

Discipline	Design of Field Experiments	code: 17	winter semester
Specialty	Agronomy		
ECTS credits: 5	Form of assessment: Exam		
Lecturer	Assoc. Prof. Dr. Miglena Drumeva Room 331 Phone: +359 52 385 725 E-mail: m_drumeva@tu-varna.bg m_drumeva@abv.bg.		
Department	Plant Production		
Faculty	Faculty of Manufacturing Engineering and Technology		
<p>Learning objectives:</p> <p>The curriculum is intended for students of a Bachelor's degree program in Agronomy. The course "Design of Field Experiments" is the basis for all agronomic sciences where various experiments are conducted - from the initial stages of the breeding process to field trials exploring the influence of the main agro-technical practices (crop rotation, depth of soil treatment, timing and levels of fertilization, timing and density of sowing, plant protection etc.) on the development of cultural plants. In praxis and in agricultural research field trials are applied, followed by laboratory and vegetation studies where observations on the subjects studied are performed under more or less controlled conditions. The basic and most objective method for scientifically study of plant breeding issues is the so-called field experiment. The plants are grown for cultivation under natural soil and climatic conditions. This makes the results of such experiments a basis for credible insights into both science and practice. The course enables students to learn how to plan and conduct field trials, how to analyze the results they receive - summarizing them and objectively assessing them. Developing skills and habits in students, such as precision in field experiments, analysis of the results with software, will help them in the development of both diploma theses and research papers. The acquired knowledge and skills for conducting experimental work can be used by students in their further practical work. In pursuing the objectives of this program, students apply and broaden their knowledge of mathematics, informatics, physics, agrochemistry, general agriculture, mechanization, etc.</p>			

CONTENTS:		
Training Area	Hours lectures	Hours seminar exercises
Types of field experiments and prerequisites for conducting of field experiments.	5	5
Methods for designing of field experiments.	5	5
Field experiments components - soil cultivation, fertilization, seed preparation and sowing, care and observation during vegetation, harvesting.	10	10
Processing and analyzing the results of field experiments.	10	10
TOTAL: 60 h	30	30