

**International Federation of Surveyors (FIG)
Surveying Education Database and
Academic Membership**

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ABSTRACT

Surveying education is being offered at colleges and universities in nations around the world, with a variety of curriculum design and course content depending on the needs of society and the nature of the profession in each country. Surveying itself is subject to a variety of definitions; the FIG definition of surveying is presented in nine categories.

In an effort to make information on university-level surveying education available to students, potential students, academics and institutions everywhere, FIG has developed a Surveying Education Database listing nearly 400 courses from 200 universities in 60 nations covering the full spectrum of surveying education according to the FIG definition. The database is a Web-based tool with up-to-date information maintained by the universities themselves.

FIG has recently added Academic Membership to its membership categories. Academic membership is open to organizations, institutions and agencies which promote surveying education or research in one or more of the surveying disciplines defined by FIG. This level of membership is intended to link the relevant institutions with practicing surveyors in the over 100 countries represented in FIG membership and with companies that supply commercial services in support of the surveying profession.

Keywords and phrases: Education database; academic membership; diversity of curricula; definition of surveying; fields of specialization; membership categories.

The Data Base

The Surveying Education Database (SEDB) was established by FIG Commission 2 on Professional Education. Surveys conducted by FIG and the Commonwealth Association of Surveying and Land Economy (CASLE) were merged, then moved to the FIG web site in February, 2000, which in turn is managed and maintained by the FIG office in Copenhagen.

Any academic department offering graduate and post-graduate courses in any surveying discipline may place a standard entry on the SEDB which currently contains information from 229 departments in 202 institutions with over 370 surveying courses in 60 countries (as of May, 2001). Departments are responsible for up-dating the information which they place on the SEDB. Countries and institutions not yet included in the data base are encouraged to provide the relevant data.

The data base is intended to enable students and potential students from around the world to search out fields of study in surveying at the under-graduate and graduate level. It also serves as a source of information for educators both for purposes of comparison and for networking. The statistics feature of the data base makes it possible to make an analysis of surveying education world-wide.

The FIG definition of surveying describes nine activities “which may occur either on, above or below the surface of the land or the sea and may be carried out in association with other professionals”. Those activities, briefly, are:

- the determination of the size and shape of the earth,
- the positioning of physical features, structures and engineering works,
- the determination of the position of boundaries of public or private land,
- the design, establishment and administration of geographic information systems,
- the study of the natural and social environment for the planning of development in urban, rural and regional areas,
- the planning, development and redevelopment of property,
- the assessment of value and the management of property,
- the planning, measurement and management of construction works and
- the production of plans, maps, files, charts and reports.

In the United States only one of those nine is the exclusive activity of the licensed surveyor in most jurisdictions. Four more are activities commonly performed by some US surveyors. The remaining four activities are not considered to be within the scope of what we usually recognize as “surveying” in the US. This diversity of surveying disciplines is mirrored in the course content of surveying as taught around the world. The SEDB lists the following fields of specialization:

- geodetic, land and cadastral and/or engineering surveying,
- planning, development and land use management (rural/agricultural and urban),
- building/architectural surveying,
- hydrographic surveying,
- minerals surveying,
- property,
- quantity,
- construction economics,
- valuation and real estate management and
- geographic information management/systems.

The diversity of curricula is further reflected in the departmental designations of universities listed in the SEDB. For instance it is

- the Department of Spatial Sciences at Curtin University of Technology (Australia),
- the department of Cartographic Engineering at the Federal University of Pernambuco (Brazil),
- the Department of Geodetic Sciences and Remote Sensing at Laval University (Canada), the School of Surveying and Planning at Aalborg University (Denmark),
- the Department of Geosciences at Dresden University,
- the Department of Land Surveying and Geo-Informatics at Hong Kong Polytechnic University,
- the Department of Geodesy and Cadastre at Vilnius Gediminas Technical University (Lithuania),
- the Department of Surveying and Land Studies at Papua New Guinea University of Technology,
- the Department of Geodetic Engineering at the University of the Philippines,
- the School of Building & Estate Management at the National University of Singapore,
- the Department of Quantity Surveying and Construction Management at University of the Orange Free State (South Africa),
- the Institute of Engineering Surveying and Space Geodesy at the University of Nottingham (UK) and
- the Department of Geography at the University College London.

In the United States we have Surveying Engineering Technology at New Jersey Institute of Technology, Surveying Engineering at New Mexico State University, and Civil and Environmental Engineering and Geodetic Science at Ohio State University, among others.

Course content and departmental designations indicate not only the broad array of disciplines within surveying world-wide, but the effort of educational institutions to satisfy the needs of their own national circumstances as well. The FIG Surveying Education Data Base is a demonstration of this diversity; it is an opportunity for access to information about educational opportunities, which is of value not only to the education community but to the whole surveying profession. Surveying education at the college and university level is the life-blood of the surveying profession, a fact that is especially relevant here in the US where the profession struggles to define itself and assure a place for itself in the evolving technologies and institutions of this new century.

Academic Membership

In 1998 FIG introduced a new form of membership for organizations, institutions or agencies which promote education or research in one or more of the surveying disciplines. A feature of this initiative is that it will link universities or their faculties or departments that are responsible for surveying education with practicing surveyors in 110 or more countries and with companies which provide commercial services in support of the surveying profession.

Academic Members have all the privileges of full membership in FIG with the exception of voting rights in the General Assembly. (Academic Members will be seated at General Assembly sessions and may address the GA on issues.) In addition Academic Members may add pictures or additional information to their standard entries in the SEDB. This additional information might include or promote special courses, exchange programs, distance learning opportunities, CPD activities, research projects or a brief educational or scientific profile of the institution.

FIG is an international UN-recognized non-government organization (NGO) whose purpose is to support international collaboration for the progress of surveying in all fields and applications. It is a federation of national associations and is the only international body that represents all surveying disciplines.

With the addition of Wuhan University (China) and the University of Nottingham at the FIG Working Week 2001 in Seoul, there are currently 37 Academic Members of FIG. They come from 25 different countries. For some developing countries the academic membership has offered the only way to international co-operation for the local surveyors.

Other membership categories in FIG are Member Associations (85 from 72 countries), Affiliate (6), Correspondent (16), and Corporate (17).

The annual subscription for Academic Membership is \$150. A membership application e-form may be found at http://www.fig.net/figtree/sedb/am_join.asp.