ENAEE Members Forum

Session 2
EUR-ACE outcome standards and appropriate evidence of achievement

Session moderator: Bernard Remaud
EUR-ACE and the Bologna process

Quality assurance

Bergen Communiqué (2005)
« Guarantee of Quality in HE »

European Standards and Guidelines (ESG, ENQA,...)

QA Register (EQAR)

Programme outcomes

Qualification Framework

Dublin descriptors

EUR-ACE Framework Standards and guidelines (EAFSG)

EUR-ACE database

EAFSG
The 2 pillars of ENAEE « wisdom »
The EUR-ACE Framework

Quality assurance
Assessment of the processes and procedures:
• Programme aims
• Teaching and learning procedures resources
• Students (from admission to graduation)
• Internal quality assurance
Compliant with the
• ESG -European standards and guidelines for Quality Assurance in the EHEA-
• « Best practice in engineering programme accreditation » (IEA/ENAEE)

Programme outcomes
What an engineering degree must enable a graduate to demonstrate
8 domains for the knowledge, understanding, skills and abilities

2 levels of achievements
• Bachelor degree (min 180 ECTS)
• Master degree (min 90 ECTS)
Content-based approach

Learning Outcomes

Teaching and Learning Activities

Academia

Assessment

What each student will know and be able to do as a result of a course

Students demonstrate that they fulfill the programme objectives

Activities and experiences performed by the students to succeed in the assessment
Outcomes-based approach

Learning Outcomes

What each student will know and be able to do as a result of a course

Academia Stakeholders

Academia

Teaching and Learning Activities

Activities and experiences performed by the students to succeed in the assessment

Assessment

Each student demonstrates that he/she achieved the expected learning outcomes
Guiding questions

- What **evidences** should be provided by HEIs to show that programme aims and outcomes and required/intended **learning outcomes** are achieved?
- How can **complex learning outcomes** be assessed?
- How should HEI **internal Quality Assurance** be organised to ensure sustainable achievement of outcomes and continuous improvement?
- What can be learned from **competence assessment and development in industry**?
Keynotes

14.30 - 15.00 “Improving learning outcomes assessment in engineering education”
Dr. Rita Falcão Berredo, Universidade Nova de Lisboa, TALOE project

15.00 – 15.30 “Competence requirements, assessment and development in industry”
Pierre Jauffret, Senior Vice President, Center of Excellence Leader, Europe Right Management
Parallel workshops – (16:00 – 17:10)

Workshop 4
“Assessment plans: Performance indicators for achieved programme aims and outcomes“
Moderator: Prof. Cyril Burkley, Engineers Ireland, ENAEE LC member

Introduction: Which performance indicators for which outcomes to provide satisfactory evidence of achievement?
Contributor: Guenter Heitmann, ASIIN/SEFI

KAST 01.07 – Auditorium (1st floor)
Parallel workshops – (16:00 – 17:10)

Workshop 5
Achievement and assessment of complex learning outcomes – example: the CDIO approach
Moderator: Prof. Ian Freeston, former ENAEE LC member

Introduction: Constructive alignment of intended learning outcomes, learning arrangements and assessment to achieve complex problem solving skills, teamwork and leadership competences and independent learning abilities and attitudes
Contributor: Dr. Gareth Thompson, Aston University, QAEMP project

KAST 01.29 – Auditorium (1st floor)
Parallel workshops – (16:00 – 17:10)

Workshop 6
Work-integrated and project-based learning and competence assessment

Moderator: Dr. Jean-Claude Arditti, CTI
Contributors: Maarten Decat, Elimity (KU Leuven), Pierre Jauffret, Right Management; Antoine Lanthony, SUPMECA, Dr. Ilmars Wiksne (Riga University), Prof. Wim van Pettegem (KU Leuven), Dr. Katrien Viebert (KU Leuven)

KAST 00.45 – Eupoco (1st floor)
Arenberg castle
Kasteelpark Arenberg 1
3001 Heverlee

1. KAST 01.06 Kapel (1st floor)
2. KAST 01.07 Auditorium (1st floor)
3. KAST 01.01 Prinsenzaal (1st floor)
4. KAST 01.29 (1st floor)
5. KAST 00.45 - Eupoco (1st floor)
6. KAST 00.73 - Heraldique (ground floor)
Be « outcome-oriented »

**Distillate** statements and/or questions which will underlie the future orientations of EUR-ACE

**Distillation:**
Process to obtain the **essence** from the rough products (of your brains)