



MASTER PROGRAM GROUNDWATER ENGINEERING

FACULTY OF EARTH SCIENCES AND TECHNOLOGY
INSTITUT TEKNOLOGI BANDUNG (ITB)

GET IN TOUCH

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ABOUT US

Indonesia's hydrogeographical conditions, which are known to be very specific, need to be studied and researched more deeply. So far, understanding of hydrogeology in Indonesia has been limited to groundwater as a resource. In fact, apart from being a resource that needs to be conserved, groundwater can also function as a technical constraint that needs attention, especially in civil engineering, mining, hydrocarbons, geothermal, minerals, and underground facilities.

LEVELS

1. Basic knowledge. The first level of learning with four compulsory courses and one elective course (the elective course is mandatory for students with non-geology background); Hydrogeology, Quantitative Hydrogeology, Hydrogeological Research Methodology, Hydrogeometeorology, and Groundwater Geology

2. Advance knowledge. The second level of learning, development of the first learning level. There are three compulsory courses; Hydrogeological Exploration, Groundwater Drilling Technology, and Groundwater Modeling.

3. Specific Skills Knowledge. This learning level is a convergence of the two previous learning levels which aims to make students have special/specific skills/skills to analyze and conclude an event related to hydrogeological aspects, such as in the

geothermal, oil and gas, engineering geology, and mining industries. At this level, there is one compulsory course and several elective courses so students can choose according to their interests and study objectives

4. Sustainable Development.

Students make a research in the form of a thesis as a graduation requirement from the Masters Study Program. This level focuses on bridging human interests in fulfilling water needs, especially groundwater with limited water resource potential.

5. International Association of Hydrological Sciences (iahs.info),

6. World Meteorological Organization (wmo.int).



GRADUATE PROFIL

The resulting graduate profile is expected to have:

1. Basic insights and skills used for groundwater development

2. Insight and ability to continue research to the doctoral level in the field of groundwater

3. Ability to design and manage an independent research in the field of groundwater

4. Understanding and ability to apply groundwater science in water resource management, engineering, environmental conservation, and earth resource exploration.



CURRICULUM STANDARDS

1. American Institute of Hydrology (aihydrology.org),

2. International Association of Hydrogeologist (iah.org),

3. International Association of Hydrological Sciences (iahs.info),

4. World Meteorological Organization (wmo.int).