	UNIVERSITY OF NOVI SAD **FACULTY OF TECHNICAL SCIENCES**	
	COURSES IN ENGLISH	

Course:	Contemporary theories and technologies applied to architecture, urbanism and design 1			
Course code:	AT04			
ECTS credits:	6			
Lecturers:	Atanacković-Jeličić Jelena			
Number of classes(per week)				
Lectures: 2	Practice: 2	Other forms of classes: 0	Academic research: 0	Other: 2
Prerequisite courses:				
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1. Educational objectives:

The goal of this course is to introduce students to the theoretical principles of modern methodologies in architectural design. Students will learn about the philosophical directions of the end of the 20th century and the way they influenced the creation of the evolutional dynamic systems, morphogenetic principles of the creation of form and the application of these principles in the field of contemporary architectural and urban design.

2. Educational outcomes (acquired knowledge):

In this course, students are trained to solve complex, functional and formal problems in the field of architecture and urbanism. Students will be using modern methodologies in the design process to develop analytical thinking and the ability to expand knowledge in solving the complex problems of the built environment. Also students will be familiar with the optimization process and evolutionary systems and potential applications in the design process.

3. Course content/structure:

The basic principles of modern methodologies in the design process-philosophical ideas; Algorithm / chart as a starting point; Using of contemporary methodologies in architectural and urban design; Application of modern techniques and technologies to architectural and urban design; Application of adaptable systems to the problems in the field of architecture, urbanism and urban planning-programming, functional, structural aspects. Top down / bottom up process, Finding Form / form making, Emergence. Complex adaptable systems without central coordination. Evolutionary Systems / morphogenesis. Biomimicry. Digital morphogenesis

4. Teaching methods:

Lectures, exercises, consultations, and oral exam.

Knowledge evaluation (maximum number of points 100)

Pre-exam assignments	Compulsory	Points	Final examination	Compulsory	Points
Project task	YES	15	Oral part of the exam	YES	30
Project	YES	50			
Exercise attendance	YES	5			

Literature

Relevant literature in English