

ES4F6-30 Individual Project

26/27

Department

School of Engineering

Level

Undergraduate Level 4

Module leader

Ishwar Kapoor

Credit value

30

Module duration

25 weeks

Assessment

100% coursework

Study location

University of Warwick main campus, Coventry

Description

Introductory description

ES4F6-30 Individual Project

Students returning from Exchange year who haven't completed an individual project are required to take ES4F6 in addition to ES410

[Module web page](#)

Module aims

Projects will vary in nature from design and make to computational and research-based projects. All proposed projects should give students the opportunity to achieve the learning outcomes. The module aims to provide students with a vehicle to develop and/or integrate knowledge and skills as well as discover and (in some cases) create new knowledge using literature, experimentation or modelling and analysis where appropriate. The module also aims to reward curiosity and motivation with a satisfying experience involving close interaction with an academic supervisor.

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.

Project work is undertaken during the Autumn and Spring terms. There will be some lectures in term time as part of the project.

Learning outcomes

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

- Design a project defining aims and objectives, upon critical reflection from relevant literature. [M4]
- Evaluate risk & constraint issues including general project risks, time, uncertainty, information, data, commercial, environmental, sustainability, health, safety, security, intellectual property rights, standards and create a project plan which demonstrates appropriate risk management. [M7, M9, M10]
- Apply and integrate knowledge and principles from a range of disciplines using an integrated approach, including new technological developments, as appropriate to analyse and solve a problem holistically, including consideration of production, operation, maintenance and disposal. [M6, M7]
- Comprehensively obtain, analyse and assess results and communicate the effectiveness of the methods used to technical and non-technical audiences. [M17]
- Plan and carry out a personal programme of work demonstrating project management by monitoring and adjusting throughout the project lifecycle and managing budget. [M15]
- Demonstrated ethical awareness by identifying issues and making informed decisions based on professional codes of conduct. [M8]
- Reflect on the project and opportunities for skills development evaluating lessons learned and the role of the project in lifelong learning as well as planning future learning and demonstrating improvement. [M18]

Research element

Students 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

Ability to recognise, conceive and realise an opportunity or challenge in an engineering context. Ability to develop economically viable and ethically sound sustainable solutions to such an opportunity or challenge. Ability to be consider challenges and solutions with a rational approach, taking logical and practical steps necessary for, often complex, concepts to become reality Ability to seek to achieve sustainable and commercially viable solutions to problems and have strategies for being creative and innovative within known constraints. 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

Identify and apply suitable analysis methods leading to the recommendations optimal solutions
Apply problem solving skills, information retrieval, and the effective use of general IT facilities
Communicate complex technical and commercial concepts in both written and oral formats (to technical and non-technical audiences) . Plan self-learning and recognise necessary performance improvements, as the foundation for lifelong learning/CPD Exercise initiative and personal responsibility, including time management Overcome difficulties and challenges by employing skills, knowledge and understanding in a flexible manner Ability to formulate and operate within appropriate codes of conduct, when faced with an ethical issue Appreciation of the global dimensions of engineering, commerce and communication Be professional in their outlook and conduct, become effective communicators and be able to exercise responsibility and sound management approaches.

Study

Study time

Type	Required
Lectures	13 sessions of 1 hour (4%)
Project supervision	20 sessions of 1 hour (7%)
Private study	267 hours (89%)
Total	300 hours

Private study description

Guided independent learning 267 hours

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group A6

	Weighting	Study time	Eligible for self-certification
Assessment component			
Project Feasibility Study	15%		No
Length should be no more than 8 pages, including 2 pages dedicated to the Ethics Questionnaire Submission Form at the end of the document.			

Reassessment component is the same

Assessment component			
Project Report	70%		No
Project report, including Viva. This will also include comments on project management, ethics, and security. Length should be no more than 30 pages, excluding references.			

Reassessment component is the same

Assessment component			
Self-learning and Development Record	15%		No
Record of personal learning progress, skill development, and areas for future growth. Length should be no more than 8 pages.			

Reassessment component is the same

Feedback on assessment

- Ongoing feedback provided through supervisor meetings;
- Feedback on Tabula
- The project report will be independently marked by two assessors (one being the Project Supervisor), 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 4 of UESA-H318 MEng Mechanical Engineering with Exchange Year

This module is Core optional for:

- Year 4 of UESA-H219 MEng Civil Engineering with Exchange Year
- Year 4 of UESA-H116 MEng Engineering with Exchange Year
- Year 4 of UESA-H318 MEng Mechanical Engineering with Exchange Year

This module is Core option list G for:

- Year 4 of UESA-HH33 MEng Systems Engineering with Exchange Year