



GEOTECHNICAL AND EARTH RESOURCES ENGINEERING

DEPARTMENT OF CIVIL AND
INFRASTRUCTURE ENGINEERING

ABOUT THE PROGRAM

Beside the traditional topics of soil mechanics, foundation engineering, earth structures, underground excavations, land subsidence, and landslide mitigations, land reclamation, ground improvement, geosynthetics engineering, analytical and numerical analyses, geotechnical engineers and researchers are increasingly involved in many new and dynamic areas of geoengineering and geoexploration. They are also challenged to solve geoenvironmental problems, the reduction of construction wastes, clean-up of contaminated sites, geological-related hazards as well as onshore and offshore exploration and production of new mineral and energy resources.

AREAS OF SPECIALIZATION

The field of study of Geotechnical and Earth Resources Engineering (GTE) offers two major areas of specializations, Geotechnical Engineering (GE) and Geosystem Exploration & Petroleum Geoengineering (GEPG).

In addition to the regular master program offered at the mother AIT campus in Bangkok, the field offers two professional master programs in Geotechnical Engineering and Management (PME-GEM) and Geo-exploration and Petroleum Geoengineering (PME-GEPG), respectively, in collaboration with AIT Vietnam since 2008.



The traditional Geotechnical Engineering (GE) includes two specializations, Engineering and Applied Geology (EAG) and Soil Engineering (SE).

Engineering and Applied Geology (EAG) provides a sound knowledge of geological principles, rock mechanics and geophysical techniques and their applications to civil engineering work, mineral and energy exploration and development, land subsidence, and natural hazard mitigation.

Soil Engineering (SE) exposes students to the behavior of soils as well as rocks and the use of geosynthetics for civil engineering and geoenvironmental applications, ground improvement, utilization of lightweight and waste materials, resource development, and man-made hazard mitigation.

Geosystem Exploration & Petroleum Geoengineering (GEPG) is an interdisciplinary area of specialization that trains specialists in the upstream sector of petroleum exploration and production (E&P) as well as other activities related to geosystem engineering and exploration (e.g. geological and geophysical investigation, mining, groundwater and construction material, geohazards).



ELIGIBILITY REQUIREMENT

To be eligible for admission to the regular Master's program, an applicant must:

- ▶ hold a Bachelor degree (normally from a four-year program), or its equivalent, in an appropriate field of study from an institution of good standing acceptable to AIT;
- ▶ have undergraduate grades significantly above average; the minimum cGPA requirement for admission to the Master's Program is 2.75 or equivalent, at the Bachelor degree level;
- ▶ English Proficiency Requirement: AIT-EET:6 or IELTS-Academic:6 (writing 6) or TOEFL Paper: 550 (writing 59-61) or TOEFL CBT: 213 (writing 25-26): TOEFL IBT: 80 (writing 21-23);

For the Professional Master's (PM) degree program, in addition to the above-mentioned eligibility requirements, an applicant must:

- ▶ have at least 3 years of work experience in areas related to the academic program at AIT and
- ▶ be executives in organizations/companies.



PREFERRED BACKGROUND

Master Program:

Undergraduate degree in Civil Engineering, Geology, Geotechnical Engineering, Mining, Geophysics, Petroleum Engineering; other disciplines are considered on a case-to-case basis

Doctoral Program:

Master degree in Engineering Geology, Geotechnical Engineering, Geoenvironmental Engineering, Geophysics, Petroleum Engineering, and Mining.

CONTACT US

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