


Discipline	Plant Breeding and Seed Production	code: 23	summer semester
Specialty	Agronomy		
ECTS credits: 6	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 "Plant Breeding and Seed Production" provides a wide knowledge about the plant populations and the methods for creation of new varieties of agricultural crops. By studying the basic approaches of the plant breeding and the latest advances in the application of plant biotechnology in agriculture, the students gain insight into the processes underlying the reproduction of plant materials, the latest breeding achievements and their use in practice. Breeding and seed production is related to a number of branches of biology: general biology, plant growing, genetics, biochemistry, physiology, plant protection, etc. The knowledge of breeding, based on mitosis and meiosis, gametogenesis and polyploidy, will serve to understand the hybridization and the selection in the decaying generations. Breeding, along with biotechnological methods, is related to other major disciplines such as microbiology, anatomy, botany, histology and phytopathology. The new products of the genetic engineering techniques, known as genetically modified varieties and hybrids (maize, sunflower, rice, potatoes, etc.), represent in practice the achievements of molecular breeding.</p>			
CONTENTS:			
Training Area		Hours lectures	Hours seminar exercises
Main approaches in classical and biotechnological plant breeding.		5	5
Methods of breeding and assessment of breeding material in self-cross – and vegetatively propagated plants.		10	10
Heterosis in plant breeding.		10	10
Seed production of basic crops.		5	5
TOTAL:		60 h	30
		30	30

