Discipline	PLANT PROTECTION, PART 3 (ENTOMOLOGY) code: 36 winter semester	
Specialty	AGRONOMY	
ECTS credits: 6	Form of assessment: Exam	
Lecturer	Prof. Ivan Kiryakov, PhD	
	Room: NUK 317a	
	Phone: +359 52 385 725	
	E-mail: idkiryakov@abv.bg	
Department	PLANT PRODUCTION	
Faculty	FACULTY OF MECHANICAL ENGINEERING AND TECHNOLOGIES	

Annotation:

The course "Entomology" acquaints students with the structure, propagation, distribution of insects in nature and their damage on the crop plants, as well as the prognosis for their occurrence and development. On this basis, effective methods and means of combating them are developed and applied.

CONTENTS:		
Training Area	Hours lectures	Hours seminar exercises

Anatomical structure of insects Reproduction and reproductive activity in insects 2 Systematics of insects Damage caused by insects I Methods of controlling enemics on agricultural crops I Carnivorous enemics Every enemics of cereal crops with a fused surface Key enemics of corn I Key enemics of annual and perennial legumes Every enemics of vegetable crops Every enemics of vegetable crops Every enemics of fruit species Every enemics by berry species and vine Insect morphology Anatomy of insects Carnivorous enemics Every enemics of cereals Every enemics of cereals Every enemics of eremics of eremics Every enemics of eremics of eremics Every enemics of eremics of eremics Every enemics of eremics of eremics Every enemics of every	Entomology as a science		
Reproduction and reproductive activity in insects 2 Systematics of insects Damage caused by insects 1 Methods of controlling enemics on agricultural crops 1 Carnivorous enemics 2 Key enemies of cereal crops with a fused surface 3 Key enemies of corn 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies of fruit species 2 Key enemies by berry species and vine Insect morphology 2 Anatomy of insects Carnivorous enemies 2 Key enemies of creals Key enemies of creals Key enemies of creals Key enemies of creals Key enemies of annual and perennial legumes 2 Key enemies of insects 2 Key enemies of insects 2 Key enemies of insects 2 Key enemies of creals Key enemies of vegetable crops 2 Key enemies of fruit species	Insect morphology		
Systematics of insects Damage caused by insects I Methods of controlling enemies on agricultural crops Carnivorous enemies E Stey enemies of cereal crops with a fused surface Key enemies of corn I Stey enemies of annual and perennial legumes E Stey enemies of oilseed crops E Stey enemies of vegetable crops E Stey enemies of fruit species E Stey enemies by berry species and vine Insect morphology Anatomy of insects Carnivorous enemies E Stey enemies of cereals E Stey enemies of annual and perennial legumes E Stey enemies of cereals E Stey enemies of cereals E Stey enemies of cereals E Stey enemies in Technical Cultures E Stey enemies of cereals E Stey enemies of fruit species	Anatomical structure of insects		
Damage caused by insects 1 Methods of controlling enemies on agricultural crops 1 Carnivorous enemies 2 Key enemies of cereal crops with a fused surface 3 Key enemies of corn 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of ruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Reproduction and reproductive activity in insects	2	
Methods of controlling enemies on agricultural crops 1 Carnivorous enemies 2 Key enemies of cereal crops with a fused surface 3 Key enemies of corn 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 3 Key enemies of vegetable crops 3 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 3 Systematics of insects 3 Carnivorous enemies 4 Key enemies of cereals 4 Key enemies of annual and perennial legumes 5 Key enemies of cereals 6 Key enemies of cereals 7 Key enemies of cereals 8 Key enemies of annual and perennial legumes 8 Key enemies of oilsect Cultures 9 Key enemies of oregetable crops 9 Key enemies of oregetable crops 9 Key enemies of vegetable crops 9 Key enemies of vegetable crops 9 Key enemies of fruit species	Systematics of insects	2	
Carnivorous enemies 2 Key enemies of cereal crops with a fused surface 3 Key enemies of corm 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Damage caused by insects	1	
Key enemies of cereal crops with a fused surface 3 Key enemies of corn 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemics 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Methods of controlling enemies on agricultural crops	1	
Key enemies of corn 1 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Carnivorous enemies	2	
Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of cereal crops with a fused surface	3	
Key Enemies in Technical Cultures 2 Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of corn	1	
Key enemies of oilseed crops 2 Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of annual and perennial legumes	2	
Key enemies of vegetable crops 3 Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key Enemies in Technical Cultures		
Key enemies of fruit species 2 Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of oilseed crops		
Key enemies by berry species and vine 2 Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of vegetable crops	3	
Insect morphology 2 Anatomy of insects 2 Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of fruit species	2	
Anatomy of insects Insect Biology Systematics of insects Carnivorous enemies Exercise Systematics of insects Carnivorous enemies Exercise Systematics of insects Carnivorous enemies Exercise Systematics of insects Exercise	Key enemies by berry species and vine		
Insect Biology 2 Systematics of insects 3 Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Insect morphology		2
Systematics of insects Carnivorous enemies Exercise Systematics of insects Carnivorous enemies Exercise Systematics of insects	Anatomy of insects		2
Carnivorous enemies 2 Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Insect Biology		2
Key enemies of cereals 2 Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Systematics of insects		3
Key enemies of annual and perennial legumes 2 Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Carnivorous enemies		2
Key Enemies in Technical Cultures 2 Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of cereals		2
Key enemies of vegetable crops 2 Key enemies of fruit species 2	Key enemies of annual and perennial legumes		2
Key enemies of fruit species 2	Key Enemies in Technical Cultures		2
	Key enemies of vegetable crops		2
Enemies of berry crops and vines 2	Key enemies of fruit species		2
L L	Enemies of berry crops and vines		2

TOTAL: 60 h	30	30
Entomological collection		1
Survey methods and ways to account for enemy density		2
Beneficial entomofauna		2
Enemies in warehouse production		2