

# ENGINEERS AUSTRALIA

## ACCREDITATION BOARD

### ACCREDITATION MANAGEMENT SYSTEM

### EDUCATION PROGRAMS AT THE LEVEL OF PROFESSIONAL ENGINEER

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**Title** Engineers Australia Policy on Accreditation of Programs Offered in Distance Mode.



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## 1. Introduction:

Engineers Australia recognises that educational techniques are continually advancing. It wishes to encourage and promote new approaches to learning and teaching, limited only by the requirement that the knowledge and attributes appropriate for entry to professional engineering practice can reliably be shown to have been attained by all graduates of the program. Engineers Australia reserves the right to investigate in depth how stated outcomes are actually achieved in practice.

Accordingly, Engineers Australia does not wish to be unduly prescriptive about particular criteria that might apply to distance education, or any other mode of flexible delivery. The preferred approach is to examine any program on its merits and in light of the criteria common to all programs. However, when approaching any variety of program in which it does not have an existing body of experience, Engineers Australia will attempt to seek out and be guided by current best practice.

## 2. Policy Statement:

- (a) Engineers Australia will evaluate, for accreditation, programs leading to the professional engineering degree which are conducted partly or principally in distance mode.
- (b) The accreditation criteria and process are those set out in the Accreditation Management System in particular, document G05 Alternative Implementation Pathways deals with offshore, remote campus and distance based delivery, in which the process specifically requires that the criteria be met and the evaluation be conducted for all modes and pathways by which the program can be completed.
- (c) Engineers Australia will expect to modify these guidelines from time to time and will welcome all input to that end.

(\*) See Website for modules within this publication:

<http://www.engineersaustralia.org.au/membership/accreditation.html>

### 3. Guidelines:

Engineers Australia has developed the following guidelines as a basis for the evaluation of engineering education programs delivered in distance mode. These guidelines will be progressively reviewed with the development of learning technologies and as further convergence occurs between traditional on-campus and external delivery approaches. The guidelines are not prescriptive, but where they are not followed, the evaluating panel will wish to be convinced that any alternative approach is equally effective.

1. A distance mode offering should be built on an existing engineering education program, concurrently offered in traditional mode to on-campus student cohorts, so that academic staff members are kept constantly face-to-face with how people actually learn. Even for experienced staff it is difficult to operate solely in distance mode. Distance delivery should thus be one of a number of possible implementation pathways for a particular program. Accreditation of the program must take account of all possible implementation pathways.
2. Electronic and face-to-face opportunities must be provided for on-campus and distance mode students to interact, particularly to ensure that group and team based learning experiences are equitable for both on-campus and distance mode cohorts. It is desirable that on-campus students make some use of materials developed for distance learning.
3. The educational design, learning activities, learning resources and assessment measures for a distance mode implementation of a program must be purpose built to support the external student in a comprehensive and independent manner. Therefore a distance education program should be designed explicitly for external students, not just adapted from on-campus materials.
4. Distance mode learning must be underpinned by a sound delivery platform using electronic and print-based resources that satisfy defined standards of quality, consistency, effectiveness of learning support and performance monitoring, ensuring educational outcomes equivalent to those of on-campus students. When developing or enhancing study materials, academic staff should have access to instructional design, multi-media and editorial consultants.
5. There must be in place an overarching quality system that fully embraces the distance mode and engages the external student as a key stakeholder within the educational system. Appropriate mechanisms should be in place to ensure timely and adequate feedback on matters such as assessment and queries within this quality system.
6. The academic staff team must be committed, equipped and adequately resourced to support implementation of the distance based learning mode. A distance education program cannot be built on the work of a minority of dedicated staff, however innovative or passionate. Everyone involved must be a committed contributor.
7. Academic policies and regulations should be framed so that they recognise and support the academic and administrative requirements of a distance education program, such as student enrolment, and program delivery mechanisms.

8. There must be equitable access to student services, academic and administrative support for distance and on-campus students alike such as library, counselling and study skills.
9. Distance mode students must be required to participate in residential on-campus learning activities equivalent to a minimum duration of one full academic week for every semester of effective full time study. In this way the school can ensure that graduates have attained the specified attributes and capabilities. Residential schools enhance student-staff and student-student interactions as well as enriching the learning experiences of both students and staff. Also, although most or all practical experience may have been gained off-campus, it is important that staff be convinced of students' practical capabilities at first hand.
10. Provision must be made for laboratory and practical learning, project work and exposure to professional engineering practice that is demonstrably equivalent to those experiences delivered to the on-campus student cohort.
11. There must be specific and adequate mechanisms for tracking the development of personal and professional skills in the distance study mode to ensure the satisfactory delivery of the generic attributes in graduates.
12. The bandwidth, performance and accessibility of electronic communication systems must be adequate to ensure the quality and effectiveness of learning support and performance monitoring, equivalent to that experienced by on-campus students.