Course Unit Descriptor

Study Programme: Agricultural Egineering And Information Systems	
Course Unit Title: Computer engineering and design	
Course Unit Code: 19.PTI041	
Name of Lecturer(s): Associate professor Milivoj Radojčin, teaching assistant Krstan Kešelj	
Type and Level of Studies: Undergraduate studies	
Course Status (compulsory/elective): Elective	
Semester (winter/summer): Summer	
Language of instruction: English	
Mode of course unit delivery (face-to-face/distance learning): face-to-face	
Number of ECTS Allocated: 6	
Prerequisites: None	

Course Aims:

The goal of the course is for students to use previously acquired knowledge from the course Mechanical Materials and Mechanical Elements for the needs of computer engineering and designing machine elements and assemblies.

Learning Outcomes:

Training the student to use CAD for the purposes of designing, elements, assemblies and creating projects.

Syllabus:

The course includes familiarizing students with certain software for computer-aided design. Most of the obligations would be focused on the development of a project in the field of production, agricultural engineering or appropriate technology. Project topics can be industry-based (developing a solution to an industrial problem), research-based, construction-based, and the like. The selected project should integrate as many of the following elements as possible: project proposal, project planning, problem identification, research, cost analysis, decision making, testing, report writing, CAD, assembly and fabrication methods. Students are required to demonstrate critical thinking. Projects would be done in groups of 3 to 5 students.

Since students will attend classes in the field of CAD, and Mechanical Elements, they are considered to have sufficient prior knowledge to master these tasks. As part of creating projects, students can ask for the support of lecturers in the fields of mechanics, mechanisms, hydraulics, electronics, and the like.

Required Reading:

Weekly Contact Hours:	**Lectures: 2**	**Practical work: 2**

Teaching Methods:

Theoretical teaching is conducted using a computer with oral presentation. Practical classes are conducted using a computer and involve the creation of a project assignment.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Active class participation	20	written exam	80
Practical work		oral exam	
Preliminary exam(s)		…….	
Seminar(s)			

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