

The Institution of Mechanical Engineers

SUBMISSION FOR THE ASSESSMENT OF A COMPANY WORK-BASED LEARNING SCHEME TO SATISFY THE FURTHER LEARNING REQUIREMENTS FOR CHARTERED ENGINEER REGISTRATION

Name of company/organisation: *[please insert details]*

Title of work-based learning scheme: *[please insert details]*

Signed:

(Scheme Coordinator)

Date of application:

Please Return Documentation to:

Steven Larkin
Accreditation Department
1 Birdcage Walk
London
SW1H 9JJ

Tel: 020 7304 6878

Email: furtherlearning@imeche.org

The completed Form and supplementary documentation (CD or hard copies) should be sent to the address above.

If you would like an electronic version of the document please e-mail your request.

When completing the document please ensure that:

1. All core information is supplied in the relevant sections, on the submission document (unless indicated otherwise).
2. Information is not duplicated.
3. All statistics are double-checked.
4. Every page is numbered.
5. The shaded areas containing the statements/questions are not removed from the document.
6. **All documentation submitted is printed on both sides of the paper.**
7. The supplementary information (b) is collated into sets.
8. All documents are bound or stapled. **Ring binders must not be used.**
9. Your Company name is printed on every document submitted.
10. Each section or table may be expanded as required. However, the information supplied should be concise and the response should be restricted to 1xA4 page maximum (unless indicated otherwise).

Submission of electronic data

On CD – highlights the opportunity to produce information on CD to reduce the amount of paperwork.

On CD, the preferred format is HTML with a detailed table of contents linked to the sections. If it is not possible to provide the information in HTML, the other acceptable formats are, in order of preference Word, PDF or RTF. Please include a table of contents referencing names of the files if the format is not HTML. Please ensure that all formats are readable on multiple platforms.

Submission for Approval

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SECTION A: GENERIC INFORMATION

A1 GENERAL INFORMATION

A1.1 General Details

Name and Address of the company/ organisation making the application ¹	
Department/Section operating the Scheme	
Duration of the Scheme ²	
Name of the Scheme Co-ordinator ³	

- 1 Where a partnership is operating, this named organisation will be considered responsible for the operation of the Further Learning scheme(s)
- 2 State the expected duration for a graduate holding an accredited/approved BEng (Hons) to gain the necessary Further Learning required for registration as a CEng e.g. 4 years.
- 3 Include email and telephone. (see guidance document for role & responsibilities of the Scheme Coordinator).

A1.2 Type of Organisation

Please tick as many of the boxes below which best describe the organisation and the industry sector(s) within which it operates, please specify any others in the spare box(es):

Aerospace	<input type="checkbox"/>	Fluid Machinery	<input type="checkbox"/>	Railway	<input type="checkbox"/>
Automotive	<input type="checkbox"/>	Management	<input type="checkbox"/>	Safety & Reliability	<input type="checkbox"/>
Construction/Building Services	<input type="checkbox"/>	Manufacturing	<input type="checkbox"/>	Structural Technology & Materials	<input type="checkbox"/>
Combustion Engines & Fuels	<input type="checkbox"/>	Medical & Health	<input type="checkbox"/>	Thermofluids	<input type="checkbox"/>
Defence Industry	<input type="checkbox"/>	Mechatronics, Informatics & Control	<input type="checkbox"/>	Tribology	<input type="checkbox"/>
Energy	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
Engineering Consultancy	<input type="checkbox"/>	Plant/Process	<input type="checkbox"/>		<input type="checkbox"/>
Environment & Sustainability	<input type="checkbox"/>	Pressure Systems	<input type="checkbox"/>		<input type="checkbox"/>

A1.3 Scheme Overview

Please provide a statement not exceeding 200 words describing the scheme including such details as; funding, integration of the scheme into the organisation's QMS, support for the individual graduate in applying for individual approval of his/her Further Learning plan, 3rd party involvement e.g. a university, mode of attendance and methods of assessment.

A1.4 MPDS / Graduate Training Programme

Please state whether the organisation operates an IMechE accredited Monitored Professional Development Scheme or a graduate training programme.

A2 QUALITY ASSURANCE

A2.1 Scheme QA

Please give details of how the scheme is maintained and administered to ensure that it remains effective, relevant and up-to-date, meeting the needs of the IMechE, the graduates and the organisation e.g. internal and external moderation of the scheme, evidence of feedback from the graduates, mentors, assessors etc on the scheme, etc. Please also explain how it integrates with the broader QA arrangements of business processes within the organisation. Describe how the success of the scheme is measured.

A2.2 Guidance and Support

Please give details of the arrangements to guide, advise and support the employees through their Further Learning activities e.g. day release to university, study leave, 'pastoral care' within the company etc.

A2.3 Documentation

Please provide the three most recent Further Learning Scheme review reports (including annual and periodic), or similar documentation, which records how the scheme has developed as part of Quality Assurance. Please also indicate what records of an individual's achievement are kept and what evidence of planning and achievement will be provided.

A3 STAFF

A3.1 Staff involved in the delivery of work-based learning

On table below: Please provide the following information about staff members.

Name	Role ⁴	Professional Affiliation	Post-nominal letters including EC ^{UK} registration

4 State the role of the member of staff as: mentor; assessor, line manager or a combination of these three

A3.2 Staff Development and Training

Please provide details of the skills, relevant experience and qualifications of the Further Learning assessors. Provide details of the mentoring support as well as the roles and responsibilities of the Mentors, Supervising Engineers and Line Managers. Please also describe how the mentors and assessors are selected and trained and how the training is funded. Include induction training for new staff.

A4 FUTURE PLANS AND INTENTIONS

A4.1 Planned changes

Please give details of any major changes planned or intended in the scheme structure or content, facilities, equipment, staff or graduate intake which could affect the learning experience of the students over the period of approval.

SECTION B: SCHEME CONTENT INFORMATION

B1 SCHEME CONTENT OVERVIEW

B1.1 Scheme Structure

Please provide an overview of the content (curriculum) of the Further Learning scheme including the structure of the scheme for each aspect, clearly showing core and optional subjects (if appropriate) and all possible routes through the overall programme, the mode of delivery and how partners in the scheme collaborate together.

B1.2 Engineering and Science Deepening of Knowledge

Describe how Engineering and Science (Technical) Deepening is delivered within the scheme. Engineering and Science Deepening will typically develop a graduate's knowledge such that he/she has a systematic and conceptual understanding of knowledge in specialised/applied areas and across areas and can work with theoretical/research-based knowledge at the forefront of their academic discipline. They should be able to synthesize, with critical awareness, information in a manner that may be innovative, utilising knowledge or processes from the forefront of their discipline/practice. Typically this will be equivalent to 30 – 40 CATS (academic credit) points at Masters level or a comparative learning time of between 300 – 400 hours of work-based learning. In the case of meeting this requirement through work-based learning, the graduate will also be required to submit the associated report(s) clearly demonstrating the knowledge and understanding gained to Masters level.

B1.3 Broadening of Knowledge

Describe how Technical and non-Technical Broadening is delivered within the scheme. Technical Broadening will typically develop a graduate's knowledge such that he/she has a comprehensive understanding of techniques and/or methodologies applicable to their own work. They should be able to analyse complex, incomplete or contradictory areas of knowledge with critical awareness and be able to communicate the outcomes effectively. They should be able to demonstrate originality in the application of knowledge and have a practical understanding of how established techniques are used to create and interpret knowledge. They have a level of conceptual understanding that will allow him/her to evaluate research, advanced scholarship and methodologies critically and be able to argue alternative approaches. Non-technical broadening will also, typically, develop a graduate's knowledge such that he/she has an awareness and ability to manage the implications of commercial, managerial, legal and ethical dilemmas and work proactively with others to formulate solutions.

Typically the combination of Technical and non-Technical Broadening will be equivalent to a minimum of 90 CATS (academic credit) points at final year Bachelors (Honours) or Masters level or a comparative learning time of a minimum of 900 hours of work-based learning. The ratio between Technical and non-Technical broadening is not defined although there must be a minimum of 30 CATS (academic credit) points at final year Bachelors (Honours) or Masters level or a comparative learning time of a minimum of 300 hours of work-based learning in each category.

B1.4 University programme learning

If the Engineering and Science Deepening, and Broadening of Knowledge are to be provided by programme(s) delivered within a Higher Education Institution (HEI), please describe how these two different aspects of Further Learning are delivered and provide the module descriptors from the programme(s) designated for providing these area of Further Learning.

B1.5 Generic Transferable/Key Skills

As a consequence of completing the work-based Further Learning Scheme the graduate should have additionally developed transferable/key skills from both areas of Further Learning i.e. Engineering and Science Deepening and Broadening of Knowledge (Technical and non-Technical) such that they can demonstrate technical expertise, which he/she performs smoothly with precision and effectiveness, can adapt skills and design or develop new skills or procedures for new situations. They should be able to demonstrate self-direction and originality in problem solving, acting autonomously in planning and implementing tasks at a professional or equivalent level.

The graduates on the Scheme should be able to use a full range of learning resources and competently undertake research tasks with a minimum of guidance. They should be independent and self-critical learners, guiding the learning of others and reflective on their own and other's functioning in order to improve practice. They should be able to exercise initiative and personal responsibility in professional practice and operate in complex and unpredictable, possibly specialised contexts, and have an overview of the issues governing good practice.

B2 PARTNERSHIP AND MULTI-SITE ARRANGEMENTS

B2.1 Partnership Arrangements

Please give details of any partnership arrangements, if applicable, especially if an HEI is involved in the delivery of part or all of the Further Learning.

B2.2 Multi- site Arrangements

Please give details if the scheme is to be operated on different sites within the organisation, describing (in particular) any differences in the scheme between sites.

B2.3 Franchise Arrangements

If applicable, indicate the institution/organisation where franchised, and the proportion of the course studied at that institution.

B3 ADMISSIONS, PROGRESSION AND ASSESSMENT

B3.1 Cohort Support

Describe how the scheme builds upon varied entry qualifications so that all graduates are able to develop their understanding to Masters level. Indicate the nature and extent of the underpinning knowledge incorporated into the scheme, or prior to admission on to the Further Learning scheme, to bring all entrants up to a similar level i.e. BEng (Hons). If an employee does not have an accredited BEng(H) degree, they will need to have their initial qualification reviewed before applying for full membership and registration. Please contact our membership team on 0845 226 9191.

B3.2 Progression

Please describe the conditions governing progression through the scheme. How is progress monitored and concerns about individual graduates raised and managed. Describe how and when a graduate will contact the IMechE with his/her Further Learning plan for approval and the in-company support available at this stage. What are the arrangements for resubmitting work or for failing a university programme module examination?

B3.3 Methods of Assessment

Please indicate how the scheme is assessed. Provide details of any written examinations, end of unit tests, assignments and practical work, dissertation plus oral viva, major projects or any other methods of assessment. For university modules please also supply the most recent set of examination papers/coursework assessment sheets for these modules.

B3.4 Scheme Completion

State how the scheme is 'signed off' as being successfully completed. Describe how and when a graduate will contact the IMechE with his/her completed Further Learning portfolio of evidence for acceptance as meeting the Further Learning required for registration as a Chartered Engineer.

B4 PROFESSIONAL MEMBERSHIP

B4.1 IMechE membership

It is a requirement of IMechE approval of a Further Learning scheme that all graduates enrolled upon the scheme must also join the IMechE as either an Associate or an Affiliate Member. This is the only way that the IMechE can track the progress of the individual graduates on the scheme. It also assists in identifying the Further Learning requirement for the individual by ensuring that their qualifications are checked. Please provide details of all of the IMechE graduates registered on the scheme including their membership number.

B4.2 Professional Institutions

Please provide information on how the Institutions are promoted to the graduates and how they are informed of the requirements for registration. Provide details of staff and student involvement in the activities of Professional Engineering Institutions and how such engagement adds to the learning experience

B5 SPECIAL / COMMENDABLE FEATURES

B5.1 Relevant Special Features

Please provide a statement not exceeding 200 words describing of any special features or areas of good practice, embedded within the scheme, which you wish to highlight.

SECTION C: ADDITIONAL INFORMATION

C1 ADDITIONAL INFORMATION ABOUT THE SCHEME

C1.1 Additional Information about the Scheme

Please provide any additional information regarding the scheme not already mentioned in the application but considered relevant to the application.

SECTION D: DOCUMENTATION CHECKLIST

Reference	Description	Included
A2.3	Copies of individual Further Learning records/assessment sheets	(Y / N)
A2.3	Copies of scheme plans and achievement records	(Y / N)
A2.3	Further Learning Scheme review reports (3 of the most recent)	(Y / N)
A3.2	Staff Development & Training information	(Y / N)
B1.4	Module Descriptors (for Universities only)	(Y / N)
B3.3	Examination Papers/Coursework assessment sheets (for Universities only)	(Y / N)
B4.1	Details of IMechE graduates on the scheme	(Y / N)

N.B: All hard copies of information must be printed on both sides of the paper and collated into sets. All documents should be bound or stapled. Ring binders must not be used. All CD Submissions must be formatted and hard copies made available on request.