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5.2 Objective

The objective of this chapter is to develop student and staff understanding of the Applied Engineering College (AEC) Learning and Teaching Strategy.

5.3 Authority

Chaired by the Vice Dean of Academia, the College Curriculum Development Committee (CCDC) is the college's authority for the implementation and continuous development of this policy and its procedures.

5.4 Scope

The procedures outlined in the chapter apply to:

- All pathways and modules offered by the AEC
- All academic management and teaching staff at the AEC
- All part-time and/or guest lecturers who teach on any AEC module

5.5 Learning and Teaching Philosophy

Our Learning and Teaching philosophy aims to provide our students with an innovative, high quality teaching and enriched learner environment with an approach that is grounded in our understanding of the students' educational experiences and abilities. We understand the need to support our students through the process of pedagogic change as we introduce and utilize a variety of teaching approaches and new classroom activities that develop our students' learning. To achieve this goal, we have established four key principles:

Principle 1: Our internationally accredited programs are innovative, industry-aligned and encourage student enterprise.

Principle Guidelines:

1. Curriculum design and development is informed by the views of students, external experts, and academic staff

- College activities that include events, visits and projects, encourage industry involvement in program delivery and the enhancement of student employability and entrepreneurial skills
- 3. Map program activities that develop knowledge and work-based skills to enhance student preparedness for work

Principle 2: The AEC supports and enable the continuous development and enhancement of learning and teaching activities through our quality and standards procedures

Principle Guidelines:

- 1. The College maintains academic standards and supports the continuous enhancement of learning and teaching activities through its robust monitoring and review processes
- 2. Student feedback, gathered through formal and informal 'Student Voice' activities, is an integral to the continuous development and enhancement of learning and teaching activities, and forms a significant proportion of our program evaluation data
- 3. The College enables curriculum development through a systematic process of evaluation via its committee structure

Principle 3: We view our students as individual learners and provide individualized learning, teaching and support

- 1. The college uses a range of appropriate learning and teaching approaches that encourage student participation and enable learning opportunities for all students
- 2. Student support is tailored through the identification of individual student need, contextualized by 'at-risk' factors known to indicate the potential for poor outcomes
- 3. The college aims to develop with each student their own Individual Learning Plan (ILP)

Principle 4: We support our academic staff to be lifelong learners that engage with and are responsible for their own professional development.

Principle Guidelines:

1. Our academic framework requires that all teaching staff have a minimum level of qualification and research experience

- 2. We offer and promote opportunities to engage in subject and pedagogic continuous professional development at department and college levels
- 3. We identify and deliver needs based professional development workshops through formal and informal observations, consultations and discussions.

To support the implementation of our learning and teaching strategy we have developed a framework that communicates different levels of student achievement (learning) mapped to the

Framework for Higher Education Qualifications in the UK (FHEQ):

Figure 1: AEC Learning and Teaching Framework

	Teaching	Learning	FHEQ
Semester 1-2	Traditional Modern Teaching approach ✓ Limited use of differentiated activities ✓ Introduction to groupwork activities ✓ Introduction to self-study activities, strategies and approaches	Students will have knowledge of the underlying concepts in their pathway Students can use their pathway knowledge to evaluate and interpret different forms of information to make sound judgements	Level 4
Semester 3-4	Modern → Innovative Teaching approach ✓ Differentiation is utilized throughout the module ✓ Reduced scaffolding for groupwork activities ✓ Self-study activities are elements in module workloads	As Above Developed a critical understanding of key pathway concepts and can use developed knowledge outside original context Developed an awareness of different enquiry methods within their pathway and the appropriateness of different approaches to solve pathway problems	Level 5
Semester 5-6	Innovative → / & Eclectic Teaching approach ✓ Tailored activities to suit the student's abilities ✓ Student-led groupwork activities ✓ Self-study activities are essential elements in module workloads	As Above Detailed and practical understanding of their pathway and the ability to use techniques to enquire and analyze pathway information	Level 6

Pathway knowledge that enables students to devise
and sustain arguments, and/or to solve problems,
using ideas and techniques
Discuss pathway information, ideas, problems and
solutions to specialist and non-specialist audiences

5.6 Effective Teaching Methods

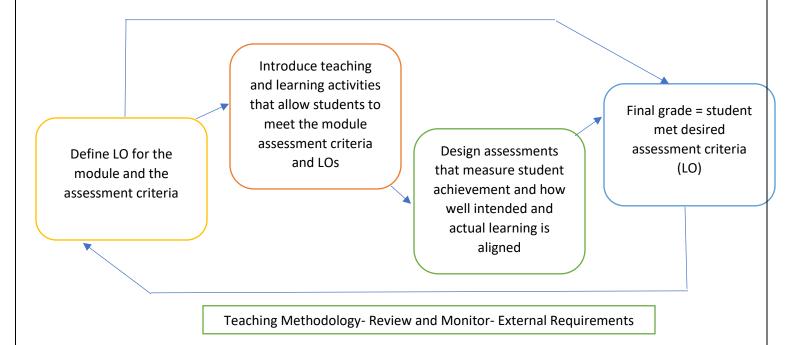
All modules **must** use a range of appropriate and effective teaching methods that reflect learner needs, pedagogical/disciplinary requirements and the *AEC Learning and Teaching Framework* as set out in Figure 1. There **should** be an appropriate balance between didactic and inclusive teaching methods that include:

- Lectures
- Groupwork
- Practical Demonstrations
- Project Based Learning
- Flipped Classroom
- Problem Based Learning
- Active Teaching
- Student-led Teaching
- Work-based learning

Teaching and Learning is Aligned to Assessment and Module Learning Outcomes

The college ensures that our students' learning opportunities, enabled through our teaching and assessments activities, are in line with module learning outcomes through a process of constructive alignment in the design and development of its modules and programs (see fig.2 below).

Figure 2: Constructive Alignment Process



The college's approach to module and program design and development is detailed in Chapter 1 http://www.appliedengineeringcollege.com/wp-content/uploads/2019/01/Chapter-1-New-Program-Design-.pdfof the Quality Handbook, with Assessment Policy set out in Ch.3 http://www.appliedengineeringcollege.com/wp-content/uploads/2019/01/AEC-ASSESSMENT-POLICY.pdf

5.7 Learning and Teaching Excellence Plan (LTEP)

Our Learning and Teaching Excellence Plan aims to enable the continuous enhancement of the quality of our students' learning opportunities. To do so, we have developed a systematic approach for observation, reflection, shared practice and continuous professional development. Through this structured and articulated approach, we identify areas for development, address the specific needs of our academic staff in peer-led workshops, and establish peer-to-peer collaborative learning opportunities and networks.

Through the LTEP, our academic staff undertake a variety of classroom observations and engage in multiple formal and informal professional development activities over each academic year.

1. Formal Observation

The Formal Observation is a structured opportunity for academic staff to demonstrate their teaching approach and abilities, gain constructive feedback that includes the identification of effective practice, and enhance their pedagogical practice. The Formal Observation process includes both pre- and post-observation workshop/discussions and provides an agreed action plan for future development.

Pre- observation workshop

50-minute lesson observation

Post-observation discussion with HoD

Actioned response

The pre-observation workshop supports our academic staff in understanding the college's learning and teaching expectations, and the evaluation mechanism as shown through the requirements and grading areas for each section. The workshop ensures that the lesson observation process is transparent, fair and valid. The aim is to develop our lecturer's knowledge of all the areas and give them the opportunity to ask questions regarding the grading criteria.

During the Formal Observation, academic staff may wish to address feedback from a previous action plan, highlight areas that they have enhanced, introduce innovative teaching and learning approaches and show evidence of de. The Head of Department or, as appropriate, line manager grades the Formal Observation against an established 'Teaching and Learning Rubric'(below). Post-observation, the Head of Department arranges a meeting with the member of academic staff to discuss the 'Observation Outcomes', an established a range of development activities, informed by the observation score, as set out below. The Observation Outcomes provide a college-wide structure that offers to academic staff development opportunities informed by best practice. They act as a guide for Heads of Department in developing a plan that fits the individual academic staff member's professional development needs.

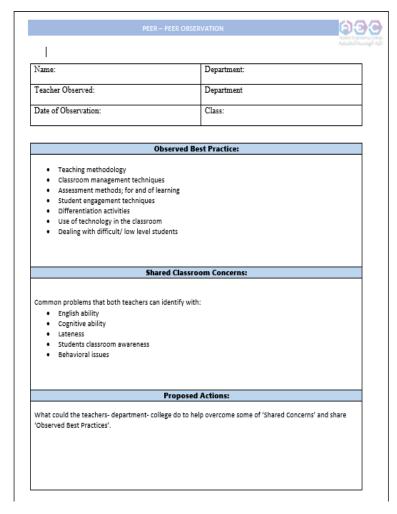
Score	Proposed Outcome
100-90	Sharing Best Practices: Teacher to be included in development plans of those who
	scored 69- belowWorkshop Leader -Mentor/ coach
89-80	Sharing Best Practices: Teacher to be included in development plans of those who
	scored 69- below -Workshop Leader/ Support -Identified criteria for development
79-70	Identified criteria for development-Workshop participant -Observe teachers' that
	scored 80+
69-60	Identified criteria for development-Workshop participant -Observe teachers' that
	scored 80+-Semi- structured development plan -Schedule meetings with HoD to
	track progress
59 below	Structured development plan that includes some of the features included in previous
	sections. Developed in conversation with the HoD and spread over a 4-week period.
	At the end of the period another formal observation should take place

In addition to providing individual professional development plans, Formal Observations provide evidence that informs Heads of Department and the Vice Dean of academic on the broader Professional Development (PD) needs of the college.

2. Peer-Peer Observation (departmental and cross college)

Peer-peer observations aim to create and maintain a collaborative learning environment that provides our academic staff with a mutually beneficial opportunity to reflect and enhance the quality of their teaching practice. In contrast to the Formal Observation process, academic staff take ownership of the observation.

Coordinated by both parties, Peer-Peer Observations provide colleagues with opportunities to share best practice, experience how different pathways are taught, discuss shared or common classroom concerns, and agree proposed actions. The outcomes are analyzed at a college perspective with the dual aims of:



- developing contextual development workshops aimed at overcoming our classroom challenges
- identify learning and teaching excellence and practice to share at our end-of-year
 AEC micro conference

5.8 Continuous Professional Development

The AEC takes purposeful steps and is committed to enhancing the learning and teaching capabilities of all our staff. The college adopts a cyclical approach where the responsibility is on the lecturer to identify specific needs and then identify the required action. The role of the college is to provide the resources and opportunities for our lecturers to run and access the proposed events. We focus our development on 3 key themes:



Each is critical to classroom success and through our academic CPD cycle we attempt to offer different platforms to develop understanding and capabilities. A major of CPD needs comes from LTEP and the formal and informal observations. Doing so has resulted in a 'needs-based' approach that engages in the internal needs of our academic staff and our students. Throughout the academic year our staff should complete different CPD activities:

- 1. Reflective practice
- 2. Peer-Peer observations
- 3. Professional conversations
- 4. Formal/informal academic workshops
- 5. Academic study
- 6. Industry events and workshops