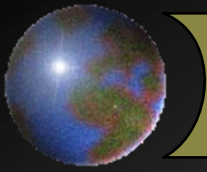


IEA (Global) and ABET (U.S.) Accreditation Challenges

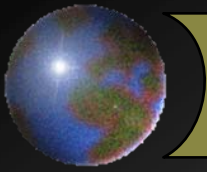
David K. Holger
Associate Provost for Academic Programs and
Dean of the Graduate College
Iowa State University
Past President of ABET
Deputy Chair IEA Governing Group

GEDC Conference 2011 22 October 2011
Beijing, China



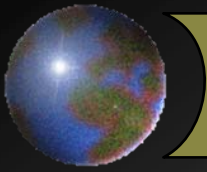
*IEA & ABET View of PTE**

- Focus on Adequate Preparation
 - Successful career entry
 - Well prepared for continuing professional development
 - Professional career outlook
- Outcomes Approach to Quality
 - Abilities and knowledge at PTE completion
 - Results of PTE more important than specific mechanisms/processes



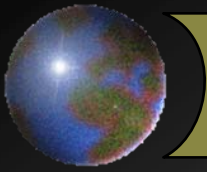
ABET - Important Thematic Issues

- Anticipating Competencies/Attributes of Successful Graduates
- Organizing to Create New Pathways
- Adapting to Millennial Learners
- Rethinking Quality Assurance
- Engaging Constituencies
- Convening an Ongoing Collaborative Dialog Leading to Innovation and Transformation



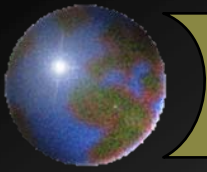
Big Issues Driving Rapid Change

- ❖ Accelerating Evolution of Technology
- ❖ Sustainability
- ❖ Environment
- ❖ Globalization
- ❖ Social and Economic Uncertainty
- ❖ Diverse Approaches Among Global, National, and Regional Constituencies



Implications for PTE and Accreditation

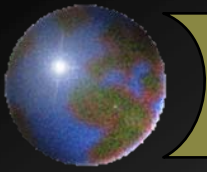
- Continuing Importance of Quality Assurance Mission
- Effectively Engage and Communicate with Constituencies
- Collaborate and Partner with Stakeholders to Address the Themes and Issues
- Collaborate to Convene the Stakeholders



ABET International Activities

Overview

- Global Council (GC)
- Washington Accord / Sydney Accord / Dublin Accord / Seoul Accord
- Western Hemisphere Initiative / Engineering for the Americas
- Mutual Recognition Agreements (MRA)
- Memoranda of Understanding (MOU)
- Technical Assistance to Institutions
- Technical Assistance to Quality Assurance Organizations
- Program Accreditation

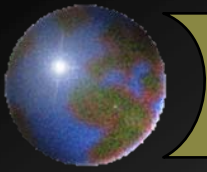


IEA - What is Professional Competence?

- Professional Engineers are able to perform functions because of their:
 - Knowledge,
 - Skills, and
 - Attitudes
- Competence is developed by
 - Education,
 - Training, and
 - Experience

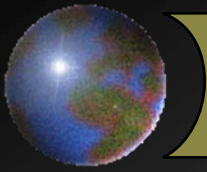
The Washington Accord Agreement recognises that:

“Accreditation of engineering academic programs is a key foundation for the practice of engineering at the professional level in each of the countries or territories covered by the Accord.”



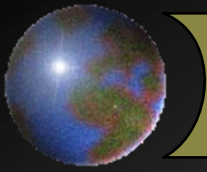
Graduate Attributes Defined

- *Graduate attributes* form a set of individually assessable outcomes that indicate the graduate's potential to acquire competence to practise at the appropriate level.
- The Graduate Attributes are exemplars of the attributes expected of graduate from an accredited programme.
- Graduate Attributes are clear, succinct statements of the expected capability, qualified if necessary by a range indication appropriate to the type of programme.



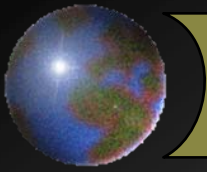
The IEA GA & PC

- Graduate Attributes (GA) are defined for programmes with the purpose of providing educational base for
 - Professional, Chartered or similarly titled Engineers
 - Professional, Incorporated or similarly titled Engineering Technologists
 - Engineering Technicians
- Professional Competency (PC) Profiles are defined by the IEA for the same groups



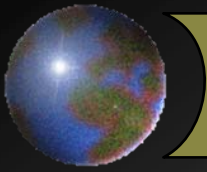
Discipline-independence

- Graduate Attributes have three components that apply equally in all engineering disciplines:
 - Outcomes: what the graduate is able to do
 - Level of problem solving
 - Knowledge profile
- Many accreditation systems have no discipline-specific criteria
- Discipline specific requirements are considered by peer-judgement



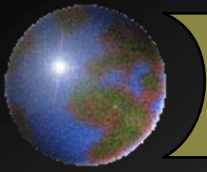
Collaborative Approaches to Global PTE are Essential

- The challenges of today are enormous and mandate collaborative global approaches
- Common expectations for PTE outcomes are essential
- Collaborative approaches to PTE accreditation are essential to workforce mobility
- Collaborative initiatives are leading to innovation in PTE



Globalization

- ❖ Engineering is a global enterprise
 - ❖ Not multi-national – Global!
- ❖ Engineering education at all levels must prepare future engineers for careers in global enterprises
- ❖ Engineers must be prepared to be global citizens



Discussion

