



HIDROGRAPHIC EDUCATION

HIDROGRAPHIC SURVEYOR PROFESSION EDUCATION PROGRAM

Geodesy and Geomatics Engineering Study Program
Faculty of Earth Sciences and Technology
Institut Teknologi Bandung

<http://hydrography.gd.itb.ac.id>

Hydrographic Education (HE) is an annex embedded to the long established academic education in Geodesy and Geomatics Engineering. HE mission is to conduct Hydrographic Surveyor Profession Education Program. The program is operated at ITB campus under an acknowledgment of the Chief of Hydrographer of the Republic of Indonesia. HE has been offered by ITB since the early of 1990ies and already registered by International Hydrographic Organization (IHO) as issued in Special Publication C-47. Full FIG/IHO/ICA recognition at the Category A level is currently under review by the International Board on Standards and Competences for Hydrographic Surveyors and Nautical Cartographers. The program is composed by 56% course work and 44% practical session, including off-class assignments, and field work, in collaboration with the Naval Hydro-oceanographic School (PUSDIKHIDROS).

Purpose

The objectives of the education are possession among participants of the following capabilities:

- Ability to develop terms of reference for the execution of hydrographic surveys based on the identification and definition of the users' requests, develop execution plan, and prepare report of the corresponding hydrographic project;
- Ability to assess and evaluate hydrographic products and the process of delivering them, ensure hydrographic products' quality assurance and control, and provide suggestions for improving the quality of hydrographic products;
- Ability to perform all phases of hydrographic work entirely and completely, since the development of terms of reference, preparation of execution plan, mobilization and demobilization, field operations, resource management, management (acquisition, processing, analysis, and interpretation) of data and information, and reporting.

Candidate

Participants should possess degree in geodesy, geomatics, surveying, or equivalent, or holder of Certificate of Field Proficiency as Hydrographic Surveyor at the Category B level. Eligibility in physics, mathematics, statistics, and information and communication technology is obligatory.

Class capacity is limited up to 20 participants and the program runs with minimum of 10 participants.

Selection procedure applies and it is based on candidates' portfolio, academic transcript, and proof of English proficiency. The program may request additional session for written tests (i.e. technical examination, essay writing) or interview.

Structure

The program comprises of 36 credits, with 20 credits of teachings and 16 credits of practices. Field work is scheduled close to the end of program to provide comprehensive training of integrated hydrographic work. The total duration of the program is 36 weeks divided into the following semesters and field work:

- I 16-week, 16(6) credits;
- II 16-week, 16(6) credits; and
- Field Work 4-week, 4(4) credits.

The program is offered on annual basis and started every January and ended in September.

Content

Learning materials are developed according to FIG/IHO/ICA Standard of Competence for Hydrographic Surveyor. Embedded in these courses are professional ethics, QHSE, and communication skills. Courses and the corresponding credits are listed as follows (number in bracket indicates practical sessions):

Semester I (January-April)

01 Marine positioning	4(2)
02 Hydro-acoustics	3(1)
03 Tide and current	2(1)
04 Hydrography-oceanography	3(1)
05 Legals	2(0)
06 Nautical science I	2(1)

Semester II (May-August)

07 Seabed studies	3(1)
08 Meteorology-oceanography	2(0)
09 Nautical science II	2(1)
10 Hydrography informatics	4(2)
11 Specialization ^{(a or b or c)*}	2(1)
12 Hydrographic operation	3(1)
13 Field work	4(4)

*Notes:

^a Coastal Environmental Survey

^b Watershed Hydrography

^c Marine Remote Sensing

Participants are facilitated by dedicated learning infrastructure, access to references, academic staffs, field instructors, equipments, software, and training boats. The program runs on full-time basis at ITB campus. The field work is conducted on Pramuka Island, South West of Java Sea.

Award

Successful participant will be awarded Certificate of Program Completion (CoPC) signed by faculty dean and registered by national hydrographic authority.

Contact

For further inquiry regarding the program, please write to:
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