#### Faculty of Science & Engineering Postgraduate Research Student Progression Review Process

This document sets out a **first year progression review meeting** to be conducted with all PhD students (PhD, sPhD), consistent with the requirements of the Research Student Progression procedure (Handbook of Academic Regulations, Section 5.6). The review meeting aims to help ensure the successful and timely completion of the research degree.

The **objective of the progression review** is to assess if the student has:

- knowledge and skills appropriate to the stage of their research programme;
- completed work of a sufficient quality to justify continuation on the programme, using the most appropriate research methods; and
- a realistic plan in place for progression and eventual completion of the research within the expected timeframe.

The assessment will be based on the completed documentation, the presentation, and the response to questions arising from the presentation. The student should expect to defend their work and methodological choices in order to allow the panel to make their assessment.

### Timeline

All students registered on S&E PhD or sPhD programmes will be reviewed by a panel **typically within 9 to 18 months of enrolment,** early in the academic year (to be consistent with the submission of the PGR-9 form). Students should be informed about the progression process when they enrol, and provided with an indicative timeline for the review panel to take place. Supervisors should discuss progress with the student, so that the student can work towards completing the necessary documentation at least two weeks prior to the progression review meeting.

### First Year Progression Review Panel Membership:

The panel will have the following membership (as per the Handbook of Academic Regulations, Section 5.6.7.2):

- Chairperson: Head of Dept. / School or nominee<sup>1</sup>
- Independent panel members: at least one independent panel member, nominated by the Head, who satisfies the criteria of appointment of supervisor
- Supervisor or supervisors are panel members, but cannot chair and should not lead questions

## **Role of Panel Members**

- The **Chairperson** will manage the progression review panel, ensure that the process is consistent with Academic Regulations, ensure that the student is treated fairly, and will communicate the outcome of the review to the student. The Chair will **not** engage in the assessment of the student's progress. The Chair will ensure that all the required documentation is completed, including feedback to the student, and that the Head is informed, where relevant.
- **Independent panel members** will ensure that the candidate has demonstrated satisfactory progress in relation to the stage of their PhD programme.
- **Supervisors** should not take the lead in questions but may contribute to the review.

**Review Documentation** (to be submitted by student in advance of the panel meeting):

- The Post Graduate Research Student Achievements Form<sup>2</sup>
- Optional additional material that documents progress to date and indicates the future direction of the research. Student and supervisors should agree on the material to be submitted. This may

<sup>&</sup>lt;sup>1</sup> As per 5.6.7.3: Where the Head is a supervisor of the research student, the Dean of Faculty or his/her nominee will assume the role of Head in acting as chairperson and nominating the independent member to the panel.

<sup>&</sup>lt;sup>2</sup> Students completing sPhDs should provide evidence for their completion of core and elective modules (ie, the official UL transcript) and include plans for completion of the modules as appropriate in the PhD Achievements Form. Students following the traditional PhD route should use the form to detail training and related activities.

include written reports (~1,000 words), published (or presented) papers, and design artefacts such as models, drawings, prototypes and so on.

#### Format of the Panel Review Meeting

All students will be required to give a 20-30 minute presentation (which can be public) and answer questions raised by the panel (in a closed session). Following the questions, the student will withdraw to allow the panel time for discussion. The panel discussion will include input from the supervisors; students (if they wish) will also have an opportunity to speak without their supervisor being present. Following this, the student will be informed of the panel's recommendation verbally by the Chair.

It would normally be expected that all students will attend their progression panel meeting. However, provision will be made for remote panels where necessary. In the case of remote panels, the format will be similar to that described above.

In preparing the Post Graduate Research Student Achievements' form and the content of the presentation, students should describe their performance on taught modules (if relevant) and research components of the programme, considering the following **guidance notes for the student:** 

- (1) Define the research project clearly;
- (2) Propose a programme of work that provides a sufficient foundation for PhD-level research;
- (3) Indicate how s/he plans to achieve the proposed results within a realistic timeframe and with the available resources;
- (4) Show evidence of understanding the research question and its implications, the limitations of the methods to be employed, and the significance of their work within the broader literature;
- (5) Provide a reasonable plan how best to disseminate the results of the PhD project (publications, exhibitions, patents, production, realisation, etc.);
- (6) Provide a successful track record of completed taught modules (sPhD, as covered in the Achievements Form); and
- (7) Indicate a sufficient understanding of potential ethical problems associated with the research project.

#### Outcomes

As per the Handbook of Academic Regulations (Section 5.6.7.5), the recommendations made to the Academic Council Grading Committee following the panel review will be as follows:

5.6.7.5 The Research Review Panel will assess the candidate's performance to date and determine the appropriate recommendation. The Panel's recommendation shall be one of the following:

- a. The student's research progress is of a sufficiently high standard to warrant continuation on the Masters or PhD register as applicable. (G) or
- b. The student's progress is not satisfactory and the student is required to undertake the Research Confirmation Process. (NG)

These recommendations will be made at the review panel meeting. Students will be informed of the recommendation immediately and a written report (see Appendix) will be provided by the panel Chair to the student and their supervisors within two weeks of the panel meeting. The report should provide the student with clear feedback on both the strengths and weaknesses of their research programme. Where a Head is not the panel Chair, the Chair must also provide reports and decisions to the Head within two weeks of the meeting.

#### **Completion of the First Year Progression Panel Report**

The progression panel report (see template in the Appendix) will be completed at the end of the progression review meeting and signed by the panel members. All forms will be kept in student files in the Department (and by the sPhD administrator, where relevant).

#### <u>PhD Title</u>

Modelling Damage in Carbon Fibre Composites

#### PhD Abstract (max. 250 words)

This project aims to develop a state-of-the-art three-dimensional multi-scale composites damage model that can predict failure events that occur over a range of length and time scales. A detailed damaging micromechanics model will be developed and a novel approach to scale-up to the continuum is proposed. Model input data such as individual fibre stiffness and fibre pitch/diameter distribution will be generated using nano-indentation experiments and microscopy, respectively. The model will be integrated within the framework of the ABAQUS finite element code (currently used by at least two major aircraft manufacturers), thus providing a useful design tool to industry and academia.

#### Short Progress Statement (200 words max.)

Include your progress to date, and state how your research is progressing. Are there any significant roadblocks? Any relationship problems? Mention any significant progress not measured in the forms below. This is your chance to have a say in the progress of your PhD!

Year (please tick)						
Year 1	Year 2	Year 3	Year 4	Year 5	Year (n)	
		Х				
Structured	Y/N					
PhD						

# <u>Major Outputs, e.g. journal Papers, book chapters, major projects, designs</u> etc. (planned, submitted or published (state which ))

- Example: TJ Vaughan, McCarthy, CT, A micromechanical study on the effect of intra-ply properties on transverse shear fracture in fibre reinforced composites, Composites Part A: Applied Science and Manufacturing, Vol. 42, No. 9, pp. 1217-1228 (contribution to paper: directed the research, wrote sections of the paper etc.) (published)
- Example: A. Another, Designed a copper façade for UL's main entrance

#### Conference Papers (planned, submitted or published (state which))

• Example; Mortell, D., McCarthy, C.T. and Tanner, D. (2012) 'An Investigation into the Relationship between Intralaminar Crack Growth and Delamination, leading to Compromised Structural and Mechanical Performance', in Marino Q., Proceedings of the 15th European Conference on Composite Materials (ECCM15), Venice, Italy, 24-28 June.(published)

#### Presentations( internal and/or external)

 Title: Predicting Failure in Multi-bolt Composite Joints using Finite Element Analysis and Bearing-bypass Diagrams (external) Author(s): Blogs, Joe
 Venue / Date: 6th International Conference on Damage Assessment of Structures (DAMAS), Polish Academy of Sciences, Gdansk, Poland. / 4th-6th July 2005 Role: Standard Conference Presentation

#### IP Activity (planned, submitted, granted (state which))

- **Patents**: e.g. Submitted a Patent to the US Patent Office or US Patent Granted No. 12346
- **Invention Disclosures**: e.g. filed an invention disclosure with the UL TTO office on a new technique to filter water.
- **Licences:** e.g. Licensed a software tool to three local industries to optimise their process control

### Technical Reports (planned, submitted, approved (state which))

 Report: Synthesis report on validation tests for manufacturing effects (<u>submitted</u>) Author(s): XXX,YYY
 Commissioning Agency: European Commission - MAAXIMUS-WP6.5-ULIM-CTD-CTD6.5.4\_Test\_Results\_V2.0, 2011, MAAXIMUS - FP7 Work grant number 213371

#### Skills (300 words max.)

- Proficient in ABAQUS finite element code
- Advanced Excel course taken
- Etc.

# Modules (State grade: Pass, Fail, Letter Grade or N/A);

# Completion of this section is compulsory for Structured PhD Students ME6032, Advanced Aircraft Structures (grade: N/A)

- ME6032, Advanced Aircraft Structures (grade: N/A)
- ME60011, FUNDAMENTALS OF CONTINUUM MECHANICS, (grade: pass)

#### **Special Achievements**

- Represented the MABE Dept. at Sir Bernard Crosland Symposium
- Solved a complex problem for Cook Medical
- Etc.

Year 2 Interim Assessment (Year 2 only) (to be carried out before October of second year of study		Grade (Pass/Fail)
PhD Interim Report Submitted?		
Completed PhD Interim Presentation?		

#### **Ethics Approval**

Does your research require Ethics Approval?	
Has Ethics Approval been granted?	

Apr. 2018

Yes/No

## S&E First Year Progression Panel Report

Student Name:	ID Number:
Year of Registration:	Department:
Date of Progression Meeting:	
Panel Members:	
The panel noted the following points in rela	tion to your progression panel meeting:
Areas of Strength:	
Areas of Improvement:	
If the student registered for a Structured Ph taught modules?	D, are they on track to complete the appropriate
Yes 🗆	No 🗀
As per the Handbook of Academic Regulation to the Academic Council Grading Committee G □	ons (Section 5.6.7.5), the recommendations made e following the panel review will be as follows: NG $\Box$
Signature of Chair:	Date:
Signature of Examiner 1:	Date:
Signature of Examiner 2:	Date:
Signature of Student:	Date:
<ul> <li>What to do with this form now:</li> <li>Send a copy to the Student</li> <li>Send a copy to the Supervisor</li> <li>Send the original to the relevant Departm</li> </ul>	ent Coordinator.