EUR-ACE Framework Standards for First and Second Cycle Degrees

Ian Freeston
EUR-ACE Label Committee
Engineering Council UK

EUR-ACE
European Network for Accreditation of Engineering Education
Outline

• Programme content
• Programme standard
• Assessment procedures

Meta-accreditation of agencies and not of programmes directly
External Factors

• Framework for Qualifications in the EHEA including Dublin Descriptors (Bergen 2005)
• Standards and Guidelines for Quality Assurance in EHEA (ENQA)
• European Qualifications Framework (EC)
• European Credit Transfer Scheme (ECTS)
• International agreements
Specification

- First and Second Cycles (and Integrated Programmes)
- All engineering disciplines and profiles
- Different traditions and methods
- Future engineering technologies
- Innovative teaching methods
- Share good practice
Programme Content

- Knowledge and Understanding
- Engineering Analysis
- Engineering Design
- Investigations
- Engineering Practice
- Transferable Skills
Programme Outcomes

For each of the six sections:

- Descriptive paragraph
- Programme Outcomes for First Cycle
- Programme Outcomes for Second Cycle

In total 21 Programme Outcomes for First Cycle and 19 for Second Cycle
Engineering Design 1

‘Graduates should be able to realise engineering designs consistent with their level of knowledge and understanding, working in cooperation with engineers and non-engineers. The designs may be of devices, processes, methods or artefacts, and the specifications could be wider than technical, including an awareness of societal, health and safety, environmental and commercial considerations.’
Engineering Design 2

‘Second Cycle graduates should have:

an ability to use their knowledge and understanding to design solutions to unfamiliar problems, possibly involving other disciplines;

an ability to use creativity to develop new and original ideas and methods;

an ability to use their engineering judgement to work with complexity, technical uncertainty and incomplete information.’
Programme Standard 1

• Engineering Analysis, Engineering Design, Investigations:
  ‘consistent with level of knowledge and understanding’
• First Cycle: ‘coherent knowledge...some at the forefront’
• Second Cycle: ‘critical awareness of the forefront’
Programme Standard 2

- Accrediting Panel (technical experts) recommendation implies forefront
- Decision making committee reviews recommendation
- Process by which the profession continuously monitors quality and standards
Programme Assessment Guidelines

• Needs, Objectives and Outcomes
• Educational Process
• Resources and Partnerships
• Assessment of the Educational Process
• Management System
Resources and Partnerships

• Academic and support staff
• Facilities
• Financial resources
• Partnerships with external organisations

Does the accreditation process obtain all the evidence necessary to decide if the programme can be delivered to the required standard?
Accreditation Process

- Self-assessment report
- Composition of visiting panel
- Structure and duration of visit
- Reporting procedure
- Decision making
- Publication
Evaluation Scale

The decisions on requirements should use a scale including the following:

• Acceptable
• Acceptable with prescriptions
• Unacceptable
Accreditation Decision

The decisions on accreditation should use a scale including the following:

- Accredited without reservation
- Accredited with reservations
- Not accredited
Link to full text of EUR-ACE Framework Standards at

www.enaee.eu

Thank you

ifreeston@engc.org.uk