



1. GENERAL INFORMATION						
<b>Study programme title</b>	Undergraduate study of Geological Engineering					
<b>Course title</b>	Environmental Geology		<b>Semester</b>	Winter		
<b>Teacher</b>	Prof. Marta Mileusnić, PhD		<b>Course code</b>	27173		
<b>Course type</b>	<input checked="" type="checkbox"/> obligatory <input type="checkbox"/> elective		<b>ECTS</b>	3		
<b>Location</b>	Faculty of Mining, Geology and Petroleum Engineering, Pierottijeva 6, Zagreb					
<b>Jezik na kojem se izvodi nastava</b>			<input checked="" type="checkbox"/> Croatian <input type="checkbox"/> English			
<b>Class type</b>	<b>Weekly hours</b>	<b>Teaching staff</b>	<b>Office hours</b>	<b>Room</b>	<b>E-mail</b>	
<b>Class</b>	2	Prof. Marta Mileusnić, PhD	as agreed via e-mail or Forum in Learning Management Platform Merlin	P6 313	marta.mileusnic@rgn.hr	
<b>Practice</b>	1	Prof. Marta Mileusnić, PhD		P6 313	marta.mileusnic@rgn.hr	
<b>Field lecture</b>	x	x	x	x	x	
<b>E-learning level</b>	Level 2		<b>Percentage of on-line class (max. 20%)</b>		20%	
2. OPIS PREDMETA						
<b>Course aims</b>	Acquiring basic knowledge about: (1) The role of geology in studying the interaction between physical environment and people; (2) Use of geological information to address specific environmental problems (geological hazards risks, natural resource management in accordance with the concept of sustainable development, environmental pollution, spatial planning, waste management, environmental impact analysis and risk assessment ...)					
<b>Requirements for applicants</b>	x					
<b>Programme level learning outcomes with course contribution</b>						
<b>Expected course level learning outcomes (4-10 outcomes)</b>	Students will be able to:					

	<ol style="list-style-type: none"> <li>1) explain the basic concepts and principles of environmental geology;</li> <li>2) describe geological hazards and their environmental impacts;</li> <li>3) Explain methods of geological hazards prediction;</li> <li>4) demonstrate defence ways against geological hazards;</li> <li>5) distinguish renewable from non-renewable geological resources;</li> <li>6) analyze the impact of increased non-renewable geological resources demand on society;</li> <li>7) describe the effects of exploitation and subsequent use of geological resources on the environment;</li> <li>8) to distinguish natural from anthropogenic impacts on environmental change;</li> <li>9) find the necessary legislation related to a particular environmental problem.</li> </ol>		
Course contents by individual lessons			
Class	Practice		
<p>Lectures, exercises and online activities are designed in weekly blocks of three hours:</p> <ol style="list-style-type: none"> <li>1. Lectures: Introductory remarks; Introduction to the course</li> <li>2. Lectures: Introduction to Natural Processes and Hazards; Volcanoes, Earthquakes</li> <li>3. Lectures: Floods; Mass movements; Coastal Hazards</li> <li>4. Exercises: Natural processes and hazards</li> <li>5. Online activity: Forum - examples of geological hazards; self-assessment test</li> <li>6. Lectures: Introduction to Geological Resources; Soil, Water</li> <li>7. Lectures: Mineral Raw Materials; Fossil Fuels, Energy Resources and Alternative Energy Sources</li> <li>8. Exercises: Geological resources</li> <li>9. Online activity: Forum; self-assessment test</li> <li>10. Lectures: Introduction to Contamination and Pollution; Soil, Water, Air</li> <li>11. Block Exercises: Contamination and Pollution</li> <li>12. Lectures: Spatial Planning; Environmental Impact Assessment</li> <li>13. Lectures: Climate Change; Geological heritage; Medical geology</li> <li>14. Exercises: Geology of Environment and Society</li> <li>15. Online activity: Forum; self-assessment test</li> </ol>			
<b>Students' obligations</b>	<p>Obligations:</p> <ol style="list-style-type: none"> <li>1) Attendance (max. 3 times absent, ie. 25% of teaching f2f)</li> <li>2) Participate with at least one post in each of the 5 online forums</li> <li>4) Solving 3 online self-tests</li> </ol>		
<b>Students' work track</b> <i>(indicate share in ECTS points for each activity so that overall ECTS number</i>	Class attendance	1 (consultation with foreign students)	Research



<i>corresponds to class credits score):</i>	Project		Report	
	Colloquium		Seminar paper	
	Practical work		Oral exam	1
	Written exam		On-line activity	1
<b>Type of exam, grades and evaluation of students work</b> during class and on final exam	Oral exam			
<b>Mandatory literature</b> (available in the Library and via other media)	All materials in the LMS Merlin (e-learning course)			
<b>Additional literature</b> (at the moment of study program proposition application)	<p>Keller, E.A. (2000): Introduction to environmental Geology, 8th edition, Prentice Hall, New Jersey.</p> <p>Montgomery, C.W. (2006): Environmental Geology, 7th edition, McGraw-Hill Companies, New York.</p>			
<b>Examination terms</b>	ISVU			
<b>Other</b>				