ES3H0-30 Individual Project - Engineering Business Management

20/21

Department
School of Engineering
Level
Undergraduate Level 3
Module leader
Alexa Kirkaldy
Credit value
30
Module duration
25 weeks
Assessment
100% coursework
Study location
University of Warwick main campus, Coventry

Description

Introductory description

ES3H0-30 Individual Project - Engineering Business Management

Module web page

Module aims

Projects will vary in nature but will be specifically focused around commercial / business aspects of the engineering sector (e.g. quality, supply chain management, procurement, and marketing). All of the proposed projects should allow the students the opportunity to achieve the learning outcomes. The module aims to provide students with the opportunity and challenge to develop and / or integrate existing knowledge and skills as well as discover
Module Summary (and in some cases create) new knowledge using existing literature, primary data collection, case studies etc. The module also aims to reward curiosity and motivation with a satisfying experience involving close interaction with a suitable academic supervisor. The project aims to provide the student with an opportunity to analyse a critical business issue / challenge experienced within the engineering sector and to make specific, feasible recommendations to overcome the issue / challenge.

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.

A project topic may be selected from published lists or, alternatively, students may themselves propose suitable topics in consultation with Personal Tutors or potential supervisors.

The project should focus upon the wider aspects of strategic business management, entrepreneurship, manufacturing, marketing, contract management and quality and supply chain management within the domestic or global engineering sector.

Learning outcomes

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

- By the end of the project, the student should be able to · Design a project defining aims and objectives, evaluating data / information requirements and constraints as appropriate. Define and select an appropriate research methodology to meet the objectives of the project.
- Evaluate the potential risks and issues of the project; including time, uncertainty, availability and validity of data, ethics, industry conventions and best practice. Demonstrate appropriate risk management within the project plan.
- Apply and integrate knowledge and principles from a range of commercial and business disciplines as appropriate to analyse and solve a typical issue experienced by engineering organisations.
- Comprehensively collect, analyse, discuss data / information and draw appropriate conclusions in relation to project aims and objectives. Provide recommendations for implementation of ideas / findings.
- Plan and carry out a personal programme of work demonstrating effective and appropriate project management skills. Monitor and adjust project direction throughout project lifecycle as appropriate. Demonstrate initiative and personal responsibility to perform a complex project autonomously.
- Reflect on the project and identify opportunities for further work and / or research. Evaluate lessons learned and the role of the project in lifelong learning.

Research element

Student are expected to carry out independent research / investigation within the self study hours. This may involve collecting primary data, in which case SofE ethical approval must be sought. Research for other literature / sources may be required using both resources available from the University of Warwick library or www.

Subject specific skills

1. Ability to recognise, conceive and realise an opportunity or challenge in an engineering business related concept.
2. Ability to develop economically viable and ethically sound sustainable solutions to such an

opportunity or challenge.
3. Ability to be consider challenges and solutions with a rational approach, taking logical and practical steps necessary for, often complex, concepts to become reality
4. Ability to seek to achieve sustainable and commercially viable solutions to problems and have strategies for being creative and innovative within known constraints.
5. Ability to be risk, cost and value-conscious, and aware of their ethical, social, cultural, environmental, health and safety, and wider professional engineering responsibilities

Transferable skills

1. Identify and apply suitable analysis methods leading to the recommendations optimal solutions
2. Apply problem solving skills, information retrieval, and the effective use of general IT facilities
3. Communicate complex technical and commercial concepts in both written and oral formats (to technical and non-technical audiences) .
4. Plan self-learning and recognise necessary performance improvements, as the foundation for lifelong learning/CPD
5. Exercise initiative and personal responsibility, including time management, elements of which may be as part of a multi-disciplinary team.
6. Demonstrate growing awareness of the nature of business and enterprise in the creation of economic and social value
7. Overcome difficulties and challenges by employing skills, knowledge and understanding in a flexible manner
8. Ability to formulate and operate within appropriate codes of conduct, when faced with an ethical issue
9. Appreciation of the global dimensions of engineering, commerce and communication
10. Be professional in their outlook and conduct, become effective communicators and be able to exercise responsibility and sound management approaches.

Study

Teaching split

Provider	Weighting
School of Engineering	50%
WMG	50%

Study time

Type	Required
Lectures	5 sessions of 1 hour (2%)
Total	300 hours

Type	Required
Project supervision	20 sessions of 1 hour (7%)
Private study	275 hours (92%)
Total	300 hours

Private study description

Guided independent learning – 275 hours
E-mail support, and weekly opportunity to review progress and support student questions. (project supervisor)

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A2

	Weighting	Study time
Project Feasibility Assessment Individual 10 pages	15%	
Project Report Project report (40 pages) and Evaluation (5 pages)	70%	
Project objectives and time management reflective analysis Project objectives and time management reflective analysis (to be submitted as an appendix to the 70% element)	15%	

Feedback on assessment

Ongoing feedback through supervisory meetings

- Class summary of typical strengths / weaknesses
- Student support through advertised advice and feedback hours
- Two assessors (one is the Project Supervisor) will independently mark the final business report and a third academic will act as the moderator combining feedback for the student. Comments will be given in support of project marks.

Availability

Courses

This module is Core for:

- Year 3 of UESA-HN15 BEng Engineering Business Management
- Year 4 of UESA-HN13 BEng Engineering Business Management with Intercalated Year

This module is Core optional for:

- UESA-H112 BSc Engineering
    - Year 3 of H112 Engineering
    - Year 3 of H112 Engineering
- Year 3 of UESA-H115 MEng Engineering with Intercalated Year