United Nations Educational, Scientific and Cultural Organization
منظمة الأمم المتحدة للتربية والعلم والثقافة

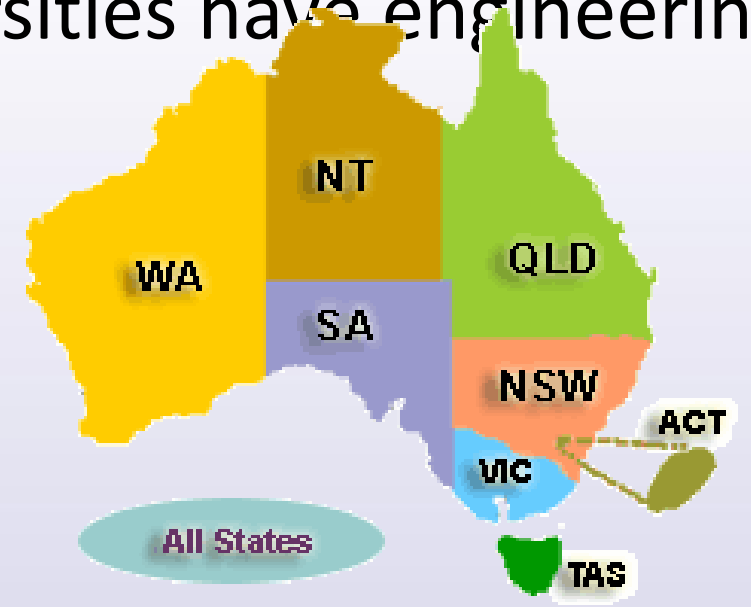
مكتب العراق
Iraq Office

NETWORK OF IRAQI SCIENTISTS ABROAD
شبكة العلماء العراقيين في الخارج

QUALITY ASSURANCE, QUALITY IMPROVEMENT AND ACCREDITATION OF ENGINEERING DEGREES: THE AUSTRALIAN MODEL

Engineering Programs at Australian Universities

- Population of Australia 22.5 millions
- 39 universities
- 32 universities have engineering programs



Higher Education Accreditation

- Universities generally are ‘self accrediting’ bodies and offer programs which are Curriculum Based
- Australian University Quality Agency (AUQA) audits universities on a cyclic basis – covers teaching and research
- As of 2011, Tertiary Education Quality and Standards Agency (TEQSA).
- Professional bodies provide totally independent, and optional accreditation services at the individual program level

- **WASHINGTON ACCORD**

  for 'Professional Engineer' programs - Engineers Australia a foundation signatory in 1989
- **SYDNEY ACCORD**

  for 'Engineering Technologist' programs – Engineers Australia a foundation 'transitional' signatory in 2001 and currently Deputy Chair of the Accord
- **DUBLIN ACCORD**

  for 'Engineering Officer/Associate/Technician' programs

Engineering Education Accords

- Mutual recognition of accredited programs
- Recognised 'substantial equivalence' of accreditation systems
- Agreed exemplar framework of Graduate Attribute Profiles
- 6-year monitoring and peer review cycle
- Sharing of best practice

Basis of Accreditation

- Accorded to individual programs, not schools or faculties
- Applies only to programs that deliver graduates ready for commencement of practice
- Encourages diversity and innovation
- Requires providers to have in place their own education systems, performance indicators, measures and overall quality strategies
- Evaluates rather than prescribes curriculum, educational methodology, policies, processes and practices

The General Review

- At request of University; 5 year cycle
- Full documentation required
- Documentation to respond to actions arising from previous accreditation
- Full documentation required to address the 3 primary criteria (Operating Environment, Academic Program and Quality Systems)

Accreditation Operations

Accreditation Visit Panels

- 50% industry representatives, 50% academic and always include an Accreditation Visit Manager, 1 specialist external panel member per program discipline
- Panel works as an integrated team, collectively developing recommendations on all programs
- Visit report includes specific advice on individual programs from respective panel specialists

Intention of Accreditation Review Process

- To gather sufficient evidence for the Board to make a holistic judgement on accreditation
- To stimulate a process of self review
- To provide a quality, externally referenced consultation process, using a diverse team of academic and industry experts
- To provide a balanced and fair assessment of performance and sound recommendations for continuing quality improvement

Steps

- Panel pre-visit planning meeting
- Visit
- Draft report approved for release by Accreditation Board
- Draft report - university response – errors of fact
- Accreditation Board final decision
- Final report to university & confirmation of accreditation

Key Aspects of On-site Visit

- Interviews with stakeholders, inspection of facilities and records to triangulate with submission documents
- Following up issues identified after consideration of written submission
- Critical need for access to:
  - Course (subject) outline documents, distributed teaching resources, all assessment tasks, examples of all categories of assessed student work including examination scripts
  - Range of assessed capstone project reports/theses, and project reports at other levels.
  - Records of minutes and action processing of all QA forums, teaching team meetings, planning and review forums, curriculum/education committees
  - Displayed teaching materials and student work should generally cover a single academic year, across all year levels

Scope of Submitted Documentation

- To demonstrate as completely as possible that each program satisfies the Accreditation Criteria
- Clearly defined program objectives, rationale and targeted graduate outcomes
- How the programs deliver adequate underpinning skills and knowledge, personal and professional skills, engineering application skills and technical competence appropriate to the field of practice
- Mechanisms for exposing students to professional practice
- How assessment processes and performance measures aggregate to ensure that each graduate is equipped with the targeted outcomes

Provisional Accreditation for New Programs

- Notification of intent in year before implementation
- Assessed for provisional accreditation in first year of implementation
- Provisional accreditation does not carry recognition of graduates, but sets out conditions for attainment of full accreditation
- Transition to full accreditation considered once the first cohort of graduates emerges

Transition to Full Accreditation

- Occurs when the first substantive cohort of graduates emerges
- May be undertaken earlier (late in final year of first graduating cohort) or later (but not later than the next scheduled General Review.
- Key to the accreditation are
  - The school's response to recommendations made in the report of the provisional accreditation panel, and
  - The quality of assessed student work from the later years of the program.

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