Study Programme: Precision farming

Course Unit Title: THE TESTING OF POWER MACHINES AND TRACTORS

Course Unit Code: 19.PRP020

Name of Lecturer(s): Prof. Lazar Savin, PhD

Type and Level of Studies: GRADUATE ACADEMIC STUDIES

Course Status (compulsory/elective): Elective

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: 5

Prerequisites: No

Course Aims:

The aim of the course is to familiarize students with the types of tests, procedures and the way of writing reports on the testing of power machines and tractors according to different standards and procedures, which are equally used in the world. Testing of power machines and tractors should include testing of engine and tractor performance, ergonomic characteristics and especially the safety of the tractor operator.

Learning Outcomes:

After passing the course, the student acquires knowledge and skills that enable him to:

• application of domestic and international standards that describe testing procedures and writing reports on performance testing of power machines and tractors,

• application of domestic and international standards that describe testing procedures and writing reports on testing ergonomic tractors,

• application of national and international standards that describe testing procedures and writing operator safety test reports. **Syllabus:**

Theory

Lectures include basic test methods and equipment, tests according to OECD rules, tests according to European Union directives, tests according to European Union standards, tests according to international and domestic standards, ISO, JUS and others. The lectures also include tests according to technical regulations.

Practice

Exercises include familiarization with test methods and equipment, laboratory testing, field testing, and report writing. **Required Reading:**

| Weekly Contact Hours: 4 | Lectures: 2 | Practical work: 2 |
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Teaching Methods:

Lectures and Practical classes, Consultations if needed.

Knowledge Assessment (maximum of 100 points):

| Pre-exam obligations | points | Final exam | points | |
|---|--------|--------------|--------|--|
| Active class participation | 10 | written exam | | |
| Test | 0 | oral exam | 50 | |
| Seminar papers | 40 | | | |
| The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, | | | | |

project presentation, seminars, etc.