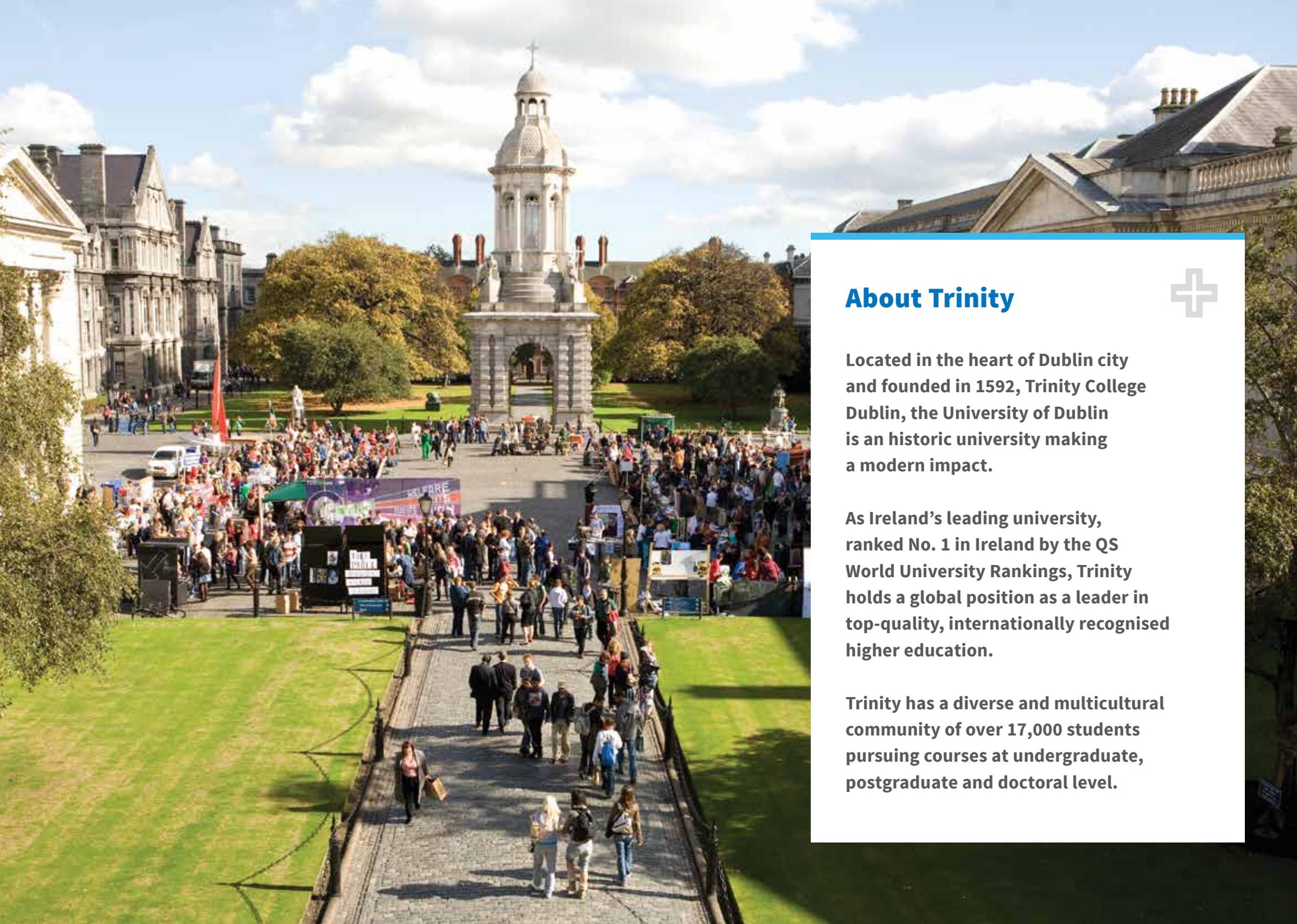




Trinity College Dublin  
Coláiste na Tríonóide, Baile Átha Cliath  
The University of Dublin

# School of Pharmacy & Pharmaceutical Sciences





## About Trinity



Located in the heart of Dublin city and founded in 1592, Trinity College Dublin, the University of Dublin is an historic university making a modern impact.

As Ireland's leading university, ranked No. 1 in Ireland by the QS World University Rankings, Trinity holds a global position as a leader in top-quality, internationally recognised higher education.

Trinity has a diverse and multicultural community of over 17,000 students pursuing courses at undergraduate, postgraduate and doctoral level.

## About the School

### School of Pharmacy & Pharmaceutical Sciences Overview



#### School Vision & Mission

**Our vision is to provide an environment where excellence in teaching and research is valued and encouraged.**

Our mission is to deliver continuous learning in the science and practice of pharmacy, supported by innovative teaching and a culture which is aligned with best practice. We strive to ensure that our staff and students contribute to society as world class professionals and leaders.



#### School Overview

**The School of Pharmacy and Pharmaceutical Sciences at Trinity has been offering a pharmacy degree since 1977.**

It has world class research and teaching facilities on the main University campus, in the Panoz Institute. These include purpose built teaching spaces such as the Boots Unit – comprising a technology enhanced learning space for clinical skills and patient care, a practice area designed to facilitate the development of communication skills, and adaptable small group teaching rooms. The School has further facilities in the collaborative research space provided by the Trinity Biomedical Sciences Institute (TBSI), through which Trinity's leadership position in immunology, bioengineering and cancer is maintained.

The main academic teaching focus of the School of Pharmacy and Pharmaceutical Sciences is the accredited Five Year Pharmacy (Integrated) programme. Structured professional placements are a key element of the new programme and occur throughout the five years. Teaching includes lectures, problem-based learning, small group teaching, laboratory and dispensing practicals, clinical and patient care activities.

Our programme includes an individual research project, which gives students an opportunity to develop focused research with one-to-one supervision. There is the opportunity to undertake this research project abroad at international partner universities.

The School offers dynamic and successful postgraduate taught programmes in Pharmaceutical Manufacturing Technology, Pharmaceutical Sciences, Community Pharmacy and Hospital Pharmacy. The School is active in Continuous Professional Development and was the first School in Trinity offer modular postgraduate delivery with the Cardiology in Clinical Pharmacy module, which has attracted postgraduate students from across Hospital and Community Pharmacy Practice.

The School of Pharmacy and Pharmaceutical Sciences is at the forefront of international pharmacy research. Our research activities are broadly described as consisting of five main research areas:

- 1 DRUG DEVELOPMENT
- 2 DISEASE, DRUG MECHANISMS AND SAFETY
- 3 CANCER RESEARCH
- 4 PHARMACEUTICS AND PHARMACEUTICAL TECHNOLOGY
- 5 CLINICAL PHARMACY AND PHARMACY PRACTICE

# About the Pharmacy Programme

Pharmacy is the study of all aspects of drugs, both natural and synthetic in origin, including their chemistry, their uses in medicines, and how they work within the body.

Pharmacists work in a variety of settings – community pharmacies, hospitals, long-term care facilities, and within the pharmaceutical industry: to name just a few. In many respects, their role as a key healthcare professional is to help people achieve the best results from their medications.

While this degree is an essential requirement if you wish to practise as a community or hospital pharmacist, Pharmacy at Trinity opens a wide variety of professional opportunities in both industry and the healthcare sector. A strong interest in science is important to fully enjoy the course.



The Pharmacy syllabus has been designed to provide you with an all-round education in the pharmaceutical sciences and in the practice of pharmacy.

The five-year integrated Pharmacy programme comprises a variety of approaches to teaching Pharmacy by friendly, dedicated, enthusiastic and approachable staff: Lectures, seminars, tutorials, workshops, small-group teaching, problem-based learning, site-visits, computer-assisted learning, web discussion boards, wikis, online group assignments, communication skills, career planning, clinical case studies, inter-professional learning, laboratory and dispensing practicals and a research project.

Modules are assessed by continuous assessment, such as written assignments, essays, lab reports, OSCEs (objective structured clinical examinations), etc. and final examinations which all contribute to the overall mark in a module. There are approximately 20 hours of lectures, 9 hours of laboratory classes and 1 tutorial per week over the course of the Junior Fresh (first) year. Structured practice placements in a variety of pharmacy settings occur throughout the course.



## Aisling Kerr

I was delighted when my application to travel to the University Of Southern California in Los Angeles to undertake my research project for the summer was successful. I was assigned a project on developing a drug-drug conjugate with the aim of targeted drug therapy in cancer. I got the opportunity to carry out both chemical and biological tests and procedures. I would strongly advise others to do the same, this was a fantastic opportunity to gain an insight into pharmaceutical research paired with some travel.



## Turlough Hefferman

I spent 3 months as a research assistant in the University of Southern California, Los Angeles. This opportunity was part of the Summer Research Placement Programme offered by our School. My days in the lab were very flexible and the atmosphere was surprisingly relaxed.

The group publishes prodigious amounts of research. I became familiar with many different techniques such as the polymerase chain reaction, mass spectrometry, HPLC and gel electrophoresis. It goes without saying that I benefited hugely from the experience and I would definitely encourage others to apply.



## Junior Fresh (First Year)

- Physiology
- Cell & Molecular Biology
- Biochemistry
- Organic & Inorganic Chemistry for Pharmacy
- Physical Pharmacy I
- Pharmaceutical Analysis I
- Introduction to Pharmaceutics & Formulation
- Mathematical Methods & Pharmaceutical Calculations
- Practice of Pharmacy I
- General Principles of Pharmacology

## Junior Sophister (Third Year)

- Natural Sources of Drugs & Substances used in Medicines
- Sterile Products & Advanced Pharmaceutical Biotechnology
- Practice of Pharmacy III
- Endocrine & Reproductive Pharmacology & Clinical Therapeutics
- Respiratory & Gastrointestinal Systems & Clinical Therapeutics
- Malignant Disease, Immune & Ocular Systems and Clinical Therapeutics
- Neuropharmacology & Clinical Therapeutics

## Senior Fresh (Second Year)

- Properties & Analysis of Materials used in Medicines
- Physical Pharmacy II, Drug Transport and Kinetics
- Formulation & Pharmaceutical Technology
- Practice of Pharmacy II
- Pharmaceutical Biochemistry & Biotechnology
- Molecular & Chemotherapeutic Pharmacology & Clinical Therapeutics
- Blood, Cardiovascular & Renal Pharmacology and Clinical Therapeutics

## Senior Sophister (Fourth Year)

- Organisation & Management Skills
- Professional Skills Development
- Professional Practice
- Pharmaceutical Data Analysis & Bioinformatics
- Advanced Pharmaceutical Chemistry, Drug Discovery & Design
- Pharmacokinetics & Biopharmaceutics
- Science Informing Practice
- Research Project

## Year 5 (M. Pharm. Year)

There will be a postgraduate fee associated with the fifth year on the postgraduate register in Trinity, payable by the student. The M. Pharm. degree carries with it an entitlement to apply to the Pharmaceutical Society of Ireland for registration as a pharmacist.

### MODULES

- Industrial Pharmacy
- Complementary and Alternative Medicine: Context, Legislation, Standards and Practice
- Advanced Pharmaceutics
- Practice of Pharmacy & Integrated Pharmacy Skills
- Addiction Pharmacy
- Supply of Medicines and Organisation and Management Skills
- Leading the Safe and Rational Use of Medicines
- Professional Practice and Public Health
- Practice Research Project

All students undertake an individual research project. The following are some examples of research projects which students have undertaken in the past:

- ANTICANCER DRUG DESIGN: CHEMISTRY AND BIOCHEMISTRY OF NOVEL  $\beta$ -LACTAMS
- *IN VITRO* RELEASE STUDIES OF INSULIN-LOADED NANOPARTICLES IN THE PRESENCE OF SIMULATED GASTROINTESTINAL (GI) FLUIDS
- A COMPARISON OF AMORPHOUS SOLID DISPERSIONS PREPARED BY FILM CASTING AND SPRAY DRYING
- CROSS-SECTIONAL SURVEY OF PATIENT EXPERIENCE OF USING NOVEL ORAL ANTICOAGULANT DRUGS



**Daniel Scott**

As part of my summer project I travelled to the University of Montpellier. I was also lucky enough to squeeze in some travelling along the way from the nearby Sète and Nîmes to bigger cities such as Toulouse and Lyon. Considering I can use this project as part of my final year, improved my French and made new friends along the way, it's something I would definitely recommend and love to do again!



## Structured Professional Placements

Structured professional placements are a key element of the Five Year Pharmacy (Integrated) programme. These experiential learning placements occur in 2nd year (two-week placement), 4th year (four-month placement) and 5th year (eight-month placement). During the 5-year course, students will have an opportunity to do placements in a variety of pharmacy settings including: community pharmacy, hospital pharmacy, the pharmaceutical industry, academia and in role emerging practice settings such as state services and medicines licensing. Placements are managed by APPEL (Affiliation for Pharmacy Practice Experiential Learning), a unique collaboration of the three Schools of Pharmacy in Ireland: University College Cork (UCC), the Royal College of Surgeons in Ireland (RCSI), and Trinity College Dublin (TCD).

## Graduate Skills & Careers

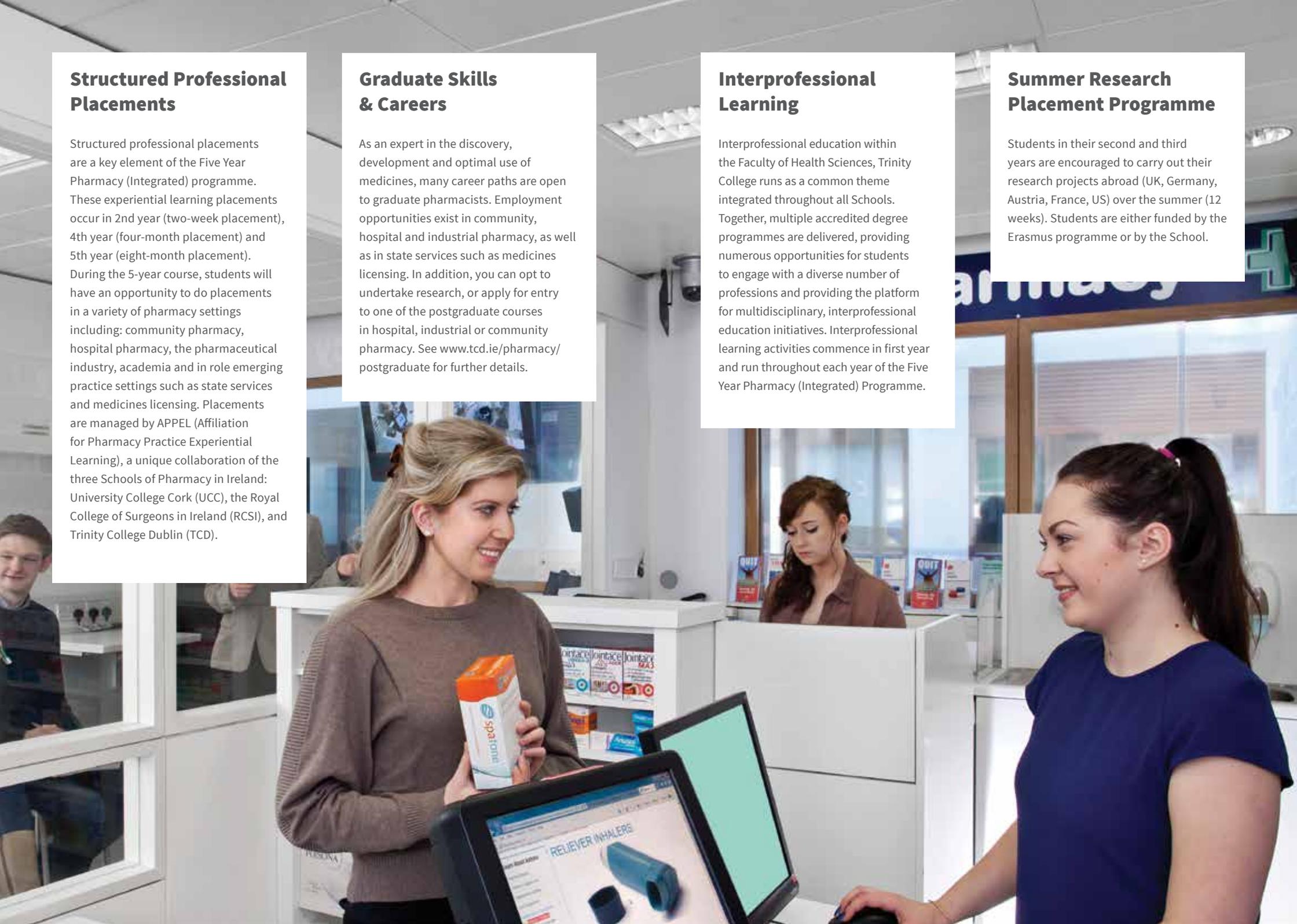
As an expert in the discovery, development and optimal use of medicines, many career paths are open to graduate pharmacists. Employment opportunities exist in community, hospital and industrial pharmacy, as well as in state services such as medicines licensing. In addition, you can opt to undertake research, or apply for entry to one of the postgraduate courses in hospital, industrial or community pharmacy. See [www.tcd.ie/pharmacy/postgraduate](http://www.tcd.ie/pharmacy/postgraduate) for further details.

## Interprofessional Learning

Interprofessional education within the Faculty of Health Sciences, Trinity College runs as a common theme integrated throughout all Schools. Together, multiple accredited degree programmes are delivered, providing numerous opportunities for students to engage with a diverse number of professions and providing the platform for multidisciplinary, interprofessional education initiatives. Interprofessional learning activities commence in first year and run throughout each year of the Five Year Pharmacy (Integrated) Programme.

## Summer Research Placement Programme

Students in their second and third years are encouraged to carry out their research projects abroad (UK, Germany, Austria, France, US) over the summer (12 weeks). Students are either funded by the Erasmus programme or by the School.



# Entrance Criteria

## Course: TR072 Pharmacy

### Quota:

80 places (70 EU, 10 non-EU)

### CAO Applicants:

#### Points 2018:

555 (will change year-by-year)

#### SPECIAL ENTRY REQUIREMENTS:

O4 or H6 Mathematics

H4 Chemistry or Physics and Chemistry  
H4 in one of Physics, Biology, Applied  
Mathematics, Geography, Geology, or  
Agricultural Science

#### GCSE

Grade B Mathematics

#### ADVANCED GCE (A-LEVEL)

Grade C Chemistry

Grade C in one of physics,  
biology, mathematics,  
geology, geography,  
or further mathematics



### Mature Entry Route (5 places):

EU applicants of at least 23 years of age  
on 1st January of the year of admission.  
Application deadline is the 1st February.

#### SPECIAL ENTRY REQUIREMENTS

Generally a Leaving Certificate, or  
equivalent, in the following subject areas  
is required:

O4 or H6 Mathematics

H4 Chemistry or Physics and Chemistry

*(or successful completion of a  
mathematics and/or chemistry course  
in a recognised third level institution or  
equivalent international qualification).*

See [www.tcd.ie/study](http://www.tcd.ie/study) for further details.



#### RESTRICTED ENTRY

**All offers of admissions are made subject to a negative HBsAg test result. Students will also be required to undergo Garda vetting.**



### Graduate Entry Route (5 places):

Minimum second class honours grade  
result in an honours bachelor degree  
(NFQ level 8) in any discipline. See  
[www.tcd.ie/courses/undergraduate/az/](http://www.tcd.ie/courses/undergraduate/az/)  
for further details.

#### SPECIAL ENTRY REQUIREMENTS

LEAVING CERTIFICATE

O4 or H6 Mathematics

H4 Chemistry or Physics and Chemistry

*(or must have successfully completed a  
mathematics and/or chemistry course  
in a recognised third level institution or  
equivalent international qualification)*

The School of Pharmacy and  
Pharmaceutical Sciences will assess the  
applications and a number of candidates  
will be shortlisted for interview.

### International Entry Route:

Non-EU students may apply for the course  
through the online application process. As  
part of the online application, applicants  
will also need to submit original or  
certified true copies of:

- Final second level qualification results IELTS, Cambridge Advanced/Proficiency, TOEFL scores, for applicants whose first language is not English
- Academic transcripts for each year of third level study and all third level qualifications awarded
- SAT, AP or ACT scores (US and Canadian applicants only)
- Two letters of recommendation
- Passport
- Application fee (non-refundable) and application fee payment form

Please note that where the statement of examination results is in a language other than English, applicants should submit a certified true translation of the statement along with a certified true copy of their original results with the application. Further information is available from <http://www.tcd.ie/study/international/>

## Abhishek Wilson Pallippattu

Starting a new college is intimidating enough, however as an international student I have to admit that I was extremely nervous and did not know what to expect on my first day as a Pharmacy student. However, I can say without any doubt that these have been the best years of my life. I have made friends for life and will leave with a lot of happy memories. The degree provides a perfect balance between academic knowledge and applying this knowledge into practice via lab practicals.

Due to the small class sizes, there is a real sense of comradeship among everyone. The small sizes also mean that the lecturers take time to get know the students and are more than happy to deal with any issue that may arise. There is no doubt that the course can be challenging at times, however this is finely balanced by the social aspect of the course. Studying Pharmacy in Trinity College has been an honour and a privilege and I will leave as a better person than when I came. It is a journey that I would most definitely recommend!

## Dearbhla Moore

My Erasmus experience in the University of Bath provided me with an incredible insight into the world of research. This is an experience that I will never forget and I am so glad that I did it, despite the fact that the nerves of settling in a new environment for a prolonged period of time did initially scare me. I would recommend the Erasmus experience to anyone who approached me and I hope to carry out a PhD in the future on the basis of my time spent on this project.

## Contact

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