Course Unit Descriptor

Study Programme: Architecture

Course Unit Title: Digital Tools and Technologies

Course Unit Code: A915

Name of Lecturer(s): Tepavčević B. Bojan

Type and Level of Studies: Doctorate

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: 10

Prerequisites: none

Course Aims:.

The aim of this course is introduction to diverse approaches and digital design strategies in contemporary architectural practice, scientific and artistic research in the field of architecture

Learning Outcomes:
The ability of student to define non-standard problems and potential solutions of problem solving by applying computational tools and technologies in the field of architectre.

Syllabus.
Introduction and classification of different approaches in implementation of computational design tools and technologies in architectural practice, artistic and scientific research in the field of architecture. Role of computational tools in the design process and architectural representation. Digital fabrication in architecture. Performance based design, material based design, construction-aware design, fabrication aware design. Integrated design. New, digital media of representation, innovative approaches in architectural research.

Required Reading:
Relevant literature in English, tbd

Weekly Contact Hours:2	**Lectures: 3**	**Practical work:**

Teaching Methods:
Introductory lecture and discussion about different topics in the field. Students define the research topic, research methods together with course teacher. Work on the research topic. Course classes are specifically defined according the course topic and number of attendees.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			