# Course Unit Descriptor

Study Programme: AGRICULTURAL ENGINEERING AND INFORMATION TECHNOLOGIES

Course Unit Title: Engineering graphic communication

Course Unit Code: 19.PTI001

Name of Lecturer(s): Mirko Simikić

Type and Level of Studies: Undergraduate

Course Status (compulsory/elective): compulsory

Semester (winter/summer): winter

Language of instruction: Serbian

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: None

## Course Aims:

The objective of the course is for students to learn how to draw and use technical documentation, and that they develop the ability of graphical representation of ideas and concepts, as well as technical accuracy, propriety and consistency in the application of technical regulations and standards in this area.

## Learning Outcomes:

Upon passing the course the students will be able to: Draw and use technical structural documentation; Draw and use blueprints; Visualize objects in space based on technical drawings and to use this knowledge when studying other professionally applicable subjects and to learn the basics of drawing 2D and 3D drawings using AutoCAD software.

## Syllabus:

#### Theory

Oblique and orthogonal projection of the point and line. Axonometric (3D) and orthogonal (2D) drawings. Sections in technical drawings. Dimensioning. Drawing mechanical elements. Marking the quality of surface roughness. Tolerances for measurement, form and position. Workshop drawings. Schematic drawings. Graphic symbols for machine parts, for installations, for working operations and safety measures when working with machines. Use of computers for technical drawings. Applying CAD software to produce 2D and 3D drawings.

## Practice

Tasks related to the fields of study analyzed in lectures. Drawing using a computer. Independent production of graphic works and other assignments. Review and editing of graphic works.

## Required Reading:

- 1. Gligorić R: Engineering communication, Faculty of agriculture Novi Sad, 2020
- 2. Simikić M, Gligorić R: A collection of tasks from Engineering Communications, Faculty of agriculture Novi Sad, 2016.

Weekly Contact Hours: 6 Lectures: 3 Practical work: 3

#### **Teaching Methods:**

The method of oral presentations and discussions. The method of drawing, presentations, demonstrations, simulations and illustrations on the board and by using video presentations. Consultations and seminar papers. The method of practical work in laboratories and at the Institute

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class	6	written exam	32
participation	· ·	written exam	32
Practical work		oral exam	
Preliminary exam(s)	32		

Seminar(s)	30		
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The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.