



## MODULE DESCRIPTION FORM

### DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING

### ME521 ADVANCED RESEARCH PROJECT B

|   |  |                          |
|---|--|--------------------------|
| Module Registrar: Dr M Oliveira<br><a href="mailto:monica.oliveira@strath.ac.uk">monica.oliveira@strath.ac.uk</a> | Taught To (Course): Cohorts for whom class is optional |                          |
| Other Lecturers Involved: Supervisors   | Credit Weighting: 20                                   | Semester: 2              |
| Optional class  | Academic Level: 5                                      | Suitable for Exchange: N |

#### Required prerequisites

**Note:** It is the responsibility of ALL students to ensure that they satisfy the prerequisite knowledge for this module BEFORE adding as part of curriculum selection. If unsure, please contact the Module Registrar or discuss with your Programme/Year Adviser of Studies.

Successful completion of the part A of Advanced Research Project

Project dependent: please check with supervisors

#### Module Format and Delivery (HOURS i.e. 1 credit = 10hrs of study):

| Lecture | Tutorial | Laboratory | Groupwork | External | Online | Project | Assignments | Private Study | Total |
|---------|----------|------------|-----------|----------|--------|---------|-------------|---------------|-------|
|         |          |            |           |          |        | 200     |             |               | 200   |

#### Educational Aim

The objective of the project is to expand and enlarge on work completed in the individual 4th year project, in order to prepare a full paper for submission to a refereed engineering journal. This may involve further research and background study, further experimental and/or simulation work, more detailed analysis and discussion of results, or other activities, to be agreed by the individual supervisor. The full paper is to be prepared by the student, under supervision, in the correct format for submission to the chosen journal. In exceptional circumstances, work carried out during a university based summer research internship may be written up for submission of a journal paper.

#### Learning Outcomes

On completion of the module the student is expected to:

LO1 Have submitted a professional standard technical paper to a refereed engineering journal (or prepared a draft in a suitable format, ready for submission).

LO2 Have had the opportunity to deepen and broaden the knowledge gained in the 4<sup>th</sup> year individual project (or equivalent)

LO3 Have gained significant experience of the practice of engineering research, and been trained in the care and discipline required for publication of research in refereed journals

#### Syllabus

The student will carry out appropriate research and scholarship to prepare a paper submission.

## Assessment of Learning Outcomes

### Criteria

For each of the Module Learning Outcomes the following criteria will be used to make judgements on student learning:

#### LO1

C1 The paper must have been submitted, or (in the opinion of the supervisor) be in a draft form in the appropriate format for submission in the near future.

C2 The quality of the paper must be such that the supervisor is willing to be a named co-author.

#### LO2

C1 The oral panel will interview the student to assess the degree of deepening and broadening of knowledge developed during the project.

#### LO3

C1 An assessment of the quality of the paper, and the amount of work carried out, over and above that completed in 4<sup>th</sup> year.

The standards set for each criterion per Module Learning Outcome to achieve a pass grade are indicated on the assessment sheet for all assessment.

### Principles of Assessment and Feedback

(within Assessment and Feedback Policy at: <https://www.strath.ac.uk/professionalservices/staff/policies/academic/> )

#### Help clarify what good performance is.

Regular feedback will be obtained through meetings with the supervisor, to give clear guidance about performance and progress. This will tend to be informal in nature, but students should recognise this as feedback, and be encouraged to reflect on it.

#### Encourage 'time and effort' on challenging learning tasks.

Regular meetings with the supervisor will encourage the student to work steadily over the whole project to achieve a high quality end result.

#### Ensure that summative assessment has a positive impact on learning.

Students will be shown the assessment criteria in advance, and given guidance on the numerical marking scheme. This will allow them to focus effort on achieving good learning outcomes with the aim of achieving a high mark.

#### Facilitate the development of self-assessment and reflection in training

Students will be encouraged to reflect on their progress towards the publication, and plan their work effectively to meet the deadline.

#### Encourage positive motivational beliefs and self-esteem

Publication in a peer reviewed journal is a demanding exercise. Completion of this task is highly motivating and a source of satisfaction for the students.

### Assessment Method(s) Including Percentage Breakdown and Duration of Exams (*individual weightings*)

| Examination |          |          |                  | Coursework |                  | Practical |                  | Project         |                  |
|-------------|----------|----------|------------------|------------|------------------|-----------|------------------|-----------------|------------------|
| Number      | Month(s) | Duration | <i>Weighting</i> | Number     | <i>Weighting</i> | Number    | <i>Weighting</i> | Number          | <i>Weighting</i> |
|             |          |          |                  |            |                  |           |                  | 1               | 100%             |
| *           |          |          |                  | *          |                  | *         |                  | * LO1, LO2, LO3 |                  |

\* **L/Os:** Indicate which Learning Outcomes (L01, L02, etc) are to be assessed by exam/coursework/practical/project as required.

**Coursework / Submissions deadlines (academic weeks):**

Copy of research paper to be handed in on the first day of the exam diet. Oral exam to be carried out during the exam diet.

**Resit Assessment Procedures:**

Alternate submission prior to commencement of the August exam diet and new oral examination.

**Students must contact the module Registrar for details as soon as results confirm that a resit is required.**

**PLEASE NOTE:**

**Students must gain a summative mark of 50% to pass the module. Students who fail the module at the first attempt will be re-assessed during the August diet. This re-assessment will consist entirely of coursework and viva. No marks from any previous attempts will be transferred to a new attempt.**

**Recommended Reading**

Reading appropriate to project topic.

**Additional Student Feedback**

*(Please specify details of when additional feedback will be provided)*

| Date | Time | Room No                              |
|------|------|--------------------------------------|
|      |      | Check timetable webpages for details |

Session: 2021/22

**Approved:**

**Course Director Signature: E Henderson**

**Date of Last Modifications: 31/08/2021**

## MODULE TIMETABLE

Module Code:

ME521

Module Title:

Advanced Research Project B

### Brief Description of Assessment:

Journal paper and oral examination.

### Assessment Timing:-

Indicate on the table below the start/submission dates for each assignment/project and the timing of each exam/assessment using the dropdowns provided. Dropdowns can be left blank. Add extra notes below the dropdowns.

**Please note: Timings can and will change, this should only be used as a guide.**

| Semester One | W&D Wk                             | WK1                                | WK2                                | WK3                                | WK4                                | WK5                                | WK6                                | WK7                                | WK8                                | WK9                                | WK10                               | WK11                               | Exam Period                        |
|--------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
|              | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. | Choose an item.<br>Choose an item. |

| Semester Two | C&D Wk                             | WK1                                | WK2                                | WK3                                | WK4                                | WK5                                | WK6                                | WK7                                | WK8                                | WK9                                | WK10                               | WK11                               | Exam Period                        |
|--------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
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