

University Graduate Study in Civil Engineering

1. Solve complex engineering problems using theoretical knowledge in the fields of mathematics, physics, and basic engineering sciences
2. Apply advanced theoretical knowledge and skills in specialized civil engineering fields in order to plan, design, execute and maintain structures and systems with effective application of the rules and guidelines of applicable construction regulations
3. Apply planning and design methodologies relevant to civil engineering and other related fields
4. Propose and evaluate variant solutions to engineering problems in accordance with the principles of sustainable development
5. Evaluate and select technological construction processes and the environmental impacts of adopted structure and system solutions
6. Create a program and conduct laboratory and field research, and analyze and interpret the collected data
7. Design parts of or entire structures and systems applying applicable domestic and foreign regulations and guidelines
8. Create a numerical model of the behavior of materials, structural elements, constructions, and engineering systems
9. Communicate own ideas, analyzes and conclusions related to more complex construction solutions using professional and scientific terminology in Croatian and foreign languages
10. Use professional and scientific literature efficiently and apply acquired knowledge and skills to new circumstances
11. Organize and plan work stages in order to successfully complete a research or professional project
12. Effectively manage a group, work with a group, and cooperate with members of the group, both from one's own and members of other professions in order to create and execute more complex projects, taking into account professional and ethical principles
13. Understand the importance of education through lifelong learning in order to acquire new knowledge and personal development in terms of scientific and applied scientific research