

Economics PhD Fellowship Econometrics and Machine Learning

College:	Social Sciences and Law
School:	Economics
Post Title:	PhD Fellowship
Post Duration:	4 years
Research Project:	Ad Astra Studentship Award
Reports to	Dr. Eoghan O'Neill

Position Summary:

The PhD Fellowship is funded through the Ad Astra Fellowship of Dr. Eoghan O'Neill. The full-time PhD position in the UCD School of Economics is fully funded for four years. The candidate will participate in a taught programme for the first year.

The PhD fellow is expected to research topics in econometrics, machine learning, and Bayesian statistics. Examples of potential thesis topics include novel Bayesian machine learning models for causal inference with economic data and applications of machine learning methods to macroeconomic forecasting.

Candidates will ideally have studied economics, mathematics, statistics, computer science, or a related field. Strong quantitative skills are highly advantages. Coding skills are advantageous, though not essential, and the PhD fellow will be expected to develop programming skills, particularly in the statistical software language R. Prior experience with economics is advantageous though not strictly essential.

Informal enquiries regarding the position are welcome (eoghan.oneill1@ucd.ie).

The PhD Fellowship includes:

- Tax-free stipend of €25,000 per year for four years, plus additional top-ups.
- A fee waiver for the four years.
- €4,000 per annum to support research (conference participation and travel, purchase of a computer and software).

Selection Criteria:

Mandatory:

- Master's degree in economics, statistics, or other quantitative graduate degree.
- Excellent English communication skills including report writing and presentation skills.

Desirable

- Knowledge of machine learning and data science methods.
- Introductory-level knowledge of Bayesian statistical methods.
- Programming experience (R/Python/C++).

Application Process:

- Applications should be made to Dr. Eoghan O'Neill (<u>eoghan.oneill1@ucd.ie</u>) by January 31, 2026.
- The application must include:
 - CV including the names of two references. Please include the letters of recommendation along with your application or have your references send them directly to the email above.
 - Copy of diplomas and transcripts of records.
 - o Application letter outlining personal research interests and suitability of the Fellowship.
 - o If possible, please supply an example of previous research, for example a Bachelor or Master's thesis, or a research project.
- The successful candidacy is subject to the approval of the UCD Graduate Research Board and subsequent admittance to the PhD programme via the UCD on-line system.

UCD School of Economics PhD Programme

Year 1 of the Programme (MLitt phase)

At the beginning of the programme, all students are enrolled on the MLitt register. During the first year of the programme, full-time students will take three modules in the autumn trimester and three modules in the spring trimester, for a total of six ten-credit modules. Students take a complete two-module sequence in each of the three core subject areas of microeconomics, macroeconomics, and econometrics. In addition, in the autumn and spring trimesters students will attend the weekly School of Economics research seminar and the weekly seminar for PhD students. Students must pass all six modules and attain a GPA of at least 3.4 across the 60 taught credits. If they fail to do so, they will have to leave the MLitt/PhD programme.

Year 2 of the Programme (PhD phase)

Once students have completed their coursework and their qualifying exams, the next step is to determine the research topic of the dissertation and begin work on research. During the second year, students and their supervisors will set up a research studies panel (RSP) within three months of the date of transfer to the PhD register. Typically, the RSP comprises of the supervisor(s) and two advisors (one of which will act as the panel Chair). The purpose of the RSP is to support and enhance the supervisor-student relationship, to monitor progress over the course of the doctoral studies, and to provide advice and support both to the student and to the supervisor. It is possible that one or both advisors are from other schools or even other institutions.

Year 3 of the Programme (PhD phase)

PhD students in year 3 and above are expected to present their work at least once per academic year in the weekly seminar for PhD students. All students are required to undergo a transfer assessment in order to move from Stage 1 to Stage 2 of the PhD programme. Stage 1 is an initial period of advanced education, training and research. Stage 2 is largely dedicated to carrying out a body of original, publishable research required for the award of a PhD. In order to transfer to Stage 2 students are assessed by a Transfer Assessment Panel (TAP) who make a decision as to whether a student has made sufficient progress towards completion of the PhD research. The TAP will be convened by the School and will contain at least three members of academic staff; however, it will not include supervisor(s). The Stage Transfer Assessment will take place during the first six months of the Year 3.

Years 4 and Beyond (PhD phase)

The final, but most important part of the PhD programme, is the completion of the dissertation. The majority of dissertations in the school are composed of three or more research papers. These papers have a common theme, but they are not required to do so. Research papers can be co-authored. In line with the College Guidelines, if all the research papers are co-authored, a fourth paper is required. The student should also provide a written explanation of their personal contribution on each paper to their supervisor and to the RSP in advance of submitting the dissertation to the university.

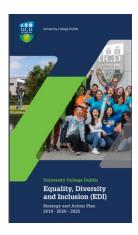
For more information: https://www.ucd.ie/economics/phd/programmestructure/

Equality, Diversity, and Inclusion (EDI) at UCD

UCD is committed to creating an inclusive environment where diversity is celebrated, and everyone is afforded equality of opportunity. Diversity is highlighted in the university's strategic plan as one of the core values of UCD, and its EDI commitment is further demonstrated through the strategic objective relating to the attraction, retention, and development of an excellent and diverse cohort of students, faculty and staff. We welcome applications from everyone, including those who identify with any of the protected characteristics that are set out in our Equality, Diversity and Inclusion policy. The university adheres to a range of equality, diversity and inclusion policies. We encourage applicants to consult UCD's equality, diversity and inclusion policies here https://www.ucd.ie/equality/.

UCD's Equality, Diversity and Inclusion Strategy 2018-2020-2025 sets out the University's objectives aligned to UCD's ten equality grounds. <u>Link</u>

UCD's Vice President for Equality, Diversity and Inclusion chairs the University EDI Group which works across UCD's ten equality grounds in collaboration with College Vice Principals for EDI and EDI School Representatives. UCD's Equality, Diversity and Inclusion Unit supports the mainstreming of EDI through the EDI Group and these roles and leads on the delivery of the EDI Strategy through a range of initiaitives including policy development, awareness raising and training, internal and external relationship building, collation and analysing of data, establishing peer support groups and networks, attainment of accreditations such as Athena SWAN and supporting and promtoting an environment of mental health and wellbeing and dignity and respect.



UCD has EDI staff networks which are a great opportunity to meet colleagues, network and engage with equality, diversity, and inclusion initiatives in UCD.

UCD's EDI Staff Networks include:

- UCD staff disability network
- UCD LGBTI staff network
- UCD Women@STEM
- Multicultural Employee Network UCD (MENU)

You can join UCD's EDI Staff Networks here: https://www.ucd.ie/equality/groups/edinetworks/

UCD is also engaged with the following initiatives:









Athena SWAN at UCD

University College Dublin has received its second Athena SWAN Bronze institutional award in recognition of the university's work towards gender equality. To achieve this accreditation, an institution must demonstrate that it has undertaken a thorough self-assessment of gender equality challenges and has developed a detailed action plan to tackle them. The UCD Gender Equality Action Plan 2020-2024 was prepared by the Gender Equality Action Plan 2020-2024 was prepared by the Gender Equality Action Group and its Working Groups, in a process that involved external benchmarking, an EDI employee survey, focus groups and consultation across the university. It includes actions relating to recruitment, promotions, leadership, work practices, organisation and culture. The implementation of the Plan is already underway and includes mechanisms to track progress on each of the actions. This action plan includes the actions that arose from the review of the university's policy and procedures on Dignity and Respect.

Age-Friendly University

University College Dublin is proud of its designation as an **Age-Friendly University** as part of the AFU Global Network. The principles of an Age-Friendly University are: To encourage the participation of older adults in all the core activities of the university, including educational and research programmes.

University of Sanctuary

UCD was awarded **University of Sanctuary** status in 2018, (UoSI) is an Irish initiative to encourage and celebrate the good practice of universities, colleges and other education institutes welcoming refugees, asylum seekers and other migrants into their university communities and fostering a culture of welcome and inclusion for all those seeking sanctuary.

Open Doors Initiative

UCD has joined a group of over 95 companies and NGOs, who work with government to create pathways to employment for marginalised people. These can be internships, scholarships, training courses, aiding entrepreneurs or full/part time employment, from a range of backgrounds and abilities.

These can be developed out on a bespoke basis with organisations to include specific projects. This group work with refugees, asylum seekers and migrants, people with disabilities and disadvantaged youth (including those from a traveller background, LGBTIQ+ etc).

They offer online training, mentorships, assisted learning, seminars, inhouse training for existing employees on a range of subjects and can assist with funding for training courses you run. They have ongoing meet ups with other companies and supporting partners who are working to create diversity and inclusion within their organisations. More details are available on our website here: www.opendoorsinitiative.ie

Supplementary information:

The University:	https://www.ucd.ie/
UCD Strategy 2020-2024: Rising to the Future	https://strategy.ucd.ie/
College of Social Science and Law:	https://www.ucd.ie/socscilaw/
School of Economics:	https://www.ucd.ie/economics/