

Work-based programmes leading to professional qualification

Mentoring and assessment: guidance on supporting individuals on these programmes

This guidance has been agreed by the Steering Committee for the Engineering Council - designed framework for work-based programmes leading to professional qualification and is intended to assist those who are supporting individuals enrolled on MSc and Bachelors programmes in Professional Engineering.

It is important to take a flexible approach to the support of individuals on such work-based programmes in order to encompass the integrated approach to learning and demonstration of competence and the different environments in which they work. Each individual should receive adequate support, and different organisations will provide a variety of people to give support to the individual. How this support is structured should, first and foremost, be appropriate to the individual and their employers.

This guidance is generic. Each university or college offering masters or bachelors programmes in professional engineering is expected to produce guidance on its own specific arrangements for mentoring and assessment for its work-based students based on this generic guidance.

Assessment of learning and monitoring of competence

Learning

The assessment of learning and the extent to which the prescribed learning outcomes for the award of masters or bachelors level qualifications are met is the responsibility of the academic supervisor. It will be necessary for the academic supervisor to liaise with their student's workplace supervisor to assure themselves that an individual's work is their own.

Competence

Monitoring the development of competence requires a range of documentation which may include:

1. Evidence of existing PEI¹ membership or application for membership
2. A learning contract (including mentoring arrangements)
3. The initial competence mapping documentation often referred to as the professional development audit (PDA)
4. Mapping of competence development and ongoing monitoring reports from the mentor and candidate against milestones
5. A portfolio that includes the competence mapping and recording and a reflective review

For some PEIs, there is a 'signing off' against the competences by the workplace supervisor as the individual progresses through the programme, though these assessments may be recommendations rather than binding. For other PEIs, this 'signing off' may be done by the workplace mentor.

¹ Professional Engineering Institution

Who are involved and key responsibilities

- Academic supervisor**
- undertakes an initial mapping of knowledge, skills and competence
 - works with the individual to develop their learning contract
 - undertakes formative and summative assessment of the individuals' learning
 - academic mentoring is usually involved
- PEI**
- plays an advisory role – this may be through volunteer advisors², staff or others
 - is involved at an early stage in the development of an individual's learning contract and PDA
 - reviews an individual's documentation for acceptability for eventual professional review
 - undertakes the professional review interview and assessment of competences
- Workplace mentor**
- champions the UK-SPEC competences
 - gives direction to the programme of studies to ensure relevance to registration requirements
 - monitors the individual's development of UK-SPEC competences
 - enables the individual to identify their readiness for professional review
- Workplace supervisor**
- supports and champions the individual
 - may be the individual's line manager

Further details on the responsibilities of mentors are given below and can be found in guidance material produced by individual PEIs.

Mentoring

There are various definitions. The following IET definition is suggested:

'a suitably experienced person who is willing and able to provide help and guidance to enable a Candidate to recognise their own development potential, encourage them to realise it, praise when it is achieved and challenge them to do more'

The workplace mentor

The following applies:

- The mentor should preferably not be the individual's line manager or supervisor
- Confidentiality is important
- Conflicts of interest should be avoided
- Boundaries must be set
- It is ideal for the mentoring sessions to be face-to-face (at least initially) and away from the daily work space, though other arrangements such as tele-conferencing are possible

² For example, IET's Professional Registration Advisors

Responsibilities of workplace mentor

In addition to the key responsibilities listed above, the mentor should

- Focus the individual on the competences
- Manage experiences
- Manage the individual's expectations
- Provide feedback to the candidate
- Build confidence in the candidate

A Mentoring Contract setting out the terms of the relationship and signed by both parties may be useful.

Skills and knowledge of the workplace mentor

- Confidentiality; tact; good communication; honesty; good interpersonal skills; maturity
- Ideally the mentor should be a registered engineer and at the category to which the individual is aspiring
- Have experience that is relevant, for example to the area of work
- Have commitment to ongoing training, enabling the individual to meet their potential and become an advocate for themselves in the workplace
- Be knowledgeable about the procedures of the PEI relating to IPD and the professional review
- Have a thorough understanding of the UK-SPEC standards of competences and how these are used by the PEI

The mentor need not be from within the candidate's workplace. For example, in SMEs there may be insufficient resources and an external mentor could be appointed.

Training of mentors

Arrangements for this vary amongst the PEIs, with some providing training for groups of mentors within large companies or via local or regional networks. Mentors are advised to check with their own PEI for training arrangements. Mentors in SMEs may be able to find assistance with training from larger companies.

However, it is important to ensure that mentors are trained and keep themselves up to date. PEIs should have strategies in place to quality assure the consistency and standard of mentoring.

Allocation / finding a mentor

The following considerations should be taken into account when seeking or allocating a mentor: knowledge, experience, academic qualifications, engineering expertise and personal qualities.

The allocation of the mentor may be the responsibility of the company, the education provider or the PEI, or an individual may find their own mentor.

Usually, mentors see the mentoring role as an accepted part of their job and part of their personal development. Others, for example retired Members, undertake the role voluntarily in their own time but may wish to cover expenses such as travel costs.. Where the PEI has an existing practice that includes payment to mentors, care should be taken that there is no conflict of interest.

If an individual has difficulty in finding a workplace mentor, he/she should seek assistance from their academic supervisor or their PEI. Ideally there should be a mechanism for an individual to request a change of mentor, and vice versa, if necessary.

Monitoring and quality assurance (QA) of the mentoring process

This would include monitoring, review and evaluation of the processes of mentor selection, training and allocation as well as the quality and consistency of mentoring. Monitoring should be on a

regular basis, with reviews at specific points, and an evaluation at the end of the individual-mentor relationship.

Strategies could include: peer review, feedback from the mentor and individual, PEI feedback to companies, and monitoring the results / achievement of professional review candidates, though the latter could be too late to address any issues. Some PEIs receive feedback about each other from their professional review candidates and mentors which assists the QA process. PEIs may base their requirements for mentors on their Code of Conduct for members.

Other support

This may include:

- Use of in-company Intranet or university-hosted web-forum, chat rooms etc.
- A peer support group with the possibility of some face-to-face meetings
- Meetings for groups of students at participating universities or FE Colleges
- Engineering gateway website
- Video conferencing or tele-conferencing

Some PEIs have sponsors and supporters who formally sign off registration applications and may, depending on the situation, be the line manager, an academic or the mentor. The individual should check on these procedures and arrangements for their chosen PEI.

Work-based students will be provided with university or college-specific guidance on the detailed arrangements for mentoring and assessment.