

## Courses in English Course Description

<b>Department</b>	08 Geoinformatics
<b>Course title</b>	<b>Rapid Response Techniques</b>
<b>Hours per week (SWS)</b>	4
<b>Number of ECTS credits</b>	5
<b>Course objective</b>	Learn the complex framework of assessing natural hazards and the impacts of them. Application of quantitative methods as a first approach to estimate these disasters using Earth Observation Data and GIS options available.
<b>Prerequisites</b>	Remote Sensing, Statistics
<b>Recommended reading</b>	van Oosterom, P., S. Zlatanova, E. Fendel. 2005. Geo-information for Disaster Management. Springer-Verlag Berlin Heidelberg. LII, 1433 pages. Viana-Soto, A.; Aguado, I.; Martínez, S. Assessment of Post-Fire Vegetation Recovery Using Fire Severity and Geographical Data in the Mediterranean Region (Spain). Environments 2017, 4, 90.
<b>Teaching methods</b>	Classes and practices on computer. Final Project with case study of their choice. Weekly discussion of relevant scientific journals on the topic.
<b>Assessment methods</b>	Project thesis
<b>Language of instruction</b>	English
<b>Name of lecturer</b>	MSc. Yrneh Zarit Ulloa Torrealba
<b>Email</b>	<a href="mailto:yrneh_zarit.ulloa_torrealba@hm.edu">yrneh_zarit.ulloa_torrealba@hm.edu</a>
<b>Link</b>	<a href="https://www.geo.hm.edu/kontakt/mitarbeiterinnen/ulloa_torrealba/index.de.html">https://www.geo.hm.edu/kontakt/mitarbeiterinnen/ulloa_torrealba/index.de.html</a>
<b>Course content</b>	Concepts of natural hazards, risk, disaster management and the perspectives associated to their study. Projects, Services and other initiatives for mapping disasters in Europe and the world. Archives of EO and GIS data as well as associated products. Quantitative methods for estimating the occurrence, intensity and change of natural hazards in diverse environments. Disasters foreseen: windfall, forest fires, flooding. R-based classification of satellite images to detect and measure disaster areas.
<b>Remarks</b>	Elective subject in the seventh semester.