

## Syllabus 2021/2022

Teacher (name and affiliation)	Micol Rossini and Biagio Di Mauro (UNIMIB, dep. Earth and Environmental Sciences)
Title	Open source software for spatial data analysis
Language	<i>English</i>
CFU	2
Hours	16
Program	<p>The aim of the course is to provide expertise in the use of open source software for data analysis. This will be done:</p> <ul style="list-style-type: none"> <li>- explaining basic principles on digital images and statistical exploration;</li> <li>- giving hands-on practice with tools and methods for satellite data exploitation;</li> <li>- stimulating the exploitation of these open tools and methods in individual student research projects.</li> </ul> <p>Examples of the use of open source software across a wide variety of disciplines, covering topics such as glacier dynamics, landslide mapping, volcanic activity, global forest change, inland water monitoring, urban mapping, post fire recovery, flood mapping, will be provided.</p> <p>Hands-on exercises will be developed using:</p> <ul style="list-style-type: none"> <li>- Google Earth Engine: a cloud-based platform for planetary-scale geospatial analysis.</li> <li>- QGIS for remote sensing applications.</li> <li>- ESA Sentinel Application Platform (SNAP).</li> </ul>
Evaluation: YES/NO	YES with a final oral presentation
Calendar	<i>II semester</i>