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| **STUDY PROGRAMME:** | **Professional Undergraduate Study Programme *Agriculture*** Specific field of study: Plant production, Zootechnics or Management in agriculture |
| **Course:** | **CEREALS AND GRAIN LEGUMES** |
| **Course code:** **:** 89019**Course status**: elective  | **Semester: III** | **ECTS credits: 4** |
| **Course holder:**  | Renata Erhatić, Ph.D., professor of professional studies |
| **Modes of delivery:** | **Number of hours**  |
| **Lectures** | 30 |
| **Excersises,** | 15 |
| **Seminars** | 15 |

**COURSE OBJECTIVES:** train students for independent production of cereals and grain legumes

**COURSE CONTENT**

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| **Course units**  | **Modes of delivery:** | **Places of delivery** |
| **L, E, S** |
|  | Introduction to the subject | L 1 | Lecture hall |
|  | Cereals and pseudocereals |
|  | Common characteristics of cereals and pseudocereals | L 1E 1 | Lecture hall |
|  | Growth and development of cereals and pseudocereals | L 2E 1 | Lecture hall |
|  | Wheat - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 2E 2S 1 | Lecture hall, testing ground |
|  | Rye - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1S 1 | Lecture hall, testing ground |
|  | Triticale - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1S 1 | Lecture hall, testing ground |
|  | Barley - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1S 1 | Lecture hall, testing ground |
|  | Oats - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1S 1 | Lecture hall, testing ground |
|  | Maize - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety or hybrid, sowing, care measures, harvest). | L 3E 2S 1 | Lecture hall, testing ground |
|  | Millet - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1 | Lecture hall, testing ground |
|  | Sorghum - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1 | Lecture hall, testing ground |
|  | Rice - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1 | Lecture hall, testing ground |
|  | Buckwheat - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvest). | L 1E 1S 1 | Lecture hall, testing ground |
|  | Amaranth, Quinoa - the most important morphological and biological characteristics, cultivation technology (tillage, fertilization, variety selection, sowing, care measures, harvest). | L 1 | Lecture hall, testing ground |
|  | Grain legumes |  |  |
|  | Common characteristics and agrotechnical importance | L 1 | Lecture hall, testing ground |
|  | Morphology and the possibility of fixing nitrogen from the air | L 1E 1 | Lecture hall, testing ground |
|  | Stages of growth and development | L 1E 1 | Lecture hall, testing ground |
|  | Peas - cultivation technology (tillage, fertilization, variety selection, sowing, care measures, harvesting). | L 1E 2S 1 | Lecture hall, testing ground |
|  | Bob - cultivation technology (tillage, fertilization, variety selection, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Chickpea - cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Lentils - cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Soybeans - cultivation technology (tillage, fertilization, variety selection, sowing, care measures, harvest). | L 2S 1 | Lecture hall, testing ground |
|  | Lupine - cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Beans - cultivation technology (tillage, fertilization, variety selection, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Groundnut - cultivation technology (tillage, fertilization, choice of variety, sowing, care measures, harvesting). | L 1S 1 | Lecture hall, testing ground |
|  | Field teaching: visit to farms producing cereals, pseudo-cereals and grain legumes | E 4 | Outside of the Križevci university of applied sciences |
| **In total** | **60** |  |

**L=Lectures, E=Excersises, S=Seminars**

**LEARNING OUTCOMES (LO)**

LO 1. Argue the importance and use of cereals, pseudocereals and grain legumes

LO 2. Determine the morphological and biological properties of cereals, pseudocereals and grain legumes

LO 3. Assess the possibility of growing certain cereals, pseudocereals and grain legumes in relation to agroecological conditions

LO 4. Choose agricultural techniques for the production of cereals, pseudocereals and grain legumes, related to yield and quality

Course holder:

Renata Erhatić, Ph.D., professor of professional studies

Križevci, July 2024