

ENAE 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)



EAFSG

EUR-ACE database

Programme outcomes

Qualification Framework



Dublin descriptors



EUR-ACE Framework
Standards and guidelines
(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

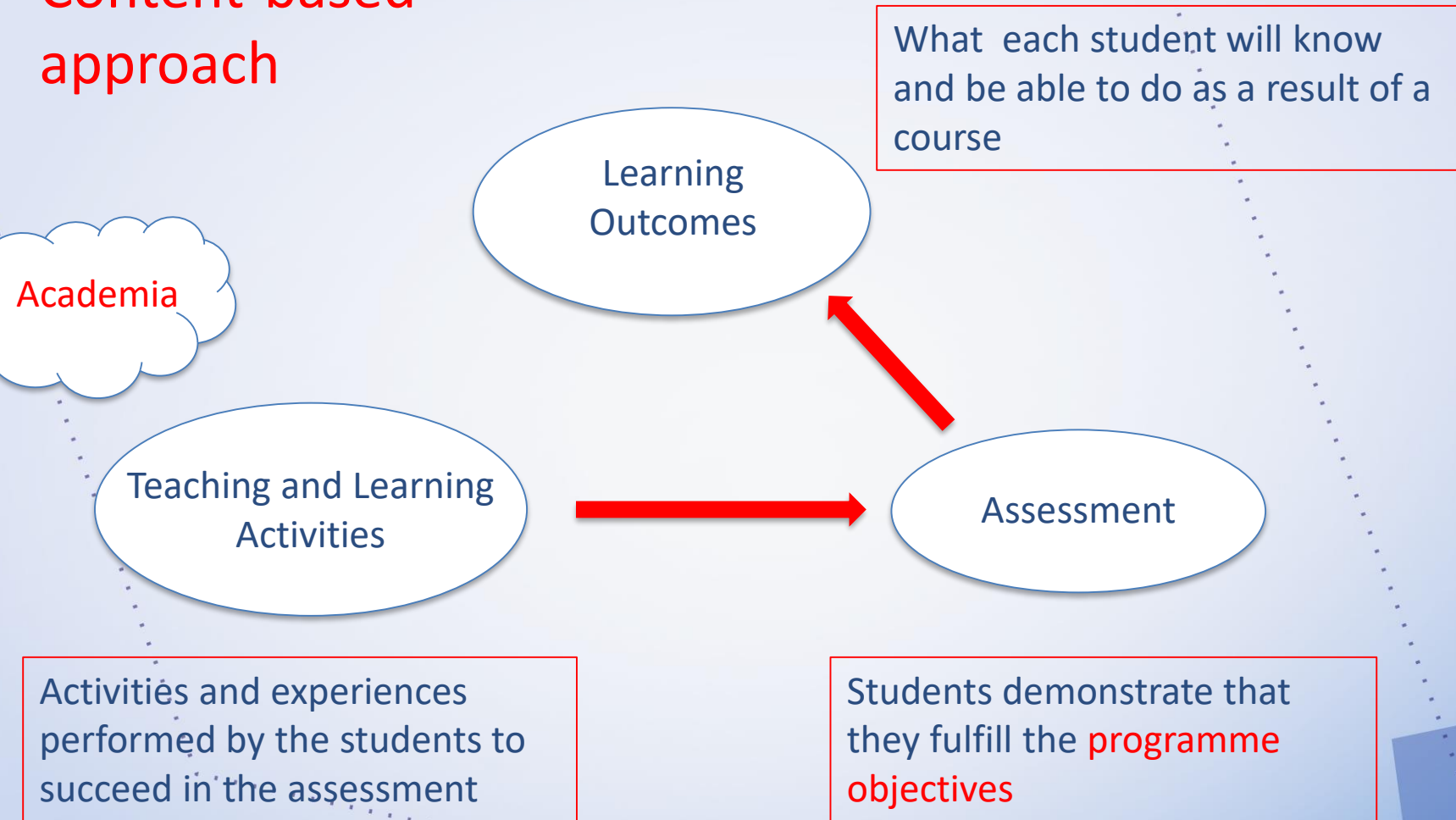
What an engineering degree must enable a graduate to demonstrate

8 domains for the knowledge, understanding, skills and abilities

2 levels of achievements

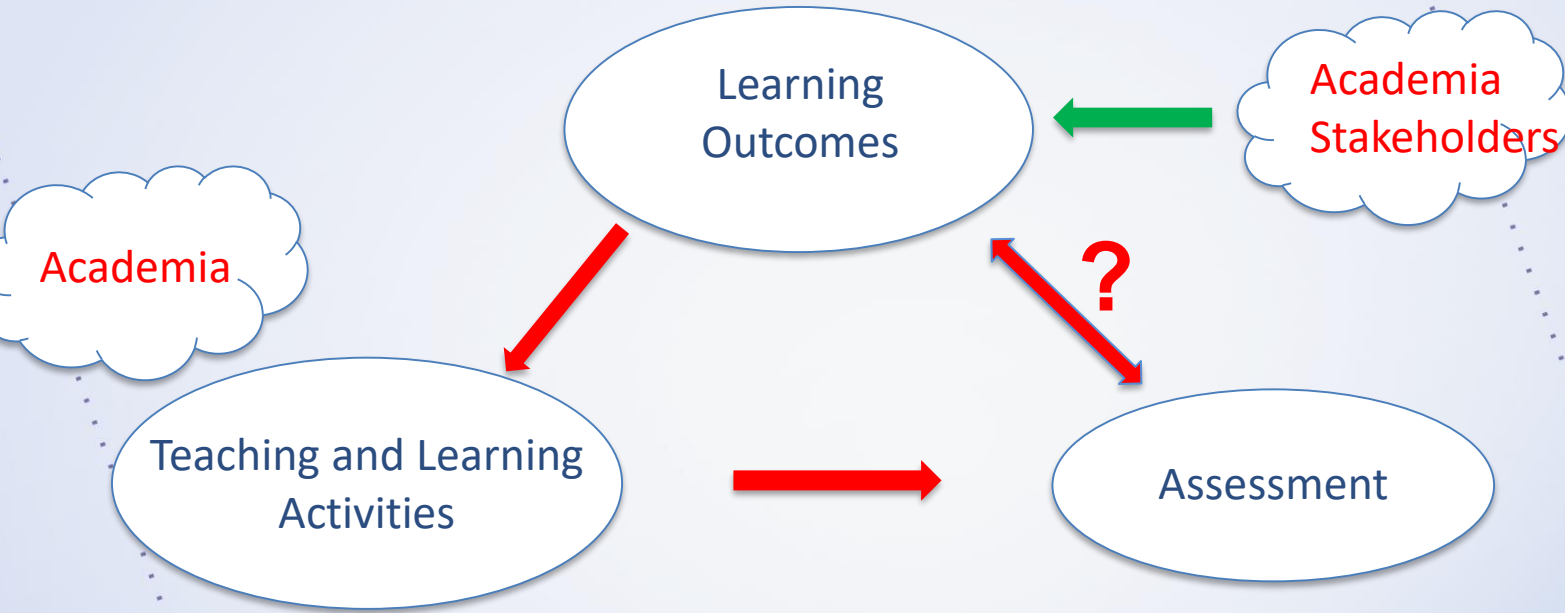
- Bachelor degree (min 180 ECTS)
- Master degree (min 90 ECTS)

Content-based approach



Outcomes-based approach

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



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

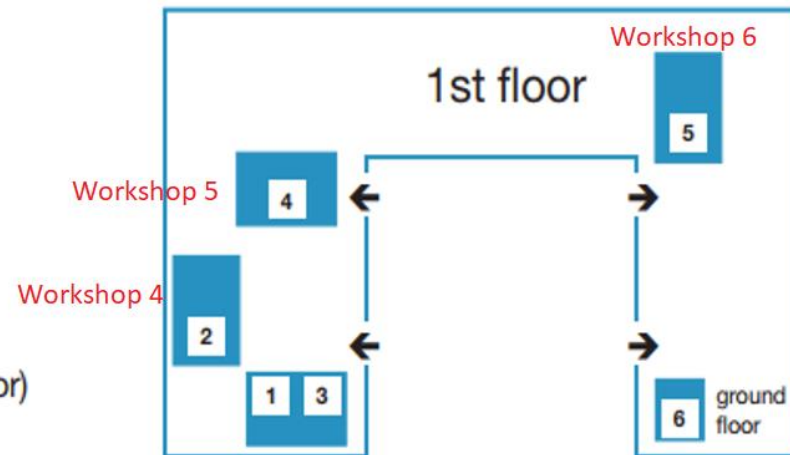
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Arenberg castle

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)