat z biotechnologických experimentů (Modern multidimensional statistical methods in evaluation of data from biotechnological experiments).	doc. Ing. Michal Rost, Ph.D.
Vliv zdravotního stavu a genetického založení dojníc na vybrané kvalitativní parametry mléka (The effect of dairy cow health and genetic on the selective qualitative parameters of milk)	prof. Ing. Eva Samková, Ph.D.
Po dohodě jiné téma týkající se kvality syrového kravského mléka (By appointment, also another topic concerning the quality of raw cow's milk)	prof. Ing. Eva Samková, Ph.D.
Vyhodnocení rizika přenosu alimentárních nákaz při kontaktu dětí se zvířaty a manipulaci s živočišnými produkty (Assessment of the risk of foodborne illnesses transmission in children due to contact with animals and handling of animal products)	doc. MVDr. Lucie Hasoňová, Ph.D.
Asociační analýza vybraných kandidátních lokusů a plemenných hodnot pro ukazatele mléčné užitkovosti 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.
Poškození DNA spermií savců – detekce v jednobuněčných embryích (Damage of mammalian sperm in one cell embryos)	prof. Ing. Jindřich Čítek, CSc., školicel specialista Ing. Josef Fulka, DrSc., Ing. Jana Rychtářová, Ph.D., VÚŽV Praha
Diverzita pro imunitní geny u českého strakatého skotu a potenciál pro využití ve šlechtění (Diversity of immune genes in Czech Spotted cattle and potential use in breeding)	prof. Ing. Jindřich Čítek, CSc., školicel specialista Karel Novák, CSc., VÚŽV Praha
Analýza výskytu onemocnění u dojeného skotu se zaměřením na telata a mladý skot (Analysis of the incidence of disease in dairy cattle with a focus on calves and young cattle)	prof. Ing. Jindřich Čítek, CSc. školicel specialista Ing. Ludmila Zavadilová, Ph.D., VÚŽV Praha
Analýza vztahu ukazatelů obecné odolnosti a onemocnění u dojeného skotu (Analysis of the relationship between indicators of general resistance and disease in dairy cattle)	prof. Ing. Jindřich Čítek, CSc. školicel specialista Ing. Ludmila Zavadilová, Ph.D., VÚŽV Praha



Využití moderních technologií jako je infračervená spektroskopie mléka pro stanovení nových fenotypů při šlechtění dojeného skotu (Use of modern technologies such as infrared spectroscopy of milk to determine new phenotypes in dairy cattle breeding)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Ludmila Zavadilová, Ph.D., VÚŽV Praha
Analýza účinnosti krmiva ve šlechtění dojeného skotu s důrazem na experimenty (Analysis of feed efficiency in dairy cattle breeding with emphasis on experiments)	prof. Ing. Jindřich Čítek, CSc. školitel specialista Ing. Ludmila Zavadilová, Ph.D., VÚŽV Praha
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 the 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 Ing. Jitka Kyselová, Ph.D., 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
Rezistence parazitů na veterinární léčivé přípravky (Resistance of parasites on veterinary medicaments)	prof. Ing. Martin Kváč, Ph.D.
Vliv symbiotických virů na patogenitu kryptosporidií (Effect of symbiotic viruses on the pathogenicity of cryptosporidiums)	prof. Ing. Martin Kváč, Ph.D.
Studium genů determinující virulenci kryptosporidií (Study of genes determining virulence of cryptosporidiums)	prof. Ing. Martin Kváč, 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.



Vliv režimu zakládání krmiva ve stáji s dojícími roboty na pohodu, užitek a zdravotní stav dojníc (The influence of the feeding regime in a barn with milking robots on the well-being, performance and health of dairy cows)	doc. Ing. Mojmír Vacek, Ph.D.
Vyhodnocení dat ze senzorů používaných u dojníc s využitím metod AI (Evaluation of data from sensors used in dairy cows using AI methods)	doc. Ing. Mojmír Vacek, Ph.D.
Využití ekonomických modelů při optimalizaci věku při prvním otelení jalovic (The use of economic models in optimizing the age at first calving of heifers)	doc. Ing. Mojmír Vacek, Ph.D.

Framework topics for foreign students	Contact person
Evaluation of data from sensors used in dairy cows using AI methods	doc. Ing. Mojmír Vacek, Ph.D.
The use of economic models in optimizing the age at first calving of heifers	doc. Ing. Mojmír Vacek, Ph.D.



Doctoral degree programme: Agricultural Chemistry and Biotechnology

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

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

Framework topics for domestic applicants	Contact person
Biologicky aktivní látky u svrchně kvašených pív (Biologically active substances in top-fermented beers)	doc. Ing. Eva Dadáková, Ph.D.
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.
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 zpracovávání dat z biotechnologických experimentů (Modern multidimensional statistical methods in evaluation of data from biotechnological experiments)	doc. Ing. Michael Rost, Ph.D.
Posouzení hlavních faktorů ovlivňujících výskyt kontaminujících látek v zemědělských surovinách (Assessment of the main factors influencing the presence of contaminants in agricultural raw materials)	doc. MVDr. Lucie Hasoňová, Ph.D.
Sledování obsahu, vlastností a přeměny biologicky aktivních látek během zpracování a skladování vybraných rostlinných produktů (Monitoring of the content, properties and transformation of bioactive compounds during the processing and storage)	doc. MVDr. Lucie Hasoňová, 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.
<i>- po dohodě lze řešit i jiné téma týkající se kvality mléka či mléčných produktů</i> <i>- by appointment, also another topic concerning the quality of raw cow's milk or dairy products</i>	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.
Studium genetického založení samčí sterility červené řepy salátové (The study of genetic basis of male sterility in red table beet)	prof. Ing. Vladislav Čurn, Ph.D.

Framework topics for foreign applicants	Contact person
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.
Assessment of the main factors influencing the presence of contaminants in agricultural raw materials	doc. MVDr. Lucie Hasoňová, Ph.D.
Monitoring of the content, properties and transformation of bioactive compounds during the processing and storage	doc. MVDr. Lucie Hasoňová, Ph.D.
The study of genetic basis of male sterility in onion	prof. Ing. Vladislav Čurn, Ph.D.
The study of genetic basis of male sterility in red table beet	prof. Ing. Vladislav Čurn, 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 FAT USB

Framework topics for domestic applicants	Contact person
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	doc. Ing. Ladislav Beránek, CSc. MBA
Využití počítačového modelování v systémech vertikálního pěstování rostlin (Use of computer modelling in vertical plant growing systems)	doc. RNDr. Petr Bartoš, 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)	doc. RNDr. Petr Bartoš, 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	Contact person
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	doc. RNDr. Petr Bartoš, Ph.D.
System for monitoring and controlling climatic conditions in vertical plant cultivation	doc. RNDr. Petr Bartoš, 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.