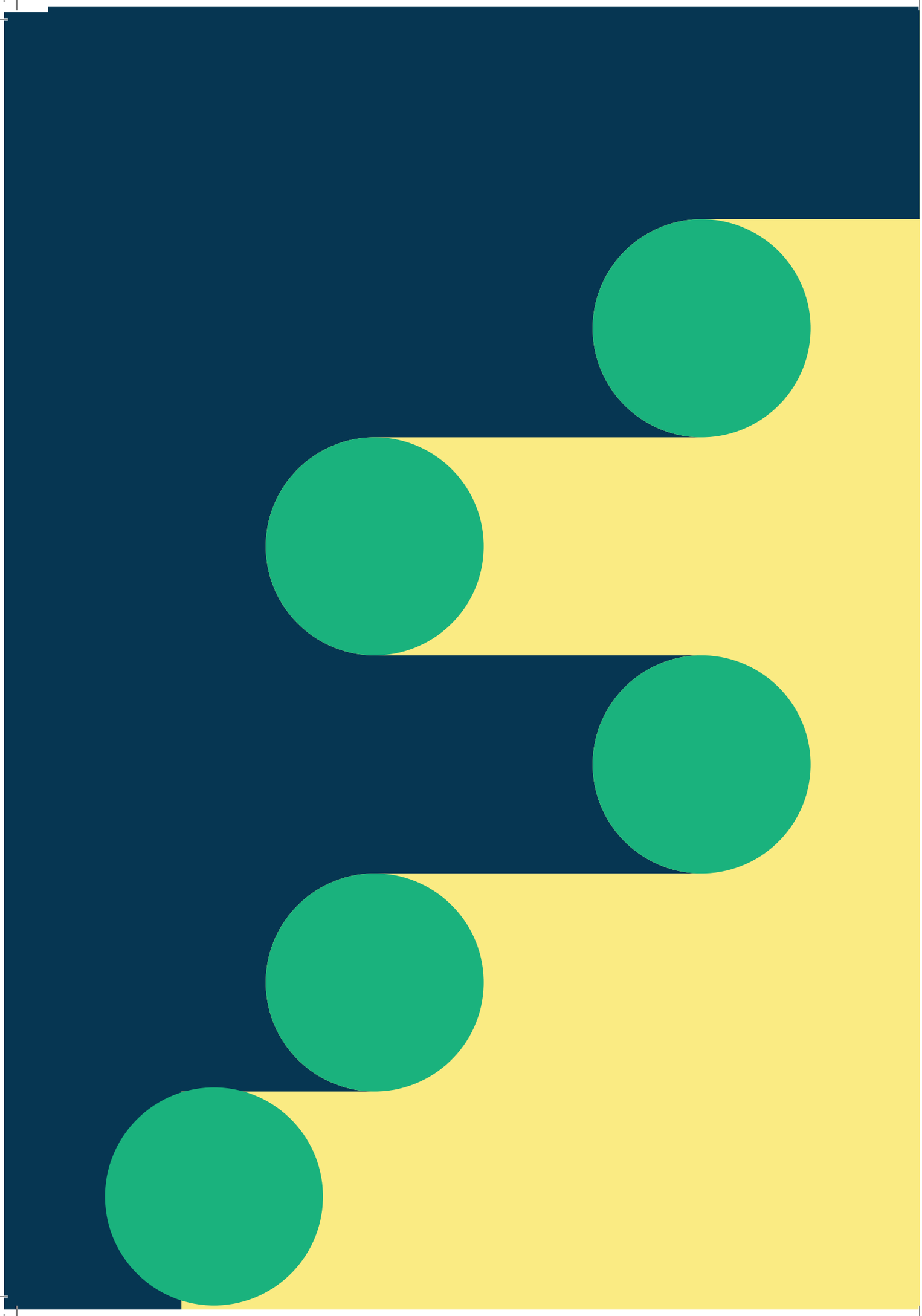
# Early Research and Projects Network

DCU

CTYI
Centre for Talented Youth Ireland

Guided Research Projects for Secondary School Students with High Academic Ability

**Autumn 2025**



# **Introducing:**
# The Early Research & Projects Network

We are delighted to introduce you to our newest programme called the Early Research & Projects Network (ERPN) brought to you by CTY Ireland. The aim of this project is to link academically gifted and highly motivated students with tutors who can teach them the art of research and writing.

Through self-inspired or prescribed research questions and projects, ERPN enables second level students to begin engaging in projects with a view to presentation and / or publication. We started in January 2021 with 50 students in areas of Science and Psychology. In 2022 we expanded the programme to include Creative Writing, and Law as well.

Originally we ran the whole programme online but we now offer a successful hybrid programme with access to DCU campus every month to meet tutors and other students. This term ERPN will also be a hybrid programme with some slight changes based on feedback from our students.

Meetings will take place on campus in DCU roughly once a month, and there will be online meetings each week on Thursdays. At the end of the term students will get the chance to write up and present their work at a conference or launch during the winter.

Courses on offer this year are Creative Writing, Engineering, Law, Psychology, and Science and the course will start on Saturday 13th September 2025 and run until November 29th 2025 with most classes taking place weekly from 5:00pm to 6:00pm on Thursdays online, and monthly Saturday meetings from 1pm - 4pm face to face in DCU.

Students can do their projects as part of a group or individually. Partners will be assigned for group projects. ERPN is open to secondary school students only. The cost is €600 for the term. We hope that many of you will sign up for this exciting new project.

Sincerely

**Dr Colm O'Reilly**
CTYI Director

# Course Information

The aim of this project is to link academically gifted and highly motivated students with current researchers who can teach them the art of research.

Through self-inspired or prescribed research questions, ERPN enables second level students to begin engaging in research projects with a view to presentation and/or publication.

Through regular contact and weekly online or face to face meetings with a supervisor, students will get an early insight into third level activities.

This programme is suitable for students who are questioning, driven to greater understanding and self-starters. While supervisors will be there to help and guide students along their research journey, students are responsible for their own work. Regular meetings with their supervisor and research group will serve to challenge and spur on students to defend their research and reach greater heights of understanding.

In the **science** and **psychology** streams, students will learn how to structure a research question or questions, conduct a literature review, devise a methodology, conduct the research, analyse the results and discuss the outcomes. Students will then put together a formal presentation and/ or short thesis for feedback.

In the **law** stream, students will learn how to frame a legal research question, carry out research into their chosen topic, and write and present their findings, whilst supporting and nourishing students' own views. Students will carry out a project in a legal area of their choosing with the guidance of their supervisor.

In the **creative writing** stream, students will learn about how the writing process works and get support with their own creative outputs. Your supervisor will help you to analyse texts, as well as your own writing, and ask the important question 'what makes this story work?'

In the **engineering stream**, students will learn how to identify and define an engineering problem, conduct a literature review to understand existing solutions, and develop a research question or design challenge. They will devise a methodology, which may include designing experiments, building prototypes, or using simulation software. Students will then conduct their research or design work, analyze the results, and discuss the outcomes. Throughout the process, they will receive guidance on technical documentation and presentation skills. The culmination of their efforts will be a formal presentation and/or a detailed project report, which will be reviewed and critiqued by their supervisor and peers for feedback and improvement.

**Weekly Meetings**
A meeting with your study group and supervisor will normally take place once a week in an online setting but once a month or so it will take place on campus in DCU instead. By having group meetings with all students, issues can be discussed and thrashed out and everyone can learn from and help each other. Some weeks will feature guest lectures given by researchers or professionals currently engaged in the field, so that students can gain a greater understanding of the process. Typically the Thursday meeting for 1 hour will have content covered for the first hour, and then the last half an hour will be an opportunity for students to discuss their projects with each other and their instructor if they wish.

**Role of the Supervisor**
As well as meeting with the students in a group each week, the supervisors are also available by email for questions, to read student work and give feedback between meetings. Supervisors have a strongly supportive role, and will be on hand to help and direct students when they inevitably have questions around what to do next, or how to interpret the results they are finding. The supervisor understands the academic process extremely well, and will help to challenge thinking and help students develop a critical eye and defend their research approach and findings or their writing. Supervisors will give gentle encouragement and guided feedback, will read over student work, and in doing so help in the research and editing process. They have a key role in the overall process, but it is the students who carry out the projects, and ultimately the decisions that are made along the way.

**Expectations of the Student Researcher**
Students should attend all meetings, and in the event that they cannot, should notify their supervisor in advance. Students are expected to adhere to deadlines set down by the supervisor, and again, contact them in advance if they need some additional time for completion. Students are expected to carry out a project and submit some form of written submission on this work. Students may not plagiarise material. All information included in their work should be properly cited (if relevant. This will also be explained). Plagiarism is taken very seriously, and it is important that students learn the tools of research early on so that they can start as they mean to go on. It will set them in good stead for later research at university level.

**Final Output**
Different subject streams will have different outputs at the end of their programmes. Science and Psychology students may produce a short thesis or research poster. Creative Writing students will compile a piece of written work such as a short story or chapter. Law students will produce a written project on a topic of their choice. In Winter 2025 we will host an in person event for each subject stream where students will have the opportunity to present their work to their peers and invited academic guests.

# Course Dates

Group meetings will be held once a week with supervisors between September and November 2025. The first meeting will take place on **Saturday the 13th September**.

**Thursday Meetings on Zoom: 5.00 - 6.00pm**
September 18th, 25th
October 2nd, 9th, 16th, 23rd
(No meeting during Midterm, 30th Oct)
November 6th, 13th, 20th, 27th

**Saturday Meetings on DCU Glasnevin Campus: 1.00 - 4.00pm**
September 13th
October 11th
November 8th, 29th

# Course Calendar
## September - November 2025

### September

| S | M | T | W | T | F | S |
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| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | | | | |

### October

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| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
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### November

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| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | | | | | | |

**Thursday Meetings on Zoom:** 5.00 - 6.00pm

**Saturday Meetings on DCU Glasnevin Campus:** 1.00 - 4.00pm

# Subject Areas

This year students will have the opportunity to choose between creative writing, engineering, law, science or psychology for their study. A short description below illustrates what this will entail, and the types of research or projects that students may undertake. It is recommended that students who took part in the course before try a different stream rather than a similar programme to last year.

### Creative Writing

Are you a budding novelist or short story writer? Do you have a head full of ideas but don't know where to begin putting pen to paper? This course will look at the art of fiction, grapple with plot and structure, and delve deep into character development. Your supervisor will help you to analyse texts, as well as your own writing, and ask the important question 'what makes this story work?'

Possible research topics could include:

- The Hero's Journey: modern storytelling and the monomyth.
- Three and Five Act Structures.
- Genre. Are you writing the next Dracula, perhaps the next Hunger Games trilogy? What tropes do you need to write within your preferred genre?
- Finding the Authentic Voice. Whether the story is in first or third-person narration, what lends to its authenticity? When does the voice become inauthentic?
- World Building. How does the writer create a believable world: whether in fantasy, sci-fi, or historical fiction?
- The Reader. Who is your reader? What do you have to say, and why should they read your writing?

An example of a previous student's work:
*The legends spoke of a shimmering gateway that could unravel the fabric of time itself, a pathway to a world that was as much a mystery as it was a part of their heritage. The tales told of forests untouched by machinery, skies unmarred by smog, and a world where the connection between humans and nature was unbroken. The stories painted a vivid picture of a paradise lost to the ambitions of progress.*

*One moonlit night, unable to resist the allure of the story, Lily embarked on a clandestine journey to unearth the portal. Guided by ancient maps, she navigated crumbling tunnels adorned with remnants of neon signs and holographic advertisements that had once illuminated the city's bustling streets. Lily's heart raced as she bypassed forgotten security systems, their sensors long faded and silent. The hum of hidden machinery echoed around her, a ghostly reminder of the world that once was. And there, at the heart of the ruins, Lily discovered the portal...*

### Engineering

Are you fascinated by how things work and eager to solve real-world problems? Do you want to design innovative solutions that could shape the future? This course offers an opportunity to explore the diverse field of engineering, allowing students to learn more about the various branches such as mechanical, electrical, civil, biomedical, and environmental engineering. Students will learn how to identify and define engineering problems, conduct a literature review, and develop research questions or design challenges.

They will create methodologies, which might include designing experiments, building prototypes, or using simulation software. Through conducting research or design work, analysing results, and discussing outcomes, students will gain hands-on experience in engineering. The course culminates in a formal presentation or detailed project report, providing valuable feedback for further development.

Possible research topics could include:

- Mechanical Engineering: Designing a more efficient wind turbine.

- Electrical Engineering: Developing a smart home energy management system.
- Civil Engineering: Investigating sustainable materials for construction.
- Biomedical Engineering: Developing a wearable device for health monitoring.
- Environmental Engineering: Assessing the impact of renewable energy sources on local ecosystems.

* Please note students may not have access to DCU's laboratory facilities during the project period.

## Law

Have you ever wanted to know more about why some cases are decided a certain way? Or why some people are found innocent when they seem so guilty? If so, you have come to the right place! This course will delve into the foundations of all aspects of law - criminal, constitutional, jurisprudence and much more! Along with knowing all this, a practicing lawyer needs to be able to carry out in depth analytical research into the law to do their job effectively. This course will teach students how to frame a legal research question, carry out research into their chosen topic, write and present their findings, whilst supporting and nourishing students' own views.

Possible research topics could include:

- Law v Morals: Who wins? The Case of the Speluncean Explorers
- Are the Separation of Powers really separate? Investigating the Judiciary, the Legislature and the Executive. - The Law & Unconstitutionally Obtained Evidence, where should the line be drawn?
- Does the Law infringe too much on our Constitutional rights? You decide!
- Negligence and the Law ofTorts: Who is at fault?

An example of a previous student's work:
*In an era where technological advancements constantly challenge traditional legal frameworks, the question of the admissibility of unconstitutionally obtained evidence has become a focal point of legal discourse.*

*This project delves into the intricate intersection between the law and unconstitutionally obtained evidence, with a keen focus on determining where the ethical and constitutional boundaries should be drawn. Drawing from a comprehensive review of landmark court cases, legal scholarship, and relevant precedents, this project aims to dissect the nuanced arguments surrounding the admissibility of evidence procured through methods that violate constitutional rights. By examining various jurisdictions and their respective approaches, the project seeks to explore the diverse perspectives on striking a balance between justice, individual rights, and the need to maintain law and order.*

## Psychology

Psychology is the scientific study of the human mind and behaviour. Have you ever wondered how psychologists carry out their research and complete experiments? Psychology research includes a wide range of studies such as analysing brain functions to examining social relationships. You will have the opportunity to learn the research process of a psychologist first-hand by completing your own research! This includes selecting an area that you want to research, develop and test your hypothesis, and make conclusions based on the data you collected.

Previous research conducted by past students include:

- What are the benefits of playing video games for an individual?
- Investigating the relationship between martial arts and positive mental health
- Exploring attitudes towards individuals in prison
- Examining the positive attitudes associated with anime fandom
- Does practicing mindfulness help improve study skills?

An example of a previous student's work:
***The Impact of Single-Sex Schools on Gender Roles in Adolescents***

*Most Irish children go to single-sex primary schools. The impact of gender segregation in schools on academic performance has been widely researched. However, this study aims to investigate the effects of co-educational versus single-sex primary schools on teenagers' perception of gender roles and stereotypes. We hope to learn if single-sex schools are an issue in modern society. Our hypothesis is that teenagers who went to co-educational primary schools have more relaxed views on gender roles and are less likely to buy into gender stereotypes. We will survey students, aging from 15 to 18, including students from co-ed schools and the same amount from single sex schools.*

# Terms and Conditions

Course places are limited and are on a 'first come, first served basis' so please apply as soon as possible to avoid disappointment.

**Fees**
Total Fees are €600 which can be paid in full or in two installments of €300.

Minimum of €300 must be included with your application. Applications received with incorrect fees will be returned by post.

Balance of fees €300 due:
Friday 5 September 2025.

**Reduced Fees**
Financial Aid is available for this programme for up to 50% of the total fee. If you think your child might qualify for financial aid, please contact the following before application:
linda.murphy@dcu.ie

Financial Aid application must accompany your course application form. Applications for financial aid cannot be made at a later date.

**Course Allocations**
All places are allocated on a strictly first come, first served basis. All communication relating to course allocation is communicated by Post. Please do not call the office as we cannot share this information by any other means.

Fees are non-transferable.
No refunds will be made to students dismissed from the programme.
Students and their families are liable for any damage they cause to university property.
CTYI reserves the right to cancel or alter any course, if due to unforeseen circumstances the course cannot be run economically or efficiently.

**Refunds**
Written requests for a refund of Application Fees received up to and including 5th September will be considered. After this date there will be no refund of Application Fees.

Refunds are only provided where a course does not take place or where a course is full. Refunds are not given if the student withdraws from the programme having been offered a place on one of their course choices.

The €100 Registration fee is non-refundable (this registration fee is part of the €300 application fee).

**Discipline**
The Early Research & Projects Network demands the same standards of behaviour, one would normally find in a caring, well-organised home. Honesty, cooperation and respect will be expected from all students. Rules concerning student conduct will be explained at the beginning of the Programme. Our rules are for the safety and well-being of all students and we ask both parents and students to cooperate fully with the Programme.

Students may be dismissed from the Programme for any of the following reasons:

- Stealing
- Vandalism
- Unruly or abusive behaviour
- Bullying
- Possession of alcohol, drugs, tobacco or any substance controlled by law
- Not attending satisfactorily to their academic work
- Violating or putting at risk thesafety and well-being of any person
- Non-compliance with any of the University rules and regulations.

Or for any other reasons, which in the opinion of the director are of a sufficiently serious nature to warrant dismissal.

Any student who has been dismissed from the Programme will not be permitted to participate in end of term examinations/ assessments/presentations.


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# Contact Us

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## Closing Date for Applications

**Friday 15 August 2025**

**Post Applications to:**

**Early Research and Projects Network**
**CTY Ireland**
**Dublin City University**
**Dublin 9**