

Faculty of Civil Engineering / MENADŽMENT U GRAĐEVINARSTVU /

Prerequisites	No conditionality
Aims	Acquiring knowledge in the field of technology of reconstruction, retrofitting and strengthening of facilities. Introducing students to the technology of reconstruction, retrofitting and strengthening of buildings, principles, methods and ways of using materials, equipment and machines for the execution of technological processes during reconstruction, retrofitting and strengthening.
Lecturer / Teaching assistant	Dr Jelena Pejovic, professor Mr Maja Laušević Odalović, teaching assistant
Method	Lectures, exercises, semester works, fieldwork
Week 1, lectures	Basics of facility reconstruction technologies. Basic concepts and methodology of reconstruction technology analysis. Analysis of technological processes.
Week 1, exercises	Basics of facility reconstruction technologies. Basic concepts and methodology of reconstruction technology analysis. Analysis of technological processes.
Week 2, lectures	Reconstruction technology of existing buildings. Types of reconstruction: Upgrading, strengthening, reconstruction of a damaged buildings.
Week 2, exercises	Reconstruction technology of existing buildings. Types of reconstruction: Upgrading, strengthening, reconstruction of a damaged buildings.
Week 3, lectures	Technology of reconstruction, retrofitting and strengthening of stone and masonry buildings. Rehabilitation of earthquake-damaged buildings.
Week 3, exercises	Technology of reconstruction, retrofitting and strengthening of stone and masonry buildings. Rehabilitation of earthquake-damaged buildings.
Week 4, lectures	Technology of reconstruction, retrofitting and strengthening of wooden buildings.
Week 4, exercises	Technology of reconstruction, retrofitting and strengthening of wooden buildings.
Week 5, lectures	Technology of reconstruction, retrofitting and strengthening of high-rise buildings.
Week 5, exercises	Technology of reconstruction, retrofitting and strengthening of high-rise buildings.
Week 6, lectures	Technology of reconstruction, retrofitting and strengthening of industrial facilities. Rehabilitation of buildings damaged due to the aggressive action of the environment. Rehabilitation of buildings damaged due to atmospheric influences.
Week 6, exercises	Technology of reconstruction, retrofitting and strengthening of industrial facilities. Rehabilitation of buildings damaged due to the aggressive action of the environment. Rehabilitation of buildings damaged due to atmospheric influences.
Week 7, lectures	Technology of reconstruction, retrofitting and strengthening of bridges.
Week 7, exercises	Technology of reconstruction, retrofitting and strengthening of bridges.
Week 8, lectures	Testing of knowledge
Week 8, exercises	Testing of knowledge
Week 9, lectures	Technology of reconstruction, retrofitting and strengthening of buildings on roads.
Week 9, exercises	Technology of reconstruction, retrofitting and strengthening of buildings on roads.
Week 10, lectures	Technology of reconstruction, retrofitting and strengthening of hydro-power facilities.
Week 10, exercises	Technology of reconstruction, retrofitting and strengthening of hydro-power facilities.
Week 11, lectures	Technology of reconstruction, retrofitting and strengthening of underground structures.
Week 11, exercises	Technology of reconstruction, retrofitting and strengthening of underground structures.
Week 12, lectures	Rehabilitation of the terrain. Rehabilitation of unstable terrain on which the facility was founded. Landslide remediation. Rehabilitation of slopes and cuts.
Week 12, exercises	Rehabilitation of the terrain. Rehabilitation of unstable terrain on which the facility was founded. Landslide remediation. Rehabilitation of slopes and cuts.
Week 13, lectures	Modern examples of reconstruction technology in practice. Development of new materials for rehabilitation and strengthening. Trends and perspectives. Special regulations governing reconstructions.
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Week 14, lectures	Planning the construction of reconstruction, rehabilitation and strengthening of facilities.

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Week 15, lectures	Testing of knowledge.
Week 15, exercises	Testing of knowledge.
Student obligations	Attendance at lectures and exercises, making semester works.
Consultations	
Workload	Weekly 6 credits x 40/30 = 8.0 hours Structure: 3 hours of lectures 2 hours of exercise 3 hours of independent work, including consultations
Literature	
Examination methods	Knowledge and understanding shown during the exercises 0 do 15 Semesteral work 0 do 15 Theoretical part of the final exam 0 do 30 Analytical part of the final exam 0 do 40
Special remarks	
Comment	Additional information about the subject can be obtained from the teacher, teaching assistant, head of the study program and vice dean for teaching.
Learning outcomes	Acquisition of knowledge in the field of technology of reconstruction of facilities and production processes which are realized, first of all, construction works on reconstruction. Training for the analysis of previously designed reconstruction technologies, consideration of their most important technological characteristics, and evaluation of these variant solutions and selection of the most suitable for the realization of the task.