4.2.5.2 Degree Requirements

The MSc (Geotechnical Engineering) programme consists of seven compulsory core modules (total of 28 MCs) and eight elective modules. The core modules are formulated specifically to address the primary objective, while the elective modules are formulated to address the secondary objective. Each module carries 4 MCs.

To satisfy graduation requirements, a candidate must obtain a minimum Cumulative Average Point (CAP) of 3.00 (equivalent to an average of Grade B-) for the best 40 MCs, inclusive of seven core modules and three elective modules. In addition, the grade point for each of the seven core modules must be at least 2.5 (Grade C+). A student is allowed one re-take for at most two core modules if the grade point obtained is less than 2.5 (Grade C+).

Core Modules
CE4257  Linear Finite Element Methods
CE5108  Earth Retaining Structures
CE5111  Underground Construction Design Project
CE5112  Structural Support Systems for Excavation
CE5113  Geotechnical Investigation and Monitoring
CE6101  Geotechnical Constitutive Modelling
CE6102  Geotechnical Analysis

Elective Modules
CE5101  Seepage and Consolidation of Soils
CE5104  Underground Space
CE5105  Analytical and Numerical Methods in Foundation Engineering
CE5106  Ground Improvement
CE5107  Pile Foundation
CE5881  Topics in Geotechnical Engineering
CE6002  Analysis of Civil Engineering Experiments
CE6003  Numerical Methods in Engineering Mechanics

Note: Not all elective modules listed are necessarily available in any one year. All modules listed are of 4 MCs each.

1 Students are expected to complete CE5111 in one semester. Request for extension will be approved on a case-by-case basis and only with valid reasons (which exclude heavy work commitment). Extension, if granted, is limited to one semester, and students who fail to complete CE5111 in two semesters will be given a grade F and will have to repeat the module.
CE6102 requires two pre-requisites/co-requisites, namely CE4257 and CE6101. In other words, students need to have taken CE4257 and CE6101 in a previous semester or are taking them in the same semester as CE6102. Otherwise, the system will not register him/her for CE6102. In terms of contents, CE6102 will draw heavily from CE4257 and CE6101. For this reason, students are advised to take CE4257 and CE6101 as early as possible in their study.

For more details on the modules offered, please refer to the web site at www.eng.nus.edu.sg/cee/programmes/MSc_ge.html