



UCD School of Biology & Environmental Science

Graduate Research Student Handbook (PhD & MSc by Research)

This handbook describes the policies and requirements that apply to all PhD and MSc (Research) students registered through SBES, whether based on the UCD Belfield Campus or off-campus.

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Welcome from the Head of School

The UCD School of Biology and Environmental Science (SBES) provides a stimulating intellectual environment to foster the development of world-class, multidisciplinary teaching and research. The School's research reputation is built on the specialisations of, and synergies between, our academic and technical staff, our post-doctoral fellows and our research students. We pride ourselves on the integrative approach (from genes to ecosystems) that we bring to our four research themes:

- Cell and Molecular Biology;
- Plant Sciences;
- Evolution and Population Biology;
- Ecosystems, Global Changes and Sustainability.

As a research student, you are central to the School's activities, and the research undertaken during your MSc and/or PhD degrees represents a large proportion of the School's research output. Undertaking a research degree is a major commitment on your part and the School's Graduate Studies Committee has prepared this handbook to outline the structure of the School's graduate programme and to explain the formalities associated with a research degree. Please read it carefully so that you are fully informed as you navigate through your research programme and ultimately complete your thesis.

Your time as a research student is likely to be challenging but rewarding. We aim to provide you with the best facilities and infrastructure, creating an environment that maximises your opportunities for personal and professional development. However, as is true for most worthwhile endeavours, the more effort you put in, the more rewarding the experience will be. Therefore, we encourage you to engage enthusiastically with the School's graduate research programme and become an active member of the School community. We hope that the training and experiences offered by the School will help you to realise your potential as a scientist, enhance your personal development and shape your future career.

Prof. Jeremy C. Simpson

Professor of Cell Biology

Head, UCD School of Biology and Environmental Science

COMMUNICATION BY E-MAIL

All official UCD and SBES communication by e-mail will be sent to your UCD-Connect E-mail address. It is your responsibility to regularly check this e-mail account and, where necessary, to act upon e-mails in a timely fashion.

SAFETY

Your safety, and the safety of all members of the School community, is of foremost importance at all times. Activities undertaken in research laboratories and in the field may involve the handling of electrical equipment, hazardous chemicals or pathogenic organisms. Students are therefore required to make themselves aware of the hazards associated with their work. A project and/or laboratory Risk Assessment form must be completed in conjunction with the supervisor. Doubts about any aspects of the work should be discussed with the supervisor and/or the School Safety Officer, Dr Rainer Melzer.

Accident prevention involves common sense, tidiness and forethought. Students should always seek advice when in doubt about the safety of any experiment or practice

- Read the evacuation notices in the laboratories
- Understand the layout of the office, laboratory and building in which you are located and know where emergency exits are located
- Observe the position of fire extinguishers, fire blankets and fire alarm buttons.
- Recognise the electronic sound of the fire alarm sirens
- Know where to obtain first-aid help.
- Wear a lab coat and other required personal protective equipment (eg gloves, safety glasses) at all times in the laboratory

The Supervisor is responsible for ensuring that a student completes a safety induction process in the laboratory and receives training suitable to the lab and field activities in which they will be involved. A form confirming that this induction has been completed will require signature by the student and the supervisor.

All incidents should be reported to the supervisor and/or the School Safety Officer. Details will be recorded in an Accident Report Book.

The University Safety Office (<http://www.ucd.ie/safety/>) provides advice on safety issues and offers courses in Manual Handling and First Aid.

AFTER-HOURS ACCESS TO SCIENCE CENTRE WEST

Access to Science Centre West after-hours for registered graduate students (i.e. after 7 pm weekdays, after 6 pm Saturdays, all day Sunday) can be arranged by means of a swipe-card. A refundable deposit of €10 is payable in advance. Contact the Welcome Office in the Science building hub (ground floor) to arrange this.

Due to security issues, under no circumstances should you borrow someone else's swipe-card.

REGISTRATION

Your admission to graduate studies in UCD will have been proposed by your Primary Supervisor (an academic of the School) and formally approved by the School and by UCD's College of Science Graduate School Board. (As a graduate student in SBES you are also a student of UCD's College of Science Graduate School). You must register for each year of your studies, at the same time of year as you started (September, January or May). It is your responsibility to ensure that you have completed your registration each year, by the deadline set by UCD Registry. Completing the registration process includes payment of all fees.

CONTACT DETAILS

It is your responsibility to ensure that the contact details on your Student Record are correct, and to up-date them (via the SIS Student Web) if any change occurs.

ACADEMIC REGULATIONS

Academic Regulations for the degrees of PhD and MSc by Research can be found online at: <http://www.ucd.ie/registry/academicsecretariat/regs.htm>

It is essential that you are aware of the University's requirements and that you proactively plan your activities in order to satisfy them. If you require clarification concerning these regulations or policies, you should discuss them in the first place with your Primary Supervisor and Doctoral / Masters Studies Panel.

Students should also familiarise themselves with the UCD Policy Document *Code of Practice for Supervisors and Doctoral students* available online at:

http://www.ucd.ie/registry/academicsecretariat/docs/researchs_code.pdf

THE GRADUATE RESEARCH DEGREE

THE RESEARCH MASTERS DEGREE

The primary purpose of Masters level research is to develop in the student the skills and competencies required to conduct research. The student undertakes a coherent programme of supervised research and is required to successfully complete and submit a thesis in acceptable form. The Masters programme may also include additional personal and professional development elements which develop the skills and competencies required for successful research and/or support the acquisition of generic or transferable skills. This may be provided via specific modules from the advanced educational programme of the University.

The period of registration for the Research Masters degree will normally be not less than 1 calendar year and not more than 2 years, for a full-time student, and not less than 2 years and not more than 4 years for a part-time student.

THE DEGREE OF DOCTOR OF PHILOSOPHY (PHD)

The core objective of the Doctor of Philosophy (PhD) degree is to make a substantial and original contribution to knowledge, normally leading to peer-reviewed publications. The PhD is awarded following successful completion of a programme of supervised research and advanced education and training. The degree will be awarded only where the outcome of the research makes an original and substantial contribution to knowledge and where the candidate has demonstrated the capacity to pursue original research and scholarship. The research is described in a thesis, in accordance with international norms, which forms the basis for the examination for the award of the degree of PhD, and which must contain material of a standard and form appropriate for peer-reviewed publication.

The period of registration for a graduate research programme of study leading to the award of the PhD degree will not normally be at least 3 calendar years for a full-time student and 5 calendar years for a part-time student, and will not normally be more than 4 calendar years for a full-time student and 6 calendar years for a part-time student.

CONDUCTING THE RESEARCH PROJECT

Successful completion of a research degree involves a close collaboration between student and supervisor. The research project is an opportunity for a student to learn the tools of the trade with the help of an experienced researcher. Such close supervision is unlikely to be available again in a researcher's career. The collaboration between student and supervisor serves to train the student as a researcher and may therefore also include elements such as attendance at training workshops/courses, delivery of research seminars either in UCD or at external locations, working visits to other institutions, practice in writing grant applications or reports, project management etc. Students are also encouraged to join relevant professional societies and to attend international conferences. The costs of course participation (outside UCD) and conference attendance are often covered by research grants; however the student should discuss this with their Supervisor.

RESPONSIBILITIES OF THE RESEARCH STUDENT

It is the responsibility of the student to work steadily and diligently, to comply with agreed deadlines and to focus on prompt completion (funding is difficult to maintain for more than the allotted period, usually for a maximum period of three or four years, depending on the source of funding). Students should keep accurate and up-to-date records of their research protocols and results, and maintain appropriate back-up copies of electronic data. Note that laboratory note-books and data should remain with the supervisor on completion of the research. Students should behave in a professional manner at all times, complying with School/College/University regulations, meeting relevant deadlines etc. The Supervisor and School Office should be notified if a student is absent due to illness or is performing research off-campus.

RESPONSIBILITIES OF THE SUPERVISOR

From a supervisor's point of view, the research student is working on a topic that is of interest to the supervisor and the outcome of the research will influence the reputation of the supervisor. It is the responsibility of the supervisor to ensure that funding and research facilities to support the student's research are in place prior to the registration of the student, to provide strong support and guidance in the design and execution of the research project, while at the same time providing the student with the opportunity to develop the skills and attitude required of an independent researcher. The supervisor should be available for regular meetings with the student and should introduce the student to the members of the student's Support Panel (it is the Supervisor's responsibility to organize regular meetings of the Support Panel). The supervisor should behave in a professional manner at all times, providing prompt feed-back on written submissions, being aware of upcoming School/College/University scheduled deadlines. In the case of protracted absence of the Supervisor, the supervisor should make appropriate arrangements for alternative supervision, such that the student's research or thesis preparation/submission is not impaired.

RESEARCH ETHICS AND GOOD PRACTICE IN RESEARCH

The UCD Research Ethics Committee is tasked with reviewing and publicising best practice to ensure that all research carried out by UCD staff and students is done in a professional manner, complies with UCD's ethical standards and abides by relevant regulatory requirements. More information is available at <http://www.ucd.ie/researchethics>.

Students should familiarise themselves with the *UCD Code of Good Practice in Research*, available online at:

<http://www.ucd.ie/t4cms/Code%20of%20Good%20Practice%20in%20Research%20090216.pdf>

Penalties for plagiarism (i.e. passing off the work of others as the student's own – for example by failing to cite the source of material) and for fabrication of data (i.e. fraud) are severe. For further details see *Plagiarism Policy and Procedures* online at http://www.ucd.ie/registry/academicsecretariat/docs/plagiarism_po.pdf.

PUBLICATION OF RESEARCH FINDINGS

In addition to producing a thesis, the PhD research project should yield one or more peer-reviewed scientific publications, ideally in journals of the highest possible quality. In fact, the core objective of the Doctor of Philosophy (PhD) degree is 'to make a substantial and

original contribution to knowledge, normally leading to peer-reviewed publications'. These publications are the "career currency" for both student and supervisor and should be given a high priority at an early stage in the project. Students are encouraged to publish during their research studies and any publications (which usually appear in modified form as thesis chapters) may be bound into the thesis as an Appendix. It is not required that research for the MSc (Research) degree lead to peer-reviewed publications. However, it is strongly advised that students should attempt to generate data that is publishable. Being an author on a peer-reviewed publication (even if not first-author) may help to make a CV more competitive. See **Appendix 5** for considerations of authorship and intellectual property rights.

Presenting your research at international research conferences, in poster- or oral format, is a valuable method of developing your communication skills, networking in your research discipline and increasing your research profile. It may even help you find the next position in your career. Travel to such conferences is therefore encouraged, and many funded PhD programmes include an allowance travel for conferences. Your Principal Supervisor should be able tell you if a conference travel allowance will be available to you, and will help you to plan for the optimum use of such resources (further information in **Appendix 6**).

THE NEED FOR A STRUCTURED APPROACH TO RESEARCH DEGREES

As a graduate research student in SBES, a key goal is to develop the discipline-specific skills and experimental strategies required for research in your research area. Much of this learning will occur through a 'master/apprentice' relationship between you and your principal supervisor (or between you and more senior lab members in your supervisor's research group). However, in order to enhance your personal-development and to ensure that you become a well-rounded biologist capable of contributing beyond your specific discipline, it is important that you also develop skills that transcend your specific research area (for example skills in time-management, team working, communication, career planning and/or entrepreneurship). The acquisition of such generic, or transferable, skills will also help to optimize your employability at the end of your graduate student career. All universities in Ireland are committed to the provision of a structured approach to graduate research education that encourages and facilitates your acquisition of both discipline-specific and generic skills.

UCD has adopted a Structured Degree Framework that aims to give you the best possible experience of graduate research training, as well as fostering your personal and professional development. There are several major components to the framework in SBES:

1. The Master's/Doctoral Studies Panel (MSP, DSP);
2. The Research and Professional Development Plan (RPDP);
3. The Stage Transfer Assessment;
4. Credit accumulated through the modular system;
5. The SBES Seminar Series;
6. Demonstrating.

1 THE GRADUATE RESEARCH STUDENT'S SUPPORT PANEL

Every graduate student in SBES is provided with a Support Panel (Master's/Doctoral Studies panel, MSP/DSP) consisting of the primary supervisor (and any co-supervisor) and at least two advisors, normally other members of the academic staff of the University (or adjunct or visiting university staff or affiliated academics or professionals). One advisor is selected by the principal supervisor when he/she proposes registration of the research student. The second advisor is appointed by the School's post-graduate studies committee and acts as Chairperson of the panel. The terms of reference for Masters /Doctoral Studies Panels are available online at http://www.ucd.ie/registry/academicsecretariat/docs/dstudies_tor.pdf.

The role of the Masters /Doctoral Studies Panel is to

- Provide support to the student and supervisor(s);
- Provide constructive advice to student and supervisor(s);
- Monitor the progress of the student throughout their studies;
- Help address any difficulties that may arise during the study.

The members of the Panel normally have experience of supervising graduate students to completion and/or the relevant expertise required to effectively support and enhance the supervisor-student relationship. Students are required to have two meetings with their support panel in the first year of registration, with the first meeting taking place within three months of initial registration and the second approximately 6 months later. In subsequent years, students are required to have an annual meeting with their Panel. The principal supervisor is responsible for arranging these meetings during the designated time periods in the School's calendar. It is strongly recommended that you are proactive in forming a productive relationship with the members of your Panel. Guidelines for preparation for meetings with your Masters / Doctoral Studies Panel are included in **Appendix 1**.

2 THE RESEARCH AND PROFESSIONAL DEVELOPMENT PLAN (RPDP)

A postgraduate research degree requires a level of personal development that is not a feature of undergraduate education: in order to identify the knowledge gap that will inform your research question(s), you need to develop a broad knowledge of biology and a deep knowledge in your specific field; you need to plan an overall research strategy and the shorter-term experiments that address this strategy; you need to consider your approach to data analysis. Research degrees require self-motivation and an ability to manage your time efficiently, both on a day to day basis and over a longer time period. They require that you develop team-working skills, communication skills and an appropriate level of professionalism. In order to develop these skills you will need to become extremely self-aware, identifying your strengths and weaknesses and developing ways to address knowledge and/or skills deficits.

To help you in this respect, UCD requires you to undertake formal self-reflection exercises on a regular basis (<http://www.ucd.ie/graduatestudies/currentstudents/rpdp/>) and to make written records of these exercises. Further details of the RPDP for the College of Science students are contained in **Appendix 2**. The reflection exercises may involve a discussion with your supervisor and should include a training needs assessment (of both Generic and Specific skill sets). The written record is prepared by completing pages 6-8 of the RPDP form available on the SBES website. Your written record is reviewed and discussed at your meetings with your DSP/MSP and, following amendment to take account of the Panel discussion, is presented to the

Post-Graduate Studies Committee, via the School office). The self-reflection exercises thus record your research and professional development as you plan and execute research, submit for Stage Transfer Assessment (see below) and move towards completing your thesis. Regular self-reflection, and discussion thereof, helps ensure that your work is clearly focused and aimed at achieving your research and professional goals.

Please note: MSc (Research) students who consider that they may apply for transfer to Stage 2 of the PhD should ensure that they engage with the RPDP process, and maintain adequate RPDP documentation, from the start of their postgraduate programme.

3 PHD STAGE TRANSFER ASSESSMENT

All PhD Students in UCD begin their studies in “Stage 1” and must undergo a formal assessment in order to remain in the programme and transfer to “Stage 2” of the programme. The purpose of the Stage Transfer Assessment is to assess the student’s progress and their competence and capacity to complete a doctorate.

The assessment is performed by a Transfer Assessment Panel established by the School for this purpose and will be scheduled approximately 15 months after the start of PhD studies. (The Principal Supervisor, or Co-Supervisor may not be a member of the Transfer Assessment Panel). The evidence upon which the Panel makes its assessment is provided by:

- A report from the **Student** (3,000 word max) describing their progress to date and their research plan;
- A report from the **Principal Supervisor** on the student, with a recommendation regarding the student’s transfer;
- A short oral presentation by the **Student** to the Transfer Assessment Panel (no more than 20 mins);
- An interview of the **Student** by the Transfer Assessment Panel.

The timing of Stage Transfer Assessments in the 2017-2018 academic year is available on the SBES website. Further information on panel composition, and on specific dates, time and locations of Assessments, will be communicated in advance by the SBES Graduate Studies Administrator.

ASSESSMENT FOR MSc (RESEARCH) STUDENTS PRIOR TO TRANSFERRING TO THE PHD PROGRAMME)

Some postgraduate students may begin their studies on a MSc (Research) programme and, following a period of satisfactory academic performance, may wish to transfer to PhD. In this case, they must complete a Stage Transfer Assessment. If successful, the outcome of this assessment would recommend transfer from MSc (Research) to Stage 2 of PhD Studies.

Further information:

Full details of Stage Transfer Assessment procedures in SBES provided in **Appendix 3** and the UCD Policy on PhD Stage 1 Transfer Assessment is available online at http://www.ucd.ie/registry/academicsecretariat/docs/doctoralp_po.pdf

4 CREDIT ACCUMULATION THROUGH THE UCD MODULAR SYSTEM

From September 2014 all PhD students in SBES, including those located off the UCD campus (for example, at Teagasc sites, EPA etc.), are required to accumulate 30 credits from the modular system, prior to completion of their studies. The value of accumulating credits through taught modules lies in increasing your knowledge base, developing your research skills and providing you with important transferable skills that enhance your career development.

For example, BIOL50040 (Research Seminar Series) is a 5-credit module offered by SBES (and co-ordinated by Dr Gavin Stewart) that aims to improve scientific communication skills. It involves regular attendance at the School seminar series (see Section 6 below), completion of assignments that test the student's understanding of the scientific content of seminars and encourage critical evaluation of seminar delivery. The module also includes a series of oral presentations given by the students on their own research.

In SBES, we require first year graduate students who are engaged in a demonstrating role (the majority of graduate students in SBES, see Section 5 below) to take (for credit) BIOL40100 (Teaching in Higher Education, SBES). This is a 5 credit module, co-ordinated by Dr Evelyn Doyle and is designed to support graduate students in the development and evaluation of their teaching skills. The practical element of the module takes place in Semester 1 and the workshop/lecture aspects of the module takes place in Semester 2.

You may choose from the full range of modules available within UCD, subject to your supervisor's approval (information on all modules available is located at www.ucd.ie/students/course_search.htm). Your supervisor may also recommend that you take relevant short skills or technique training courses offered outside UCD; participation in such courses will depend on whether or not your funding body covers the related costs.

REGISTERING FOR TAUGHT MODULES

Registering to a module for credit means that you must attend classes (lectures, lab practicals, field trips, tutorials etc.) and complete all assignments and assessments. Each module you take will be listed on your academic transcript, along with the grade you achieve in each. You may also take a module for 'audit'. This means that you attend classes (lectures, lab practicals, field trips, tutorials etc.) but you are not required to take the assessment(s) and you do not accumulate any credit towards your 30-credit requirement.

To register for a taught module, you must complete the SBES Graduate Student Module Registration Form available on the School website at <http://www.ucd.ie/bioenvsci/study/phd/>

The signed form must be returned to the SBES Graduate Studies Administrator within 2 weeks of the start of the module, as retrospective module registration is not permitted.

NB: Please note that once registered for a module, if for any reason you do not complete and have not officially withdrawn from this module within 6 weeks, any No grade (NG) received will be entered onto your university record and will appear on your transcript. To withdraw from a module you must contact the Graduate Studies Administrator in the SBES Office within 6 weeks of the commencement of the module. **NO RETROSPECTIVE CHANGES CAN BE MADE.*

5 DEMONSTRATING

It is the policy of the School of Biology and Environmental Science that all PhD and MSc (Research) students act as demonstrator at undergraduate practical classes, for at least one module per semester (unless special circumstances exist). Demonstrating is an integral part of training for an academic career and may prove to be an important addition to a CV. In addition, teaching practice improves core research skills (Feldon et al, 2011^{*}). To help you develop your teaching skills, we require students who demonstrate to take the Module BIOL40100 (for details, see above).

Most demonstrators are paid by the hour for their efforts. They should ensure that they approach demonstrating in a professional manner and are properly prepared for the contact hours they teach. The demonstrating rota is organised by Rachael Reenan and circulated by email at the start of each Semester. When you are assigned to a class, consult the relevant module co-ordinator for further details.

Graduate students who have been awarded a UCD Research Demonstrationship by SBES are not paid by the hour, but are required to demonstrate for a certain number of hours per week, and/or perform other teaching-related duties, during each semester.

To receive payment for demonstrating, you must complete an Hourly Paid Set Up Authorisation Form at the beginning of each academic year (Circulated by the School's Finance Administrator, Ms Gillian Moran). You must subsequently complete an Online Timesheet each month, by the stipulated deadline in order to receive payment. Further information is available online at <https://www.ucd.ie/hr/pay/tutorsdemonstrators/>

^{*} Graduate students' teaching experiences improve their methodological research skills" Feldon, D.F. et al (2011) Science, 333(6045): 1037-1039. DOI: 10.1126/science.1204109

6 SBES Seminars

All graduate students of SBES are expected to attend the School's Seminar Series, in which a weekly lunchtime seminar is held during term time. These seminars span the School's four research themes and serve to broaden and deepen students' knowledge of Biology and Environmental Science. From 2014, the School Seminar series is associated with BIOL50040 (see above). Seminars are presented by SBES researchers or by visiting speakers from outside the School or University. The Series is co-ordinated by Dr John Finarelli and students may nominate invited speakers when the series is being established (suggestions to john.finarelli@ucd.ie).

SBES ANNUAL GRADUATE SEMINAR DAY

SBES graduate students organize an annual Seminar Day that showcases the students' research activities. This is an important event and all graduate students are expected to attend each year and, in the latter stages of their studies, to deliver a seminar based on their research. PhD students typically present seminars during year 3 or 4, while MSc (Research) students typically deliver seminars in year 1 or 2 (depending on the length of the respective programmes). Each year the Carmel Humphries Memorial Medal is awarded to the best graduate student seminar.

GRADUATE STUDENT REPRESENTATIVES

A number of SBES graduate students act as representatives of their colleagues, liaising with the School's administration and sitting on various School, College or University committees. In addition, these representatives ensure that desk spaces in the School's reading rooms are allocated appropriately and that agreed codes of behaviour are followed in the reading rooms. Graduate student representatives also play a leadership role in organizing the annual graduate student seminar day and may help organize extracurricular and social events.

For details on the current student representatives, please check the SBES website.

STUDENT WELFARE AND SUPPORT SERVICES

Students with any difficulty (of personal, medical, financial or other cause) are encouraged to seek help and advice from their supervisor, a member of their DSP/MSP, or any other member of the School's staff as soon as possible. Alternatively, the University has a wide range of support services that may be approached in such circumstances. In particular the UCD Student Advisers can put students in touch with professional services. Information on student advisors is available from <http://www.ucd.ie/studentadvisers/>

Students from overseas may find the services of UCD International useful (<http://www.ucd.ie/international/>).

UNIVERSITY FACILITIES

Detailed information on the facilities, services and resources available to UCD registered students is available online at www.ucd.ie/students/services.html

The university has a policy on Dignity and Respect, which may be downloaded from the Personnel website (<http://www.ucd.ie/t4cms/UCD%20Dignity%20&%20Respect%20Policy.pdf>) and which should be consulted in the event of concerns regarding harassment or discrimination.

APPENDICES

APPENDIX 1: PREPARING FOR FORMAL MEETINGS WITH YOUR MSP/DSP

Your Doctoral/Masters Studies Panel is an experienced team of researchers, and you should take a proactive approach to developing a relationship with its members. You are required to meet with your Panel twice in your first year and on an annual basis thereafter. However, to gain the most benefit from your Panel, you should keep the members informed of your progress on a more frequent basis.

Your first meeting with your DSP will be arranged by your supervisor and will take place within 3 months of your start date. You should prepare for your meetings with your support panel by preparing two documents:

- **A research document**
 - For the first meeting with your support panel, your research document should contain a brief background to your research project, indicating the knowledge gap that you plan to address and introducing your proposed research question(s), the overall experimental approach that you will adopt and the specific activities that you will undertake in the next six-nine months.
 - For your second and subsequent meetings, your research document should describe your progress since the last meeting, any difficulties that have arisen, any changes to your research plan and the reasons for such changes, together with the specific activities that you will undertake prior to your next meeting with the panel.

The research document should be clearly and concisely written and submitted by e-mail to your support panel in advance of the scheduled meeting (your Panel needs time to read and digest your document).

- **A draft version of the College of Science Doctoral Studies Panel Meeting Record Report** (available online at <https://www.ucd.ie/t4cms/science-health-agriculture-combined.pdf> and on the SBES web-site).
 - This draft will be amended by you, at the meeting, to reflect the discussion that has taken place. The report will also be amended by the Chairperson of your MSP/DSP (last page). The amended report is to be signed by you and by all members of your panel and submitted by you to the Graduate Studies Administrator in the School Office within seven days of your meeting, as a central record of your activity. You should keep a copy for your own records.

Schedule of MSP/DSP meetings for SBES students

For new SBES students (beginning their MSc or PhD), the first meeting with their DSP/MSP will take place within the first 3 months of their programme. (See Table below)

A second meeting will take place approximately 6 months later, and at the same time in each subsequent year (See Table below).

For continuing SBES MSc (Research) and PhD students, annual MSP/DSP meetings will take place as per the table below (depending on initial registration date).

Dates of scheduled meetings with DSPs/MSPs in 2017-2018 academic year

Student registration start date	Initial meeting with DSP/MSP (For students <u>beginning</u> in 2017-2018 academic year)	Annual meeting with DSP/MSP (For <u>all</u> SBES students)
September	Dec 4 -8, 2017	June 4-8, 2018
January	April 2-6, 2018	Oct 2-6, 2017
May	Jul 30-Aug 3, 2018	Feb 5-9, 2018

The dates of the annual MSP/DSP meetings for the 2017-2018 academic year are also available on the SBES website.

Each Supervisor must schedule the meeting of his/her student(s) with the entire DSP in the designated week, and confirm the time and location of the scheduled meeting to the School Office no less than seven days in advance of the meeting. In the event that a Student or Panel becomes unavailable on the day, due to unforeseen circumstances, the School Office should be notified immediately and the meeting should be re-arranged by the Supervisor, to take place as soon as possible thereafter. In addition to the mandatory meetings, a Student or Supervisor may convene additional meetings as required.

Please note: During all DSP meetings an opportunity should be given to the student to speak to the panel without their supervisor being present.

APPENDIX 2: COLLEGE OF SCIENCE RPDP

What is your RPDP?

Research and Professional Development planning is an integral part of the Structured PhD programme at UCD. The purpose of such planning is to ensure that your work is clearly focused on achieving your research and professional goals. This will play a major part in informing the trajectory of your PhD research and in your training and development as a researcher. Your plan will also be a useful resource when it comes to writing up, and it will help you develop key skills which will be invaluable for both your current research and your future career prospects.

There are three main components to your Research and Professional Development plan:

A Research Plan – The purpose of your Research Plan is to provide you with a clear research focus and a coherent research work programme. A well-structured research plan will enable you to review your progress and adjust your objectives as your research evolves. Revising and keeping your Research Plan up-to-date will also make it easy for you to produce progress reports, prepare presentations and publications, draft funding applications and write up your thesis. The attached guidelines have been tailored to your area and should be used in conjunction with input and advice from your supervisor in preparing your plan.

A Professional Development Plan – On leaving UCD with a PhD it will be expected that, in addition to having produced a body of original research, you will also have developed a set of skills that distinguish the professional from the novice. Employers, and others who you will interact with professionally in the future, will assume that you bring the skills of an independent professional to any work situation. It is therefore very important for you to develop, demonstrate and practice these skills during your doctoral programme. The attached guidelines are designed to enable you to identify the skills important for your research and career. Developing these skills will not only help you to be a more productive researcher, but will ensure that you are well placed to compete for employment opportunities when you complete your PhD.

Doctoral Studies Panel Meeting Record – Central to your programme are regular meetings with your supervisor and DSP to discuss your research, your professional development and your progress in achieving your goals. A mandatory outcome of the meetings with your DSP is a formal record of your research and professional plans and your progress to date. These records will also inform your transfer assessment. The formal record form for these meetings is appended at the back of this document as a writeable PDF. This must be completed following each DSP meeting, signed by all members of your DSP, including yourself, and returned to your School graduate administrator.

There are many people who can help to support you throughout your PhD. In relation to your RPDP, you can get help from your supervisor, your Doctoral Studies Panel, your School Office and your Graduate School Office. Contact information for your School and the Science Graduate School is indicated below.

School	Name	Email Address
School of Biology & Environmental Science	Rachael Reenan	rachael.reenan@ucd.ie
School of Biomolecular & Biomedical Science	Geraldine Neylan	geraldine.neylan@ucd.ie
School of Chemistry & Chemical Biology	Susan Muldoon	Susan.muldoon@ucd.ie
School of Computer Science & Informatics	Patricia Geoghegan	patricia.geoghegan@ucd.ie
School of Geological Sciences	Sarah Procter	Sarah.procter@ucd.ie
School of Mathematical Sciences:	Nuria Garcia	Nuria.garcia@ucd.ie
School of Physics	Bairbre Fox	Bairbre.a.fox@ucd.ie
Graduate School Office	Deirbhle Carroll	Deirbhle.carroll@ucd.ie

The following guidelines are designed to assist you in preparing your research and professional development plan. This plan will form the basis of discussions at your meetings

with your supervisor and Doctoral Studies Panel (DSP). Reports based on this plan will be the primary input to your Stage Transfer Assessment that will determine whether you progress from Stage 1 to Stage 2 of your doctoral studies.

Guidelines on writing your Research Plan

Every research project requires advance planning, and the better the planning the more successful the project. Preparing a research plan is one of the most important tasks you will undertake as a PhD candidate. This brief document offers some basic guidelines for preparing a research plan and for using it as a roadmap during your fourth-level experience.

What is a research plan?

At the start of your PhD you identify a research problem in your field which needs to be solved, or an issue in your field which has not hitherto been researched but which is clearly important and has scope for study. A research plan is a model or scheme which you design to help you organise your thoughts about your topic, schedule the specific jobs which you need to do, and visualise a finished product.

There is no such thing as an ideal research plan. Plans come in different shapes and sizes, but common to all is **structure** and **timeframe**: research is always planned in stages, each one linked to the next by a structure, and each designed with some idea of how long it will take.

There are two critical things to remember when you begin to design a research plan.

First, your supervisor is there to advise you. He or she will have experience of planning research, and, having agreed to supervise you in the first instance, will happily guide you as you gather your thoughts and formulate your plan. In consultation with your supervisor you should, within the first months of your PhD, be able to identify major tasks and work out the order in which they should be done. Members of your Doctoral Studies Panel (DSP) will also be experienced in planning research, and will be happy to discuss your plan at your DSP meetings, but most of the work will be done with your supervisor at your regular meetings.

Second, research plans change as research progresses. You will *always* find that the structure which you first envisaged needs modification, and that the timeframe you set will not work. The secrets of a successful research project are (a) the realisation that a research plan is always a work-in-progress, and (b) the ability to adjust a project's structure and timeframe without losing sight of its goals.

At the start of your studies, your emphasis will be primarily on devising, developing and implementing your research. As you progress, your focus will also encompass the publication of your research results and the preparation of your thesis. Your plan need not encompass all of the elements indicated below at all times, rather it will develop to incorporate them as your research progresses.

Essential elements of a Research Plan

- Your research question or hypothesis.
- Background information on why your research question is important.
- A plan of how you intend to investigate your hypothesis and interpret your results.
- How you intend to write-up and publish your findings.

Keep in mind that the objectives and goals you set yourself in your plan should be specific, challenging and achievable within a defined time frame. It may be helpful to refer to the SMART framework, which is widely used as a means of describing objectives in a way that makes them more useful and easier to review. The SMART guidelines indicate that objectives should be:

Specific	Specific and clear statements about what is to be achieved.
Measurable	Quantitative and/or qualitative (if objectives are not measurable then it is difficult to determine whether they have been achieved).
Achievable	Objectives need to be realistic, challenging and motivating.
Relevant	Relevant to the achievement of your research aims
Time bound	Include a time-scale for in which to achieve your objective or goal.

When developing your Research Plan, it may be helpful to consider the following:

Formulating your Research Question and Hypothesis	<ul style="list-style-type: none"> - What hypothesis (es) are you testing? - What question(s) are you asking? - Why is this important?
Reviewing the Literature	<ul style="list-style-type: none"> - Are you familiar with the relevant literature in your area? - Can you clearly explain how your research question builds on what is currently known?
To test your research question or hypothesis, do you need to define more specific objectives?	<ul style="list-style-type: none"> - If so, what are these objectives?
Devising your investigative plan to test your hypothesis/meet your objectives	<ul style="list-style-type: none"> - What methodological/technological approaches will you use and why are they most appropriate? - How will you collect your data (sources, documents, surveys, experiments, etc)? - How will you organise and analyse your data? - How will you interpret your data?
Reviewing your findings	<ul style="list-style-type: none"> - How do your findings inform your original objective(s)? - Do they prove or disprove your hypothesis? - What new information do they provide you and/or your area of research?
Drawing conclusions	<ul style="list-style-type: none"> - What conclusions can you draw from your work to date?
What is your next step?	<ul style="list-style-type: none"> - Given your results and conclusions to date, what further work needs to be done to address your

	original hypothesis? Or do you want to change or adjust the direction of your research?
Presenting and publishing your research	<ul style="list-style-type: none"> - Where do you intend to present the results of your work? - Where do you intend to publish the results of your work? - In each instance, are you familiar with what is required for presenting and/or publishing in the manner you plan?
Writing up your thesis	<ul style="list-style-type: none"> - Have you prepared a thesis plan (you should do this as early as possible in your research programme)? - Are you familiar with how best to present your work in thesis form and what the requirements are? - What progress have you made in writing chapters of your thesis? - When do you hope to have your first draft completed? - When do you hope to submit?

You will also need to set a time frame to each of the aspects outlined above. Devising a realistic schedule for each step on the way is extremely important if you want to complete your PhD within the timeframe required.

Guidelines for Professional Development

During the course of your doctoral studies in UCD, you will have opportunities to acquire new skills and to hone your existing skills. As a PhD graduate, your skill-set will need to include the advanced research and analytical techniques necessary for high-level research in your field and for the application of these skills in a broader context.

In general, 20% of PhD graduates pursue careers in academia and 80% develop careers in business, industry, the public and voluntary sectors. It is important to realise that a doctorate offers far more than a passport to a potential career in a particular field of scientific investigation. It greatly enlarges the menu of career tracks open to you. To possess a PhD in a Sciences discipline is to say to the world that you are a professional scientist who is an expert in your field of research and who can apply your professional skills to addressing scientific investigation and development in the broader context. It also says that you are intelligent, well-read, self-motivated and adaptable. As a PhD student, therefore, you should be aware of the 'transfer value' of the various skills that you will and can acquire. 'Transferable skills' both enhance the experience of learning and equip you to avail of a wide range of career and employment opportunities, including those in areas other than the specific field in which you received your PhD.

The Irish Universities' Association (IUA) has issued a Graduate Student Skills Statement (www.iua.ie) which describes the desired learning outcomes and skills that PhD students are expected to develop during their studies. It is a skill set which anyone you meet in your future professional life, including prospective employers, will assume you have, given your PhD qualification. Some of these skills will be developed through practical application to your research, whilst others can be learned through attending workshops and modules.

What skills do I need, and how skilled do I need to be?

The first step is to identify the relevant skills you require for effective research and for your proposed career path. Every discipline in the Science area has its own particular suite of skills, many of these you will have acquired as a prerequisite to enrolling for a PhD programme in the first instance. However, it is useful to discuss with your supervisor what additional skills you will need (technical skills, statistical skills, analytical skills) for your research and professional development and to identify where you can acquire them.

As well as identifying the actual skills you need, you should also consider the level of competence you need to achieve in each skill. For example, your research may require an expert level of skill in one technology or methodology, but it may be sufficient to merely be familiar with others. It might be helpful for you to think of your skill development as going through a series of different levels of competence, as outlined below, and to identify which level you need to target:

- **You are a basic-level learner**, gaining an initial understanding of a new methodology, technique, area of knowledge or expertise;
- **You are an advanced learner**, still relying on expert advice for the appropriate application of a new methodology, technique, area of knowledge or expertise;
- **You are an independent user**, capable of applying a new methodology, technique, knowledge or expertise to your research independently;
- **You are an expert**, capable of further development of the methodology, technique, knowledge or expertise that was once new to you.

The chart below, which is mapped to the skill set identified by the IUA, may be useful in identifying the research and professional skills you need to develop. It is recommended that use this to devise your plan to attain the competencies you require in consultation with your supervisor, members of your DSP and/or other individuals who have an expertise in the skill in question. Several routes to addressing any gaps in your skill-set are open to you: applying the skill in your research, attending workshops and taking taught modules. Remember that you can attend modules and workshops outside your College.

Research skills and awareness
<ul style="list-style-type: none"><input type="checkbox"/> Have I good knowledge of advances and developments in my field?<input type="checkbox"/> Can I demonstrate knowledge of research in related fields and disciplines?<input type="checkbox"/> Do I comprehend and can I effectively employ appropriate research methodologies?<input type="checkbox"/> Can I critically analyse and synthesise new and complex information from diverse sources?<input type="checkbox"/> Can I formulate and apply solutions to research problems and effectively interpret research results?<input type="checkbox"/> Can I exercise critical judgment and apply critical thinking to create new ways of understanding?<input type="checkbox"/> Can I formulate and apply solutions to research problems and effectively interpret research results?<input type="checkbox"/> Do I need to know health and safety procedures and their application in my research environment?<input type="checkbox"/> Have I a broad awareness and knowledge of key relevant funding sources and grant application procedures?<input type="checkbox"/> Do I appreciate basic principles of project and time management?

Ethics and social understanding
<ul style="list-style-type: none"><input type="checkbox"/> Do I understand, and apply in my research, principles of ethical conduct, including avoidance of plagiarism, allocation of credit and authorship, and definitions of research misconduct?<input type="checkbox"/> Do I understand the relevance of research in society and the potential impact of research on individuals, groups or society?<input type="checkbox"/> Are the guidelines for the ethical conduct of research involving people, human tissue and animals relevant to me?

Communication skills
<input type="checkbox"/> Have I effective writing and publishing skills? <input type="checkbox"/> Do I effectively use and decide on appropriate forms and levels of communication? <input type="checkbox"/> Can I communicate and explain research to diverse audiences, including both specialist and non-specialist? <input type="checkbox"/> Do I teach, and do I support the learning of undergraduate students when involved in teaching and demonstrating?
Personal effectiveness/development
<input type="checkbox"/> Do I operate in an independent and self-directed manner, showing initiative to accomplish clearly defined goals? <input type="checkbox"/> Do I appreciate key rhetorical skills, including how to persuade others of a viewpoint's merits, demonstrating and communicating credible suggestions to achieve my aims? <input type="checkbox"/> Do I appreciate the importance of initiating new projects, proactively reacting to identified needs or aiming to resolve problems? <input type="checkbox"/> Have I the ability to handle difficulties in research or other professional activities in an appropriate way? <input type="checkbox"/> Do I critically reflect on experiences and act on such in a cycle of self-improvement?
Team-working and leadership
<input type="checkbox"/> Can I develop and maintain effective relationships with colleagues? <input type="checkbox"/> Do I work well in a collaborative environment? Do I understand how to acknowledge others' views and critically appraise them? <input type="checkbox"/> What awareness have I of my own working style, that of others, and how we (or they) they interact? <input type="checkbox"/> Do I understand leadership in team environments, recognising the strengths of team members and working effectively to achieve mutual goals?
Career Management
<input type="checkbox"/> Can I demonstrate an awareness of transferable skills and their applicability to both academic and non-academic positions and how they are applied in different circumstances? <input type="checkbox"/> Have I taken ownership of my own career management, forming a credible career plan? <input type="checkbox"/> Can I initiate and sustain networks and relationships that may encourage opportunities for employment? <input type="checkbox"/> Do I present myself and my skills, attributes, experiences and qualifications, through effective job applications, CVs and interviews? <input type="checkbox"/> Do I understand the broadest possible range of their employment opportunities?
Entrepreneurship & innovation
<input type="checkbox"/> Is it necessary for me to understand the role of innovation and creativity in research? <input type="checkbox"/> Can I demonstrate an awareness and understanding of intellectual property issues, appreciate and contribute to knowledge exchange? <input type="checkbox"/> Is it necessary for me to appreciate skills required for the development of entrepreneurial enterprises in the public and private sectors? <input type="checkbox"/> Do I need to understand different cultural environments, including the business world, and the contribution that knowledge transfer can make to society?

APPENDIX 3:

PHD STAGE TRANSFER ASSESSMENT PROCEDURES (INCLUDING TRANSFER FROM MSc TO PHD)

Under the *UCD General Regulations for the Degree of Doctor of Philosophy (2006)*, all PhD Students begin their studies in “Stage 1”. A formal Stage Transfer Assessment determines whether the student should progress to “Stage 2” of PhD. This assessment is performed by a Transfer Assessment Panel established by the School. The Principal Supervisor (or Co-Supervisor) is not a member of the Transfer Assessment Panel.

The purpose of the transfer assessment is to assess the student’s progress and their competence and capacity to complete a doctorate. The evidence upon which the Panel makes its assessment is provided by:

- The Student (in the form of a written Statement of Progress and Research Plan);
- The Principal Supervisor (in the form of a Progress Report that contains a clear recommendation regarding transfer to Stage 2);
- A short oral presentation by the **Student** to the Transfer Assessment Panel (no more than 20 mins);
- An interview of the **Student** by the Transfer Assessment Panel.

In addition the Panel may, at its discretion, decide to interview the Principal Supervisor (and/or Co-Supervisor).

ASSESSMENT OF MSc (RESEARCH) STUDENTS TRANSFERRING TO THE PHD PROGRAMME

Some postgraduate students may begin their studies on a MSc (Research) programme and, following a period of satisfactory academic performance, the Principal Supervisor may deem them suitable for transfer to PhD. Should the student wish to transfer to PhD they must also complete the Stage Transfer Assessment. If successful, the outcome of this assessment would recommend the transfer from MSc to Stage 2 of PhD Studies. **Please note:** MSc students who may wish to apply for transfer to a PhD programme should ensure that they maintain adequate RPDP documentation from the start of their postgraduate programme.

ASSESSMENT OF PHD STUDENTS IN STAGE 2

A student’s progress in Stage 2 of the PhD programme is normally monitored by their Doctoral Support Panel (DSP). In the event that progress is not considered satisfactory during Stage 2, the Supervisor and/or DSP may request that the SBES Postgraduate studies committee initiate a formal assessment of the student. In response to such a request, an Assessment Panel will be appointed by the Post-graduate studies committee. The assessment procedure will take place as described in this document, with similar choice of potential outcomes.

Further information: UCD Policy on PhD Stage 1 Transfer Assessment is available online at: http://www.ucd.ie/registry/academicsecretariat/docs/doctoralp_po.pdf

STAGE TRANSFER TIMELINES

A student should have completed and passed the Stage Transfer Assessment within 18 months of first registration. To comply with this limit, the School will organize Stage Transfer Assessments approximately 15 months after the student's first registration. See our website for dates of Stage Transfer Assessments in the 2017-2018 academic year.

DOCUMENTS REQUIRED BY TRANSFER ASSESSMENT PANEL

Student's Statement of Progress and Research Plan. This should include:

- a brief description of the overall research project;
- the hypothesis (hypotheses) being tested;
- a summary of the research carried out in the first 12 -14 months;
- the approach taken to overcome any difficulties encountered in the first 12 months;
- the dates of all formal meetings with the candidate's research Support Panel;
- a research plan for the subsequent period of the PhD;
- elements from the student's RPDP such as evidence of regular meetings with the DSP, scientific meetings and/or workshops attended, visits to collaborators, training needs identified and evidence of successful completion of taught modules.

The Student's Statement of Progress and Research Plan should be a concise document, with evidence of progress to date, and of the existence of a research plan for the future. (It should **not** be a detailed report of the type submitted to the student's Support Panel). Most of the relevant information may be presented in a bullet-point format, and appropriately annotated figures that communicate progress effectively may be included. The overall word limit (excluding references) is 3,000. While the document should be the Student's own work (the ability to communicate in this way provides evidence of competence and capacity), the initial draft may benefit from the Supervisor's comments.

Principal Supervisor's Progress Report. This should include:

- a short statement on the Student's progress in Stage 1 and on the Supervisor's opinion as to the competence and capacity of the student to complete a doctorate;
- a clear recommendation on whether the student should progress to Stage 2.

Students should submit their Statement of Progress and Research Plan to the SBES Graduate Studies Administrator no later than one week in advance of the assessment date. Principal Supervisors should submit their report to the SBES Graduate Studies Administrator Panel by the same date.

OUTCOMES OF TRANSFER ASSESSMENT PROCESS

Having considered all documentation, and following the interview with the Student, the Transfer Assessment Panel will make one of the following decisions, and should note the reason(s) for the decision on the Report Form (included at end of this document):

- (i) that the student should progress to Stage 2 of the doctoral programme;
- (ii) that the student should not progress to Stage 2 of the doctoral programme, and that:
 - a) the student should re-submit for assessment.
 - b) the student should apply to transfer to another graduate programme utilising, where appropriate, any credits already accumulated in Stage 1 of the doctoral programme;
 - c) a recommendation be made to the University Programmes Board that the student's registration be terminated.

The Chair of the Transfer Assessment Panel should complete the report form, which includes the decision, the reason(s) for the decision, and the feed-back for Student and Supervisor. Each Panel member should sign off on the agreed decision and the completed Report should be delivered to the SBES Graduate Studies Administrator.

The SBES Head of Postgraduate Studies and the School's Postgraduate Studies Committee will consider the Transfer Assessment Panel's Report and, on approval, will submit the recommendation to the College of Science Graduate School Board (GSB) and will send copies of the report to the Student and Principal Supervisor. Following approval by the GSB, the student's record will be updated by UCD Registry. The School Graduate Studies Administrator will confirm approval of the recommendation by GSB to the student and their supervisor (by email), shortly after the GSB meeting.

APPEAL OF DECISION OF TRANSFER ASSESSMENT PANEL

A candidate has the right to appeal a decision of the Transfer Assessment Panel. In the first instance, an informal appeal should be made in writing to the SBES Head of Postgraduate Studies, who will then ensure that a process for assessing the appeal, independent of the student's DSP and Transfer Assessment Panel, is put in place. The outcome of the appeal should be known to both the student and the supervisor within one month.

If the student is not satisfied with the outcome of the SBES appeal, an informal appeal should be made in writing to the College of Science Graduate School Board. In the event of an unsuccessful appeal at this level, the student may apply to the UCD Assessment Appeals

Office to formally appeal the outcome of the Stage Transfer Assessment. Further information is available from <http://www.ucd.ie/appeals/>

RESPONSIBILITIES OF PARTICIPANTS IN STAGE TRANSFER ASSESSMENT

Student

- Submit Statement of Progress and Research Plan (see below) in a timely manner to the SBES Graduate Studies Administrator.
- Attend interview with Transfer Assessment Panel.
- Prepare and deliver oral presentation

Principal Supervisor

- Submit Principal Supervisor's Progress Report (see below), in a timely manner to the SBES Graduate Studies Administrator.

Chair of Assessment Panel

- Prepare for the Transfer Assessment by reading all documentation in advance.
- Following the meeting (and in the absence of the Student) chair a discussion of the merits of the student's case for Stage Transfer and obtain a consensus on the decision.
- Complete all parts of the Report Form and obtain signatures from all members.
- Submit the Stage Transfer Assessment Panel's Report to the SBES Graduate Studies Administrator.

Member of Assessment Panel:

- Prepare for the Transfer Assessment by reading all documentation in advance.
- Actively participate in the Assessment interview.
- Reach a decision (jointly with other Panel members) on the outcome of the Assessment.
- Sign report form.

APPENDIX 4: PREPARATION OF THESIS, SUBMISSION AND EXAMINATION

Students should familiarise themselves with the *UCD Policy on Theses in Graduate Research Programmes* available at:

http://www.ucd.ie/registry/academicsecretariat/docs/gradthesisr_po.pdf

APPENDIX 5: AUTHORSHIP AND INTELLECTUAL PROPERTY RIGHTS

Intellectual Property is a complex area because it is hard to assign 'ownership' to ideas and their products. Academic staff in third-level educational institutions are employees and anything they invent is regarded as belonging to the particular institution that employs them. This principle includes students as well as staff. On a more routine level, the student, the supervisor(s), other collaborators and the funding agency may all legitimately claim a stake in the outputs of research students. Such outputs may include research articles, conference presentations, patentable products or processes, and even future lines of research. The thesis itself is the property of the University and will be deposited in the University Library, although the student can keep copies.

For conference presentations and research articles, the relative inputs of the different players are usually acknowledged with co-authorship, statement of affiliation and acknowledgements. The authors of a paper should all have contributed substantially to it and should, in principle, be able to discuss the entirety of its contents. First authorship carries particular weight and is usually given to the person who had the greatest input in terms of effort and/or ideas (and who generally took the lead in the writing process). Authors may then be listed in order of diminishing 'importance', with the exception that the leader of the research group is often identified by being listed last. The affiliation of authors must also be listed on presentations and popular press articles. This means giving prominence to the institution where the author was when the work was done, even if authors have since moved on. New addresses can be listed separately to enable correspondence. The Acknowledgements section provides an opportunity to thank those people who contributed in some way (for example practical help, discussion or funding) but whose contribution was not sufficient to merit authorship. Typically, a supervisor will expect to be listed as an author on the papers produced from a PhD or MSc. In order to avoid authorship disputes these issues should be discussed at an early stage in the research.

The University has an explicit policy on patentable products arising from research and there is a support service to provide advice for researchers aiming to develop the commercial potential of their findings. More information is available from the Office of the Vice-President for Innovation at <http://www.ucd.ie/innovation/>

APPENDIX 6: FUNDING TRAVEL TO RESEARCH CONFERENCES

Presenting the outcome of your research at international research conferences, in poster- or oral format, is a valuable method of developing your communication skills, networking in your research discipline and increasing your research profile. It may even help you find the next position in your career. Travel to such conferences is therefore encouraged, and many funded PhD programmes include an allowance for travel to conferences. Your Principal Supervisor should be able to tell you if a conference travel allowance will be available to you, and will help you to plan for the optimum use of such resources.

In addition, many conference organizers, and some academic societies, provide grants that help post-graduate research students to attend conferences. Your Supervisor, or your student or postdoc colleagues may be aware of such sources of travel grants. You should also seek out your own sources of funding and pay particular attention to advance planning, as deadlines for applications may need to be made well in advance of the conference you would like to attend.

At times, the School may provide small amounts of funds (typical no more than €500) to help students to present their research at international conferences. This typically benefits senior students who have a substantial body of novel data to present and whose application to present at the conference has been accepted. Applications for such support will be reviewed by the SBES Post-Graduate Studies committee, on a case-by-case basis, and decisions will be made on the basis of criteria such as:

- Availability of funds;
- Quality of data to be presented;
- Previously demonstrated presentation skills of the student (in School seminars etc);
- Relevance of conference to Student's research area/ School's research themes;
- Quality and profile of conference;
- Details of anticipated costs;
- Evidence of co-application to UCD's Seed Funding programme;
- Evidence of co-application to external supporting bodies;

Students who receive funding from the School should provide a written report of the conference to the Post-Graduate studies committee within two weeks of the end of the conference.

APPENDIX 7: REQUESTS FOR EXTENSION, PERMISSION TO CONTINUE, LEAVE OF ABSENCE AND WITHDRAWAL

Information on the policy regarding extensions for graduate research students is available in Section 4: Pre-Thesis Submission: Extension of the “Policy on Theses in Graduate Research Programmes” at

http://www.ucd.ie/registry/academicsecretariat/docs/gradthesisr_po.pdf

Students should note that this policy differentiates between (1) an extension based on extenuating circumstances, called “Extension” and (2) a situation where a student cannot meet their thesis submission deadline but does not have extenuating circumstances, called “Permission to continue in the programme”.

Information on a taking a Leave of Absence is available at

<http://www.ucd.ie/leaveofabsence/> and further detailed information is outlined in the document “Graduate Programmes: Guide to the Leave of Absence Academic Policy” at http://www.ucd.ie/registry/academicsecretariat/docs/loa_po.pdf

Information on withdrawing is available at

<http://www.ucd.ie/students/withdrawal.html>

APPENDIX 8: SBES GRADUATE STUDIES COMMITTEE

TERMS OF REFERENCE

The SBES Graduate Studies Committee comprises representatives of the academic, administrative and technical staff of the School, together with representatives of the post-doctoral fellows and of the graduate students. (Only academic staff participate in registration and admission procedures or the stage transfer assessment reviews). The committee reports to the Head of School and to the College of Science Director of Graduate Studies, Dr Emma Sokell, (emma.sokell@ucd.ie). The SBES Head of Graduate Studies chairs the committee and represents the School on the College of Science Graduate School Board.

The duties of the committee relate to the strategic planning of graduate schools and to current and changing operational procedures regarding recruitment, admission, registration, programme progression and quality assurance, completion and assessment.

MEMBERSHIP

- Tom Wilkinson (Chair)
- Rachael Reenan
- Carl Ng
- Jon Yearsley
- Gavin Stewart
- Jennifer Coughlan (Technical Officer)
- ????? (Postdoctoral Fellow)
- SBES Graduate Student Representatives

APPENDIX 9: USEFUL SBES/UCD CONTACTS

Head of School of Biology and Environmental Science

Prof. Jeremy Simpson, Room 2.15, Science Centre West

Email: Head.SBES@ucd.ie Telephone: +353 (0)1 716 2342

Deputy Head of School of Biology and Environmental Science

Assoc. Prof Paul McCabe, Room 1.50, Science Centre West

Email: paul.mccabe@ucd.ie Telephone: + 353 (0)1 716 2251

Head of Graduate Studies SBES

Dr. Tom Wilkinson, Room 2.40, Science Centre West

Email: tom.wilkinson@ucd.ie Telephone: +353 (0)1 716 2264

Safety Officer SBES

Dr. Rainer Melzer Room 1.48, Science Centre West

Email: rainer.melzer@ucd.ie Telephone: +353 (0)1 716 2290

Graduate Studies Administrator SBES

Rachael Reenan, Room 2.13 Science Centre West

Email: rachael.reenan@ucd.ie Telephone: + 353 (0)1 716 2395

UCD College of Science Graduate School Director

Dr Emma Sokell, Room 3.33 Science Centre North

Email: emma.sokell@ucd.ie Telephone: + 353 (0)1 716 2514

UCD College of Science Graduate School Manager

Deirbhle Carroll, Room E1.09, Science Programme Office, Science East

Email: deirbhle.carroll@ucd.ie Telephone: +353 1 716 2633

UCD Dean of Graduate Studies

Dr. Barbara Dooley

Graduate Studies Office, Tierney Building.

Email: barbara.dooley@ucd.ie Telephone: + 353 (0)1 716 4043

APPENDIX 10: VARIOUS UCD POLICIES & REGULATIONS

UCD Academic Regulations

<http://www.ucd.ie/registry/academicsecretariat/regs.htm>

UCD Student Code

http://www.ucd.ie/registry/academicsecretariat/docs/student_code.pdf

Code of Practice for Supervisors and Research Degree Students

http://www.ucd.ie/registry/academicsecretariat/docs/researchs_code.pdf

Code of Practice for Conflict Resolution for Supervisors and Graduate Research Students

http://www.ucd.ie/registry/academicsecretariat/docs/conflictr_code.pdf

Terms of Reference for Masters / Doctoral Studies Panels

http://www.ucd.ie/registry/academicsecretariat/docs/dstudies_tor.pdf

Split-site Arrangements for PhD and other Graduate Research Students

http://www.ucd.ie/registry/academicsecretariat/docs/splitsite_po.pdf

Plagiarism Policy and Procedures

http://www.ucd.ie/registry/academicsecretariat/docs/plagiarism_po.pdf

UCD Code of Good Practice in Research

<http://www.ucd.ie/t4cms/Code%20of%20Good%20Practice%20in%20Research%20090216.pdf>

UCD Policy on Theses in Graduate Research programmes

http://www.ucd.ie/registry/academicsecretariat/docs/gradthesisr_po.pdf

UCD Leave of Absence Academic Policy

http://www.ucd.ie/registry/academicsecretariat/docs/loa_po.pdf

UCD Withdrawal for Graduate Research Degrees Policy

http://www.ucd.ie/registry/academicsecretariat/docs/wd_pr.pdf

UCD Policy on Dignity and Respect

<http://www.ucd.ie/t4cms/UCD%20Dignity%20&%20Respect%20Policy.pdf>

APPENDIX 11: USEFUL LINKS

<http://www.ucd.ie/students/studentsdesk/>

<http://www.ucd.ie/bioenvsci/>

<http://www.ucd.ie/science/study/graduatestudies/>

<http://www.ucd.ie/international>

<http://www.ucd.ie/students/>

<http://www.ucd.ie/graduatestudies/currentstudents/>

<http://www.iaa.ie/wp-content/uploads/2014/10/IUA-PhD-Graduate-Skills-Statement-20141.pdf>