

Faculty **Environmental Engineering and Spatial Management**  
 Course: **Geo-information science, Earth observation and spatial management**

Subject/module	Number of ECTS credits	teaching hours			assessment <sup>2</sup>
		lectures	pract. classes	others <sup>1</sup>	
<b>semester 1</b>					
<b>student's choice course 1</b>	<b>6</b>	<b>15</b>	<b>35</b>	<b>0</b>	<b>EX</b>
<b>Principles of field spectroscopy</b>	<b>4</b>	<b>14</b>	<b>10</b>	<b>0</b>	<b>EX</b>
<b>Municipal economy</b>	<b>4</b>	<b>30</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Modern techniques of visualization and inventory of technical infrastructure objects</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>student's choice course 2</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Geoprocessing</b>	<b>5</b>	<b>15</b>	<b>20</b>	<b>0</b>	<b>EX</b>
<b>total semester 1</b>	<b>27</b>	<b>104</b>	<b>110</b>	<b>0</b>	
<b>semester 2</b>					
<b>Passive Earth Observations: new platforms, sensors and approaches</b>	<b>6</b>	<b>26</b>	<b>45</b>	<b>0</b>	<b>EX</b>
<b>Environmental economics and bioeconomics</b>	<b>4</b>	<b>14</b>	<b>15</b>	<b>0</b>	<b>EX</b>
<b>student's choice course 3</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>UAV mission practical exercise - part 1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>GA</b>
<b>student's choice course 4</b>	<b>4</b>	<b>9</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>student's choice course 5</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Seminars</b>	<b>4</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>GA</b>
<b>total semester 2</b>	<b>28</b>	<b>89</b>	<b>105</b>	<b>8</b>	

<b>semester 3</b>					
<b>student's choice course 6</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Landscape geochemistry</b>	<b>4</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>EX</b>
<b>ESA &amp; NASA Earth Observation programmes and databases</b>	<b>4</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>EX</b>
<b>Application of Geo-informatics to natural hazards to mapping and monitoring</b>	<b>6</b>	<b>20</b>	<b>40</b>	<b>0</b>	<b>EX</b>
<b>student's choice course 7</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>student's choice course 8</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Seminars</b>	<b>5</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>GA</b>
<b>total semester 3</b>	<b>28</b>	<b>100</b>	<b>125</b>	<b>0</b>	
<b>semester 4</b>					
<b>student's choice course 9</b>	<b>4</b>	<b>15</b>	<b>18</b>	<b>0</b>	<b>EX</b>
<b>UAV mission practical exercise - part 2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>GA</b>
<b>student's choice course 10</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>GA</b>
<b>Spatial planning of functional areas</b>	<b>3</b>	<b>15</b>	<b>15</b>	<b>0</b>	<b>EX</b>
<b>Seminars</b>	<b>5</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>GA</b>
<b>total semester 4</b>	<b>17</b>	<b>45</b>	<b>73</b>	<b>7</b>	
<b>Master thesis</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>total semester 1-4</b>	<b>120</b>	<b>338</b>	<b>413</b>	<b>15</b>	

<sup>1</sup> any activities other than conversatory, laboratory or design classes (e.g. siite visits, case ctudy visits, excursions and others)

<sup>2</sup> EX - examination; GA - graded assignment

**Student's choice courses:**

Remote sensing of agricultural and forestry land	Course 1
Application of remote sensing in environmental studies	

Flood risk management	Course 2
Flood Hazard Mapping	
Geostatistics	Course 3
Introduction to Pedometrics	
Town planning	Course 4
Planning of semi-urban areas	
Communal or urban engineering and management	Course 5
Planning communal infrastructure	
Rural engineering	Course 6
Homestead Engineering	
Ecology of urban areas	Course 7
Natural environment of cities	
Climatic and spatial determinants of development of renewable energy sources	Course 8
Climate change impact on local water balances	
Sustainable development and environmental management	Course 9
Environmental Impact Assessment	
Modelling of natural processes	Course 10
Monitoring of natural resources	