WM3B5-30 Work Based Project (APEP)

24/25

Department
WMG
Level
Undergraduate Level 3
Module leader
India Palmer
Credit value
30
Module duration
36 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

The work-based project module offers apprentices the opportunity to undertake a significant piece of work-based research. This module is primarily designed to allow apprentices to demonstrate a selection of knowledge, skills and behaviours that have developed throughout their apprenticeship. This project may also add value to their organization and act as the major project of an undergraduate engineering programme in line with accreditation requirements. Project proposals will be generated by students in discussion with their line manager/work based mentor and University academic staff. With the project being focused in the workplace, supervision will be undertaken by both the University and the employer to ensure alignment with parallel objectives.

Module aims

The aim of this module is to undertake independent study, drawing on the knowledge, skills and behaviours developed during the apprenticeship and applying them to a specific work context.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Work-based and self-directed learning
Management and organisation of self and work-based project
Developing practitioner research skills and applying them within a specific work context
Selecting a project and generating research questions
Formulation of relevant objectives to address academic and organisational needs
Scoping and management of the project
Development of a robust proposal
Carrying out literature research
Primary research methods
Data analysis methods relevant to the chosen topic
Presentation of results
Presentation of the project to meet academic and organisational needs

Learning outcomes

By the end of the module, students should be able to:

- Generate a project proposal that defines a research question and seeks to solve an existing problem or make an improvement for the employer
- Critically analyse existing literature, including industry publications, relevant to the chosen research topic
- Evaluate and apply appropriate research methods to answer the research question, including risk management practices, research ethics and health and safety
- Demonstrate proficiency in utilising project management tools, specifically for planning and resource management.
- Effectively communicate the project's outcomes, critically analysing and presenting its results.

Indicative reading list

Costley, C., Elliot, G.C. and Gibbs, P. (2010) Doing Work Based Research: Approaches to Enquiry for Insider-Researchers. London: Sage. ISBN 978-1848606784
Cottrell, S. (2017) Critical thinking skills: effective analysis, argument and reflection. London: Palgrave Macmillan Education. ISBN 978-1137550507
Gratton, P. & Gratton, G. (2020) Achieving success with the engineering dissertation. Springer. ISBN 978-3030331917
Workman B and Nottingham P (2015) Work-based projects, in Helyer R (Ed.) (2015) The Work-Based Learning Student Handbook, 2nd Edition. London: Palgrave, ISBN 978-1-137-41383-3

Additional reading will be based on the nature of the topic and research methods chosen by the student.

View reading list on Talis Aspire

Research element

This project module requires apprentices to make a reasoned selection of approaches to the

research methodology, data collection techniques and data analysis, including the development of appropriate aims and objectives and abiding by ethical, social and environmental considerations.

Subject specific skills

Comply with statutory and organisational safety requirements and demonstrate a responsible and disciplined approach to risk mitigation, avoidance and management (S1 on all standards)
Undertake project management and schedule of engineering activities (S2 on ST0025)
Use and interpret a range of engineering data sources and supporting documentation (S2 on ST0023)
Organise work efficiently and effectively by managing engineering resources when completing tasks (S3 on ST0027)
Secure and manage appropriate resources (S3 on ST0025)
Lead complex maintenance or technical support activities (S3 on ST0023)
Produce presentations and work to engineering specifications and briefs, presenting and technical problem solving (S3 on ST0024)
Carry out Project Management activities (S5 on ST0027, S2 on ST0024)

Qualitative and quantitative analysis
Research methods and information gathering
Ethical, social and environmental issues in engineering.
Additional skill will depend on the topic of the project and the specific apprenticeship. All projects will draw on aspects of the course and apply them throughout the project. The project is seen as an opportunity to aggregate the subject skills developed throughout the course and synthesise them to address an identified, real world situation.

Transferable skills

Problem solving: Use rational and logical reasoning to deduce appropriate and well-reasoned conclusions Critical Thinking: Make informed decisions on the value of a range of sources allowing an evidence based
conclusion based on this analysis.
Self-awareness: Awareness of personal strengths and emotional intelligence.
Written communication: Present arguments, knowledge and ideas, in a range of formats
Communication Active Listening: questioning, reflecting, summarizing
Professionalism: Prepared to operate autonomously; Aware of how to be efficient and resilient; Manages
priorities and time; Self-motivated, setting and achieving goals, prioritising tasks.
Information Literacy: Critical awareness of how information is gathered, used, managed and synthesised;
Systematic collection, analysis and evaluation of information in the investigation of a topic.

Study

Study time

Type	Required
Seminars	5 sessions of 1 hour (2%)
Project supervision	10 sessions of 1 hour (3%)
Work-based learning	45 sessions of 1 hour (15%)
Online learning (independent)	40 sessions of 1 hour (13%)
Assessment	200 hours (67%)
Total	300 hours

Private study description

No private study requirements defined for this module.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A1

	Weighting	Study time	Eligible for self-certification
Project Proposal	20%	40 hours	Yes (extension)
Project proposal - includes rationale, context, indicative methods and aspects such as risk mitigation, environmental, societal and ethical implications			
Interim report	20%	40 hours	Yes (extension)
Interim report - shows progress and includes items such as research methods, risk management practices, research ethics and health and safety.			
Final report	60%	120 hours	Yes (extension)
Final written project based on the research question developed in the workplace.			

Feedback on assessment

Written feedback on all submissions

Availability

Pre-requisites

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Courses

This module is Core for:

- Year 4 of DWMS-H7C7 Undergraduate Applied Professional Engineering (Control/Technical Support Engineer) (Degree Apprenticeship)
- Year 4 of DWMS-H7C6 Undergraduate Applied Professional Engineering (Electrical/Electronic Support Engineer) (Degree Apprenticeship)
- Year 4 of DWMS-H7C5 Undergraduate Applied Professional Engineering (Manufacturing Engineer) (Degree Apprenticeship)
- Year 4 of DWMS-H7C8 Undergraduate Applied Professional Engineering (Product Design and Development Engineer) (Degree Apprenticeship)