Module Title and Purpose	1.Module Title, Code **GEOTECHNICAL ENGINEERING** **30-GJI-700** **Obligatory professional**
	2. Aims **/** Goals of the Module The course aims to provide students of this program of study with geotechnical engineering knowledge, the role and importance of Geotechnical engineering in the field of construction and infrastructure.
Module Delivery	**3.** Contents: Introduction. Basic notions of Geotechnical engineering. The role and importance of the subject of study. Influence of terrain conditions in construction engineering design works. Seismic conditions, topographical, geological, hydrological, hydro geological, etc. Physic-mechanical properties and capabilities of Mount Holders. Strains under the soles of foundations. Strain the land after laying the foundation. Design of shallow foundations. Dimensioning foundations, state control over the border II. Calculation of elastic settlements, meeting basic methods. Control of the shallow foundations. General knowledge of deep foundations. Project Deep foundations. Distribution of deep foundations. Foundations with pilots. Calculation of bearing capacity of piles. Setting the pilot plan pillow Calculation of cargo that comes in any pilots from structures. Control of foundations with pilots about the state of the border II. Strengthening the foundation. Artificial basement. Permanent methods of reinforcement and temporary methods..Key features, problems, counting, sorting and distance of objects under the foundation of machinery. Concrete foundations on diaphragm. Application design according to Eurocode EC-7. Types of firewalls, active and passive pressures by Rankin's Land. Active and passive pressure of soil -According Coulombi's theory,Design of protective walls.Knowledge of application software for designing and calculations in the field of Geotechnical engineering.
	4. Literature / Indicative Reading List: 1. Bozo L., 2009. Gjeoteknika, Tiranë. 2. Muni B. 2015. Soil Mechanics And Foundation,USA. 3. Bozo L., 2008. Gjeoteknika II – Themelet, Tiranë. 4. Bond, A., Harris, A. (2008). Decoding Eurocode 7, Taylor & Francis,London. 5. Rees, L. C.,2006. Isenhower, W. M., Wang, S.-T. Analysis and Design of Shallow and Deep Foundations, John Wiley & Sons, New Jersey.
	5. Teaching and Learning Methods: Total Contact Hours: **28+28+3=59** hours Range of other Learning Methods: Total Study Hours: **66** hours

	Total contact and study hours: **125** hours
Module Assessment	**6.** Module Learning Outcomes : Upon successful completion of the course students will: Be able to design and carry out work in the field of objects depending on the type of substance and form of their implementing standards Geotechnical.
	7.Assessment Methods: Number, type and weighting of elements: Participation 10%, project: 30% .25%, written exam,: 35% oral exam: A total of 100%.
Module Management	**8. ECTS** Credit Points and Duration **5** ECTS, one semester, (I)
	9. Contact Person
Compiled by:	**H. Ahmeti**
Data / Date	