

Study program: Agricultural Sciences				
Type and level of study: Doctoral academic studies				
Course Title: Doctoral Thesis (Theoretical basis)				
Teacher(s): Mentor				
Status: Obligatory, Semester II				
ECTS: 15				
Prerequisite: None				
The goal of the course Students should, together with the mentor, define the approximate area that will be explored. Identifying research topics and possible resolutions using previously acquired knowledge, introduction with the relevant scientific literature. Introduction to the techniques that may be useful for future experiments in the field of agricultural sciences.				
The outcome of the subject Enabling students to independently identify and formulate the problem in the subject area of doctoral study analysis and critical approach to the use of previously acquired and new knowledge in the literature, which will result in the development of the broad themes of research.				
Syllabus - A preliminary agreement on the topic and content of the doctoral dissertation - Making a few minor coursework and small experimental projects as an introduction to related research for a doctoral dissertation - Consultation with the supervisor about possible problems in the preparation and development of a doctoral dissertation - Agreement on the potentially possible scientific research that will be included in the dissertation - Drawing attention to potential problems in proving hypotheses and choice of research methods Carrying out the necessary administrative steps to start working on student`s doctoral dissertation .				
Literature • Scientific research literature • Previously defended doctoral dissertations in the given field				
Number of lectures:				Other Classes
Lectures: 0	Practices:	Other forms of teaching:	Student research work:	
Teaching methods: With an aim for introducing the student to scientific research, mentor can suggest a seminar work to be presented at the conference. During the development of suggested topic for a doctoral dissertation, during the consultations, mentor directs the student to relevant literature.				
Score for grading (maximal 100 points) Defining the topic and choosing the methods for experimental work-50 points Candidate`s presentation of topic and method-50 points.				

Study program: Agricultural Sciences				
Type and level of study: Doctoral academic studies				
Course Title: Research work (preparing thesis application and start research)				
Teacher(s): Mentor				
Status: Obligatory, Semester III				
ECTS: 15				
Prerequisite: Doctoral Thesis (Theoretical basis)				

The goal of the course				
The aim is that during the third semester, doctoral student prepare a doctoral dissertation proposal, with all the necessary elements that a doctoral dissertation must contain. Preparation of a draft dissertation is the result of consultation with the supervisor and is a detailed program of scientific research, which will be included as part of a doctoral dissertation. Starting of experiments.				
The outcome of the subject				
Student independently prepares a proposal and begins experimental work.				
Syllabus				
- Consultation with the supervisor about the final topic of doctoral dissertation - Definition of hypotheses, by defining a method to be used in the experiments - Agreement on scientific research that will be included in the doctoral dissertation - Perform all the necessary preparatory actions for administrative application of the doctoral thesis				
Literature				
• Scientific research literature • Literature with the detailed and methodical procedures that will be used in the experiments • Previously defended doctoral dissertations in the given field				
Number of lectures:				Other Classes
Lectures: 0	Practices:	Other forms of teaching:	Student research work:	
Teaching methods: Consultation, individual and group work, discussions, simulations				
Score for grading (maximal 100 points)				
Topic suggestion is 50 points, as well as the realization of experiments Proposed method that will be used in experiments is 20 points Practical work with instruments is 30 points				

Study program: Agricultural Sciences				
Type and level of study: Doctoral academic studies				
Course Title: Doctoral dissertation -study research				
Teacher(s): Mentor				
Status: Obligatory, Semester V				
ECTS: 30				
Prerequisite: Research work (preparing thesis application and start research)				
The goal of the course				
The completion of the experimental work by mid-semester. Putting together the results, statistical and graphical processing. Writing materials and methods to be used for a doctorate. Writing a paper for the symposium. Discussions with the supervisor about the interpretation of results based on the collated data. Comparison of literature data with our own results. Draft of independent work with all the elements that characterize the work of the international journal research paper.				
The outcome of the subject				
Enabling students to placeman the results independently. Creating tables, graphics or elements mechanisms of certain phenomena obtained during the experiments. Ability to independently use literature developing analytical, systematic and identifying current trends in the field of agricultural science and practice.				
Syllabus				
Course content is aligned with the needs of developing specific doctoral dissertation. Draft summaries of research in doctoral dissertation: - Research for the selection of topic and review of the literature (doctoral dissertation) (Research work 1) - Research work on setting up the experiment, reflecting the needs for doctoral dissertation (Research work 2) - Research for the processing and analysis of data and research on the design of the data (Research work 3)				
Literature				

Comparison and analysis of the results based on a large number of references in the field that deals with the doctor thesis.			
Number of lectures:			Other Classes
Lectures:	Practices:	Other forms of teaching:	
			Student research work: 30
Teaching methods: Student consults with the supervisor and other teachers who are engaged in research and theory in the field of doctoral dissertation. Depending on the chosen topic for a doctoral dissertation, the student applies the approved methods and procedures, acquired through obligatory and elective subjects (measurement, testing, statistical analysis, etc.).			
Score for grading (maximal 100 points) Pre-commitments-50 points The final exam-50 points			
Study program: Agricultural Sciences			
Type and level of study: Doctoral academic studies			
Course Title: Doctoral dissertation -study research			
Teacher(s): Mentor			
Status: Obligatory, Semester VI			
ECTS: 10			
Prerequisite: Doctoral dissertation -study research			
The goal of the course The completion of the experimental work by mid- semester. Putting together the results, statistical and graphical processing. Writing a manuscript for international journals (SCI list) Writing materials and methods to be used for a doctorate and manuscripts. Writing two independent manuscripts for international journal. Discussions of the interpretation of results based on the collated data. Comparison of literature data with the results. Draft of independent manuscript with all the elements that characterize paper in international journals. Submission of work (best by semester V). Parallel is written introduction, materials and methods and results of a doctoral thesis.			
The outcome of the subject Enable students to place the results independently. Development of tables, graphics or elements mechanisms of certain phenomena obtained during the experiments. Ability to independently use literature, developing analytical, systematic and identify current trends in the field of agricultural science and practice.			
Syllabus Course content is aligned with the needs of developing specific doctoral dissertation. Draft summaries of research in doctoral dissertation: - Research for the selection of topic and review of the literature (doctoral dissertation) (Research work 1) - Research work on setting up the experiment, reflected by needs of doctoral dissertation (Research work 2) - Research for the processing and analysis of data and research on the design of the data (Research work 3)			
Literature Comparison and analysis of their own results based on a large number of read references in the field that deals with the doctor thesis.			
Number of lectures:			Other Classes
Lectures:	Practices:	Other forms of teaching:	
			Student research work: 10
Teaching methods: Student consults with the supervisor and other teachers who are engaged in research and theory in the field of doctoral dissertation. Depending on the chosen topic for a doctoral dissertation, the student applies the approved methods and procedures, acquired through obligatory and elective subjects (measurement, testing, statistical analysis, etc.).			

Score for grading (maximal 100 points)

Pre-commitments-50 points

The final exam-50 points

Study program: Agricultural Sciences				
Type and level of study: Doctoral academic studies				
Course Title: Writing of doctoral dissertation				
Teacher(s): Mentor, members of an evaluation committee for dissertation				
Status: Obligatory, VI semester				
ECTS: 10				
Prerequisite: None				
The goal of the course The acquisition of theoretical and practical knowledge, as well as skills about the way, the structure and form of writing scientific papers after conducted research or within the past activities of the study program. Writing a dissertation is a creative work which is necessary to describe the issue, objectives, method and research, and also analyze the results and evaluate the expected scientific contribution and the possibility of applying the results in practice.				
The outcome of the subject The doctoral dissertation is the original independent work of candidates in selected scientific areas. Enabling students to write scientific papers as well as the end product of a systematic approach to solving a particular problem. Lessons learned in designing (writing) PhD students apply in practice in solving problems in the scientific field and point to the fact why dissertation contributes to the development of selected scientific field to study program.				
Syllabus On the methodological side, the structure is defined by the methodology applied in the study in given scientific field. Syllabus is formulated by individual requirements of the case study and by doctoral student needs and capabilities. Student prepares a doctoral thesis in accordance with the positive legal regulations in the field of higher education.				
Literature https://thesis.extension.harvard.edu/biotechnology-thesis-examples https://www.biotechnika.org/2018/05/take-control-research-ph-d-dissertation/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4859004/ Internationally recognized journals (SCI lists and / or Kobson list) PhD thesis in the given field				
Number of lectures:				Other Classes
Lectures: 0	Practices:	Other forms of teaching:	Student research work:	
Teaching methods: During development (writing) of the dissertation, mentor during consultations directs students to specific literature and practical regarding of the content and form of a doctoral dissertation. PhD student in writing a doctoral dissertation using relevant methods of scientific research, analysis, reasoning and presentation of research results.				
Score for grading (maximal 100 points) Development of doctoral dissertation-100 points				

Study program: Agricultural Sciences				
Type and level of study: Doctoral academic studies				
Course Title: Defense of doctoral thesis				
Teacher(s): Mentor and committee members for the defense				
Status: Obligatory, VI semester				
ECTS: 10				
Prerequisite: All exams passed Approval of the commission for finished doctoral thesis				
The goal of the course Student has the right to approach the defense of doctoral thesis, after finishing all the necessary research, self-addressed all the literature material and the results and wrote his doctoral dissertation. Preparing students for the preparation and presentation of the results of the doctoral dissertation for the public defense. Students gain the ability to independently express views and arguments, and critical thinking in the answers to the questions and comments regarding a given topic.				
The outcome of the subject				
Syllabus Student prepares a written defense of the doctoral dissertation in consultation with the supervisor, in accordance with the applicable rules and procedures. After the implementation of appropriate procedures in accordance with the general regulations of the Faculty, doctoral dissertation is eligible for public defense.				
Literature • National journals of national importance and international journals • PhD thesis in the given field				
Number of lectures:				Other Classes
Lectures:	Practices:	Other forms of teaching:	Student research work:	
Teaching methods: In the course of preparing for a public defense of the doctoral dissertation, mentor conducts consultations with the candidate and gives appropriate instructions regarding the form and content of the presentations and the presentation during the public defense. After the presentation of the results of a doctoral dissertation, the candidate verbally responds to questions and objections addressed.				
Score for grading (maximal 100 points) The defense of the doctoral dissertation-100 points				