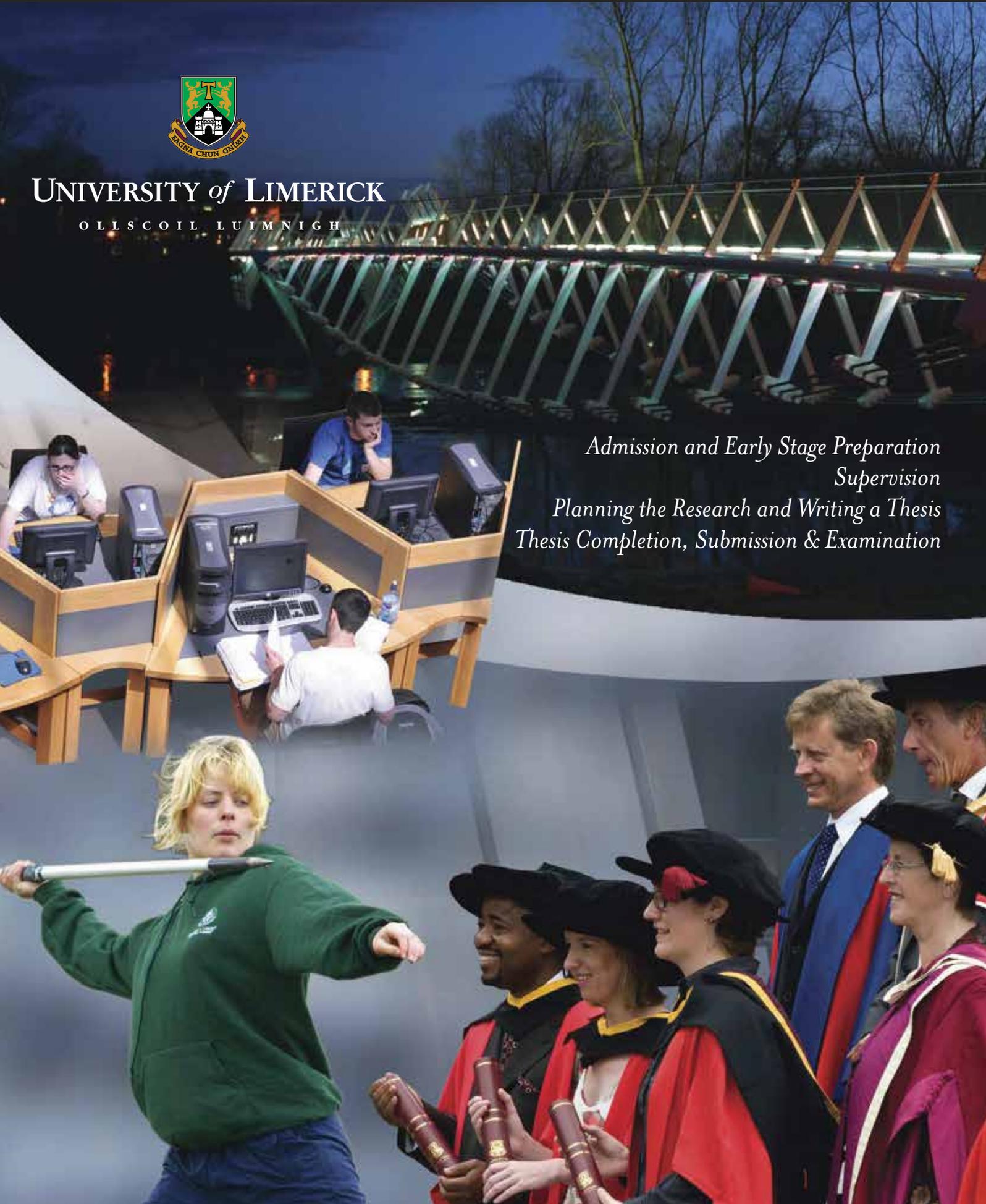


GRADUATE SCHOOL



UNIVERSITY of LIMERICK
OLLSCOIL LUIMNIGH



Admission and Early Stage Preparation
Supervision
Planning the Research and Writing a Thesis
Thesis Completion, Submission & Examination

A GUIDE FOR RESEARCH STUDENTS & SUPERVISORS



University of Limerick
Ollscoil Luimnigh

Postgraduate Handbook

A Guide for Research Students and Supervisors

This handbook is available online at www.graduateschool.ul.ie

Graduate School
University of Limerick

5th Edition, 2016

Table of Contents

Welcome from the Graduate School.....	1
1. Research Degrees at the University of Limerick.....	2
Master's by Research	2
Doctor of Philosophy – Structured PhD Programmes	2
2. Admission and Early Stage Preparation.....	4
Application Forms and Admissions Procedures	4
Student Fees and Classification	7
Writing a Research Proposal.....	9
Research Ethics.....	9
Health and Safety.....	10
Copyright and Intellectual Property.....	10
Part-time Research.....	10
Leave of Absence.....	10
Exit/Withdrawal from Studies	11
Research Postgraduate Funding.....	11
Discontinuing a Scholarship (Stipend) for a Research Student	13
3. Supervision.....	15
Appointment of Supervisor(s).....	15
The Supervisory Relationship.....	15
Supervision Grievance Procedures	17
Publishing	18
4. Planning the Research and Writing a Thesis.....	19
Planning the Research.....	19
Stages of the Research	20
Pitfalls and Supports	25
Plagiarism	25
Problems with Writing.....	25
Research Training and Professional Development	26
Generic and Transferable Skills.....	26
Statistical Consulting Unit (SCU).....	28
5. Progression.....	31
Research Student Annual Progression	31
Research Confirmation Panel	32
Research Progression Appeal Panel.....	34
6. Thesis Completion, Submission and Examination	37
Presentation of Thesis	37
Thesis Specifications	38
The <i>Viva Voce</i> Examination.....	41
Submission and Final Examination of a Research Thesis	45
Electronic Thesis Submission to the Library	47
7. Resources and Services	48
Resources.....	48

Support Services	49
Useful Contacts	53
Useful Websites	54
8. Appendices	55
Appendix 1: Plagiarism at College	55
9. Suggested Reading.....	56

Disclaimer:

Please note that the Postgraduate Handbook is for information purposes. This handbook does not supersede the Handbook of Academic Regulations and Procedures

Welcome from the Graduate School

The University of Limerick has the reputation of being relevant to the needs of students and employers and hence developing excellence in the academic field. The Ethos of the University is to “Learn more, Live More, Be More”. Whilst this percolates through the university it is very relevant when applied to research.

Learn More: The University has numerous research centres and four internationally renowned [research institutes](#) with over 800 Research Postgraduates from around the globe. The University boasts modern facilities, and prides itself on being student centred. To this end a range of generic and transferable skills programmes are available to aid the researcher’s development and broaden knowledge, together with a structured approach to PhD education.

Live More: The University is sited on a self-contained campus straddling the river Shannon, and has been independently voted the best campus in Ireland. There are a huge range of clubs and societies, on the vibrant campus together with international sporting facilities including a 50metre Swimming pool, running tracks and all weather pitches. The University is often the choice of the training venue for national teams, and home to Munster provincial rugby. Nearby on Lough Derg is the University’s Outdoor centre offering a range of water sport and outdoor activities. Being close to the west coast of Ireland allows the exploration of the unspoilt mountains and beaches of County Clare and Kerry, or alternatively a short train journey will find you in the capital city Dublin. However, it is still possible to immerse yourself in the culture of the region by staying in campus in one of the student villages.

Be More: In developing yourself through study at the university, there are also opportunities to become involved in the in the wider community by becoming a Presidents volunteer, or mentoring other students. Research is about finding new facts and their communications to a wider audience. At the University of Limerick, you will be encouraged to Learn More, Live More, and thus Be More.

We would like to encourage you to develop this ethos whilst at the University, and wish you well in the time that you are with us and the future

Graduate School
www.ul.ie

1. Research Degrees at the University of Limerick

The University of Limerick offers Postgraduate Research Awards at two levels, Master's by Research and PhD. Both require the investigation of fact and the communication to a wider audience, in the form of conference and journal publication and a final thesis. In the case of PhD awards the thesis may consist of either a monograph or a specified number of published journal papers, known as an Article-Based PhD. The method of examining the PhD theses is the same in either case.

Master's by Research

The Master's by Research degree is designed for candidates to develop advanced skills in carrying out independent and sustained research. The thesis demonstrates a critical application of specialist knowledge and makes an independent contribution to existing scholarship in the area of research. On the completion of the candidates should be able to:

- demonstrate advanced learning in research skills and mastery of appropriate techniques, such as the use of archival or primary evidence, analysis of data, judgment of conflicting evidence;
- demonstrate specialist knowledge in the area of their research;
- present the results of their research in publishable quality or work towards incorporating their findings in further research;
- demonstrate an understanding of, and commitment to, research ethics or code of practice

There are a number of title awards: LLM, MA, MArch, MBS, MChir, MD, MEd, MEng, MSc, MTech

Doctor of Philosophy – Structured PhD Programmes

The Doctor of Philosophy or PhD requires the same attributes as a research master's, but must contain original contributions to knowledge. Currently, PhDs in Ireland fall into three main categories:

- Classical/Traditional model:
The thesis is capped at a maximum of 270 ECTS (European credit transfer system) credits (90 credits =1 year), however long the research takes. The programme is in the form of a master-apprentice model, with research being the only focus.
- Structured PhD:
The structured PhD is similar to the themed structured PhD, with the taught element being tailored to the individual researchers needs.

The Irish Universities Association (IUA) has agreed the following definition of a Structured PhD. The following are key characteristics of a structured PhD programme in Irish Universities. Such programmes may involve inter-institutional collaboration.

- The core component of a structured PhD programme is the advancement of knowledge through original research; at the same time the structured PhD is designed to meet the needs of an employment market that is wider than academia;
- A high quality research experience, training and output consistent with international norms and best practice;
- To support the original research activity, the following elements are included:
 - a formalised integrated programme of education, training and personal and professional development activities,
 - the development of discipline-specific knowledge, research skills and generic/transferable skills,
 - declared outcomes and graduate attributes in line with national and international best practice;
- Supervision by a principal supervisor(s), normally with a supporting panel approved by the institution;
- Progress to completion is formally monitored against published criteria and supported by formal institutional arrangements in line with national and international best practice;
- Successful completion and examination of the research thesis is the basis for the award of the PhD degree;
- Registration is normally for four years for a full-time student.

2. Admission and Early Stage Preparation

Application Forms and Admissions Procedures

Research Postgraduate Application, Admission & Enrolment Process

Prospective Research students may apply for admission at any time during the year. Potential applicants should identify and contact a possible supervisor. After preliminary discussions, an applicant should complete an application form in consultation with the proposed supervisor. Application forms for research postgraduate degrees are available from <http://www.ul.ie/graduateschool/how-apply> (how to apply: research programmes).

This step by step guide (including a flow chart) below outlines the application, admission and enrolment process for research postgraduate students. Please Note: If you have already identified a supervisor, skip to point 4 below.

1. A prospective applicant who has not identified a supervisor should complete an Expression of Interest (EOI) form available from: [how to apply](http://www.ul.ie/graduateschool/how-apply). Non-EU applicants should familiarise themselves with any visa requirements, further details available from <http://www.ul.ie/international/>.

2. A prospective applicant must complete all the sections of the EOI form and include a three page research project proposal to enable the faculty and department to identify where possible a potential supervisor(s). The completed EOI form should be submitted to the Postgraduate Admissions Office, Graduate School, Foundation Building or email: postgradadmissions@ul.ie

3. The completed EOI form is sent to the relevant faculty or department. The faculty or department advise (after 1-2 weeks) the Graduate School whether or not a potential supervisor has agreed to have preliminary discussion with a prospective student. At this stage the applicant will be advised if they should complete a research postgraduate application form, available from [how to apply](http://www.ul.ie/graduateschool/how-apply). If no supervisor has been identified, the applicant is informed by the relevant faculty, department or Graduate School.

4. A prospective applicant who has identified a supervisor and agreed a research project with their proposed supervisor(s) should complete a research application form. Applicants who have been awarded a research postgraduate scholarship from an external funding agency (E.G Irish Research Council) must complete the application process. Application forms for are available from [how to apply](http://www.ul.ie/graduateschool/how-apply). Non-EU applicants should familiarise themselves with the visa requirements, further details available from <http://www.ul.ie/international/>.

5. In order to avoid any unnecessary delay, the applicant should ensure that their research application form is fully completed and includes a research proposal, a copy of the official transcript of results, (where relevant) confirmation of English Language requirements and academic reference letters. Applications are accepted on an ongoing basis. The timeline from submitting a fully completed application and research proposal to receiving an offer letter is normally 3-4 weeks.

6. As part of the process, funded applicants (e.g IRC, PRTL, SFI or other funding agencies) should ensure that a Financial Aid form is completed (in conjunction with their supervisor) signed and submitted to the Salaries Office (Main building A2-029). The financial form is available at financial aid form. Please note students will not receive their stipend (maintenance payment) or have their fees paid until a financial aid form is submitted. Self-funded applicants are not required to complete a Financial Aid form.

7. The completed application form should be submitted to the Postgraduate Admissions Office. Graduate School, Foundation Building or Email: postgradadmissions@ul.ie

8. When the completed application form is received by Postgraduate Admissions, the application is recorded on the student record system (SI) and returned to the faculty administrator, for approval by the Faculty Postgraduate Research Committee (or equivalent). The application form and research proposal (sections 24 and 25) must be signed-off by the Supervisor(s) and the Head of Department. Interfaculty applications must be approved and signed-off by the relevant supervisor(s) and Head of Department within each faculty

9. Following a meeting of the Faculty Postgraduate Research Committee. The Assistant Dean presents the applications pertaining to their faculty for review at the monthly University Postgraduate Research Committee (PGR) (Chaired by the Dean, Graduate School). After each monthly PGR meeting decision letters are sent to the applicants. The decision letters are normally issued within 2-3 working days after the meeting.

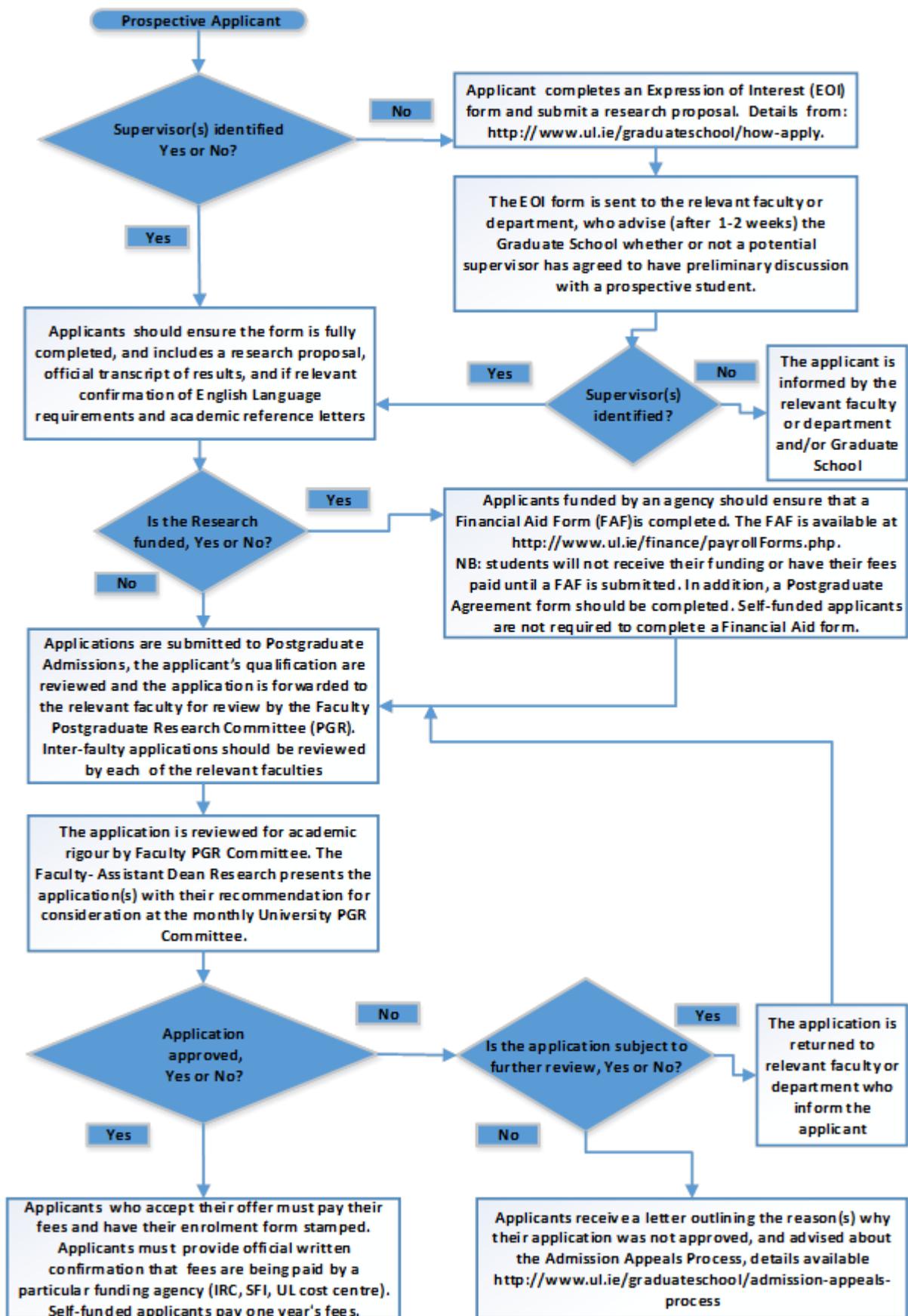
9a). In terms applications that are not approved. These applicants receive a letter outlining the reason(s) as advised by the relevant faculty why their application was not approved. In addition, they are advised of the Admissions Appeals Process available at: [Admissions Appeals Process](#),

10. On receipt of an offer letter and enrolment form, applicants who wish to accept the offer must contact the fees office (Main Building E001a) to pay their fees and have their enrolment form stamped. Applicants must official provide written confirmation that their fees are being paid by a particular funding agency (IRC, SFI, UL cost centre). Self-funded applicants pay one year's fees.

11. After the fee payment has been approved and the enrolment form is stamped, applicants must go to postgraduate admissions (located Level 2 Foundation building (F2-018) to enrol and receive a UL student ID card. Applicants (except UL Graduates) must bring the original certification of their primary/undergraduate degree and/or masters qualifications. Where relevant, non-EU applicants from non-English speaking countries must provide original certification that they meet the English Language Requirements.

12. After enrolment, a student record is created on the student record system by Student Academic Administration. When this process has been completed the student is formally registered (please note the date that your record is activated is your official start date). ITD will provide information to new (registered) students in relation to accessing a UL email computer account and on-line Library resources further details available from ITD

Research Postgraduate Application, Admission & Enrolment Process



Summary

In order to avoid any unnecessary delay, all applicants and supervisors should ensure that the application form is fully completed and signed. An original copy of the applicant's official transcript of primary degree, any higher award results and reference letters should be included. In addition, the payment of fees and funding should have been resolved before submission of the application. The current research fees can be found at: [Student Fees](#) . Students who will be paid a stipend through the University (grant) or External Funding should complete a financial aid form available at [Financial Aid Form](#)

The Postgraduate Research Committee reviews applications on a monthly basis. The decisions taken at the monthly meeting are referred to the Postgraduate Admissions Office, which informs applicants by letter of the outcome. Successful applicants receive details of the enrolment process in their offer letter. Applications to the Structured PhD programme in Education and Health Sciences can be made throughout the year, with two entry points at the start of Autumn Semester (September) and Spring Semester (January).

Postgraduate Admissions Office F2-020/21

Tel: 353-61-233285/234377

Fax: 353-61-233287

Email: postgradadmissions@ul.ie www.graduateschool.ul.ie

Student Fees and Classification

Current research Postgraduate fees can be found at: [Student Fees](#) The fee schedule requires two years full fees for Master's Students, or four years full fees for PhD Students, a continuation fee is applied annually for those students who have not completed their study in the allotted period. Students who transfer from a Master's track to PhD track, will be required to pay full fees to a total of 4 years, and then revert to Continuation fees if the period of registration extends beyond 4 years.

Criteria for Determining EU Fee Status

A Student, who has completed a Four year undergraduate degree programme at the University and has paid full non-EU fees during this time, will pay EU fees if he/she continues to study at the University as a research student.

Students admitted under the non-EU student classification category shall not be permitted to change their status to that of an EU student following programme admission.

Applicants not satisfying conditions (a) or (b) below are liable for non-EU fee rates

(a) EU fees

(1) Nationality Test

EU passport or original Irish Birth Certificate, Original EU Nationality Identity Card, or Official Irish Refugee Status (requires the appropriate original letter from the Department of Justice, Equality and Law Reform indicating that the appropriate status has been granted) or Reunified family members of an Official

Irish Refugee (requires original letter from Minister of Justice which confirms family member status under Section 18 of Refugee Act 1996, and GNIB registration card. Residency, for the purposes of the free fees initiative, commences from the date on the GNIB registration card (date of issue) or EEA/Swiss nationality.

and

(2) Previous Work/Studies Test

An applicant must have spent three of the last five years in full-time study or work in an EU Member State or EEA/Swiss State prior to the commencement of the course.

This full-time study/work requirement will be deemed satisfied in the case of an applicant for whom a spouse is claiming a tax benefit, which must be confirmed by a P21 form or evidence of social welfare benefits.

(b) EU Fees

(1) Residency Test

An applicant's principal residence for the purpose of taxation must have been in a European Union Member State or EEA/Swiss State for a minimum of three of the five years prior to entry to university. Principal residence excludes residency for educational purposes.

If an applicant is **under 23 years** of age on the start date of the course, the principal residence for the purpose of taxation of the parents will be examined. If an applicant is **over 23 years** of age on the start date of the course, the principal residence for the purpose of taxation of the applicant is examined.

A P21 form will be required in both instances

and

(2) Previous Work/Studies Test

An applicant must have spent three of the last five years in full-time study or work in an EU Member State or EEA/Swiss State prior to the commencement of the course. Prior residence as a full-time student does not necessarily ensure eligibility for the EU rate of fees. Students classified for fee purposes as non-EU will not be permitted to change their fee status following admission.

This full-time study/work requirement will be deemed satisfied in the case of an applicant for whom a spouse is claiming a tax benefit, which must be confirmed by a P21 form or evidence of social welfare benefits.

Please note the [Irish Immigration policy](#) of duration of stay.

Writing a Research Proposal

Prior to applying, all research students have to prepare in conjunction with their supervisor a short research proposal. The research proposal is intended as a basis for further discussion of your thesis topic before you start your work. The aim of this preliminary activity is to ensure that you enter your first year as a research student with a clear sense of topic area and purpose. It therefore should be a topic in which you are interested and which will maintain your interest over the duration of your studies.

The research proposal of no more than 1000 words should include:

- A description of the topic (with suggested title), indicating the general aims of the research and how these differ from previous published work in the field.
- An explanation of the **main concepts and theories** relevant to the research and the proposed methods of investigation.
- List the **main questions or hypotheses** to be addressed by your research.
- An indication of any **practical applications** that the research might have.
- A research plan, indicating the **main tasks and timescales**.
- Your **reasons** for wishing to undertake the research at the University of Limerick.
- A **short bibliography**, citing the main works of reference (see <http://www3.ul.ie/~library/referencing/> for referencing guidelines).

Research Ethics

Students applying for admission must consult the University Research Ethics Committee about any research proposal that involves the following:

- direct experimentation on individuals;
- surveys or questionnaires administered to individuals;
- use of data derived from individual records where individuals might be identified;
- experimentation on animals, military and genetic modification;

The University Research Ethics Committee website is at www.ul.ie/researchethics/. Each Faculty has an ethics sub-committee with additional information relating to the Faculty's disciplinary area. Guideline documents and application form relating to each disciplinary area can be accessed by using the *Sub-Committee Guidelines* link on the University Research Ethics Committee home page.

Research on patients (i.e. people who are receiving treatment as a result of an illness) is not within the remit of the Committee and should be referred to the Mid-Western Regional Hospital Research Ethics Committee. For guidance relating to indemnity cover/insurance matters, please contact Cliona Donnellan, Buildings Department.

Health and Safety

Before commencing any research project, all research students should be aware that it is their responsibility to familiarise themselves with the University's Health and Safety procedures, which are available at hr/health-safety. Any concerns or training requirements should be discussed with your supervisor(s).

Copyright and Intellectual Property

Copyright in the thesis resides with the candidate. All other intellectual property (including inventions, discoveries, copyright in computer software (including source and object codes) and other kinds of copyright, semiconductor mask works, trade secrets, know how, research data, tangible research property and similar property/rights) conceived, invented or reduced to practice by the candidate during, or as a result of, research undertaken at the University shall be the property of the University.

University policy with respect to ownership and exploitation of intellectual property (IP) is set out in the current [University Intellectual Property Policy](#) (to which the attention of the candidate is drawn generally), copies of which are available from the Research Office. Benefits accruing to the University from the subsequent commercialisation of the intellectual property referred shall be allocated in accordance with such policy.

Part-time Research

The University may permit registration for part-time research provided that candidates can attend the University for such periods as are necessary for adequate supervision. Permission for such part-time registration must be sought at the time of registration, and all circumstances must be set out during this process. Graduate students on the full-time register who obtain other full-time employment after two years on the Master's Register or three years on the PhD register may apply in writing to the Dean Graduate School for transfer to the part-time register for the remainder of their registration. Such applications must have the written support of the supervisor. Where transfer is affected, the new time limits apply from the original date of full-time registration.

Leave of Absence

In special circumstances (e.g. medically certified leave), a student may be allowed a period of [leave of absence](#). Application should be made to the Vice President Research or his/her nominee and must have a strong recommendation from the supervisor. The duration of leave of absence is up to one year. However, in exceptional circumstances, this period may be extended up to one year with the agreement of the Vice President Research or his/her nominee. Prior to applying for re-admission, the student must review his/her work to date with his/her supervisor(s). In instances where the candidate's research or data has been superseded or any required facilities/resources are no longer available, the supervisor(s) and Head of Department will review any revised research proposal. The candidate may be required to present to a Research Confirmation Panel. Once the revised research proposal has been agreed and the Research Postgraduate Readmission Form has been completed and signed by the candidate, supervisor(s) and the Head of Department, it should be forwarded to the Student Academic Administration Office.

Exit/Withdrawal from Studies

Occasionally and after consultation with their supervisor, a student may decide to withdraw from their studies prior to completion of their research. In this instance the student completes an exit form, which is available from the Student Academic Administration website at www.ul.ie/studentacademicadmin/.

Research Postgraduate Funding

Apart from having a thesis topic and the enthusiasm and motivation to undertake postgraduate study, funding is a major consideration for many students. While nearly all taught postgraduate programmes are self-funded, in excess of 40% of the UL's research postgraduate students receive some funding.

External Funding

Many research students are supported from external sources of funding such as:

- Irish Research Council Scholarships <http://www.research.ie/>
and
- Various research grants industry, government departments and agencies, Science Foundation Ireland (SFI), Enterprise Ireland (EI) and the European Union (EU)

The level of external postgraduate funding will vary in accordance with the funding source and the terms and conditions specified by the funding body.

Internal Funding

UL has some internal funding and has established and agreed research postgraduate funding norms, which may be revised from time to time and are an indicative guide to what a postgraduate student on a scholarship may receive.

Students admitted onto the postgraduate register may, on the basis of academic merit, be awarded internal postgraduate funding. There may, however, be some variation in the levels of internal funding, subject to the availability of resources in academic departments.

The main UL-funded scholarships are listed below; see www.graduateschool.ul.ie for details.

- Faculty demonstratorships (usually in the Faculties of Science and Engineering),
- Faculty and departmental scholarships (usually in the Kemmy Business School and the Faculties Arts Humanities and Social Sciences and Education and Health Sciences)
- Other postgraduate scholarships which are usually advertised annually (May) include:
 - PhD Scholars Bursary
 - Plassey Centre Scholarships
- A limited number of Faculty EU fee scholarships
- A small pool of University-wide non-EU fee scholarships

Terms and Conditions of Scholarships

The following terms and conditions normally apply to scholarship holders, although practice may differ between departments and research centres across the University, depending on the source of the funding.

Postgraduate Agreement

Postgraduate students in receipt of research scholarship funding from UL are asked to agree to conditions attached to such funding that are additional to academic regulations. These conditions are set out in a postgraduate agreement, which is available at www.graduateschool.ul.ie.

The purpose of the agreement is to ensure that the University can meet its obligations relating to research funding and sponsorship agreements. The agreement sets out the value of the award and period of funding, as well as any additional duties required of the student. Finally, the agreement sets out University policy in relation to publication matters, ownership of the work and intellectual property rights.

It is the responsibility of the supervisor and student to ensure that the agreement is completed and signed on enrolment. Copies of the postgraduate agreement can be obtained from either the Graduate School or the Assistant Dean Research in each Faculty.

Tax Exemption

Exemption from income tax in respect of scholarship income is on a self-assessment basis and requires submission to UL of a completed Scholarship Exemption Declaration form (available from the Finance Office). Please note that on receipt of a completed form, UL can apply income tax exemption with immediate effect, but the exemption requires subsequent approval by the Revenue Commissioners when UL forwards the form to Revenue.

Tutorial and/or Laboratory Demonstrating

In some Departments Students in receipt of scholarships will be required to undertake a maximum of six hours of tutorial and/or laboratory assistance per week. While students normally may not hold more than one scholarship at any one time, exceptions are made for minor bursaries.

Discontinuing a Scholarship (Stipend) for a Research Student

Payment to a research student in the form of a scholarship/stipend concludes where the following circumstances arise:

- The research student decides to withdraw from the programme and completes an exit form available [here](#) from the Student Academic Administration Office. On submission of the form the student is de-registered and the Finance office notified to cease payment.

Or

- The research student completes and graduates from their programme.

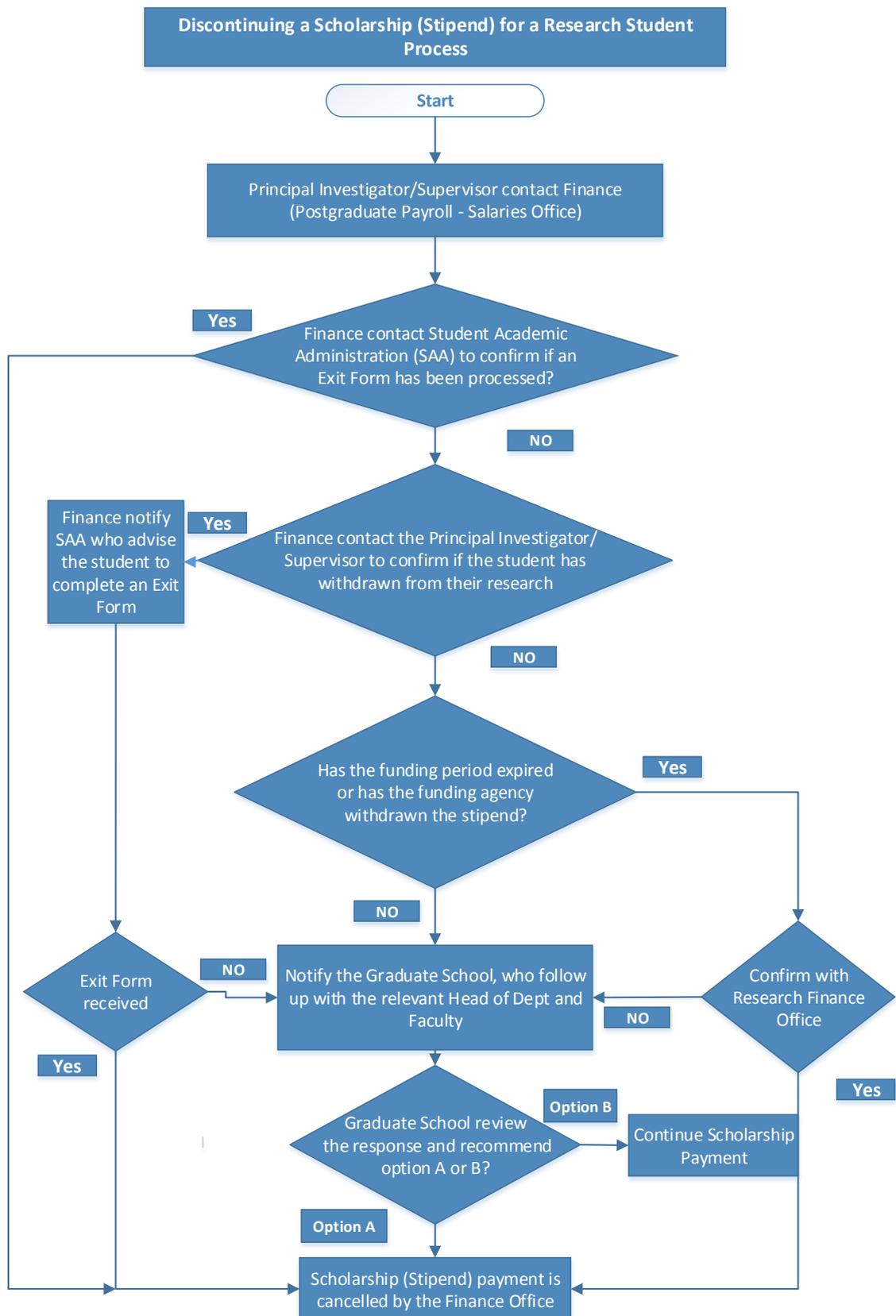
Or

- The funding agency discontinues payment of the scholarship/stipend.

Or

- A Principal Investigator (PI) or Primary Supervisor contacts the Finance Office directly requesting the discontinuation of a scholarship payment. In the case where the student is still researching, and funding has not expired, confirmation from the Dean of Faculty to end payment will be sought. The procedure is outlined in the Flow Chart below.

The research student is responsible for repayment of any overpaid funds.



3. Supervision

Appointment of Supervisor(s)

Students pursuing a research degree are assigned one or two supervisors who are approved by the Head of Department and the Vice President Research or his/her nominee. Two supervisors may be appointed where the research is inter-disciplinary or if all or part of it is carried out in a location outside UL or at a centre that is attached to UL but not part of the academic structures of the University.

Where two supervisors are appointed, one is designated as the primary supervisor. The internal supervisor assumes all the functions assigned to the 'supervisor' in these regulations. The second supervisor is known as the 'joint' supervisor but will often play a considerable role in the supervision of the postgraduate student's research.

The supervisor will be a faculty member of the Faculty or school of UL where the research student is registered. The joint supervisor may be a member of faculty of UL or may be employed by another institution. (For faculty details and research interests, see the University's Faculty websites).

The primary supervisor will be a Professor, the holder of an award equivalent or higher than that being pursued, or a faculty member who has supervised to the pursued award level. A joint supervisor will be the holder of an award equivalent or higher than that being pursued; in exceptional circumstances the Postgraduate Research committee may approve a primary/joint supervisor not meeting these requirements. It is important in the initial stages of the supervisory relationship that faculty and students agree on the research project, a research plan and timescale, as well as the deadlines for submission of completed work.

The Supervisory Relationship

The supervisory relationship is a multifaceted one. Research students and faculty usually work together, both in research laboratories and classroom settings, as well as in many other work settings. It is important that a good working relationship is established and maintained at all times.

Student Expectations of the Supervisor

Students can expect a supervisor to hold an award equivalent or higher than that being pursued, be qualified in their area of research and be professional in the manner in which they carry out their research, maintaining high academic and ethical standards of work. It is important that the supervisor be able to assess the student's research topic and determine whether or not it has sufficient merit and scope to be researchable. Supervisors need to be accessible to students and give adequate time for uninterrupted supervision, although students also need to understand that faculty members cannot always be available at short notice and that regular meetings need to be scheduled.

At the start of the research process, the supervisor needs to explain to the student what is involved in undertaking a research degree. Supervisor and student need to agree a programme of work and timeframe (one to three years for a Master's, three to five years

for a PhD) and agree the ground rules (i.e. explain their mutual expectations to each other). They should also agree on a schedule of meetings/deadlines and a series of milestones and deliverables, including a strategy for publishing the work.

Supervisors need to familiarise themselves with the postgraduate academic regulations (Chapter 5 of the *Handbook of Academic Regulations and Procedures*), the postgraduate charter (see Appendix 1 of this guide or www.graduateschool.ul.ie), documents and procedures concerning postgraduate study (see Appendix 1 of this guide), and should ensure that their students are aware of these regulations. In conjunction with heads of department and research centres, supervisors should ensure that students are aware of available support services in UL and beyond. (See Chapter 7 of this guide for UL support services relevant to postgraduate activity.)

Finally, supervisors need to be adaptable, watchful and resourceful in their supervision and mentoring of students. It is important to identify training needs and opportunities that may help with the student's career development.

Faculty Expectations of the Student

As researchers, students are expected to undertake independent research and be responsible for their own research activity and for managing their personal development. In conjunction with your supervisor(s), it is important to develop a research plan with agreed timelines and progression points (including submitting the thesis within an agreed timeframe). In instances where the research may involve human or animal subjects, students are advised that they must seek the approval of the Faculty Research Ethics Committee prior to commencing the research (approval forms are available on www.ul.ie/researchethics/, the Research Ethics Committee website).

Students are expected to maintain regular formal contact with their supervisor(s), agree to and meet deadlines, report on progress and keep a written record (agreed e-mail) of the action items discussed at meetings. Students also need to be aware of academic regulations, ethical guidelines and grievance procedures.

Students are expected to participate in training courses and should be aware of the professional requirements and expectations in their area of research. It is important to recognise that many employers expect students to have acquired a range of skills while undertaking research and that these skills add to a student's overall employability. The University offers a range of Generic & Transferable skills programmes www.graduateschool.ul.ie

UL actively encourages students to publish their work, acknowledging the role of the supervisor(s) and, in some instances, co-publishing with the supervisor(s) and other faculty members. In cases where students are required to sign confidentiality agreements, such as in the case of an externally funded research project, it is necessary to ensure that the supervisor and the funding body approve the disclosure of any such research findings prior to publication and/or to making such changes in content as may be required to safeguard any intellectual property involved.

Supervisory Meetings

Assuming the student is present on campus, the supervisor normally meets the student on a regular basis agreed between them, although it is likely that there will also be many

informal day-to-day meetings. The student should progress the project during the remainder of the time. In most cases a student's progress depends on their work ethic – the student must accept ownership and responsibility for their progression.

A schedule of regular and formal meetings should be agreed in writing at the outset of the research to ensure that progression is monitored and that there is sufficient opportunity for feedback. Supervisors and students should agree on meeting objectives and items for discussion. Written work should be submitted well in advance of a meeting to give the supervisor time to read and comment on it at the meeting.

During each meeting, feedback should be given, future actions agreed and the date of the next meeting fixed. Supervisors should give both written and verbal feedback and should ensure that students understand and act on their comments and suggestions. Feedback should be positive, and the supervisor should suggest how issues arising should be addressed by the student. Both supervisor and student should keep a written record of the agreed and key action items. One way of ensuring that this is done efficiently is for the student to email a bulleted list of agreed actions, dates and deliverables to the supervisor after the meeting. (Appendix 3 contains the student/supervisor meeting form.)

Supervision Grievance Procedures

All research students have the right to appeal to the Vice President Research if they consider that the regulations have been unfairly applied (Chapter 5 of the *Handbook of Academic Regulations and Procedures*).

A student should make a complaint about the adequacy of supervision in the first instance to the supervisor and the Head of Department. If the matter remains unresolved, the student may make a formal written complaint to the supervisor and the Head of Department (or Dean, if the Head of Department is the supervisor), which must be copied to the Faculty Assistant Dean Research. The Head of Department will, within 10 working days, investigate the complaint, make a recommendation for action, and inform the student and supervisor in writing as to the outcome.

If the matter remains unresolved, the student may make a complaint in writing to the Dean of the Faculty who, in conjunction with the relevant Assistant Dean Research and the Dean Graduate School, will consider the complaint and, respond in writing to the student within 10 working days.

In the case of an unresolved dispute between a student and their supervisor and the Head of Department, the Vice President Research may, on the advice of the Assistant Dean Research and Dean of the Faculty, appoint one or more additional or alternative supervisors as appropriate.

Complaints about the adequacy of supervision will not be entertained once the thesis has been presented for examination.

Publishing

One of the major elements of research is the development of the ability to “present the results of research in publishable quality“. Publication is important as it is peer reviewed, and therefore is substantiated as relevant and correct to a wide audience, a factor that is taken account of in the final examination of a thesis. It is important that published work is in the correct format required by the publisher, and references to other peoples work within the publication are correctly cited. In producing the paper it is necessary to include those who had a major input to the work as authors, the position of the author, within the list,(the person who carried out most of the work is usually first, and the primary supervisor last), and to acknowledge those who either funded the research, or who aided the research at the end of the paper. In choosing where to publish it is important that the supervisor and student are in agreement, and the journal where the publication is submitted has a high impact factor. However, in early research it may be beneficial to publish in a conference proceeding to gain presentation and networking skills.

4. Planning the Research and Writing a Thesis

This chapter is intended to help students and faculty in planning, writing and completing the Master's or PhD thesis.

Planning the Research

The key to completing a research project on time and without compromising quality is to carefully manage your time and undertake the research in a rigorous and professional manner.

Planning your research involves identifying the tasks that need to be undertaken as part of the research and planning where and when to work on particular aspects of the project. Such tasks include reading, research and writing. It is important to be able to work on parallel tasks at the same time. For example, at the early stage you may be reading secondary source materials and revising your ideas, as well as working on research in the laboratory or an archive and undertaking some writing tasks. As the project progresses, it is likely that it will become more research-intensive and increasingly focused on writing tasks. Writing at an early stage ensures that you get used to the routines of writing; this can help you to complete your thesis in a timely manner.

Set realistic and achievable deadlines. It is important to see any research plan as an organic entity that will need to be revised as the research progresses.

On a practical level, one way to plan the research is to use a weekly/monthly planner and to plan each year out, using a one- to two-year plan for a Master's thesis or a three- to four-year plan for a PhD thesis. Appendix 4 contains a thesis planner.

What Do Master's and PhD Theses Look Like?

There is no simple answer to this question as research disciplines and areas of study differ. There are also differences between continental European universities, American institutions and Irish and British universities. The distinction between a Master's and a PhD thesis can sometimes be difficult to define. A PhD thesis usually seeks to make an original contribution to the field of study by generating new knowledge, involves more in-depth research than a Master's thesis and is often of publishable standard. The maximum length permitted for a Master's thesis is 60,000 words, whereas the limit for a PhD thesis is 100,000 words. In cases where a student is making good progress on a Master's thesis, they may be encouraged by a supervisor to upgrade, by means of a transfer examination, to the PhD register (see the *Transfer from Master's to PhD Register* section later in this chapter).

Most Master's by Research and PhDs usually adhere to the following format:

- An **introduction**, which includes background on the research topic, the justification for the research and what gap in the literature it seeks to fill, the main research questions and hypotheses, and the organisation of the study.
- An **up-to-date review of the literature** in the subject area, including a discussion of the most relevant theories and concepts that are likely to be used in the research. The review of literature and theoretical discussion may form one or more chapters, depending on the nature of the thesis, but usually ends with the research question.

- A **methodology chapter**, which outlines the proposed research approach and method, justifies the choice of method, and considers the limitations and strengths of that approach, as well as demonstrating how the method will be applied to answering the research questions and testing the hypotheses of the thesis.
- A number of **substantive chapters**, which may be case studies, particular descriptions of experimental research undertaken in the laboratory or discussions of field research.
- An **analysis of the results and main findings** of the study (often called the discussion), which may form either a separate chapter or be included as part of the substantive chapters. It is important to relate your findings with those indicated in the literature review.
- The **main conclusions**, including a reiteration of the main research questions and what was found as recommendations and further avenues for research.
- **References:** Correct citation references as indicated above
- **Appendices:** relevant information that would detract from the main text.
- **Remember:** all figures, tables, photographs etc should be referenced and numbered in the text e.g. the graph (Fig 1) which complements the Table (Table 1).

Stages of the Research

A research programme, whether a master's, traditional or structured PhD is not the same as the primary degree programme that has led you to this point. Whilst primary degrees have given you grounding in the subject area, they tend to direct the way of learning, the subject matter and the deadlines. Research is a unique and individual task based around the person carrying it out. As such the subject matter is greatly influenced by the researcher, as are the deadlines and learning styles, with of course direction from your supervisor or supervisory team. Varun Grover (www.ijds.org/volume2/2p009-021Grover21.pdf) indicated 4 stages of doctoral study (Fig 1). The four stages roughly cover the expected 4 years of research towards a PhD, albeit in an American model. The stages are however, very similar for the Irish system with similar problems or mistakes arising (see Grover's paper). The Stages have been set out as follows:

The Stage of Exploration (Year 1).

This is the start of the journey, and as such will be the most important period. Whilst a general outline of the project has been developed, it is now necessary to develop a full literature review that will lead to the research question, i.e. the reason why the research needs to be carried out. The literature review and research question will influence the methodology and direction that the research will take as the whole point of the research and thus the final thesis will be to answer the research question. Initially this period is where the student is the most motivated and strives to gain as much information on the topic as is available, which often leads to a period of despair deciding "what am I actually doing?" It is here that a number of mistakes often occur:

- As there are no defined deadlines (exams) for research things slip and the supervisor is not contacted, as often as they should.
- The material investigated isn't logged adequately and is difficult to cite at later dates, or is forgotten about.
- The research goes off on a tangent or a number of tangents.
- Work outside the university, laboratory duties, clubs and societies act as a distraction.

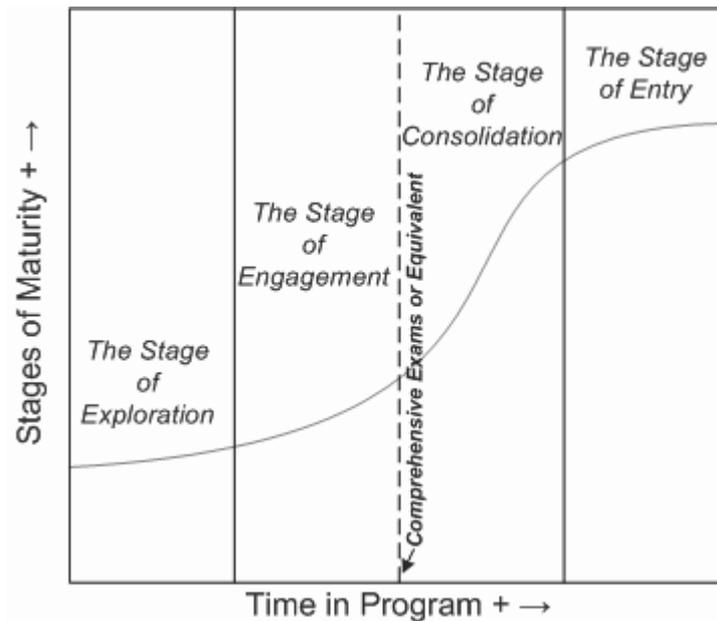


Figure 1: Maturity model of Ph.D. student growth

The major element here is to keep in contact with your supervisor so that the direction of the research is not lost, your performance is monitored and that the annual progression review is passed with no hassle. The best way to ensure that your supervisor is up to speed with your work is to produce a report that highlights your work to date, and moves towards the end game of a literature review and research question.

For most students the **literature review** is an integral part of the first year. One important role of the literature survey is to find out the main lines of current thinking on your chosen subject by identifying and studying what has already been written on it. A literature review may be defined in terms of process and product.

“The process involves the researcher in exploring the literature to explore the status quo, formulate a problem or research enquiry, to defend the value of pursuing the line of enquiry established and compare the findings and ideas of others with his or her own. The product involves the synthesis of the work of others in a form that demonstrates the accomplishment of the exploratory process.” (Cited in Murray 2002: 102.)

As has been indicated earlier, **it is important to keep a careful written record summarising and, where possible, placing into critical context what you have read, together with the correct citation.** This will be useful later, as a reminder or as material to be incorporated into the thesis.

Stage of Engagement (Year 2)

The engagement stage is the development of the research question and the methods that will help you move towards the solution of the important research question. The understanding of quantitative and qualitative research methods and ethics of research is paramount. In order to increase your understanding of these methods there are numerous research methods programmes offered by individual faculties, and the graduate school, along with other generic and transferable skills training that will help develop your ability to carry out research. In developing your research you will need to be able to

communicate your findings in research seminars and learned papers. This will move the research from the lab and the office of your supervisor to a wider audience. As such your standing in the Department/faculty will increase. A necessary evil that haunts most postgraduates is the need to carry out tutorial or lab based supervision. Whilst this is seen as a chore, it provides communication skills, a realisation that you understand the subject matter of your research, by conveying it to the undergraduate population, and most importantly you will interact with technical staff that you will often rely on in the development of your project.

Whilst the mistakes that could happen in Year 1 often roll over into Year 2 the main mistake in this stage is that of prioritising and synergising. It is important to develop your research and balance it with the workload that is allocated to you, together with generic and transferable skills, and of course your social and personal life which could include working to sustain yourself. Whilst you may be a competent researcher, prioritising individual elements is difficult and a balance must be maintained. Learn to say no, whether it is socially, or extra outside work, or extra teaching hours/training programmes. However, weigh up the benefits before doing so.

Stage of Consolidation (Year 3)

This is the most dangerous stage of the research. The success of the previous 2 years allows you to rest on your laurels, by this time a paper or a number of papers have been produced, you understand the research methods and are comfortable and are known in the lab area/ library. Your supervisor trusts your judgement, so is less likely to chase you; you have a number of part written, part researched areas sitting on your desk, that makes you feel busy, and there are a number of new researchers that you feel as the old hand that you need to take under your wing. This Stage for some researchers takes many years to get through. It is usually the lack of funding either personally or for a project that helps push the person onto the next stage. In slipping into this mode it is important for the researcher to ensure that the supervisor doesn't lose interest and that the research takes priority, and expectations are kept realistic.

Stage of Entry (Year 4)

This stage may in some circumstances be combined with Year 3, but the time line is a rough guide. The entry stage is the movement from the academic life into the "profession". It is the most difficult time, as it is often the time when the career decisions have to be made as to where to work, what sort of employment will I get, and when do I finish? Remember you will never finish a piece of research; you will give up on it. That may seem negative, but the reality is that research never ends, so it is up to you and your supervisor to decide when enough is enough. If you have been writing as you go along then there should be a number of chapters ready, your literature review, the research methods, your results, it only needs a discussion a conclusion and some tweaking. Hopefully there are publications that will back up your hypothesis and thus your conclusion. As the end is in sight, there is a tendency to put effort into finding the job, rather than writing up (the most difficult thing), and often the mistake at this point is leaving too early. Many research theses have never been completed for the sake of an extra few months to complete the write up.

Grover (Grover 2012) produced an useful checklist which has been adapted below for each stage of research.

End of Year 0 (Just Before Entering the Programme):

- Are you motivated to do the research?
- Does a research and possibly teaching career appeal to you?
- Does the idea of generating and disseminating knowledge excite you?
- DIAGNOSTICS - If you answered NO to these, You may need to reconsider

End of the Stage of Exploration (Stage I) (usually at the end of the First Year in the Programme):

- Are you motivated to do this?
- Does a research career appeal to you?
- Does the idea of generating and disseminating knowledge excite you?
- Are you organising your program and developing plans of action for each year of doctoral study?
- Do you have an organized way of keeping up with the many articles currently in your field?
- Do you have a sense of research in your area by reading articles in major journals in your field?
- Do you know who the major authors are in your field?
- Can you discuss the variety of research methods, and do you have in-depth knowledge in a couple?
- Are you leaning toward areas that are more exciting to you?
- Are you beginning to develop a local network of faculty and students with whom you think you can collaborate?
- Are you collecting, reviewing, and cataloguing current literature in the areas you are interested in?
- Do you know what journals are most likely to accept articles in your area of interest?
- Have you tried to write an original proposal or engage in a research project
- DIAGNOSTICS – Develop work plan to remediate all ‘NO’ Responses within six

End of the Stage of Engagement (Stage II) (usually at the end of the Second Year in the Programme)

- Are you motivated to do this?
- Does a research career appeal to you?
- Does the idea of generating and disseminating knowledge excite you?
- Are you prioritizing your time and managing your various activities well?
- Can you discuss the integration of articles through your schema or mental model of how you view the field?
- Have you completed a research paper for submission to a conference (or a journal)? Have you presented your ideas in a group setting?
- Are you getting a good understanding of a variety of research methods and tools?
- Have you established a portfolio of projects with peers and faculty that will lead to both conference presentations and publications?

- Are you converging through your readings and topics on an area that could be the foundation for a dissertation?
- DIAGNOSTICS – Develop work plan remediate all ‘NO’ Responses within six months

End of the Stage of Consolidation (Stage III) (usually at the end of the Third Year in the Programme)

- Are you motivated to do this?
- Does a research career appeal to you?
- Does the idea of generating and disseminating knowledge excite you?
- Have you passed your comprehensive examinations or equivalent?
- Can you read articles more efficiently and rapidly integrate them into your stable schema.
- Have you had the responsibility for teaching a course?
- Have you presented your ideas at a regional/national conference?
- Have you honed your presentation skills, particularly for the proposal?
- Have you experienced the process of reviewing a manuscript with your submissions? Have you reviewed a submission to a conference or a journal?
- Have you developed an idea for your dissertation?
- Have you identified your dissertation chair/committee that is on-board with your topic? Are you very comfortable with your proposed methodology for your proposal?
- Have you defended your proposal?
- Have you entered the job market?
- DIAGNOSTICS – Develop work plan to remediate all ‘NO’ Responses within six months.

End of the Stage of Entry (Stage IV) (usually at the end of the Fourth Year in the Programme):

- Are you motivated to CONTINUE to do this?
- Does a research career appeal to you?
- Does the idea of generating and disseminating knowledge excite you?
- Have you developed a set of competencies that you can bring to collaborative efforts?
- Have you attended a national conference in your field? Have you got articles accepted in conferences or journals?
- Have you interacted with peers outside your institution that share your interests? Have you defended your dissertation?
- Have you structured a research program from your projects and dissertation? Have you got a job?
- DIAGNOSTICS – Develop work plan to remediate all ‘NO’ Responses within six months.

Pitfalls and Supports

As indicated above there are a number of support systems that are available to you whilst developing yourself as a researcher. The main support is your supervisor and a good professional relationship with him/her is paramount. However, if this doesn't work out then there are procedures available to come to a suitable solution Chapter 5 Section 5.11 of the Academic regulations.

Whilst you may be accepted onto a programme, this does not give you the right to an award at the end. The award is earned by examination by an external peer. As such you must work towards this goal as indicated above, if it is felt that you are not proceeding in a satisfactory way then it is possible that your registration will be halted. To ensure that this doesn't occur, your work will be reviewed by a progression panel on a yearly basis (see below).

Plagiarism

Of all the academic crimes, plagiarism – using someone else's work without acknowledgement or, worse still, passing it off as your own – is the most serious. The penalties in cases where plagiarism and/or collusion or other forms of academic cheating have been found to have taken place are severe. See the University's Code of Conduct in included as Chapter 6 of the *Handbook of Academic Regulations and Procedures*). For general guidelines in relation to plagiarism, see Appendix 1 of this guide.

Problems with Writing

Many research students (and sometimes even their supervisors!) face problems when it comes to writing; at times these problems may appear insurmountable. Research suggests that the most common problems include a slowness in formulating what to write, difficulty with bringing ideas into a coherent shape, not having the skills to write, not knowing the sub-routines of writing, behaviours and practices, a lack of instruction on writing skills and a lack of psychological support (isolation from peers).

Even the most established academics have encountered some of these problems during their careers and may well understand the difficulties students face. Issues of this nature need to be addressed at an early stage to prevent them from developing into serious difficulties. There are some practicable solutions that can be tried.

It is advisable to do more writing tasks, not just chapters, at an early stage. The types of task may vary, such as reviews of literature (or a critique of a particular article) and notes on research findings, but all aim to increase confidence and writing skills. Supervisors can help by outlining guidelines on writing tasks, including the length, scope, content, structure and aims of each task. In relation to the research plan, it is important to be able to visualise each stage of the research and to plan out the writing tasks. It is important to give and receive feedback on what has been written.

There are different strategies for encouraging and improving academic writing, such as free writing and generative writing, all of which help get us to get into the routine of writing. The [Writing Centre](#) at UL offers a free and friendly place for all staff and students (undergraduate and postgraduate, from arts to science) to come and address any

aspect of their writing. The centre offers One-to-one peer tutoring, workshops, online resources, writers' groups for postgraduates as well as consultations for staff members.

Students are encouraged to help and support each other by developing their own self-help groups (e.g. discuss and critique an article, share writing experiences, etc), as well as presenting their research at departmental and centre seminars.

Research Training and Professional Development

As part of the postgraduate experience, students are encouraged to acquire and develop work skills in the course of their research. You should discuss with your supervisors your training needs and identify relevant and available courses to enhance specific research skills and techniques, research management, skills associated with personal effectiveness and communication, networking and team working, career management, and employability beyond the world of academia. A list of workshops, professional development seminars and other research postgraduate training events can be accessed on the Graduate School website www.graduateschool.ul.ie. Further information can be obtained from Anne O'Dwyer, Research Training Coordinator, Graduate School, email anne.odwyer@ul.ie.

Generic and Transferable Skills

As part of your PhD training, students are strongly encouraged to gain as wide a research experience as possible. This will expand your employment prospects when you complete your studies. As part of their PhD studies, students may be required to undertake some discipline specific modules. Students should participate in the generic and transferable skills programmes offered through the Graduate School. These will be accredited and form part of a Diploma Supplement which will enhance your curriculum vitae when you seek employment.

The Irish Universities Association (IUA) has compiled a *Skills Statement* available from www.iua.ie (see Publications) which should form the basis of a review of the training needs. Students should review this list of skills with their supervisor(s) and agree a programme of skills training each year of your PhD. These skills fall under the general headings of:

- Research Skills and awareness
- Ethics and social understanding
- Communication skills
- Personal effectiveness and development
- Team working and leadership
- Career Management
- Entrepreneurship and innovation

The UL Graduate School provides a suite of short courses and programmes which fall into these categories. It is anticipated that these short courses may change in availability, be modified, based on feedback, and new courses offered both at UL Graduate School level and in faculties, departments, schools and institutes. It is expected that Postgraduate Researchers (PGRs) who avail of these courses will undertake a preliminary training needs analysis and complete, with their supervisor(s) a Personal Development Plan

which will plan out the short courses and development of skills over their 3 – 4 years research programme. It is envisaged that ECTS credits will be awarded for these courses.

You should remember that the core component of a PhD, which is examined, is the advancement of knowledge through original research which forms the basis of the PhD thesis. Discipline and generic skills are seen as “extras” to the main research component of the thesis, but, increasingly, they are expected as part of the training as a researcher.

Training Needs Analysis

You should refer to the IUA Skills Statement. Approach each section of the Skills Statement with a critical assessment of your own current skills level and your training needs, as follows:

Research skills and awareness

Previous training	
Anticipated needs / training	
How will this be achieved	
When (year 1, year 2, year 3)?	

You should actively develop your CV, be aware of academic developments in your professional area and, where appropriate, engage in networking by participating in conferences and publishing your research. For further information see the Centre for Teaching and Learning website www.ul.ie/tandl/ and the Careers website www.ul.ie/careers.

Teaching and Learning Workshop Graduate Track (Research Postgraduate Students Only)

- Career Planning for Postgraduates
- Creating an Effective CV
- Time Management for the Postgraduate Student
- Making a Success of Interviews
- Creative Job Hunting
- Presenting Research Orally
- Effective Approaches to Managing Your Research
- Transferable Skills through Research: Humanities/Business/Education Research Students
- Building an Effective CV: Humanities/Business/Education Research Students
- Transferable Skills through Research: Engineering/Science/Informatics & Electronics Research Students
- Building an Effective CV: Engineering/Science/Informatics & Electronics Research Students

A mini library of teaching and learning resources is available at no charge to both staff and students.

Contacts

Maura Murphy, Manager, Ext 2034 Email: maura.murphy@ul.ie

Ms Karen McGrath, Administrator. Ext 4652. Email: Karen.mcgrath@ul.ie

The Centre for Teaching and Learning website is at www.ul.ie/ctl

Regional Writing Centre

The [Writing Centre](#) at UL offers a free and friendly place for all students (undergraduate and postgraduate) to come and address any aspect of their writing. This resource is dedicated to helping students develop strategies to become more confident, critical and autonomous writers.

The Writing Centre practices a non-invasive, inductive approach to writing development, utilising peer-tutors and experts that work with both undergraduate students, postgraduate students and staff respectively to identify their writing practices in order to assess and improve strategic effectiveness.

The Writing Centre is also available to staff who are interested in developing their students' writing.

Statistical Consulting Unit (SCU)

The Statistical Consulting Unit (SCU) is based in the Department of Mathematics and Statistics. The unit aims to provide a professional statistical consulting service and to promote good statistical practice among researchers in UL, industry and the health sector. The services provided by the SCU include both one-to-one consultations and the running of courses for larger groups.

Aims and Objectives

- To increase the prestige of UL within the surrounding area and nationally
- To help to make UL a centre of research excellence
- To improve the standard of research design from initial proposal through to presentation of results and findings, both within the UL community and outside
- To enhance and increase knowledge of quantitative (and qualitative) research methods within the UL academic community by offering statistical consultancy and courses
- To establish regular courses in quantitative research methods both internally (staff and postgraduate students) and externally (companies and health boards)

Services on Offer

By means of consultations, advice is given on all statistical/research methodology problems/questions, including the following:

- Research methods/design
- Proposal completion (particularly statistical methodology section)
- Designing experiments
- Survey analysis and design

- Questionnaire design
- Sampling procedures
- Data collection
- Data entry
- Data analysis (quantitative and qualitative)
- Report writing
- Presentation
- Application and interpretation of statistical methods
- Statistical advice for grant proposals
- Reports on data analysis for publications/theses

Drop-In Centre

The SCU provides regular drop-in sessions where researchers can come along for short advice sessions (up to 20 minutes) without making an appointment. The sessions run for most of the year, including during the summer, from 11:00 to 13:00 on Tuesdays and Thursdays in (Rm D2029) in the main building. Longer sessions of up to an hour can be booked at any time. Dates for closure of the drop-in sessions are emailed via the 'Events' distribution list when necessary.

Courses

SCU courses aim to provide people with basic statistical tools for inputting, describing and analysing data. The courses are computer-based using software packages such as Excel and SPSS to carry out the analyses. They are designed for people with little or no prior knowledge of statistics, and mathematical theory is kept to a minimum.

All courses are run on campus over a one- or two-day period, and a comprehensive manual is provided. Courses are usually offered in January/February and June/July each year.

Research methodology and statistical courses currently offered by the SCU include:

- Questionnaire Design (one day)
- Surveys and Sampling (one day)
- SPSS for Beginners (one day)
- Exploratory Data Analysis (one day)
- Further Data Analysis (one day)
- Basic Statistics for Researchers (two days)
- Introduction to Design of Experiments (one day)

These courses may be offered in the future:

- Sample Surveys and Questionnaire Design (two days)
- Analyses of Categorical (Survey) Data (one day)
- Exploring Relationships & Regression Analyses (one day)

- Introduction to Structural Equation Modelling (one or two days)

Further details of these courses and the types of consultation provided can be found on the SCU website given below. Alternatively, contact Dr Jean Saunders directly.

Contacts

Dr Jean Saunders, Executive Director, SCU, Department of Mathematics and Statistics, Ext: 3471, Mob: 086-3866353, Fax: 061-334927. Email: jean.saunders@ul.ie. SCU website: <http://www.ul.ie/scu/>

5. Progression

Research Student Annual Progression

University academic regulations require that all research student progression be reviewed each year, with the exception of those who have submitted a soft copy of a thesis for examination. The review of the work to date will be carried out by a departmental research review panel towards the end of the calendar year, with the outcome of their decision being recorded on the Research Postgraduate Progression Report form PGR-9, (available from www.graduateschool.ul.ie).

The format of the review will be defined by the individual departments to suit the subject area, but it will take into account whether the student is registered as full or part time, the length of study, the research work carried out, any taught elements of the research programme undertaken, and any generic and transferable skills training. The progression form will be signed off by the chair of the progression panel, (which consists of the chair, your supervisor and an independent reviewer), and returned to the Student Academic Administration Office. 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 master's or PhD register as applicable.
- b. The student's research progress is of a sufficiently high standard to warrant continuation on the master's or PhD register, as applicable, and an extension to the period of registration within the limits described in section 5.8 is recommended.
- c. The student's progress is not satisfactory and the student is required to undertake the Research Confirmation Process.
- d. The student's progress is not satisfactory and the student's enrolment on the masters or the PhD register, as applicable, should be discontinued.

In relation to recommendation d. above, if the student completes an exit form, the status will revert to Left own reasons (LOR). The PGR-9 form should be used by the Research Review Panel(s) within each department to record the candidate's performance to date and determine the appropriate recommendation. A copy of the completed progression form should be held on file in the department office.

When the Research Review Panel(s) have been completed, the grades for all the research postgraduate students in each department must be entered by each Head of Department via the online Student Academic Administration grading system prior to the January Academic Council Grading Committee meeting. Please note that only one of two status grades can be entered on the online system:

G: Research to continue

NG: Research not progressing satisfactorily

Research Confirmation Panel

As per Academic Regulation 5.6.7 and arising from a decision by a Department Research Review Panel; candidates may be required to complete the Research Confirmation (RC) Panel. In addition, the Panel will also consider applications from research students who wish to transfer from the Masters to the PhD register. The Research Confirmation Panel will consider: (a) the report from the Research Review Panel; (b) a transcript of the student's results in the taught element of the programme, where applicable; (c) a written presentation of the research; and (d) a viva voce examination following presentation by the candidate of their research to an open forum attended by a board of members of faculty. There must be clear evidence that the candidate has the innate ability to understand the topic deeply enough and has shown the ability to undertake independent research work successfully appropriate to doctoral level.

1. Composition and role of the Research Confirmation Panel: Approximately two weeks in advance of the confirmation examination, the supervisor(s) via a PGR-3a form, are required to initiate a Research Confirmation Panel. The Research Confirmation Panel will consist of the Head of Department or his/her nominee who convenes the panel and act as chairperson, along with two independent panel members, one nominated by the Head of Department and the other nominated by the Assistant Dean Research. To be appointed, the independent panel members must satisfy the criteria of appointment of supervisor (as per academic regulation 5.5).

Where the student undertakes a structured PhD programme, the programme director may act as the independent panel member. The chairperson of the Research Progression Panel will act as the adviser to all research candidates presenting for review. The chairperson, independent panel member or programme director are not precluded from acting as an internal examiner at the examination stage. Furthermore, if the Head of Department is a supervisor of the research student, the Dean of Faculty or his/her nominee will assume the role of Head of Department in acting as chairperson and nominating the independent member to the panel.

Chairperson: The chairperson will normally be a senior faculty member who has supervised a PhD candidate to completion. Their role is to manage the confirmation process, ensuring that the candidate is treated fairly, to provide guidance on the University's academic regulations and practices and communicate the outcome of the examination to the candidate. The chairperson will make sure that all the required documentation is completed and communicate the outcome to the relevant parties.

Examiners: The examiners' role is to ensure that the candidate has demonstrated the capability to undertake a doctoral programme of research successfully.

2. Research Confirmation report: The members of the board should receive the report at least two weeks in advance of an oral viva. The report should not exceed 8,000 words, including references/bibliography and should:

- (a) Clearly define the research objectives;
- (b) Include a critical literature review of the subject area(s) relating to the proposed research;
- (c) Demonstrate the originality of the proposed research work, by referring to published material;

- (d) Demonstrate an ability to write a report, in accordance with UL thesis specifications;
- (e) Report on the research work carried out to date by the candidate; which demonstrates: (i) feasibility of the proposed research work; (ii) the ability of the candidate to carry out the proposed research work;
- (f) Contain a work-plan showing the main steps required to complete the research objectives. This does not need to be detailed, but should demonstrate that the candidate understands the steps and risks involved in working towards his/her research objectives.

3. Research Confirmation Presentation: The research must be presented to the examination board and the supervisor(s) may attend as an observer(s). The process will take the following structure:

- (a) The candidate will make a presentation for up to thirty minutes of the work described in the confirmation report. In some departments/faculties, this presentation may be held in a public (faculty/university) forum. Where this forum is the custom and practice, this should be applied consistently to all candidates.
- (b) After the presentation, an oral examination of the candidate for up to sixty minutes; will be undertaken by the two examiners, with the chair and the supervisor present. This should not take place in a public forum. The Research Confirmation Panel; should last no longer than one hour and thirty minutes.

4. Recommendations: The Research Confirmation Panel may recommend one of the following options based on their determination of whether the candidate's research has the potential to make an original research contribution:

- (a) The student's research progress is of a sufficiently high standard to warrant continuation on the masters or PhD register as applicable. (G)
- (b) The student's research progress on the masters register is of a sufficiently high standard to warrant transfer to the PhD register. (G)
- (c) The student's research progress is of a sufficiently high standard to warrant continuation on the masters or PhD register, as applicable, and an extension to the period of registration within the limits described in section 5.8 is recommended. (G)
- (d) The student's research progress on the PhD registrar is unsatisfactory and the student's enrolment should revert to the Master's Register. (RM)
- (e) The student's research progress is unsatisfactory and the student's enrolment on the masters or PhD register, as applicable, is terminated. (W)

5. Outcome: Candidate's will be informed of the outcome of the examination by the chairperson of the board on completion of the confirmation process. If successful, the candidate will be informed by the chairperson that the Research Confirmation Panel is not a guarantee that the candidate will be awarded a PhD. Similarly; continuation on the Masters' register is not a guarantee that the candidate will be awarded a Research Masters'. Where a candidate is not satisfied with the outcome of the Research Confirmation Panel review, s/he may appeal the matter to the Head of Department. The appeal must be made within two weeks of the publication of the research review grade.

The completed and signed PGR-3a form should be returned to Student Academic Administration.

In the event of a disagreement between the examiners as to the outcome of the Research Confirmation Panel, the chairperson will record that a disagreement has occurred, summarise the nature of the disagreement and suspend the Research Confirmation Panel. The case will be forwarded to the head of department for further action.

Research Progression Appeal Panel

As per Academic Regulation 5.6.9 and arising from the outcome of the Research Confirmation (RC) Panel; where the candidate is not satisfied with the outcome of the Research Confirmation Panel review, s/he may appeal the matter to the Head of Department. The appeal must be made within two weeks of the publication of the Research Confirmation Panel grade. The student may appeal on the basis of the process or the decision of the Research Confirmation Panel.

In a manner similar to the way the Research Confirmation Panel operates, the Research Progression Appeal Panel will assess the candidate's performance to date and decide whether to reject or uphold the appeal. If the appeal is rejected, the original decision of the Research Confirmation Panel is confirmed. If the appeal is upheld, the Research Progression Appeal Panel's recommendation shall follow the guidelines indicated in Section 4 below.

1. Composition and Role of the Research Progression Appeal Panel:

The Research Progression Appeal Panel (initiated via a PGR-3b form) will consist of the Dean of Graduate School or his/her nominee, who will act as chairperson, and two independent panel members, one nominated by the Head of Department and the other nominated by the Dean of Graduate School. All members of the panel should satisfy the criteria for appointment as a supervisor (as per academic regulations section 5.5). The chairperson or independent panel members are not precluded from acting as an internal examiner at the examination stage.

Chairperson: The chairperson (where nominated by the Dean Graduate School) will normally be a senior faculty member who has supervised a PhD candidate to completion. Their role is to manage the research progression appeal panel, ensuring that the candidate is treated fairly, to provide guidance on the University's academic regulations and practices and communicate the outcome of the examination to the candidate. The chairperson will make sure that all the required documentation is completed and communicate the outcome to the relevant parties.

Examiners: The examiners' role is to ensure that the candidate has demonstrated the capability to undertake a doctoral programme of research successfully.

2. Research Progression Appeal Report:

The members of the board should receive the report at least two weeks in advance of an oral viva. The report should not exceed 8,000 words, including references/bibliography and should:

- (a) Clearly define the research objectives;
- (b) Include a critical literature review of the subject area(s) relating to the proposed research;
- (c) Demonstrate the originality of the proposed research work, by referring to published material;
- (d) Demonstrate an ability to write a report, in accordance with UL thesis specifications;
- (e) Report on the research work carried out to date by the candidate; which demonstrates: (i) feasibility of the proposed research work; (ii) the ability of the candidate to carry out the proposed research work;
- (f) Contain a work-plan showing the main steps required to complete the research objectives. This does not need to be detailed, but should demonstrate that the candidate understands the steps and risks involved in working towards his/her research objectives.

3. Research Progression Appeal Presentation:

The research must be presented to the examination board. The process will take the following structure:

- (a) The candidate will make a presentation for up to thirty minutes of the work described in the confirmation report.
- (b) After the presentation, an oral examination of the candidate for up to sixty minutes; will be undertaken by the two examiners. The Research Progression Appeal Panel should last no longer than one hour and thirty minutes.

4. Recommendations:

The Research Progression Appeal Panel may recommend one of the following options based on their determination of whether the candidate's research has the potential to make an original research contribution:

- (a) The student's research progress is of a sufficiently high standard to warrant continuation on the masters or PhD register, as applicable. (G)
- (b) The student's research progress is of a sufficiently high standard to warrant continuation on the masters or PhD register, as applicable, and an extension to the period of registration within the limits described in section 5.8 is recommended. (G)
- (c) The student's research progress on the PhD register is unsatisfactory, and the student's enrolment should revert to the masters register. (T)
- (d) The student's research progress is unsatisfactory and the student's enrolment on the masters or PhD register, as applicable, is terminated. (W)

5. Outcome:

Candidates will be informed of the outcome of the examination by the chairperson of the board on completion of the appeal process. If successful, the candidate will be informed by the chairperson that the appeal process is not a guarantee that the candidate will be awarded a PhD. Similarly; continuation on the Masters' register is not a guarantee that the candidate will be awarded a Masters'. The completed and signed PGR-3b form should be returned to Student Academic Administration.

In relation to recommendation 4d above, the Research Progression Appeal Panel will determine, in consultation with the course director, whether or not the student meets the requirements for entry to an appropriate taught postgraduate programme. In addition, the Research Progression Appeal Panel may recommend to the Postgraduate Research Committee a change in the supervisory arrangements for the student.

In the event of a disagreement between the examiners as to the outcome of the Research Progression Appeal Panel, the chairperson will record that a disagreement has occurred, summarise the nature of the disagreement and suspend the Research Progression Appeal Panel. The case will be forwarded to the head of department for further action.

6. Research Progression Appeal Panel Checklist:

Role of the Appellant (Student)

The student may appeal in writing to the Head of Department (within two weeks) the decision of the Research Confirmation Panel on the basis of the process or the outcome. It is the responsibility of the appellant to demonstrate that progress has been made since the decision of the Research Confirmation Panel was made or that the process was not adhered to. The appellant will give a presentation of their research. In addition, it must be described within an academic research report or separately within an additional document (in total not exceeding 8000 words), how the concerns of both the Research Review and the Research Confirmation Panels have been addressed. The report(s) must not replace the content of the academic report; and must be submitted to the Graduate School a minimum of one week prior to the Research Progression Appeal Panel.

Role of the Head of Department

As soon as possible after receiving the appeal letter emanating from the decision of the Research Confirmation Panel, the Head of Department must submit to the Dean Graduate School copies of the following documents:

- The letter of appeal from the Appellant
- The Research Review Panel Progression report
- The Research Confirmation Panel report
- Where relevant, structured PhD Modules undertaken
- If required a statement from the Student's Supervisor

The Dean Graduate School will forward the aforementioned documentation to the Independent Examiners.

Role of the Independent Examiners

The independent examiners should review the previous panel reports, assess whether the appellant has addressed the concerns of both the Research Review and the Research Confirmation Panels satisfactorily and make judgement on whether the decision of the previous panels is now valid based on the appellants presentation and submission.

6. Thesis Completion, Submission and Examination

The following outlines the presentation, purpose, procedures, processes and timeframe in relation to the submission of Master's and PhD theses and *viva voce* examination for PhD candidates at the University of Limerick.

Presentation of Thesis

All UL departments/schools are encouraged to recommend to candidates for higher degrees by research a set of guidelines on thesis presentation appropriate to the discipline, whether in a specially prepared or an already published form. (See Chapter 5, Appendix 2 of the *Handbook of Academic Regulations and Procedures* at www.ul.ie/studentacademicadmin/).

If you are in doubt as to what a finished Master's or PhD looks like, there are many examples available in the library. Alternatively your supervisor will have some that they have supervised in the past.

PhD students, with the agreement of their supervisor(s), must decide as early as possible, usually by the end of the second year, whether the thesis will take the form of a monograph or an article-based work. In certain instances, academic departments who feel that the article-based approach is not appropriate to their academic discipline and may decide to preclude students from submitting their PhD thesis in this format. Regardless of the approach adopted, students are strongly encouraged to publish the results of their research in peer-reviewed journals and other publications.

All PhD candidates are examined by means of the *viva voce* examination and are subject to existing academic regulations as outlined in Chapter 5 of the *Handbook of Academic Administration*. PhD candidates are required in their research and thesis to show evidence in their conclusions of independent enquiry, originality in the methods used and/or in the conclusions drawn and must make an appreciable new contribution to knowledge and scholarship in their field of study.

Style of Thesis

A master's thesis must be submitted as a monograph. A doctoral thesis can be submitted in either monograph or article-based format. Chapter 5 Appendix 2 Section 1 presents the general requirements for the preparation and submission of a thesis. Chapter 5 Appendix 2 Section 2 presents the specific requirements for the preparation and submission of a monograph thesis (applicable to master's and PhD theses). Section 3 presents the specific requirements for the preparation and submission of an article-based thesis (applicable to PhD theses only).

General Requirements

The candidate is required to prepare three soft-bound copies of the thesis, which s/he must submit to the Graduate School. The Graduate School will forward one copy each to the internal examiner, external examiner and supervisor. At the conclusion of the examination process and when amendments and/or minor textual modifications (if required) have been made and signed-off as completed by the relevant examiner(s), the candidate must submit two hard-bound copies and one electronic copy of the final

version of the thesis to the Graduate School. The Graduate School will deposit one hard-bound copy and one electronic copy of the thesis in the University of Limerick Glucksman Library and will send the other one hard-bound copy to the supervisor.

Language

The thesis will be written in English, Irish or another language. Use of a language other than English or Irish, however, is subject to the availability of faculty with competence in the language concerned. The external examiner to be appointed must also be competent in the language in which the thesis is to be written. An abstract in English or Irish shall accompany each of the three copies of the thesis when they are being lodged with the Vice President Research Office for examination. Notification of the intention to submit a thesis in a language other than English or Irish, including specification of the language in question, must be made to the Assistant Dean Research prior to the commencement of postgraduate studies. The Assistant Dean Research shall notify the Vice President Research accordingly. For further details, see Chapter 5, Appendix 1 of the *Handbook of Academic Regulation and Procedures*.

Electronic Copy

An electronic copy must be submitted as a single file in PDF format, or similar fixed format, to allow viewing and printing of the document exactly as it appears in the final hard-bound version. The file must be submitted on a portable data storage device, i.e., CD, memory stick, etc., together with the hard-bound copies.

Thesis Specifications

For full details relating to thesis production specifications, see Chapter 5, Appendix 2 of the *Handbook of Academic Administration*. Candidates should **carefully proofread** their thesis for typographical errors and correct them to the satisfaction of the examiners before submitting the thesis. Professional proof reading or copy editing is not allowed. Theses submitted in word-processed form must be clearly legible, and candidates are advised to use a good quality printer and a new printer cartridge when printing their thesis.

Length of Thesis

A master's thesis should not exceed 60,000 words. A PhD thesis should not exceed 100,000 words. The word-count limits apply to the abstract and numbered chapters only and exclude appendices, footnotes, tables and bibliography.

Format of Thesis

The thesis should be typewritten and submitted on A4 white 80g/m² paper. The thesis should be printed on both sides of the page. Double or one-and-a-half line spacing should be used in the body of the text. The preferred typeface is 12-point Times New Roman. Single spacing may be used for footnotes and indented quotations. Margins at the binding edge should be not less than 40mm and other margins not less than 20mm.

Title Page

The title should be an accurate and concise description of the contents of the thesis. The title page of each volume of the thesis should contain the following information:

- The full title of the thesis and the sub-title (if any)

- If there is more than one volume, the total number of volumes and the number of the particular volume
- The full name of the author (as recorded on his/her birth certificate) with, if desired, any qualifications or distinctions
- The award for which the thesis is submitted to the University.
- The name of the university. Where the University of Limerick logo is used at the top of the title page, it must conform to the UL corporate specifications (<http://www.ul.ie/graduateschool/research-thesis-submission>).
- The name(s) of the supervisor(s) of the research
- As the last line on the page, the statement ‘Submitted to the University of Limerick, (Month) (Year)’

Abstract

An abstract in English or Irish, not exceeding 300 words or one page in length, should be bound as an integral part of the thesis and should precede the main text. The abstract should be printed in single spacing and should indicate the author and title of the thesis in the form of a heading. A separate copy of the abstract should accompany the electronic copy of the submitted thesis.

The abstract should provide a synopsis of the thesis and should state clearly the nature and scope of the research undertaken and of the contribution made to the knowledge of the subject treated. The abstract should include a brief statement, where appropriate, of the method of investigation used, an outline of the major divisions or principal arguments of the work and a summary of any conclusions reached.

Declaration

When submitting a thesis, the author should indicate in a declaration any material contained in the thesis that he or she has used before or has had published. If the thesis is based on joint research, the nature and extent of the author’s individual contribution should be indicated. The declaration should immediately follow the abstract.

Acknowledgements

Acknowledgements are given on the page following the declaration and should be confined to persons or institutions that have contributed to the work.

Table of Contents

The table of contents follows the Acknowledgements page. While the categories can vary depending on the nature of the thesis, (A master’s thesis must be submitted as a monograph. A doctoral thesis can be submitted in either monograph or article-based format.) the table of contents should be set out as see Chapter 5, Appendix 2 of the Handbook of Academic Administration. Students are advised to check with their department for any specifications that may be stipulated by that department.

Tables and Illustrated Material

Photographs, maps, graphs and other statistical tables should be mounted where they appear in the text. Bindery services should be advised when a thesis contains material of this kind. Maps or diagrams larger than A4 must be folded well inside the front edge of

the thesis. The lists of tables and illustrations should follow the table of contents and should list all tables, photographs, diagrams etc. in the order in which they occur in the text.

Abbreviations

Abbreviations may be used at the discretion of the author and, when used, a key should be provided. In the case of an abbreviation not in common use, the term should be given in full at the first instance, followed by the abbreviation in brackets.

Pre-publication, Copyright and Intellectual Property

Copyright and other intellectual property (IP) regulations are specified in chapter 5, section 5.13. It is important that issues relating to IP and publishers' copyright are resolved before the thesis is submitted. Accordingly, candidates are required to obtain from copyright holders (normally the publisher) permission to republish their already published work and to include in an appendix a declaration stating that permission has been granted. Candidates must agree with their primary supervisor(s) the final content of the thesis, including the number of published papers and any externally funded contractual obligations, including IP and confidentiality issues that may pertain to the underpinning research.

The Glucksman Library will retain its copies of the thesis and will make these copies available for consultation, in the library and on the University of Limerick Institutional Repository (ULIR), in accordance with normal academic library practice and subject to the following:

- In cases where the material in the thesis is confidential or proprietary, the internal and external examiner(s) are required to sign a non-disclosure undertaking in respect of the material comprising the thesis.
- The primary supervisor should advise the office of the Vice President Research with regard to the basis on which access to the thesis for purposes of research may be given to third parties.

The Glucksman Library will make provision for the inclusion of a description and abstract of the thesis in appropriate directories of abstracts for reference by the international academic community. In cases where the material in the thesis has been deemed to be confidential or proprietary by the Vice President Research, the Glucksman Library shall embargo access to both the hard-bound and electronic copies of the thesis for a specified time after they have been lodged in the library. This embargo will cease after five years but may be extended at the request of the Vice President Research. A hard-bound and electronic copy of the final version of each thesis completed in the University of Limerick must be deposited in the Glucksman Library in the interest of academic and historical scholarship.

Bibliography

Theses submitted for any higher degree by research shall contain a full bibliography. As indicated above, candidates should specify in the bibliography the guidelines on thesis presentation that have been used. (See Chapter 5, Appendix 3 of the *Handbook of Academic Administration*.)

The Viva Voce Examination

The following outlines the composition and role of the examination board and the purpose, processes and procedures pertaining to the *viva voce* examination for PhD candidates at the University of Limerick. For further details refer to the University's *Handbook of Academic Regulations and Procedures* available on the Student Academic Administration web site at: www.ul.ie/studentacademicadmin. All postgraduate research forms (PGR forms) are available on the Graduate School web page: www.graduateschool.ul.ie

1. Composition and role of the examination board

- **Composition of the board**

The board will normally consist of an independent chairperson and two examiners, one of whom will be internal to the University and the other external (in instances where the candidate is a staff member a second external examiner replaces the internal examiner). In the case of practice-based PhDs, where it is desirable to appoint a practitioner as an external examiner, an academic external examiner shall also be appointed. The chairperson will normally be a UL faculty member who holds a PhD or has supervised a PhD candidate to completion.

The independent chairperson and the examiners will have been nominated and approved in accordance with the PGR-1 form. When the independent chair and the examiners are being nominated, due cognisance should be taken of any potential conflicts of interest, including those of a personal, research or professional nature. The *viva voce* examinations are administered and organised by the relevant academic department.

- **Role of the independent chairperson**

The independent chairperson's role is to manage the *viva voce* examination, ensuring that the candidate is treated fairly, to provide guidance on the University's academic regulations and procedures and communicate the outcome of the examination to the student. The chairperson will make sure that all the required documentation is completed and communicate the outcome to the appropriate parties. The chairperson shall not have been involved in the research, and shall fulfil the supervisory requirements set out in section 5.5 of the University's *Handbook of Academic Regulations and Procedures*.

- **Role of the external examiner**

The external examiner will normally hold a PhD or have supervised a PhD Candidate to completion. The Examiner will be an acknowledged expert in the field of study covered by the thesis and will usually hold a position as a senior lecturer or professor in a university, or an equivalent position in an appropriate research institution or professional body. The examiner is required to be familiar with academic standards for PhDs within the area of the candidate's research. The external examiner will, together with internal examiner, carry out a detailed oral examination of the candidate and provide a written academic assessment as per PGR-6 form.

- **Role of the internal examiner**

1.

The internal examiner will normally hold a PhD or have supervised a PhD Candidate to completion. The Examiner will have relevant expertise in the field of study covered by the thesis. The internal examiner has an important role in the examination process both as an examiner and, if required, after the examination as an advisor to the candidate on minor corrections or amendments. The internal examiner will be required to confirm in writing to the Graduate School that any corrections have been made.

- **Role of the supervisor(s)**

The supervisor may attend the examination, subject to the agreement of the examiners and chairperson, but may not examine or question the candidate and should only provide clarification of any matters when requested by the board. The supervisor does not participate in the final decision and should leave the examination while such deliberations take place, unless asked to remain by the chairperson.

2. Purpose and format of the *viva voce* examination

Prior to the Examination:

Prior to the *viva voce* examination the external and internal examiners should have been in contact, and exchanged independent pre-viva reports. These reports will form the basis of the final examination report, which should be submitted on form PGR-6.

Purpose of the examination:

- To allow the candidate to defend the originality of the thesis
- To establish that the work is publishable in whole or in part
- To expand and clarify the candidate's ideas
- To establish that the research has been carried out independently by the candidate
- To test the authenticity of the research and writing
- To determine the candidate's depth of knowledge and understanding of the field of study and of the literature
- To examine the conceptual approach, research methods and techniques used in the thesis
- To examine what was learnt and whether new knowledge was generated
- To consider the candidate's ability to communicate his or her subject and to defend the research
- To give advice on changes, future direction and possible publication

3. *Format of the examination:*

PhD candidates are required to defend their thesis in response to issues raised and will be examined by the examiners. The chairperson prior to the examination and in consultation with the examiners will determine the order of questions and the overall format of the examination. Candidates may be asked by the chairperson to briefly introduce their research and summarise their main findings and should be prepared to do so. At the end of the *viva voce* the candidate and the supervisor will be asked to leave

the room while the board deliberates on the outcome. They will normally be called back and informed by the chairperson of the outcome of the examination.

It is the responsibility of the supervisor to propose the examiners and chairperson, subject to the agreement of the head of department (PGR-1 form), and to arrange the date of the *viva voce* examination and the location. Candidates must be kept informed during this nomination process by their supervisor(s) to ensure that they are aware of the composition of the examination board and that if they need to make any comment, this is taken into consideration. Candidates must not contact their examiners prior to the *viva voce* examination.

When the Examination Board has been constituted, all further communication by either the candidate or the supervisor(s) with the external examiner(s) shall be made through the chairperson.

- **Length**

The length of the *viva voce* examination may vary in accordance with different disciplinary practices and will depend on the examiners' requirements. As a guideline it should normally be in the range of one hour and a maximum of three hours.

- **Location**

The viva will normally be conducted at the University of Limerick unless prior written permission is sought and obtained from the head of department. In exceptional circumstances video/web conferencing may be used subject to agreement between all those involved in the examination, including the candidate.

- **Outcome**

At the conclusion of the viva the board will decide on the outcome and determine the final recommendations. Following the board's deliberations, the chairperson will normally ask the candidate and supervisor into the room and verbally inform the candidate of the outcome of the examination and the recommendation of the board, subject to agreement by Academic Council. Candidates may be verbally advised of any required revisions and/or corrections, or additional work. They will be informed that any additional requirements will be communicated to them in writing by the internal examiner in consultation with the supervisor(s).

Following the viva a joint written report should be prepared and agreed by the examiners and submitted by the chairperson on form PGR 6. This report should be sent to the Graduate School as soon as possible, but no later than one week after the examination.

If requested, the Graduate School will forward a copy of the final report to the student, supervisor, head of department and assistant dean for research, together with a note of any additional requirements.

- **Disagreements among examiners**

If a disagreement arises among the examiners, the chairperson is required to clarify and, where possible, reconcile differing viewpoints. If this is not possible, the examiners

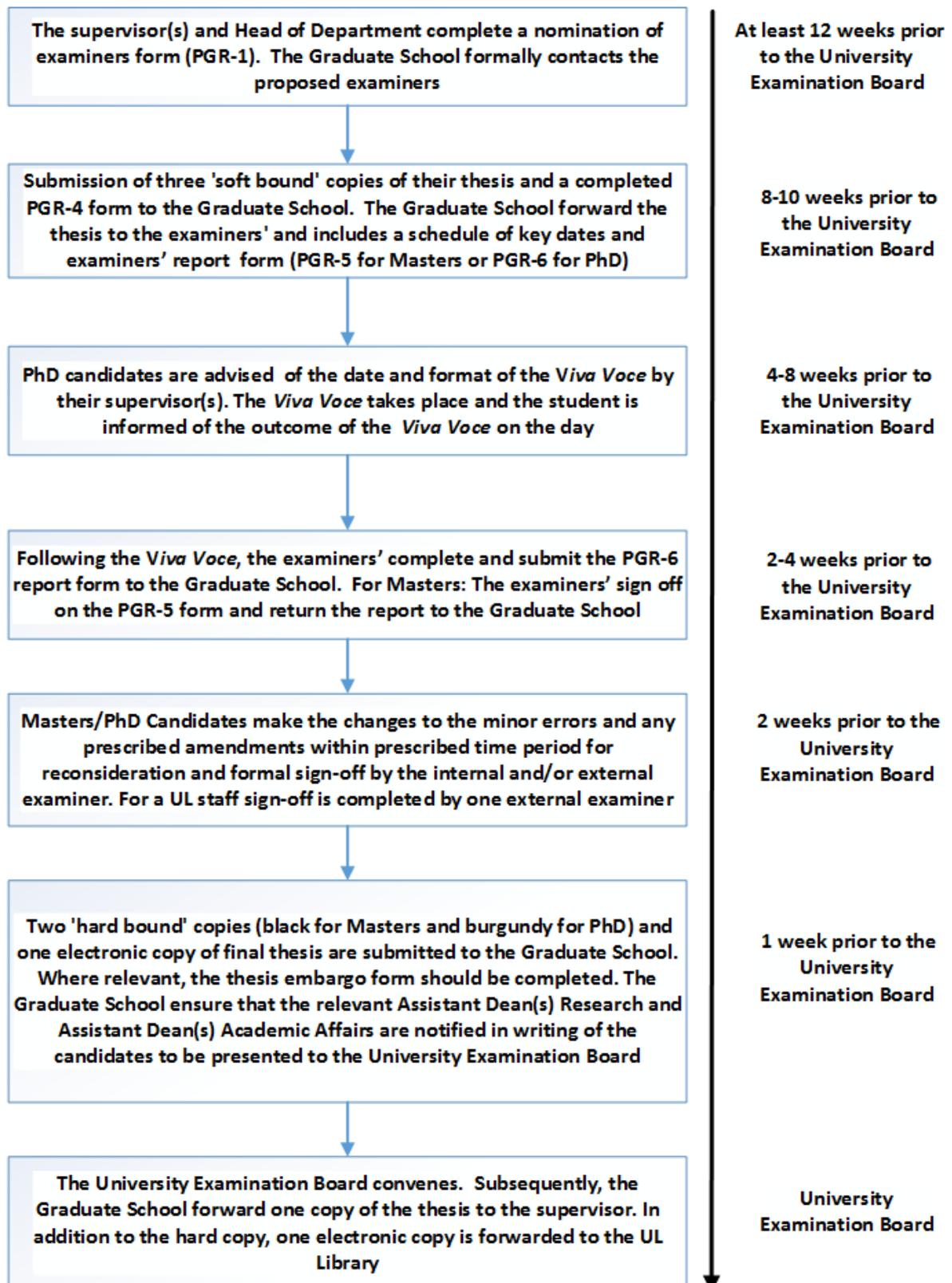
should submit separate reports to the Graduate School, and the matter will be referred to the Vice President Academic & Registrar for final decision. In exceptional circumstances an additional external examiner may be asked to adjudicate.

- **Right of appeal**

An appeal against the examiners' decision cannot be made. If the candidate wishes to appeal on the grounds of process, the Vice President Research in consultation with the Vice President Academic and Registrar shall seek the Academic Council's permission to withhold the name of the candidate and the examiners' report until after the hearing of the appeal (for further details see Ch 5: Sec 15 *Handbook of Academic Regulations and Procedures*).

Submission and Final Examination of a Research Thesis

'At a Glance' Submission and Examination of a Research Thesis Procedure



The chart on the previous page summarises the stages/timelines involved in the submission and examination of a research thesis. Stages 1 to 7 inclusive apply to PhD theses while all stages except stage 3 apply to Research Master's. The PGR Forms and embargo form mentioned below are available from www.graduateschool.ie

The chart on the previous page summarises the stages and indicative timelines involved in the submission and examination of a research thesis. Stages 1 to 7 inclusive apply to PhD theses while all stages except stage 3 apply to Research Masters.

The PGR Forms and embargo forms referred to in this process are available from: <http://www.ul.ie/graduateschool/postgraduate-research-forms>

Please note: Candidates should also review the Academic Regulations Chapter 5 Appendix 2 Procedures for the Preparation and Submission of Master's and Doctoral Theses <http://www.ul.ie/graduateschool/codes-practice-and-regulations>

Stage 1 (PhDs and Masters)

Stage 1 occurs at least 12 weeks prior to the University examination board meeting. The supervisor(s) and Head of Department complete a nomination of examiners form (PGR-1). Prior to this stage, the supervisor(s) will have informally contacted potential examiners and the Assistant Dean Research concerning their availability. Academic Council approves the nomination of examiners. The Graduate School formally contacts the internal and external examiners to confirm their availability.

Stage 2 (PhDs and Masters)

Stage 2 occurs 8–10 weeks prior to the University examination board meeting. On agreement with their supervisor, the candidate submits three 'soft bound' copies of their thesis and a completed PGR-4 form to the Graduate School. The Graduate School contacts the internal and external examiners, providing them with copies of the thesis, a schedule of key dates, the examiners' report form (PGR-5 for Masters or PGR-6 for PhD) and any other necessary documentation.

Stage 3 (PhDs only)

Stage 3 involves the *viva voce* examination and occurs 4–8 weeks prior to the University examination board meeting. The supervisor advises the PhD candidate of the date and format of the *viva voce*. The Assistant Dean Research or nominee of the respective college/department chairs the *viva voce*, except in interdisciplinary cases, where the Dean Graduate School may chair the board. The candidate is informed of the outcome of the *viva voce* on the day.

Stage 4 (PhDs and Masters)

For PhDs: Following the *viva voce*, the examiners complete and submit the PGR-6 report form to the Graduate School. **For Masters:** The examiners sign off on the PGR-5 report form and return it to the Graduate School.

Stage 5 (PhDs and Masters)

In cases where the examiners recommend that minor errors must be corrected, the internal examiner must confirm in writing to the Graduate School that all such corrections have been completed. In cases where amendments to the thesis are required, the internal or external examiner must confirm in writing to the Graduate School that the amendments have been made within six months of the *viva voce* examination. For UL staff members with two external examiners, one external examiner must confirm in writing to the Graduate School that any corrections and amendments have been completed. In relation to the examiners' recommendations if a candidate does not resubmit the revised version of his/her thesis to the Graduate School within the prescribed time period, the examination process will be deemed to be concluded.

Stage 6 (PhDs and Masters)

Stage 6 occurs one week prior to the University examination board meeting. Masters and PhD candidates must submit **two** 'hard bound' copies (black hard bound cover for Masters and burgundy hard bound cover for PhD) and one electronic copy of the **final** version of the thesis to the Graduate School. Where relevant the thesis embargo form should be completed at this stage. If requested, the Graduate School will ensure that the relevant Assistant Dean(s) Research, Assistant Dean(s), Academic Affairs and Academic Staff associated with the thesis are notified in writing of the candidates who are to be presented to the examination board.

Stage 7 (PhDs and Masters)

The University Examination Board is convened to make final award recommendations to Academic Council. Subsequently, the Graduate School forward one copy of the thesis to the external examiner and the supervisor. In addition to the hard copy, one electronic copy is forwarded to the UL library.

Electronic Thesis Submission to the Library

One hard bound copy of your thesis will be lodged in the Glucksman Library and will be available for consultation. The electronic copy, which must be the final corrected version in a single PDF file format, will be uploaded onto the University of Limerick [Institutional Repository](#) in accordance with normal academic library practice. For information about the institutional repository, go to www.ul.ie/library

Placing an embargo on your thesis

In cases where material in a thesis is confidential, you may place an embargo on access to the thesis for a specified time, not exceeding 5 years. The embargo form is available from www.graduateschool.ul.ie. At the end of the embargo period, the thesis will be made fully accessible on the institutional repository and in the library, unless the candidate contacts with the library to indicate his/her wish to renew the embargo.

7. Resources and Services

The University of Limerick has excellent research facilities including new buildings, laboratories and a state-of-the art library. Many research students are accommodated in close proximity to their departments, while others are clustered in research areas in the Foundation Building.

Resources

Laboratories

Laboratories are a key research resource for science, engineering and technology research students. There are 183 laboratories on campus, which cater for undergraduate teaching, research and specialist high-tech facilities. Research students working in laboratories are appraised of health and safety issues during orientation and are expected to adhere to University and departmental guidelines at all times.

Computing and email

Computing and email services are provided by the Information Technology Division (ITD), which is also responsible for telephone services, the print room and post room. The major aspects of computing service activities likely to be relevant to research students are the provision of computing power and the provision of guidance, advice and training. Assistance is available on all aspects of computing (not just the centrally provided facilities), and it is very important to consult ITD at the commencement of your research. Policies in regard to the use of the internet and email can be found at [ITD Policies](#). Inappropriate use of the university systems will result in disciplinary action.

Desk Space

Your supervisor, in consultation with the Head of Department will allocate desk space to you. This is usually in the vicinity of the department; or place where the research will take place. If you are assigned a position in the Foundation Building Research clusters then students must complete a Desk Authorisation form available from the Graduate School, see (www.graduateschool.ul.ie).

The Graduate School assigns a student a research desk on the advice of the relevant Assistant Dean Research and Research Centre Director. Students are usually allocated a desk within the area occupied by a specific research centre or as close to that centre as possible, depending on space availability.

It is the responsibility of the research centre or department to provide the student with a personal computer as well as reasonable access to telephone, photocopying and printing facilities for the duration of their studies. Please discuss your needs with your supervisor and/or Head of Department.

Support Services

Faculty Committee/Centre	Administrative Contact Person
Faculty of Business Research Committee Graduate Business Centre	Rebecca Gachet
Faculty of Education & Health Sciences Research Committee	Jo Liston,
Faculty of Humanities Research Committee, Humanities Graduate Centre	Niamh Lenihan
Faculty of Science & Engineering Research Committee	Eileen Madden

Library

The library supports postgraduate researchers through the development and delivery of a range of services and resources targeted at the unique needs of researchers.

Collections

The collections underpin and reflect the research activities of UL and provide access to significant scholarly journals and other resources across a range of disciplines. As well as a comprehensive local electronic and print collection, our participation in IReL, the Irish Research eLibrary, gives us access to a world-class range of e-journals, databases and e-books. Collections can be accessed from the library homepage www.ul.ie/library. UL's rare books and archives can be accessed in the library's Special Collections Reading Room.

Library Opening Hours

During term time the library is open seven days a week. Check the library website for details. Electronic resources are available 24/7. For off-campus access, go to <https://login.proxy.lib.ul.ie>.

Borrowing from the Library

Your UL ID card is also your library card. Researchers can borrow 10 items at any one time for a period of four weeks. Items can be renewed and reserved online.

Inter-library Loans

Researchers requiring access to resources not included in the library's own collection can make use of the inter-library loans service. A personally signed copyright declaration form is required for each request. Forms are available from the library. Scanned print articles can be delivered direct to your email account, saving time and travel. Books, full journal issues and theses can be collected from the library (interlibraryloans@ul.ie).

UL publications including Theses

The library receives copies of all major UL theses. Theses can be searched for on the library catalogue and can be requested at the issue desk but may not be removed from the library. Theses from other universities can be searched for at www.theses.com and can be requested as inter-library loans. Open access to UL publications, including theses, is provided by the UL Institutional Repository at <http://ulir.ul.ie>.

Referencing

A guide to referencing is available at www.ul.ie/~library/referencing. The Librarian, Research Services, offers training in the use of bibliographic management software (Endnote).

Managing Information

For advice on various research skills, from doing a literature search, through to networking, presenting at conferences, and moving towards getting published, see <http://libguides.ul.ie/research/> for Research Skills online, and for other library supports.

Faculty Librarians

As well as collection development expertise, the Faculty librarians provide consultation services and training to help you to identify and use the appropriate resources for your research. The Faculty librarians are Liz Dore (Education and Health Sciences, ext 2924), Mícheál O'hAodha (Science & Engineering, ext 2668), Pattie Punch (Humanities & Law, ext 2185) and Peter Reilly (Business, ext 3296).

Librarian, Research Services

The Librarian, Research Services is Aoife Geraghty (ext 2164). Aoife works with the Research Office, the Graduate School and academic staff to identify, develop and deliver innovative services that improve the level of support provided by the library to the University research community. Advice and training are offered regarding developments in scholarly publishing, including the use of metrics and open access initiatives.

Visiting Other Libraries

UL, along with 157 other higher education institutions in the UK and Ireland, is a member of *SCONUL Research Extra* (www.sconul.ac.uk). This entitles postgraduate research students to borrow from other participating institutions. You can apply for a *SCONUL Research Extra* card at the Library Information Desk.

An ALCID card, also available from the Library Information Desk, will allow you to access, for reference only, Irish libraries that are not SCONUL members.

To visit libraries not included in either the SCONUL or the ALCID scheme, contact the Library Information Desk at 2166 or libinfo@ul.ie.

Careers Service

The Careers Service offers a varied programme of activities to support postgraduate students in making and implementing effective career plans. Some of these services are specifically designed for research students. Services include:

- One-to-one consultation with a specialist careers advisor
- Workshops on career planning for postgraduate students
- CV review clinics
- Careers fairs
- Careers Resource Area, E0-005
- Employer presentations and on-campus interviews
- Vacancy details
- Specialist disability support service

Full details of all careers services are provided on the Careers website www.ul.ie/careers.

Centre for Teaching and Learning

The Centre for Teaching and Learning exists to encourage and facilitate excellence in teaching and learning at UL. Its role is to encourage scholarship and research in teaching and learning, to help ensure that effective teaching is valued, supported and developed and to encourage innovation in teaching and learning activities. Enhancing the learning and development experience for both teachers and students is pivotal to the role of the Centre.

Aims and Objectives

- To ensure that teaching and learning remain high on the University's list of priorities in decision-making
- To initiate programmes to enable faculty to improve the quality of their teaching
- To encourage and facilitate the effective use of innovative teaching and learning techniques inside and outside the classroom
- To help enhance the learning environment for staff and students
- To develop and manage a teaching resource centre
- To manage teaching excellence awards and fellowships
- To train teaching assistants
- To advance scholarship in the areas of teaching and learning
- To provide formative advice and support to individual faculty members in their professional development as teachers

Services on Offer

- Professional development, training and education in teaching and learning
- Specialist Diploma in Teaching, Learning and Scholarship

- Writers' Retreats for Academics and Postgraduates
- Innovation and Creativity in Teaching and Learning
- Teaching Evaluation
- Student Support
- UL, Regional and National awards for excellence in Teaching
- Technology in Teaching
- Writing Centre
- Civic Engagement

Contacts

Maura Murphy, Manager, Ext 2034 Email: maura.murphy@ul.ie

The Centre for Teaching and Learning website is at www.ul.ie/ctl

Postgraduate Students' Union (PSU)

The Postgraduate Students' Union (PSU) is the representative and social body for the 2,500 postgraduate students at UL. The organisation works in tandem with UL to improve the standards of research and teaching and to tackle the problems experienced by both taught and research postgraduate students. The PSU President holds a full-time position, established by the Universities Act 1997, and represents postgraduate students on various UL committees, such as Governing Authority and Academic Council, which sets academic policy in UL.

The PSU organises various events (e.g. parties, video nights, tennis tournaments!) throughout the entire year for postgraduate students, the biggest of which is the Annual Postgraduate Charity Ball held in the second semester. Such events play an important role in preventing the social exclusion felt by some postgraduate students as a result of their age and ethnic origin. The PSU provides postgraduates with a forum for mutual assistance, dialogue and debate. The PSU has identified the provision of high-quality events, as well as the expansion of services and representation at national and international levels, as important goals. A mailing list is available on the PSU website. The PSU provides free tea and coffee for postgraduates on a daily basis in the Postgraduate Centre.

The PSU Office is located in the new Postgraduate Centre. For more information, Website: www.postgrads.ie Facebook: <http://www.facebook.com/ULPSU>

Useful Contacts

The following table lists some key administrative offices at UL. If you are dialling an extension from within UL, remember to drop the first two digits of the local number (e.g. 234377 is ext 4377). If dialling outside Ireland, dial +353-61 before the local number.

Office	Telephone
Access Office	061-213104
Accounts Office	061-202339
Campus Life Services	061-202433
Careers Service	061-202114 061-234227
Disability Office	061-202346
Fees Office	061-202026
Graduate School	061-233273
International Education	061-213520
ITD	061-202999
Language Centre	061-213563
Library	061-202116
Mature Students Office	061-213481
Postgraduate Admissions Office	061-233292
Postgraduate Students' Union	Postgraduate Centre, Stables
Print Room	061-202015
Research Office	061-202686
Student Academic Administration	061-202119
Student Affairs Office	061-213143
Student Counselling	061-202015
Student Health Centre	061-202015

Useful Websites

Internal	Website
University of Limerick	www.ul.ie
Graduate School	www.graduateschool.ul.ie
Research Office	www.research.ul.ie
Postgraduate Students' Union	www.postgrads.ie
Centre for Teaching and Learning	www.ul.ie/ctl
Careers Office	www.ul.ie/careers
International Education Division	www.ul.ie/internationaleducation/
Campus Life Services	www.campuslife.ul.ie
Student Academic Administration	www.ul.ie/studentacademicadmin/

8. Appendices

Appendix 1: Plagiarism at College

The Centre for Teaching and Learning, University of Limerick, provide helpful guidelines for students in relation to plagiarism. <http://www3.ul.ie/ctl/plagiarism-spectrum>. The following paper is by Dr. Sarah Moore, Dean Teaching and Learning,

Plagiarism means copying other people's work in part or in whole, and passing it off as your own. It's seen as one of the deadliest sins in further and higher learning environments. Lecturers and professors gasp in horror at the very word, and swoon in despair if they discover that one of their students has been suspected or accused of it. The funny thing is that many students don't even know what it means, and those who do are often surprised when they find out that it is taken so seriously in academic environments. But it is. If you are found plagiarising at college, you can be penalised in all sorts of ways. Depending on the extent of the plagiarism, deterrents can include anything from a failed assignment to serious disciplinary action, up to and including dismissal from your programme of study. So basically, it's pretty serious, and you shouldn't do it. Teachers in universities often wonder quizzically why, if there are so many sanctions associated with plagiarism, some students continue to engage in it. Conversations with students who have admitted to plagiarism suggest that there are a number of reasons why they do it. Knowing these reasons can help you to avoid it, and in turn will make you a student who is equipped with another pearl of knowledge that can help you to perform better and get the most out of your time at university.

Why Do People Plagiarise?

1. Innocence

Some students genuinely don't realise that plagiarism is wrong, and when they are discovered to have engaged in it, are amazed to find that it is an action that is punishable by their university. Such an attitude is more understandable now than ever before. Today's environment is one in which information is easily transferred from one source to another, and one in which whole essays or passages available from all sorts of different sites can be cut and pasted neatly and surreptitiously into a word document. There are even websites that will 'sell' you essays on a whole range of topics and themes. In such an environment it may be more difficult to recognise that plagiarism goes against the principles and purposes of higher education. But it does. Plagiarising out of innocence is no longer possible when you know and accept this.

2. Accident

Some students accidentally plagiarise by accessing their own notes. It is easy to take down a quote word for word or cut and paste some information, later forgetting that the source is someone other than yourself. This underlines the importance of proper note taking.

3. Desperation

Many students who plagiarise do so more out of desperation than wilful deceit. They are often under time pressure to get an essay or assignment in, and they feel that they have no other option. They have not given themselves time to think about or prepare their own work and so they cobble together something that is not their own, hold their breath and hope for the best.

4. Blatant deceit

Some students still persist in plagiarising material even when they have fully understood the risks and sanctions associated with it. If a student plagiarises wilfully and deceitfully, then the negative outcomes associated with plagiarism are all they should expect. There is a chance of course that someone can ‘get away’ with having plagiarised, but most universities (including this one) are putting in place safeguards, such as plagiarism software and lecturer training, that will make it more and more likely that acts of plagiarism will be detected and disciplined.

As well as all the reasons for plagiarism that we have explored above, the real problem is that it is paradoxical. After all, we learn by copying. From the time we are very young, we mimic the language and actions of people around us, and in this way we learn to communicate and to interact successfully. It’s the same when you come to university. You realise that you are expected to adopt certain ways of writing, of presenting arguments and of following academic conventions. It can feel as if you are being told to ‘sound like us, write like us, learn to think like us, but whatever you do, don’t copy us.’ Overcoming this paradox may in fact be one of the most important rites of passage that you need to navigate while you are at university. It’s part of the learning journey and it’s about learning to believe in your own ideas; it’s about not being so besotted with one way of saying something or looking at something that it deprives you of your own voice; it’s about finding the confidence and the motivation to get real value out of your education, not just engaging in a blind pursuit to get letters after your name.

To make sure that you never plagiarise, you need to adopt this orientation. Read and reflect on what you’ve read, and by all means absorb, record, understand and learn the ideas that have been presented by others. But then clear your throat. Stretch your fingers. Write and speak for yourself. You can do this with an understanding of the conventions of academia, but also with a strong sense that you too are capable of structuring, organising, integrating and creating knowledge in effective and exciting ways.

9. Suggested Reading

There are many books in the area of research methods and processes, and the following list represents only a select few of those on offer. Most of these books are available in the bookshop, the library or the Centre for Teaching and Learning.

Becker, H.S. (1998) *Tricks of the Trade: How to Think about Your Research While You’re Doing It*, Chicago and London: University of Chicago Press.

Brause, R.S. (2000) *Writing Your Doctoral Dissertation: Invisible Rules For Success*, London: Falmer Press.

Murray, R. (2002) *How to Write a Thesis*, Buckingham: Open University Press.

Philips, E.M. and Pugh, D.S. (2005) *How to Get a PhD: A Handbook for Students and Their Supervisors*, 3rd ed., Buckingham: Open University Press.

Punch, K.F. (2006) *Developing Effective Research Proposals*, London: Sage.

Rudestam, K. and Newton, R.R. (2001) *Surviving Your Dissertation*, 2nd ed., London: Sage.



UNIVERSITY *of* LIMERICK

O L L S C O I L L U I M N I G H

For information on postgraduate research activities and opportunities, contact:

Graduate School

Tel: +353-61-233273

Web: www.graduateschool.ul.ie