- Topographic classification
- Applications of topographic analysis on geomorphological processes and slope hazard
- Sub-marine topography
- Inclusion of remotely sensed data
- Environmental and cartographic modelling

List of Books

1. John P. Wilson & John C. Gallant (Editors): Terrain Analysis: Principles and Applications, Wiley, 2000.
2. Reuter, Hannes I Hengl, Tomislav. Geomorphometry: concepts, software, applications, Elsevier, 2009
3. Jasiewicz. J, Zwoliński. Z, Mitasova. H, & Hengl.T. Geomorphometry for Geosciences, Bogucki Wydawnictwo Naukowe, 2015

GLO-280: Practical of GLC-279 (Geomorphometry)	**0-0-1=1 Credit**

Practicals will be based on the use of sample data (including satellite data) available online and working in GIS software for exercises related to construction of DEM for deriving geomorphometry related parameters and interpretation.

GLO-290: Industrial Training (Summer Internship of 2 to 4 weeks)	**0-0-4=4 Credits**

Will involve hands-on training at Industry/Professional organization/National Research Labs/Well site/Mine site wherein the student/group of students is/are expected work under the guidance of a Scientist/Professional Geologist to gain the professional experience in analytical/field methodologies, data analysis, presentation & Interpretation. A report based of the work will be submitted which will be evaluated by the Departmental Council

GLO-301: Dissertation	**0-0-8=8 Credits**

Dissertation based on the Geology of any chosen area, involving independent mapping, collection of samples, data analysis of data and preparation of geological and other maps, charts & report based on the field and laboratory analyses. Students to work under supervision of the faculty. Student can chose to work for dissertation in the department or in any national laboratory or industry under the supervision of a scientist on laboratory analytical problems related to geology of any area. Students are required to present the dissertation work before the faculty.