Study Programme: ORGANIC AGRICULTURE

Course Unit Title: Mathematics
Course Unit Code: 19.ORG036

Name of Lecturer(s): Associate professor Nebojša Dedović

Type and Level of Studies: Undergraduate academic studies

Course Status (compulsory/elective): elective

Semester (winter/summer): winter

Language of instruction: English

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

Number of ECTS Allocated: 6

Prerequisites: -

Course Aims:

To train the students to exam the functions, to draw the elementary function and to learn the applicability of the integral calculus.

Learning Outcomes:

Student will be trained to exam the functions and to apply integral calculus in practice.

Syllabus:

Theory

- real functions of one real variable (linear, quadratic, power, exponential, logarithmic, trigonometric, inverse trigonometric)
- sequences and limit of the sequences, limit of the functions and asymptote
- first derivative and derivative of higher order of the functions
- domain and zero of the function, increase and decrease, local minima and maxima, inflection points, convexity and concavity of the real functions of one real variable
- Integral calculus: indefinite and definite integrals, primitive function, integral properties, integration by substitution, partial integration, integration of the rational functions, application of the definite integrals

Practice

Solving the problems rose from the theory.

Required Reading:

- 1. Dedović, N., Mathematics (in Serbian), Faculty of Agriculture, University of Novi Sad, Serbia, 2019.
- 2. Hadžić, O., Takači, Đ., Mathematics for science students (in Serbian), Faculty of Sciences, University of Novi Sad, Serbia, 1998.
- 3. Konjik, S., Dedović, N., Mathematics Math Problems for Agricultural Majors (in Serbian), 2nd edition, Faculty of Agriculture, University of Novi Sad, Serbia, 2011.

Weekly Contact Hours: Lectures: 2 Practical work: 2

Teaching Methods:

Theory and practical classes, consultations if needed.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	20
Practical work	5	oral exam	20
Preliminary exam(s)	50		

	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.				