



Perspective View on Accreditation

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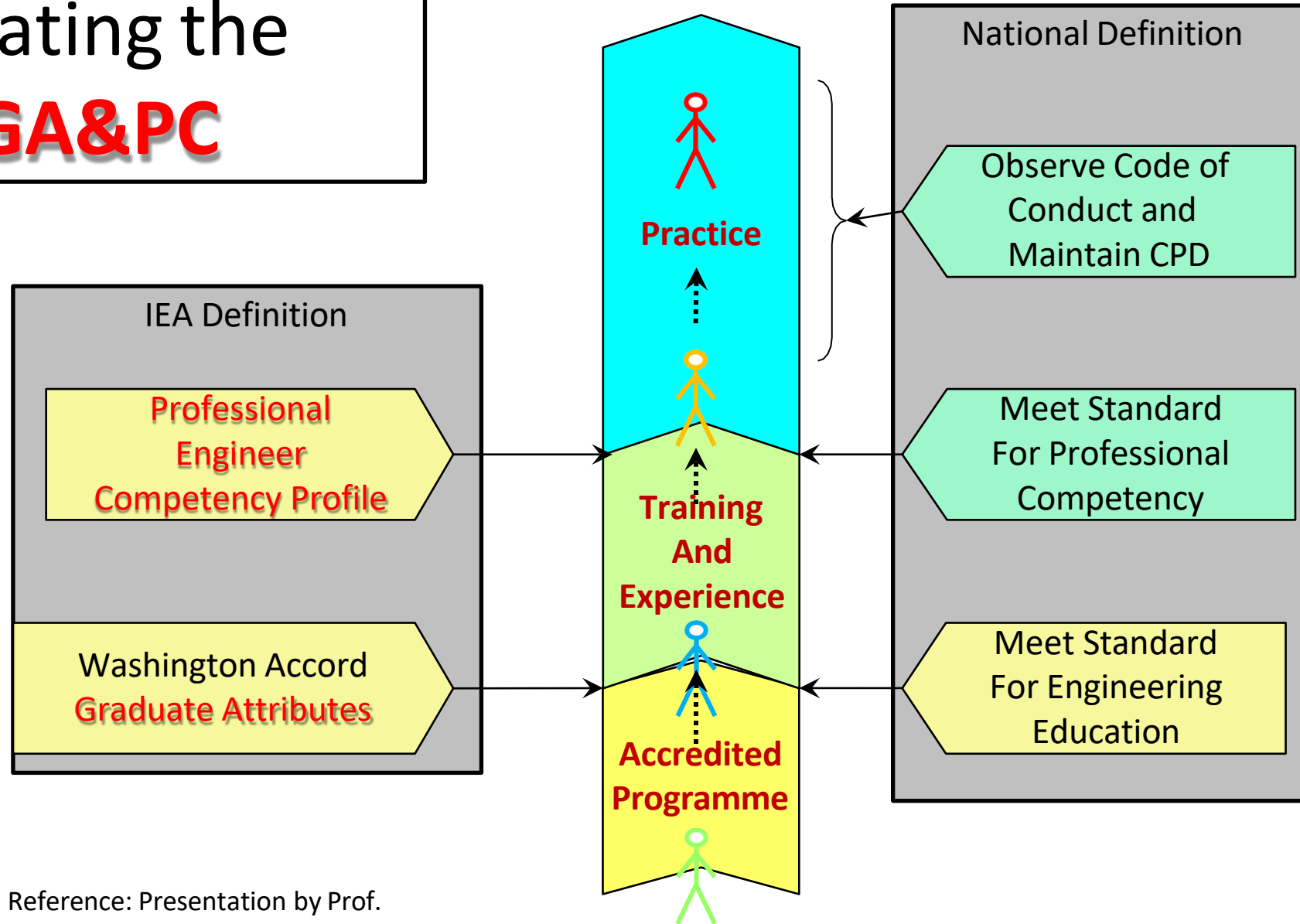
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Overview of Engineering Education Development & Outcome-Based Education



Locating the **GA&PC**



Reference: Presentation by Prof.
Hu Hanrahan, WA Chair, Taipei, Sept. 2011.

For Mobility, We need *Mutual Recognition and thus Accreditation*

- ☐ International Benchmarking and External Recognition of Quality
- ☐ For Further Improvement by Faculty
- ☐ Give Assurance and Confidence

What is Accreditation?

- ❑ The process of external quality review used in higher education to scrutinize colleges, universities, and higher education programs for quality assurance and quality improvement.
- ❑ Success results in an accredited institution and/or program.

Two types of academic accreditation

- ❑ **Institutional accreditation** evaluates overall institutional quality, but does not focus on a given academic program.
- ❑ **Program Accreditation** evaluates an individual program of study, rather than an institution as a whole. This type of accreditation is granted to a specific program.

Accreditation Function

- ❑ Accreditation is normally **voluntary**
- ❑ Accreditation involves:
 - an evaluation of engineering education programs offered by the institution, and
 - a judgment against stipulated criteria in accordance with the respective accreditation policy and criteria.
- ❑ An accredited engineering education program is judged as providing satisfactory preparation for graduates to enter the profession in the entry level of engineering practice.

Objectives of accreditation (1)

- Recognition for professional registration;
- Prestige of program being accredited;
- International mobility of academic qualifications benchmarked to meet the standards of mutual or international agreements, including the Washington Accord;
- Grants, finance and other support for accredited program;

Objectives of accreditation (2)

- **Transfer of credits** between accredited programs
- **To assist stakeholders** as well as potential students and their parents, professional societies, and potential employers, in identifying specific engineering programs that meet the minimum criteria for accreditation;
- **To provide feedback to the educational institutions** for the improvement and development of educational programs.

Accreditation System

- Composition of Engineering Accreditation Board
- Accreditation policy
- Accreditation procedure/process
- Accreditation criteria
- Report on accreditation information
- Evaluation by programme evaluators
- Accreditation decision-making process



INTERNATIONAL ENGINEERING ALLIANCE: EDUCATIONAL ACCORDS

WASHINGTON ACCORD 1989

SYDNEY ACCORD 2001

DUBLIN ACCORD 2002

PREAMBLE

The Washington Accord, Sydney Accord and Dublin Accord are three multi-lateral agreements between groups of jurisdictional agencies responsible for accreditation or recognition of tertiary-level engineering qualifications within their jurisdictions who have chosen to work collectively to assist the mobility of engineering practitioners (i.e. professional engineers, engineering technologists and engineering technicians) holding suitable qualifications. Membership (called being a signatory) is voluntary, but the signatories are committed to development and recognition of good practice in engineering education. The activities of the Accord signatories (for example in developing exemplars of the graduates' profiles from certain types of qualification) are intended to assist growing globalisation of mutual recognition of engineering qualifications.

VERSION: 2019.1

The documents presented in this compendium are current as at 1st July 2018.

Source: International Engineering Alliance (IEA)

International Professional Engineers, Engineering Technologists and Engineering Technicians

WA

- Engineers (Substantial Equivalent with another Jurisdiction)
 - OBE
 - Teacher Center to Student Center
 - Graduates Attributes
 - Competencies
- IPEA

SA

- Technologists (Substantial Equivalent with another Jurisdiction)
 - OBE
 - TC to SC
 - Graduates Attributes
 - Competencies

DA

- Technicians (Substantial Equivalent with another Jurisdiction)
 - OBE
 - TC to SC
 - Graduates Attributes
 - Competencies

Criteria for International Recognition

In term of

Washington Accord (Engineers)	Sydney Accord (Technologists)	Dublin Accord (Technicians)
Identify, formulate, research literature and solve <i>complex</i> engineering problems reaching substantiated conclusion using <i>first principles of mathematics and engineering sciences</i>	Identify, formulate, research literature and solve <i>broadly-defined</i> engineering problems reaching substantiated conclusions using <i>analytical tools appropriate to their discipline or area of specialization</i>	Identify and solve <i>well-defined</i> engineering problems reaching substantiated conclusions using <i>codified methods of analysis specific to their field of activity</i>

How we benefited

- Reflection of a top university

- ✓ Greater clarity and alignment of each module, learning outcome and assessment to the goal.
- ✓ Better understanding of the meaning of quality for our programme and how to measure and continuously improve it.
- ✓ Leading to better curriculum design and improved control of the programme and its direction.
- ✓ Increased ownership and collaboration among programme team and other stakeholders.

Benefits

- ✓ **Mobility of engineering services** in ASEAN, Asia Pacific & International as Professional Engineer.
- ✓ **Accredited Engineering Degree** complied with ASEAN MRA
- ✓ **Substantial Equivalence**