Zoology Postgraduate Research Student Handbook

Discipline of Zoology, School of Natural Sciences

October 2015
Introduction
There is increasing emphasis placed on research output as Ireland promotes the concept of a "knowledge-based economy". An important part of our research output is through the production of research theses and, very importantly, the publications that arise from postgraduate and postdoctoral research work. Postgraduate research is, therefore and rightly, a key departmental activity, which needs to provide mutual benefit to the individual students and the department as a whole. Postgraduate research requires clearly formulated hypotheses and a sound scientific approach. Successful research and its professional dissemination enhance the standing of the Department and the students who pass through it. It is the aim of the Discipline of Zoology, within the School of Natural Sciences, to promote excellence in research. This document sets out the strategy to support postgraduate research students and their supervisors in achieving the full potential of research activities. We aim to foster responsibility among students and staff that is mutually supportive and enhances a professional attitude to research.

At the outset of each postgraduate research project, a steering committee is assembled to support the student in successful completion of the work. The committee consists of the Postgraduate Coordinator for the discipline (or Head of Discipline where the Coordinator is the supervisor or advisor of the project) and a member of academic staff not involved with the research directly but who acts as an advisor. The supervisor and, where applicable, co-supervisor, will also sit on the committee, except during the confirmation process where they may attend but do not participate in decision-making. The role of the committee is to monitor the development of the research student and, as a consequence, improve research output, and to give constructive guidance and feedback to the student. Periodic formal meetings between research students and their steering committees are arranged as detailed below. The committee should recognise the importance of: motivation of the student; basic skills; supervision; developmental structure of progress during the postgraduate period; and resources.

The Department and its students are entitled to have a common understanding of research expectations and responsibilities. This should be through a consultative process that enables and encourages staff and students to be fully engaged in, and supportive of, the professional requirement to produce well trained and knowledgeable postgraduates. The work of the Steering Committee is designed to support that expectation.

The function of the Steering Committee
The Research Steering Committee is there to guide the direction of research and provide a forum for discussing the intellectual basis and progress of the work. A key function of the committee is to identify, and recommend solutions to, constraints to progress.

The Steering Committee will be convened (Table 1): 1) three months after commencement of the project, when the student presents a project proposal; 2) at the end of the first year with presentation of a progress report and 3) in the case of students entering on the PhD register, a confirmation meeting within 18 months where the committee decides if the student should progress on the PhD register or transfer to the MSc register to complete an MSc thesis before the end of the second year. The student, with advice from the supervisor, takes the initiative to arrange the dates
for the meetings and ensures that documents are delivered to the committee on time (within 10 days of the meeting).

<table>
<thead>
<tr>
<th>Nature of meeting</th>
<th>September registrants</th>
<th>March registrants</th>
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<tbody>
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<td>Initial startup (3 months)</td>
<td>December</td>
<td>June</td>
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<td>Progress (12 months)</td>
<td>August/September</td>
<td>March</td>
</tr>
<tr>
<td>Confirmation (18 months)</td>
<td>March</td>
<td>August/September</td>
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Following each meeting, the academic staff will consult and the research supervisor will produce, within three days, a brief summary of the progress of the research and recommend necessary follow up activities to be addressed by the student.

**Reports required by the Steering Committee**

The steering committee requires that:

- At least ten days prior to a Steering Committee meeting, the student should submit the required documents by email, agreed and checked in advance with the supervisor.

- The project proposal (produced for the initial meeting) should outline clearly the scientific questions to be studied and the scientific objectives of the research. These should not be stated as nebulous or general goals, rather as clear and testable hypotheses. It should include a brief summary of the pertinent literature, methods to be used to do the research and a timetable for the research. These will be reconfirmed or reappraised at subsequent meetings.

- A self-assessment questionnaire that identifies the practical and intellectual development requirements for the timely completion and dissemination of the research should also be presented by the student at the initial meeting. Progress in development of the skills will be self-monitored by the student and, in consultation with the supervisor, include verifiable milestones. This could include the identification of and participation on suitable courses.

- Successive reports provide a means to review progress. Basic repetition is not required, but reference to previous reports is clearly relevant. Progress reports should be in summary form, or more detailed but selective. Reports should include a table of progress of submitted and in-draft publications, and a concise summary of attendance at conferences and presentations made (title of paper or poster; with author list).

Reports should not exceed 10 pages, be in 1.5 line spacing and should contain a full reference list. All tables, figures and references need to be presented at a high quality in a recognised scientific reporting format.

**The confirmation process**

It is university policy that all post-graduate students who enter directly on the Ph.D. register must be confirmed by their steering committees to continue on that register on condition of satisfactory progress. This must take place within 18 months on the register. If the steering committee feels that
the project is not on track to deliver a satisfactory PhD thesis within the normal time frame (4 years), the student is required to transfer to the MSc register to submit an MSc thesis within two years. A confirmation meeting may take place earlier than 18 months at the request of the supervisor, at the most appropriate time for the student’s progress.

The confirmation process is of fundamental importance. It requires evidence that the student has a high probability of meeting the requirements of the higher degree. The process requires submission of a progress report, which summarises the research that has been completed and a clear and well-structured plan for the remainder of the project. In addition, a draft of a manuscript that will be submitted for publication to a peer-reviewed journal is also required. It is expected that these draft papers will include amendments that have been incorporated following review by the project supervisor.

Reports that are lacking important detail or are not produced to a high quality will be referred back for revision. Where transfer to the MSc register is recommended by the Steering Committee but disputed by the student, the student has the right of appeal to the Director of Postgraduate Teaching and Learning where the School appeals process will be applied.

The role of supervisor and student

Both student and supervisor have responsibilities. The research supervisor and student should meet on a regular one-to-one basis. This should be agreed between the students and supervisor and should be at least once a quarter, although in most cases it will be more frequent than that.

Expected student responsibilities are:
• except in exceptional, and agreed, circumstances, research is carried out on a full-time basis;
• to become familiar with cutting-edge issues in their subject and to develop the skills necessary for research/experimental planning, self-organisation of laboratory and field work and the technical and analytical skills required for high quality research;
• to self-monitor progress of work and to deliver in a timely fashion any research outputs according to a timetable of targets agreed with the supervisor;
• delivery of reports to outside agencies if these are an agreed condition of funding;
• arranging, in consultation with the supervisor, the Steering Committee meetings or, as may be beneficial, interim meetings; and
• to engage in wider intellectual and learning activities of the department and School, including attendance at seminar programmes.

Supervisor responsibilities are:
• to foster a supportive environment for research students;
• to make her/himself available for meetings, provide timely feedback to all submitted work
• and, through liaison within, or outside the Department, facilitate reasonable logistical and infrastructure support. No one is expected to conduct research that is not practicable within the constraints of the Department;
• to identify difficulties that may restrict or prevent progress of the research and, where appropriate, to bring these to the attention of the student, Department staff and, where necessary, School personnel;
• to help the student in his/her dealings with College officialdom; the supervisor should be aware of College regulations as they affect postgraduates.

**Annual postgraduate conference**
Each student will be required to present, to the Department and other invited interested parties, a 15 minute (only 5 minutes for first year postgraduates) conference-style talk on their research every year during their registration. These talks will take place within a 1-2 day graduate student Research Symposium to be organised and run by the graduate students. This usually occurs in February-March. Assessment of talks will be provided by outside invited researchers in addition to academic staff, and detailed feedback to enable development and improvement of presentation-skills will be given to each student.

**Demonstrating and Teaching**
Assistance with teaching by post-graduate students is an important part of their experience and training. Demonstrating is a professional commitment and should be treated as such. It is, however, very important that time involved in demonstrating does not restrict progress of the research. Students and supervisors should agree the time commitment to demonstrating and keep a record of that agreement. A limit of 6 hours per week is set by Graduate Studies, but this may be restricted to less than that depending on the demands that this may have on the research programme.

**Data and equipment ownership**
The data produced by postgraduate research projects are not owned by students, or even their supervisors. They are owned by the University and, ultimately, in most cases, by Irish and European taxpayers. In line with Irish data protection legislation ([http://www.lawreform.ie/_fileupload/RevisedActs/WithAnnotations/EN_ACT_1988_0025.PDF](http://www.lawreform.ie/_fileupload/RevisedActs/WithAnnotations/EN_ACT_1988_0025.PDF)), with reference to data protection and data storage, all research Postgraduate students must submit all of the data they have produced to their supervisors by the end of their research projects. Supervisors may also request submission of field or laboratory notebooks, or other forms of research outputs, for auditing purposes. All equipment or consumable items purchased using research funds must also be returned. Delivery of these items must take place within four weeks of thesis submission and prior to viva voce examination (if applicable). The Department will not sign-off on awarding of degrees until these items have been submitted. Datasets must be structured in clear, easy-to-follow format, with metadata supplied if necessary. Please see College’s policy on data storage and ownership for more information in Section 6 in the College Good Research Practice policy document ([https://www.tcd.ie/about/policies/assets/pdf/TCDGoodResearchPractice.pdf](https://www.tcd.ie/about/policies/assets/pdf/TCDGoodResearchPractice.pdf)).