

SE4031 Extended Integrative Option

Module status in MSc Professional Engineering: Option **Module credits:** 30

Aims

Where the interests of a participant's learning towards the MSc Professional Engineering are best served by a larger work-based project than is possible within the confines of a 15-credit module, this module may replace two 15-credit options. The module should provide an integrative function, by drawing on taught material from two 10-credit modules or a single 20-credit module from other EAS MSc programmes, and/or through extended practical work building on previously studied modules.

Content

This is a generic module specification – whilst adhering to the broad principles set out here, the content of any particular delivery of the module will necessarily depend on the selected engineering domain and the learning contract agreed between the programme participant, Aston University and the participant's professional engineering institution.

Specific content should be selected to suit the chosen area of study within the participant's engineering specialisation and support the integrative/broadening aims outlined above.

Teaching

The module will normally be taught through work-based projects supplemented by appropriate individual learning (eg through directed reading) and supported by individual supervision and mentoring. Where appropriate and specified by the learning contract, formally taught elements from one or more level 4 modules forming part of another EAS MSc programme may be accessed by distance learning.

Assessment

Written reports and (where appropriate) other formal work products arising from the work-based project(s) will be assessed.

Where content has been accessed by distance learning, and if specified by the learning contract, a proportion of the module mark may be derived from formal assessments associated with the modules accessed.

If assessment is based entirely on work-based activities, the participant's reports should total around 8000 words, or 20-30 pages including appropriate diagrams, tables, etc. Where formal assessment of distance learning provides part of the overall module assessment, reports on work-based activities should be limited to around 5000 words (12-18 pages) in total.

Module outcomes

What the participant should gain from successful completion of the module

Teaching/Learning Methods

Assessment Methods

Knowledge and Understanding

Enhanced understanding of emerging technologies and their applications, and associated engineering practice

Work-based projects, supplemented by individual learning and distance learning as appropriate

Written reports and other appropriate formal work products, possibly supplemented by exam assessment of distance learning material

Intellectual Skills

Apply design processes and methodologies innovatively and/or in a challenging context

Professional/Subject-Specific Skills

Transferable Skills

Exercise initiative in complex situations
Independent learning ability

Learning resources

As appropriate to the selected engineering domain and any modules accessed by distance learning

Other modules required in order to take this module

SE4001 Professional Development Audit