



Handbook for Research Students (PhD and MLitt)

Quantitative and Computational Social Science
2024/25

Introduction

Welcome to the Quantitative and Computational Social Science (QCSS) PhD program! We are delighted to meet you and look forward to working with you over the next years.

Most of the information you will need for your studies at UCD is in the latest version of the [Graduate Research Student Handbook](#).

This brief document points out items and additional information specific to the QCSS PhD program, which is a thematic PhD under the SPIRe remit.

While studying at UCD, you will notice that there are PhD students in a large variety of different specializations within SPIRe, as well as on specialized thematic PhDs that cross disciplines. Within SPIRe, we have students working on British-Irish studies, European studies, political theory, human rights, development studies, nationalism and ethnic conflict, et cetera. The thematic PhD programs that fall under the SPIRe remit are: Quantitative Social Science (QSS), Global Human Development (GHD), Complex Systems and Computational Social Science (CSCS) and Quantitative and Computational Social Science (QCSS). The QSS and CSCS programmes are now being phased out, having been replaced by the QCSS programme.

The course requirements for these students differ, but there is some overlap with those in the PhD Politics and International Relations.

If after reading this handbook you have any further questions, please do not hesitate to contact us or anyone listed under contact details below.

Joshua Alley (QCSS PhD Program Director)

Dara Gannon (SPIRe School Manager and PhD Administrator)

About the QCSS Programme

The QCSS PhD program spans four years for full-time students (it is allowed, but not typically feasible, to finish within three years). For part-time students, the course is five to seven years.

All UCD PhD programs have **two stages** of training:

Stage 1 comprises the first 12-18 months (for full-time students) within which the PhD student defines the research plan, develops specific research skills through a program of recommended modules and specialized training and initiates original research work for the doctorate degree.

Stage 2 comprising the remaining months, is primarily dedicated to continuing the original doctoral research but may also include some advanced education and training.

The [PhD Lifecycle on the Graduate Studies website](#) provides more information on the process.

The QCSS PhD Program incorporates a range of recommended taught modules, completed in Stage I, followed by a program of original research leading to the award of Doctoral degree by research at the end of Stage II. QCSS students may also participate in short, external internships during the four-year programme.

Stage 1

	September start	
task	full time	part time
initial RSP meeting	trimester 1	trimester 1
first RSP progress assessment	by end of trimester 2	by end of trimester 3
second RSP progress assessment	by the end of trimester 4	by the end of trimester 6
course work (totalling at least 35 credits)	by end of trimester 4	by end of trimester 6
research integrity training	before end of year 2	before end of year 2
STA	beginning of trimester 5	beginning of trimester 7

Stage 2

	September start	
task	full time	part time
regular RSP meetings (at least 2 per year)	at least 2 per year	at least 2 per year

RSP = Research Studies Panel

STA = Stage Transfer Assessment

Programme Structure

As set out by the requirements of UCD Graduate Studies, QCSS students are required to complete a minimum of **35 credits** of course work in Stage 1, followed by a programme of original research leading to the award of Doctoral degree by research. More information can be found [here](#).

Modules

All students must take the following module:

- [POL50220 Social Science Methodology \(Core\)](#)

All students take at least one of the following three modules:

- [SOC40640 Social Simulation: Methods and Models](#)
- [POL42050 Quantitative Text Analysis](#)
- [ECON50580 PhD Econometrics 2](#)

In addition, all students should take at least three modules, totalling to **at least 15 credits**. Students with a technical background (computer science, engineering, statistics) take these modules from relevant offerings in the social sciences, while students with a social science background (incl. business and law) take these modules from relevant offerings in computer science, mathematics, and/or statistics.

- [ACM40290 Numerical Algorithms](#)
- [COMP40730 High Performance Computing](#)
- [COMP47670 Data Science in Python](#)

- [COMP40610 Information Visualisation](#)
- [COMP41680 Data Science in Python](#)
- [COMP47470 Big Data Programming](#)
- [ECON42720 Causal Inference and Policy Evaluation](#)
- [IS41510 Social Networks Online and Off](#)
- [PLAN40220 Geographical Information Systems](#)
- [POL42340 Programming for Soc Scientists](#)
- [POL42530 Politics of International Trade and Investment](#)
- [POL42540 Applied Data Wrangling and Visualisation](#)
- [POL42550 Feminist Theory](#)
- [POL42560 AI and Large Language Models](#)
- [SOC30380 Social Dynamics and Networks](#)
- [SOC40640 Social Simulation: Methods and Models](#)
- [SOC41070 SocThinking in the Digital Age](#)
- [SOC41130 AI and Society](#)
- [STAT30270 Statistical Machine Learning](#)
- [STAT40150 Multivariate Analysis](#)
- [STAT40400 Monte Carlo Inference](#)
- [STAT40680 Stochastic Models](#)

The range of modules is subject to change.

The students may register for other modules depending on their research theme with permission from their Supervisor and the Module Coordinator.

The College of Social Sciences and Law schools also make a range of modules available to graduate research students outside their school each year. For a sample of such modules, [click here](#).

Professional Development Module – POL50230 (5 Credits)

The overall aim of this 5-Credit Module is to strengthen the professional development of our PhD graduates to devise and deliver a full Level 3 undergraduate or Level 4 graduate module based upon their research and field of study, under the mentorship of an academic staff colleague.

Students will be assigned a staff mentor whose role will be to discuss the module proposal, advise on and review a final draft of the syllabus, provide feedback on a 'spot-check' lecture, and assist in a final professional reflection on the module at the conclusion of its first delivery.

The Module is open to all **Stage II full-time students** enrolled in any of the following PhD programmes and whose supervisor is based in SPIRe:

- a. PhD Politics and International Relations
- b. PhD Quantitative Systems and Computational Social Science
- c. PhD Complex Systems and Computational Social Sciences
- d. PhD Quantitative Social Sciences

For more information on the module, [click here](#)

Collaboration with Trinity College Dublin

SPIRe collaborates with the Department of Political Science in Trinity College Dublin (TCD), with the sharing of certain modules.

TCD operates a Coding camp for incoming students, as a preparatory course for Quants

I. This is not compulsory.

This year's Coding Camp will take place from Monday 2nd to Friday 6th September 2024.

Additionally, SPIRe PhD students can take **one** substantive module at the Department of Political Science in TCD over the course of their degree. Available modules will be communicated by email before the start of the academic year.

Research Integrity Training

Research Integrity Training is a compulsory element of all research degree programmes for students admitted after August 2019. For more information, follow the link [here](#).

As of 2024 intake completion of this training will now be a prerequisite for transfer to Stage II.

Research Ethics

Research ethics applies to all members of the UCD community who conduct research that involves human and/or animal subjects. Prospective researchers must read the policies and guidelines on the research ethics website <https://ucd.ie/researchethics>.

It is the responsibility of every PhD researcher to ensure appropriate ethical approval or an exemption thereof before engaging in any relevant research activities.

Research Studies Panel (RSP)

One of the first tasks on starting your PhD is to select suitable people for your RSP.

The function of your RSP is twofold: First and foremost, it is an advisory panel that will provide you with feedback on different aspects of your project. Secondly, during Stage 1 it also is an assessment panel charged with evaluating whether you make sufficient progress on your project (see below: Progress assessment).

In addition to the requirements set out in the [Graduate Research Student Handbook](#), please note the following QCSS-specific regulations:

Membership of RSP

The panel comprises of the principal supervisor/co-supervisor and at least two (but normally no more than four) advisers, one of whom must be a UCD faculty member. The RSP will appoint a chair independent of the supervisor/co-supervisor. Research Studies Panel Advisers may include faculty, adjunct, visiting or research staff or relevant professional staff of the University or external to the University.

Establishing your RSP

You should engage with your supervisor within the first few weeks of your first trimester to establish the full membership of your RSP. When you know the makeup of your RSP, you should email the PhD Administrator so that the details can be entered on your record.

Meeting frequency

RSPs should meet at least twice per academic year throughout the entire PhD process. During stage 1 there should be at least the following three meetings:

Initial meeting

You should meet your RSP by the middle of the first trimester to become acquainted with them and to give you access to the additional expertise to support your work.

First progress assessment meeting

The purpose of this meeting is to ensure that students have a viable proposal and viable research timetable. If a student is to complete within three-four years, then it is essential to ensure the project is defined at an early stage. By the relevant deadline in the above table, students must submit:

- A detailed research proposal (approximately 2500 words);
- A detailed work schedule;
- A piece of substantive work, for example a literature review or methodology section (up to 5000 words).
- The panel must report its assessment of the student's progress in the RPDP for this meeting.

Second progress assessment meeting

The second progress meeting should take place by the end of trimester 4 for full time students and by the end of trimester 6 for part time students. The RSP must have received and reviewed one chapter of the student's thesis before this meeting.

The panel must report its assessment of the student's progress in the RPDP for this meeting.

STA preparation meeting

The RSP should meet roughly two months before the STA application to provide feedback as well as prepare the RPDP that is submitted as part of the STA application. (See below for details).

The panel must state whether or not they support the student's progression into stage 2 in the RPDP for this meeting.

Meeting reports

For each RSP meeting a [Research and Professional Development Plan \(RPDP\)](#) should be developed and uploaded to the student record on SisWeb by the student. A copy with all signatures should also be forwarded to the PhD Administrator.

Transfer from Stage I to Stage II in the QCSS Program

In order to progress from Stage I to Stage II of the QCSS PhD Programme, a formal assessment of the student's progress takes place at the end of Stage I. The formal assessment is conducted by a Stage Transfer Assessment panel. For QCSS students with a SPIRe supervisor, this will be convened by the QCSS Director.

Those students whose supervisor is outside SPIRe should liaise with their home school, who will undertake the assessment.

The Principal Supervisor, and any co-supervisors, are not normally members of the panel. For this transfer assessment the PhD candidate must have completed **35 credits of coursework**, including all core modules, with a minimum of B grade on average

The Transfer Assessment Panel base their judgement on the following materials:

- A written statement of progress from the Principal Supervisor;
- A written statement of progress and future research by the student, including an updated research proposal outlining the overall structure of the thesis;
- One completed chapter or research paper;
- An overview of grades obtained on the program to date;
- A copy of the latest RPDP. Please ensure that an RSP meeting is held at least two months prior to your transfer assessment.

Please note: the student will be required to make a brief presentation (3-5 mins) to the panel.

Please Note: The Stage Transfer Process for QCSS students is handled by their home school i.e. the school in which your supervisor is based. If your supervisor is outside SPIRe, please remind him/her of this.

Description of QCSS Stage II

A PhD student is required to complete a thesis based on original research, which will form the basis of the final *Viva Voce* examination. The thesis concludes a programme of research under which the student may produce working papers, co-authored papers with their supervisors, attend conferences, etc. The research component of the degree programme includes regular meetings with the supervisor, meetings with the research supervisory panel (RSP) every half year and a student Research and Professional Development Plan (RPDP) which is regularly reviewed.

Seminar Series

The school in which you are based – SPIRe, Sociology, Economics, etc. – organises a seminar series for all staff and graduate students in the school. Attendance at these seminars provides an excellent opportunity for you to develop your presentation skills, learn about research that takes place across the school, and practice providing constructive feedback in an academic setting.

The SPIRe seminars will take place in the school boardroom (F301) on Wednesdays from 12-1pm. The Series Program can be found [here](#).

If you wish to take part in the SPIRe seminar, please contact the SPIRe Seminar Series Coordinator **at the beginning of your 3rd year to ensure that you are included in the presentation schedule.**

The [Connected Politics Lab](#) organises a similar seminar series that is particularly relevant for students on the QCSS program. For these reasons, it is strongly encouraged

that you attend all seminars in the school of your supervisor, as well as those of the Connected_Politics Lab.

Early Career Researcher Forum

The SPIRe Early Career Researcher Forum is a new series of events at the School of Politics and International Relations. The PhD Forum provides guidance to early-career researchers and facilitates informal discussions between SPIRe faculty and PhD students.

Two SPIRe faculty members will provide a short overview of the topic and reflect on their experiences. The remaining time will be devoted to questions and answers.

More information can be found [here](#).

Thesis Preparation

Different theses have very different forms, please work with your supervisor and RSP on determining which thesis form (monograph or in the alternative thesis by papers format), structure, and length etc. is best suited for your project.

You can find the general requirement for a PhD thesis [here](#).

Thesis as a Collection of Papers

The current Graduate Research Board guidelines on thesis formats can be accessed [here](#).

However, in the case of the multiple-paper format thesis there are some subject-specific requirements which apply to PhD candidates at SPIRe. These must be also taken into account and can be found [here](#).

If you intend to pursue this thesis format, this should be discussed in advance with your supervisor.

For non-SPIRe students, please check with your supervisor to determine if there are other, school-specific requirements.

If you intend to pursue a multiple-paper format, this should be discussed in advance with your supervisor.

Thesis submission and Viva voce

Please plan well ahead for your submission as setting up the exam committee and getting it approved by the Graduate Research Board can take several months.

For the formal requirements of the submitted document, please see [here](#).

For information on the process of submitting the thesis, please see [here](#).

Please also keep an eye on the SPIRe [PhD FAQ section](#) for up to date information.

Funding opportunities

SPIRe Fund

SPIRe has a very limited amount of money available to fund participation by its own postgraduate research students and postdoctoral researchers in Irish and international conferences and summer schools each year. Applications will be announced and reviewed by the UCD SPIRe Research Committee. Funding calls will be communicated via the SPIRe email ListServ, along with the application form and guidelines.

Irish Research Council

The Irish Research Council (IRC) is an important source for funding for research students.

Note that Honohan scholarship students are required to apply for IRC funding within their first two years, as part of the Terms and Conditions of the scholarship.

Important: You must choose an enrolment/registration date of 1 September on the IRC application form. Your UCD record may display an earlier date but anything earlier than 1 September will render your application ineligible for consideration.

Keep an eye on the website below for more details and the closing date on the next funding round <http://research.ie/funding/goipg/>

Please talk with your supervisor, if you are applying. Please note that this is a very competitive fellowship and, depending on the current state of your proposal, it might make sense to apply at a later stage. You are allowed to apply for this grant twice.

When preparing an IRC application, your RSP serves as an excellent forum to receive feedback. You could use one of your RSP meetings to discuss a draft of your application.

The IRC also operates an Employment Based Postgraduate Programme and an Enterprise Partnership Scheme. Details can be found below.

<http://research.ie/funding/ebp/>

<http://research.ie/funding/eps-postgrad/>

Political Studies Association of Ireland (PSAI)

The Political Studies Association of Ireland set up a funding support scheme for PhD researchers to attend national and international conferences. The covers costs for conference registration and/or travel expenses of up to €1,250. Note that applicants need to be PSAI members.

<https://www.psai.ie/funding-calls/>

General information

Important dates

For UCD term dates, see <https://www.ucd.ie/students/keydates/>

Please note teaching dates for TCD modules may differ from those in UCD. You should consult the TCD website for further information.

Class Rep

The class reps for the SPIRe PhD cohort are Paula Montano

(gina.montanoparralles@ucdconnect.ie) and Sarah King (sarah.king4@ucdconnect.ie).

Class Reps are invited to attend the SPIRe school board meetings, which typically take place twice per trimester. Please contact your class reps at any stage if you have issues/queries and, if needed, these can be brought to that forum. That does not preclude you from contacting the PhD Director or PhD Administrator personally.

Research Space

F302 is the school's PhD room and is available to any PhD student **whose supervisor is based in SPIRe**. It has wireless connectivity and space for working on laptops. Space in the room is limited and the PhD class reps have taken on the task of access allocation. Research students may apply, with the support of their supervisor, for a workspace in the College of Social Sciences and Law research student rooms or in UCD Geary Institute. Space in these locations is limited and most spaces are allocated to full-time students, but the School will endeavour to ensure that all research students who need workspace on campus will be accommodated.

Subject to the opening hours of the building you will have access to F302 at all times via the key code (which will be provided to you at induction). Do not divulge this code to anyone outside of the School. Please ensure that the door is kept locked when unoccupied. In addition, the last person to leave in the evening should ensure that the equipment is switched off and the wall sockets are also switched off.

It is also possible to get 'out of hours' access to the Newman Building. Please ask the PhD Administrator for more information.

If your supervisor is based in another school, you will need to contact that school regarding a desk space.

Welfare Resources

[UCD Dignity & Respect Support Service](#)
[UCD Student Counselling Service](#)

[UCD Student Health Service](#)
[UCD Student Advisers](#)

UCD Careers Network

The main webpage of the UCD Careers Network can be found [here](#). You can also book a 20-minute 1-2-1 consultation with one of the Belfield-based Career and Skills Consultants. [Click here for more info](#).

Administration

The PhD Administrator for the QCSS program is Ms Dara Gannon, who is available to provide administrative advice and information to all research graduate students (contact details at the end of this document).

Computer, photocopying, fax and other facilities

Please consult with Dara Gannon about access to photocopying and printing facilities.

Library

When you register with the University, you will be given a UCD student card. This also acts as your Library card. You will need your card to enter and exit the James Joyce Library. A UCARD system has been introduced, which provides an electronic purse for making purchases within the University.

UCD Library (<http://www.ucd.ie/library/>) has access to a vast range of online journals and electronic databases, many of them accessible from remote locations as well as on-campus. A dedicated information session will be arranged for SPIRe research students during the first semester.

ALCID

This is a co-operative scheme between a group of participating Irish university libraries, which enables postgraduate students (Doctoral, Masters by research and by exam) to

have access and reference rights to the stock of participating libraries. The library of Trinity College Dublin is particularly useful as it is a Copyright Library and contains a wide range of books, journals and other publications.

You can apply for an ALCID card at the Information Desk in any UCD Library or download the application form: <https://www.ucd.ie/library/use/visitlibs/>

ILL – Inter Library Loans

Many publications not available directly from the Library are obtainable via the Inter-Library Loan Service. This service is available to all staff and registered students of the College and to registered external borrowers. Staff and students are charged €6.00 per application. Journal articles from branch libraries can be obtained for readers on payment of €2.50. More information can be found via the link below

https://libguides.ucd.ie/collection_services/interlibrary_loans

SPIRe has a limited amount of funding available to assist PhD students with inter-library loans. This can be accessed on a case-by-case basis by contacting the PhD administrator, Dara Gannon.

Contact Details

For matters related to your PhD, the following contacts are most important:

QCSS Program Director

Dr Joshua Alley

Joshua.alley@ucd.ie

SPIRe Graduate Director

Professor Ben Tonra

ben.tonra@ucd.ie

Administrator, PhD Program

Ms Dara Gannon

dara.gannon@ucd.ie

Dean of Graduate Studies and Deputy Registrar

Prof Barbara Dooley

barbara.dooley@ucd.ie

Graduate Research Administrator (Graduate Studies)

Dr Jennifer Sullivan

jennifer.sullivan@ucd.ie

Please do not contact Jennifer directly – go through the PhD administrator

Head of School

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