

<b>Module Title:</b>	<b>Work Based Investigation and Training</b>	<b>Level:</b>	4	<b>Credit Value:</b>	20
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<b>Module code:</b>	ENG454	<b>Is this a new module?</b>	NO	<b>Code of module being replaced:</b>	
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<b>Cost Centre:</b>	GAME	<b>JACS3 code:</b>	H700
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<b>Trimester(s) in which to be offered:</b>	1, 2 & 3	<b>With effect from:</b>	September 16
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<b>School:</b>	Applied Science, Computing & Engineering	<b>Module Leader:</b>	Bobby Manesh
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Scheduled learning and teaching hours	30 hrs
Guided independent study	170 hrs
Placement	0 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>Programme(s) in which to be offered</b>	Core	Option
FdEng Industrial Engineering	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<b>Pre-requisites</b>
none

<b>Derogations</b>
None

Office use only

Initial approval June 16

APSC approval of modification *Enter date of approval*

Version 1

Have any derogations received SQC approval?

Yes  No

**Module Aims**

To facilitate the learning and development of a student engineer by means of practical work based learning in an industrial environment.

**Intended Learning Outcomes**

Key skills for employability

- KS1 Written, oral and media communication skills
- KS2 Leadership, team working and networking skills
- KS3 Opportunity, creativity and problem solving skills
- KS4 Information technology skills and digital literacy
- KS5 Information management skills
- KS6 Research skills
- KS7 Intercultural and sustainability skills
- KS8 Career management skills
- KS9 Learning to learn (managing personal and professional development, self-management)
- KS10 Numeracy

At the end of this module, students will be able to

Key Skills

At the end of this module, students will be able to		Key Skills	
1	Develop management techniques for planning and implementation of engineering tasks	KS1	
2	Research information applicable to tasks	KS6	
3	Demonstrate an awareness of new/developing technologies and their possible implications to plant and processes	KS7	
4	Assess tasks and identify problems with the means to overcome them	KS2	

<b>Assessment:</b>					
Assessment 1 - Portfolio of work relating to work based activity inclusive of log-book/diary. Providing a clear overview of the topic investigated including explanations and summary of results together with an analysis of their relevance, limitations and how the results relate to the objectives of the engineering investigation.					
Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1, 2, 3 & 4	Portfolio	100		4000

<b>Learning and Teaching Strategies:</b>
Work-based supervisor, Module leader, student and Mentor decide upon a proposed topic which should involve the student in 200 notional hours of work and study. Specific training undertaken may form part of the notional hours. The relationship between the FdEng programme and the work-based assignment should be clearly identified. The work used for this module may be part of the students' normal workload or some activity designed specially to deliver the required evidence for the assessment of this module. In either case, the negotiation and planning required should be completed and agreed before commencement of the detailed practical work with a module learning agreement document completed.

<b>Syllabus outline:</b>
<ul style="list-style-type: none"> <li>• Negotiate and plan a work-based topics for investigation</li> <li>• Carryout work safely conforming to codes of practice</li> <li>• Conduct checks on engineering product/asset compliance with specifications</li> <li>• Examine new/upcoming technologies, products, devices and software. Contemplate their suitability for replacement of legacy equipment</li> <li>• Provide documentation, including systematic records of work undertaken; record and tabulate observations/test results where appropriate</li> </ul>

<b>Bibliography:</b>
<b>Essential reading</b>
J. W. Davies, (2016) <i>Skills for Engineering students</i> , Palgrave
<b>Other indicative reading</b>
Hoag, K.L. (2001) <i>Skills Development for Engineers</i> , IET publishing