2018 CTY Ireland
3 Week Summer Academic Programme

Session 1: 24th June - 13th July
Session 2: 15th July - 3rd August

For 12-17 year olds with exceptional academic ability
Invitation to CTY Ireland

In 2018, we celebrate our 25th annual summer programme. In that period over 20,000 students from both Ireland and overseas have participated in CTYI Programmes. I would like to welcome any new students to DCU this summer and I also look forward to reconnecting with some familiar faces. The great thing about CTYI is that there is something for everyone. Just take a look at the exciting courses that we have on offer this year. It’s a diverse mix of topical subjects that reflects the wide interests of our demographic.

Our academic standards are high and we will require commitment and self discipline from you. You will have the opportunity to study advanced courses at a pace suited to your learning ability and to develop good study skills. You will also experience university life on a daily basis. However as anyone who has ever been on this programme will tell you, CTYI is definitely not all about academia. The social side of the programme and the friendships made can be a life changing experience. The staff, many of whom are former students are specifically trained to make sure that you have the best possible time while you are on this Programme.

CTYI is about giving you a chance to fulfil your potential.
I encourage you to take this opportunity and join us in DCU this summer.

Dr. Colm O’Reilly
Director

Dublin City University is Ireland’s youngest university. Just 30 years old in November 2010, it currently has a student population of over 17,000, including 3500 postgraduate students, of which more than 750 are research postgraduate students. Moreover, DCU is global in its focus and has a very international campus profile with close to 2000 students from 115 countries outside Ireland.

DCU is an innovative and dynamic institution. Radical in its strategy from the outset, it has always been particularly responsive to the needs of business and industry, both in its programmes of study and its research. It is characterised today by a focus on innovation and entrepreneurship, an ability to move quickly and effect change. DCU is home to world class research centres that focus on translating their outputs into societal and economic benefits.

DCU has the highest research income per faculty member of any Irish university and is committed to continuing its vigorous contribution to the development of Ireland as a globalised knowledge society.

In 1992, the Irish Centre for Talented Youth (CTYI) was established at DCU to meet a long-felt need by providing recognition, encouragement and challenge for academically talented students and guidance for their parents and teachers. CTYI has had the invaluable advice and assistance of the highly successful Johns Hopkins University Center for Talented Youth in the early stages of planning and in continued support over the years. We share the same educational philosophy and the same commitment to nurturing and challenging academically talented young people and assisting them to fulfil their intellectual potential.

CTYI is one of the jewels in DCU’s crown. It has a long record of stimulating and exciting talented students. Beyond that, it is also a place where many lasting friendships begin!

Professor Brian MacCraith
President
Dublin City University
Summer Courses 2018

**Humanities** - Courses available to high scorers in Critical Reading, Writing Skills or Verbal.

**Sciences** - Courses available to high scorers in Mathematical Reasoning.

**Session 1**

(24th June - 13th July)

**Humanities**

- Biomedical Engineering
- Clinical Psychology
- Computer Gaming
- Game Theory
- International Relations
- Japanese Language & Culture
- Law
- Medicine
- Neuroscience
- Novel Writing
- Robotics

**Sciences**

- Biomedical Engineering
- Clinical Psychology
- Computer Gaming
- Game Theory
- Medicine
- Neuroscience
- Robotics
- Theoretical Physics

**Session 2**

(15th July - 3rd August)

**Humanities**

- Child Psychology
- Computer Animation
- Criminology
- Film Studies
- Genetics & Cell Biology
- Law
- Marine Biology
- Medicine
- Philosophy
- Sci Fi & Fantasy Writing
- Sports Science
- Radio, TV, & Digital Communications

**Sciences**

- Child Psychology
- Computer Animation
- Computer Science
- Genetics & Cell Biology
- Marine Biology
- Maths Experience
- Medicine
Eligibility, Course Structure, Choices & Allocation

Designed to be intellectually stimulating, courses at CTYI are fast paced and cover material in more depth and at greater levels of complexity than is usual at post primary school. Over 24 courses are on offer, many of which deal with topics not normally encountered in post primary school. Textbooks and handouts, where required, will be prescribed on arrival. These are included in the course fees.

Eligibility

Eligibility for participation in the courses listed in this catalogue is based upon SAT, PSAT, ACT or SCAT tests scores, and the student’s age at the time the test was taken. Applicants should consult the accompanying eligibility tables. CTYI students are generally between 12 and 17 years old. They qualify for CTYI courses by taking the PSAT / SCAT through CTYI’s Talent Search or by taking the PSAT or SAT independently at any age. Those whose first scores do not qualify them for CTYI courses often take the SCAT/PSAT again at a later date and may establish their eligibility for courses in subsequent years. Students need qualify for CTYI Academic Programmes only once: they remain eligible regardless of which year they choose to reapply. Some CTYI students retake the SCAT/PSAT each year in order to keep track of how their mathematical and verbal reasoning abilities are growing. Students who score on the 95th percentile on a recent educational psychologist report are also eligible to participate in CTYI programmes. This report must be submitted to CTYI before registration.

Course Structure

Students take one subject, which they study intensively for approximately 100 hours over the 3 weeks. Class sizes are small with 18-20 students. Overall, the student to staff ratio is approximately 5 to 1. Classes have an instructor, a teaching assistant (and a residential assistant). CTYI staff are chosen on the basis of mastery of the subject, enthusiasm and good communication skills. Homework will be assigned and this will take about two hours per day to complete. Written evaluations of academic performance will be posted to each student six weeks after the end of the course.

Course Choices

Students should think very carefully about their course choices, listing only those courses which they will accept if they do not receive their first choice. The more flexible students can be, the greater their chances of being assigned to a course. Students are assigned to courses on a first-come, first-served basis although we do encourage students to apply as early as possible as this gives our office more processing time. Applications should be received by 6th April 2018. Please note, students are assigned courses on a first-come, first-served basis.

Course Allocation

Course assignment packs will be posted as soon as possible after 14th April to students who have been allocated places. Students who have not been offered places may choose to have their deposit returned or apply for any places which have not been taken up. (Please note that refund requests must be made in writing). CTYI reserves the right to cancel or alter any course if, due to unforeseen circumstances the course cannot be run economically or efficiently.

Students who pay full fees by 26th January 2018 will receive €100 discount off their total fees.

Note to Returning Students

Enrolment is limited in many of the courses. Please do not assume that because you have participated in CTYI previously, you will receive your first choice. It is very important for you to list alternatives.

One Session, One Programme

Please note, students may only attend one session on the CTYI summer programme. (CTYI students are not permitted to do the CAT programme, due to the large number of students)
Course Descriptions

Biomedical Engineering

Session 1
Bioengineers work at the forefront of medical technology. This includes medical device development and stem cell research leading to pioneering treatments and cures for many illnesses. Biomedical engineering encompasses a whole host of career opportunities that work toward the benefit of the health of all mankind. This includes devices for treating certain medical conditions and technologies to re-enable those with life changing disabilities to have a better future. In this course you will experience the wide variety of bioengineering fields, including those relating to the mechanics and electronics of the human body as well as the technologies used to augment and investigate it. Students will have the chance to learn engineering theories and practices from the instructor and try their hand at engineering, including practical work, rigorous debate and a chance to discuss the ethical implications of some bioengineering advancements. This is a fantastic course for students with an interest in engineering, technology and medicine and will give those taking part an opportunity to examine the frontier of healthcare improving technological advances.

Child Psychology

Session 2
Have you ever wondered what makes us the way we are - is it something we’re born with, or something we learn? The Child Psychology course will provide students with an understanding of child development, highlighting the nature of physical, cognitive, social and emotional development during the childhood years. The class will explore and evaluate the various theoretical approaches to child development, and will present to the student, in a comprehensive and meaningful way, key influential studies alongside developments that have emerged in the field, and will consider the practical applications of theoretical knowledge about child development.

Clinical Psychology

Session 1
This course discusses the application of psychological theories, models and research to a range of problems. Clinical psychologists provide a variety of services including assessment, therapy, and consultancy services. This course will explore the changing role of clinical psychologists due to new technologies and constantly developing therapeutic approaches. Students will learn about the development and principles of psychological therapies over the 20th century, including psychoanalysis, existential psychology, behavioural psychology, and cognitive psychology. Particular focus will be given to current issues facing psychologists today: understanding mental health; reducing mental health stigma, promoting psychological wellbeing and conducting ethical research and practice. New advances in research around positive Psychology, mindfulness and meditation will also be considered. This course emphasises class participation and debate. Students will have the opportunity to develop and deliver a presentation on a well-researched topic upon completion of this course.
Computer Animation

Session 2

Computer animation is everywhere - from your favourite films and TV shows to games and modern art. The Irish animation industry is booming. Animation is bigger, more advanced and more popular than ever and the medium is changing and growing rapidly. This course aims to equip students with knowledge of the various theories, methods and techniques involved in computer animation. Students will gain a solid understanding of film and animation history and theory - from optical illusions and early animation to character design, camera angles and lighting. This theory will be put into context and practiced as students gain practical, hands-on experience with computer-aided design, modelling and animation using cutting-edge software.

Computer Gaming

Session 1

This course is an introduction to computer game design and programming. Programming will be done with the popular and user friendly Game Maker program. By investigating the history of computer gaming, and through modelling of retro games, each student will build up their knowledge of good game design. Exercises on the programming of different types of games (puzzle, platform) coupled with tutorials on coordinate geometry, animation, logic and good programming technique will equip students with all the tools needed to complete an individual game design project. The course will also take a look at the consistently growing computer gaming industry. With advancing technologies like motion detection, new applications such as health and fitness, and a huge online target market, the gaming culture is changing. These changes and their positive and negative social implications will be analysed during the course.

Computer Science

Session 2

Instead of just a programming course, Computer Science introduces students to three major areas of the discipline: theory and algorithms, hardware systems, and software systems. In the theoretical side of the course, students learn about algorithms, Boolean algebra, binary mathematics, and theory of computation. While studying hardware systems, students will gain familiarity with the physical components of computers, digital logic, computer architecture, and computer networks. As students investigate software systems, they are introduced to elements of programming languages, compilers, computer graphics, and operating systems. Students will leave the course with a deep understanding of the how's and why's of computer science, and no programming experience is required!

Criminology

Session 2

What is crime? Who commits crime? Why do people commit crime? How is crime dealt with? Criminology is the scientific study of the nature, extent, causes, and control of criminal behaviour in both the individual and in society. This course will delve into many areas in an attempt to explain crime and criminal behaviour. The course will start by assessing the different theoretical perspectives which attempt to offer a scientific study of ‘crime’ and the ‘criminal’, from classical to contemporary theories. We then take a more practical approach, reviewing topical criminal justice issues in Ireland and elsewhere such as crime rates, media and crime, policing, poverty and sentencing policies. We conclude with an overview of studies in penology and penalty, theories of the prison and of alternatives to imprisonment. There is also normally the option to visit the Four Courts and Mountjoy Prison.

Film Studies

Session 2

This course is designed to introduce students to the language of cinema. It explores a wide range of subjects including how film scripts work, the uses of cinematography, editing and special effects, what a national cinema is, the history of the motion picture, the development of different genres of film, how audiences make meaning from films, and more. The course is designed to give students a theoretical grounding in the issues that make film such an important part of our cultural lives, and to help them to develop a greater critical awareness of how the cinema speaks to us. Please note: this is a theoretical, not practical, film studies course.
Game Theory (Scholarship available)

Session 1
Game theory is the study of strategic interactions. This course is about asking what happens when people or things with different incentives or motivations interact against one another to achieve their own best outcome. It has become the underpinning of evolutionary theory, economics, business processes, international relations, and is the subject of major motion pictures, like ‘A Beautiful Mind’. In this course we will discover the laws underpinning every game and study specific examples of different types of games taken using examples from literature, the movies, board games, economics, molecular biology, international politics, business studies, dating, game shows, government funding opportunities and, of all things, fuel injection mechanisms in cars and the songs of the Dunes in the Sahel. Students will learn to develop their own games and study the development of others. No mathematical knowledge is needed to take the course as all concepts will be developed as we go in a fun and intuitive way, focusing on the ideas and their implications rather than the technical aspects of the theory. Students who care about understanding their world should enjoy this course.

Genetics & Cell Biology

Session 2
Discoveries in genetics and cell biology are opening up a new era of understanding, both of ourselves and of the world around us. Genetics give us insight into what contributes to our development and individuality, and when this knowledge is combined with cell biology, we can explore exciting scientific applications benefiting all of society. Our improved understanding of the genetic basis for life has opened up approaches to the investigation, diagnosis and treatment of disease. As a consequence, we’re making unprecedented advances in the creation of medical diagnostics, therapies and therapeutics. The Genetics and Cell Biology course provides you with an insight into the theoretical and practical resources of the healthcare industry. You’ll enhance your biology expertise and learn the laboratory skills that are the foundation for major, modern scientific breakthroughs that affect society.

International Relations

Session 1
‘If women ruled the world there would be no wars, just a bunch of angry countries not talking to each other.’ – Chris Rock
Is it that easy to describe international relations, especially from a gender perspective? This is going to be one of the many questions this course aims to answer! The world of the early 21st century is a global community of nations, all of which Coexist in some measure of political and economic inter dependence. This area of knowledge touches upon a variety of subjects, such as political science, law, economy, sociology, philosophy, and other social sciences. With the use of modern techniques, such as videos, role plays, short stories and movies, this multi-faceted and galvanizing course will help to craft and restore certain perspectives for each new generation of young minds during the course when the world is being textualised for the first time. Why is the conflict in the Middle East so difficult to handle? What are the driving factors? Who are the key players? What happens in shift of governments? To what extent does it have an effect on Ireland? So, who would be interested in the course? Students who are driven by the motivation to understand the driving causes of international cooperation, the imperatives that cause wars, trigger negotiations and implement trade agreements. Students that show a particular interest in politics and philosophy will be stimulated and deepen their knowledge.

Japanese Language & Culture

Session 1
This beginners’ Japanese course is divided evenly between Japanese language studies and the study of Japanese culture. Not only does the language section of the course give students a grounding in basic Japanese, it also explores language learning techniques. As well as using traditional learning methods, students will learn how to use technology – such as smart phone apps, YouTube, podcasts, etc. – to study a language, skills which are transferable to the learning of languages other than Japanese. Anime is used in the study sessions to help students practice their listening skills. The culture section of the course focuses mainly on modern Japanese society; topics include Japanese cuisine, Japanese cultural identity, natural disasters, and social problems. The course also includes some lessons on more traditional Japanese culture (such as ninjas, geisha, samurai, etc.). In the final week, students will present a research project on an aspect of Japanese culture of their choice. In 2015, we had practical demonstrations given by the Dublin Japanese Drumming Club, DCU Karate Club, and Dublin Kendo (Japanese sword-fighting) Club, and we hope to have a similar line-up this year. This course is perfect for students who are interested in Japan or know nothing about it, and a good introduction for anyone considering taking Japanese at college.
Law (Scholarship available)

Session 1 & 2
How many of us know how the law actually works? It’s around us every day, but for many it remains a mystery. Crime scene shows and courtroom dramas give a glimpse of its inner workings, but even they often don’t tell you the full story. This course has that full story. First, it’s about how law is applied in practice today. At the end of three weeks, you will be able to debunk many of the common myths surrounding the law. Is an accused person always innocent until proven guilty? Is DNA evidence as conclusive as it seems? How do judges and juries really come to their conclusions? With this new understanding of how law is in reality, the class will embark on a course long project to design reforms of the law. Next is how law is written down, in legislation, the Constitution, and in books. We will look at all the main areas that students might encounter (like criminal law, tort, and constitutional law) as well as some of the lesser known areas of study, like media law and sports law. Throughout the course there will be a particular focus on the Constitution and the effect the European Convention on Human Rights has on Irish law. The last part of the story shows you how to ‘do’ law. We will develop some of the most crucial skills that any good lawyer needs: opinion writing, case analysis and, of course, your skills of persuasion, which will be honed in the class discussions that form an integral part of the course.

Marine Biology

Session 2
With 5,600 km of coastline and 220 million acres of sea territory, Ireland has a huge range of marine life. From tiny plankton to animals like sunfish, basking sharks and humpback whales, the variety of life in the oceans is incredible. From the oxygen you breathe to the food on your table, oceans provide humans with many important goods and services. This course will look at the classification of animals in the sea, the special features of each group and their distribution. Students will learn about food webs, how climate change may impact the oceans and how animals defend themselves from predators. Students will handle animals collected from the seashore, dissect and study the anatomy of fish and observe animal behaviour in videos. This is a course suitable for students with an interest in science, particularly biology and animals. Skills learned in this class may aid students wishing to pursue a career in research or wildlife conservation.

Maths Experience

Session 2
“Pure mathematics is, in its way, the poetry of logical ideas.” – Albert Einstein.
How is a cup the same thing as a donut? How can we divide a sphere into two spheres that are both exactly the same size as the original? Mathematics is the study of relations, change and structure – and also the means through which we investigate paradoxes such as these. This course aims to figure out exactly what these statements mean, exploring the length and depth of maths. We’ll investigate fundamental subjects such as number theory, geometry, algebra, and calculus, as well as the weirder and stranger extensions of modern mathematics into areas like topology, logic and game theory. Along the way, we’ll consider some fascinating applications of maths, including black holes, the maths of games, climate change and weather prediction and chaos theory. Students will have the chance to explore a topic they find fascinating through a project. Absolutely no prior knowledge of maths is assumed or required.

Medicine

Session 1 & 2
Do you want to be a doctor in the future? If so, why not try this innovative taster course in medicine, which contains both theoretical and practical elements. Students will learn about health and illness with a focus on anatomy, the causes, prevention and possible cures and treatments of various diseases. The course will focus on problem based learning where these health practitioners of the future will be taught the basics of medicine using case studies, evidence from expert Speakers and advice from the instructor. Students will visit the hospital wards in DCU School of Nursing to learn more about patient care and will also carry out microscope work in the lab to identify some common bacteria and viruses that cause infection. Debates and discussions on topics such as the value of alternative therapies, should blood and organ donation be compulsory, and is biotechnology the way forward for medical treatments, will be carried out by the students.
Neuroscience

Session 1
Why do we sleep? How do some people ‘smell’ colour? How do our brains change throughout life? Why did the man mistake his wife for a hat? Is nature or nurture more important in how we behave? Are you interested in these questions? Then the Neuroscience course is for you! Neuroscientists now work in fields as varied as mechanisms of disease, drug development, sports medicine and psychology and we shall touch on all of these areas. Students will begin with the basics of cellular biology and neuroanatomy before taking a tour of the brain looking at both the normal function of different areas of the brain and what happens when these functions break down. We shall also look at more recently developed fields of neuroscience such as stem cell therapies and brain-computer interfaces. This course is of interest to anyone who has an interest into how our brains work, how we process the world around us and what happens when these systems break down. We shall also look at and discuss how this fascinating research that is carried out in laboratories in Ireland and around the world. The class will be lecture based but enthusiastic discussions are welcome!

Novel Writing

Session 1
For everyone who’s ever even contemplated writing a novel, the following questions are probably all-too-familiar: Is it really that important to have an outline? Should you always know how your novel is going to end? How do you write about the same characters for so long without getting fed up of them? What’s ‘dramatic tension’ and ‘conflict’ all about? What’s the difference between writing for children and writing for adults? How do you decide what genre to write in? Is it necessary to do research before writing? Has every idea really been done before or are there still new concepts out there? This course will answer these questions and guide students towards finding a method of outlining that best suits them and identifying themes and situations they will most enjoy writing about. Students will have the chance to work on individual projects as well as collaborating on the first draft of a novel-length project, enabling them to see how things change and develop from the initial seed of an idea to what ends up on paper. If you’ve ever had writer’s block, if you want to improve your skills, or if you want to impress people by talking about that novel you co-wrote – this is the course for you!

Philosophy

Session 2
Philosophy is possibly the most fundamental of subjects as it asks the question: ‘What does it mean to be?’ The aim of this course is to enable students to acquire the basic skills of philosophy i.e. analytic argument and essay writing; and to introduce students to some of the most profound thinkers in history. The course will cover some of the fundamental concerns of philosophy such as: the history of philosophy, metaphysics and epistemology, logic, ethics and political theory, the philosophy of mind. Over the course students will be introduced to the Pre Socratic and Greek philosophers, the enlightenment philosophers from Descartes to Kant, and more recent philosophical movements such as existentialism, phenomenology, and linguistic philosophy. In short the course seeks to teach ‘The Art of Thinking’.

Radio, TV, & Digital Communications

Session 2
Have you always considered yourself to be the next Ira Glass or Sarah Koenig? Are you fascinated by how television produces real (and fake) news? This course will give interested students the chance to understand the role communications play in our everyday lives, and their powerful influence on individuals and society at large through the arts and media. You’ll explore the subject through both theory and practice, utilising your creativity and analytical skills. The course will give you a thorough understanding of the role communications play in local, national and international settings by teaching you how to think critically about communication in its various forms. The course is hands on and includes producing your own radio, TV, and digital media content!
**Robotics**

Session 1
These are the droids you are looking for! Robotics is a field where science fiction and science fact collide. In 2013 there were over 10 million robots in the world, mostly industrial robots toiling away in relative obscurity, hidden from the humans that depend on them. In the future - with better batteries, computing power and 3D printing driving innovation ever forward - robots will be far more prominent in our lives. Service robots will perform household chores, look after food preparation and make deliveries. Perhaps someday robots will look after the sick and elderly or even be used to guard prisoners. This course will introduce you to the mechanical and electronic design skills needed to physically build and test your own robots as well as providing coding challenges to add artificial intelligence to our creations. You can also expect plenty of thought provoking discussion and debate about the challenges and opportunities facing roboticists in the years ahead.

**Sci Fi Fantasy Writing**

Session 2
Fantasy and science fiction are arguably the most imaginative and inventive types of writing, inviting readers to consider alternative worlds and societies. Fantasy envisions magical realms and supernatural creatures, dispensing with the ordinary laws of the universe. Science fiction, on the other hand, combines the imagination of fantasy with the knowledge of science, asking us to speculate about future discoveries and developments in science and technology. In this writing course, we will look to the past in exploring the origins of fantasy through mythology, folklore and history, but also to the future in examining the inventions and experiments of science fiction such as space exploration, time travel, aliens, robots and genetic engineering. We will learn the tricks of the trade by considering the literary works of speculative masters, such as H.G. Wells, J.R.R Tolkien, Ray Bradbury, Ursula Le Guin and Neil Gaiman. Yet, we will also expand our studies to modern film and anime, garnering inspiration from the worlds of Star Wars and Studio Ghibli. We will develop our own wondrous worlds, from utopia planets to dystopian futures, our own curious characters, from mad scientists to bizarre beasts, and finally, our own wild adventures, from cosmic battles to heroic quests. Drawing on literature, science, sociology and philosophy, we will have one central question throughout this writing course- What If...?

**Sports Science**

Session 2
Sport and exercise scientists use research and analysis to give specialist advice to improve individual or team athletic performance. They also design and administer appropriate methods of assessment, and create exercise or training programmes aimed at improving either health or sporting performance. As a sport scientist, you must be well versed in technical, physiological and psychological aspects of your field in order to cover territory as diverse as exercise testing, psychological preparation for competition, movement analysis, dietary considerations and strength training. In the Sports science course you’ll learn more about key science subjects that form the backbone of this degree: chemistry, physics, anatomy, physiology, psychology and sociology. As you progress, you’ll learn how these subjects are applied to the study of sport, exercise and health, and what role factors like nutrition and genetics play, as well.

**Theoretical Physics**

Session 1
Have you ever wondered how the universe came to be? What are we all made of? What lies at the centre of a black hole? These are but a few of the questions that theoretical physicists all over the globe are trying to solve. Theoretical physics is a field that inspires creativity and critical thinking, it is about venturing out in to the unknown, asking questions about nature that nobody knows the answer to and attempting to answer these questions. Students will be given a glimpse into the past of some of the most famous theoretical physicists such as Albert Einstein and Stephen Hawking in order to see what inspired the formation of some of the most beautiful theories that explain our universe. They will be given an introduction to existing theories such as Quantum Mechanics and the Theory of Relativity, then given the opportunity to figure out the answers to some mind bending questions about the laws of nature. Examples include: Is Schrodinger’s cat alive or dead? How much empty space are humans made of? And how does travelling at high enough speed cause you to get heavier? Students will also get the chance to discuss and theorise about current topics such as dark matter, parallel universes and time travel!
Eligibility for Overseas Students Attending CTY Ireland

The SCAT & PSAT are the testing instrument used in the identification of high academic ability. CTYI will also accept other similar test scores, such as the ACT and SAT. Students who have been assessed by an educational psychologist may submit this report for evaluation, in lieu of the SAT, PSAT & PSSS.

SAT ELIGIBILITY CHART

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PSAT/PSSS ELIGIBILITY CHART

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Scholarship Opportunities

CTY Ireland are very pleased to announce that a number of organisations have very generously put forward full scholarships for students on the CTYI Summer Programme. The awards cover full tuition, accommodation and books.

One scholarship is being offered by Deloitte and is open only to students applying for places on the Law course during session 1 or 2.

One scholarship is being offered by SIG Susquehanna and is open only to students applying for places on the Game Theory course during session 1.

Two scholarships are being offered by CTY Ireland and is open only to students applying for places on any course during session 1 or 2.

All scholarships will be awarded on the basis of application and/or need (family income). Scholarship are available for first preference courses only. Interested students should complete and return the relevant scholarship application form before 23rd March 2018. Merit awards and scholarships will be deducted from the total balance after application fees are paid. When applying for a scholarship we can only accept payment by debit or credit card. If you receive one of these awards please enclose the award letter with your application.

Students applying for Scholarships can also apply for Financial Aid.

Would your organisation like to provide a Scholarship to a CTYI student?

CTY Ireland run classes for over 4,000 students per annum. In 2016-2017 CTYI ran over 100 academic courses at centres nationwide. Student scholarships for courses are provided by CTYI, Deloitte and SIG. If you are interested in sponsoring a particular course or providing a scholarship for some students please get in touch with CTYI directly at 01 700 5634 or by email at ctyi@dcu.ie.
CTY! would like to invite you to join us next August as we host the 16th Conference of the European Council for High Ability! For more details and registration please visit www.echa2018.info. If you are interested in sponsoring any part of the conference please contact echa2018@conferencepartners.ie for a sponsorship brochure. We hope to see you there!

KEYNOTE SPEAKERS

Dr. Anne Looney
How universities can support talent development

David Cuartielles
How technology can help gifted education

Prof. François Gagne
The Integrative Model of Talent Development (IMTD): From theory to educational applications

Prof. Heidrun Stoeger
The self-regulated learning skills that every gifted student needs: A research review

Prof. Johnathan Plucker
Helping Students Become More Creative: Surprising Research and Major Unknowns

Prof. Karine Verchueren
Classroom social relationships as contexts for child and adolescent development

Prof. Tracy Cross
The lived experience of gifted students in school: 25 years of research on the stigma of giftedness and social coping
CTY Greece.
Learn in the birthplace of knowledge!

Experience life abroad with CTY and attend a three-week summer residential program in Greece, end of June 2018. Anatolia College in Thessaloniki, Greece, is a historic American institution founded back in 1886. The program applies to students aged 13-17 (grade 11 and below).

Courses offered: • Probability and Game Theory • Cryptology • Introduction to Biomedical Sciences • Principles of Engineering Design • Introduction to Computer Science • CSI @ CTY • The Art and Science of Film Making • Mathematical Modeling • International Relations / Politics • Genetics • Philosophy • Microeconomics • Poetry & Fiction

(All courses are taught in English.)

* Program cost includes tuition, room, board and books. Transportation cost to Greece not included.

Anatolia College
Limited places available!
Program cost: €1900*

CTY Greece at Anatolia College
A Johns Hopkins CTY International Network Member
P.O. Box 21021, 555 10 Thessaloniki, Greece
Tel.: +30 2310 398 253 · Tel/Fax: +30 2310 332 625
www.cty-greece.gr · cty@anatolia.edu.gr · www.cty-greece.gr/en/news

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Adviser to CTY Greece
Student Life

Approximately 250 students and 65 staff attend each session at CTYI. About 50 members of the student group are international students. Residential students live in the campus residences at Dublin City University, housed in either a two bedroom or five bedroom apartment. Nearly all rooms are single however from time to time we use twin rooms. Bedroom allocations are made according to class group and student age. Thus, students cannot choose their roommates.

Please note students are segregated by gender in the accommodation buildings. Thus, male students are not permitted to visit female students in their rooms and vice versa.

Residential Staff

The RAs are usually university students who stay in the Campus Residences with the students. They are assigned small groups of students (15-20), and they are responsible for the leisure and sporting activities and the out of class supervision. In general, they help students adjust to life at CTYI. They encourage a friendly and supportive atmosphere among the students and ensure that they observe the rules of the programme. They are always available to talk with students about their concerns, be they academic, social or emotional. The RAs are a bright and caring group of people with a wide range of interests and experiences.

Campus Facilities

Facilities available on campus include the library, bank, interfaith chaplaincy centre, laundrette, restaurant and shops.

Unauthorised Departure

Students must not leave campus at any time except with the express permission of the Director or a senior staff member authorised for this purpose. Failure to comply with this regulation will result in Immediate dismissal from the programme. Students off campus and unsupervised by a CTYI staff member are not covered by the university insurance policy, and neither Dublin City University nor CTYI accept liability for them.

Daily Schedule

Students are in class for five hours each weekday. Class takes place between 9.00am to 3.00pm, with a short break around 11.00am, and an hour for lunch. Between 3.00pm and 6.30pm students attend Recreational activities, meet their RA and have dinner.

The activities are supervised by the RAs with students choosing from a wide range of options, which could include team and individual sports, board games, discussion groups, drama, reading etc.

In the evening, students return to their classrooms for a two hour study period after which they have social time and meet informally with their RAs. “Lights out” is at 10.30pm.

Weekday Schedule

8.15am - Breakfast
(Residential students only)
9.00am - Class
(There is a 15-min break mid-morning).
12.00pm - Lunch
1.00pm - Class
3.00pm - Recreational Activities
5.15pm - Dinner
6.30pm - Study
8.30pm - Social time
10.00pm - Residential students go to their rooms. Commuters sign out.
10.30pm - Lights Out

A varied programme of sport and recreation has been arranged in conjunction with the academic programme. During the time they are not in class, students are supervised by Residential Assistants (RAs), and their time is Highly structured.
Weekend Schedule
Classes are not held over the weekend, and study is on Monday to Friday evenings only. There is a full schedule of events at the weekend that may include sports, shopping, sightseeing and the like. Weekend activities include special events such as discos, movies, a student Talent Show and quizzes. The weekend schedule allows time for doing laundry, writing letters, relaxing, socialising and attending religious services if so desired. All weekend activities are supervised by the residential staff.

Advice to Parents
Some students approach their first experience at CTYI with a little apprehension. We would suggest that you try to encourage your children to overcome these normal and natural apprehensions. However no matter how enthusiastic you may be about the programme, we do not recommend that you send very reluctant children to CTYI.

Being away from home especially for the first time can be difficult for some students so CTYI make every effort to create a warm and supportive environment. Many students who were homesick at first are among those most reluctant to see the programme come to an end. Students may leave the programme at weekends, although we suggest that parents do not take their children away at this time as a full recreational and social programme takes place. This time is important for students to establish friendships and become fully involved in residential life.

Commuting students are strongly encouraged to take part in all weekday and weekend activities.

Medical Services
Services provided on campus will normally be limited to first aid. Students may be referred by CTYI to other health care facilities e.g. private clinics, general medical practitioners or hospitals for conditions requiring additional diagnosis and care. Parents will be notified immediately in the event of a more serious illness or injury, or it is felt that the student should see a healthcare professional.

Families are responsible for the costs of prescriptions and transport costs to and from medical centres and any health care beyond that provided free of charge on campus. Please note that these costs must be paid for immediately. In the event that a student needs to see a healthcare professional, we encourage parents to bring them. Where not possible, CTYI will make the necessary arrangements to take the student.

Overseas Students: CTYI requires documentary evidence that a student’s medical insurance will cover their stay in Ireland.

What should I bring?
Specific information will be included in the acceptance pack that will be posted in May. In general your child should bring warm, comfortable clothes for class, sports and other recreational activities. As the weather in Ireland is notoriously changeable, CTYI suggests that students bring clothing which can be layered and also bring a warm, waterproof jacket.
or coat along with waterproof shoes for field trips and outings. (See What sort of clothes should I bring? in FAQ). They should also bring general class materials (paper, pens, pencils, note-pads, dictionaries, calculators, etc.), alarm clock, towels and toiletries. No water guns, bicycles, skateboards, large equipment (TV, stereo, etc.) or time consuming games such as video or computer games are permitted. Students will not be required to bring bed linen as this will be provided. Towels are not provided. The use of cell/mobile phones is confined to those times when students are not engaged in class or activities. CTYI highly recommends that parents take out insurance for these items. Rules concerning their use will be explained to students on their arrival to the programme.

**Computing Facilities**

There are excellent computer facilities for those courses that require computers. We do not allow students to bring their laptops or tablets to CTYI as word processing facilities and internet access are available at specific times during class and study period.

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**Frequently Asked Questions**

**How many places are available on the Summer Programme?**

There are approximately 600 places available, i.e. 300 on each of the sessions.

**What percentage of students attend from overseas?**

10% of students attend from overseas, mainly from the US however, we also have students from the Far East, the Middle East, Australia & Europe.

**Are there any opportunities to visit Dublin city during the Programme?**

Yes – there are normally a number of trips off-campus for example trips for shopping and sight-seeing at weekend. In a number of subjects there are also field trips which form part of the course content.

**When will I receive notification of acceptance for course I applied for?**

You will receive notification of acceptance as soon as possible after the Application deadline (6th April 2018).

**What if I withdraw from the programme before it begins?**

Refunds are not generally given to students who withdraw unless in very exceptional circumstances. Requests for refunds must be given in writing to the CTYI Director and are given solely at his discretion.

**Are there safe-keeping facilities available?**

Students must avail of the safe-keeping facilities that will be available for passports, return plane tickets and important papers when they arrive at the site. They may pick up these items on departure day.

**How much pocket money should my child bring?**

We suggest that parents give their child their normal amount of pocket money that they would have at home. The only items that students may wish to buy would be soft drinks/sweets and a small number of optional off campus trips such as cinema or bowling where there is an entrance charge. Students may keep their money in a locked safe in the site office and they will be able to access it whenever they need it. There are three ATMs on Campus.

**What sort of clothes should I bring?**

In most respects, dress at the Dublin site is the same as US sites. Students normally wear casual clothing for classes and activities and perhaps dress up a little more for discos and the closing ceremony. Please label ALL clothing with student’s identification details. Temperatures in Dublin for the month of July range from 12-24 degrees Celsius. CTYI would suggest that students bring clothing which can be layered and also a heavy sweater and raincoat are recommended for cool evenings and in case of rain.

Please note, if students are wearing inappropriate clothing they will be asked to change.
**Travel**

### Arrival & Departure Days

#### Session 1
All residential students attending Session 1 must arrive on the Arrival Day (Sunday, 24th June) and leave campus by noon on the final Friday (13th July).

All commuting students attending Session 1 must arrive on the Arrival Day (Monday, 25th June) and leave campus by noon on the final Friday (13th July).

An orientation session for commuting students will take place on Saturday, 23rd June 2018.

#### Session 2
All residential students attending Session 2 must arrive on the Arrival Day (Sunday, 15th July) and leave campus by noon on the final Friday (3rd August) as CTYI staff is only employed until this date.

All commuting students attending Session 2 must arrive on the Arrival Day (Monday, 16th July) and leave campus by noon on the final Friday (3rd August) as CTYI staff is only employed until this date. An orientation session for commuting students will take place on Saturday, 14th July 2018.

### Overseas Students

#### Arrival
When booking flights, please note that students should not arrive any earlier than the morning of,
- Sunday, 24th June (for session 1) or;
- Sunday, 15th July (for session 2)

Please note: We are happy to accommodate flights arriving at ~6am!

#### Departure
On homebound flights, flights must depart from Dublin airport no later than 2pm on the day of departure;
- Friday, 13th July on session 1 or;
- Friday, 3rd August on session 2

If students cannot depart from Dublin airport before 2pm on Friday, 3rd August, they MUST book a flight on Thursday, 2nd August.

#### Shuttle Service
Airport/Train Station Shuttle Service will be available on arrival and departure days to students only (not to family members) from Dublin airport, Busaras Bus Station and train stations. Details will be provided in the acceptance pack.

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**What certifications are received at the end of the course?**

All students who complete a CTYI course receive a CTYI certificate. In addition, students receive a written evaluation of their performance on the course six weeks after course finishes.

**How are subjects chosen for syllabus?**

Our principal aim is to choose subjects which are both interesting and challenging for the students. We try to find material that students would not usually have access to in school.

Typically courses in this programme (for students 12-17 years) cover first year university material. In areas such as Maths the courses may include some introductory material e.g. some algebra, which is necessary to cover in order that students can follow the core material.

**How is the Airport shuttle service arranged?**

If students are travelling without an adult and arriving at Dublin Airport students will be met in the arrivals hall area of Dublin Airport by a CTYI representative and will be taken to the site. A fee of €50 (one way) or €100 (round trip) will be charged for this service if required. We insist that students should not leave the Arrivals Hall area until they have been met by the CTYI Representative. Our staff will be clearly identifiable with CTYI signage or sweatshirts. We would ask students to be alert when they reach the arrivals hall and be on the lookout for our staff. We will contact parents ahead of their child’s arrival to CTYI with more details about their collection.

**Should I visit my child while they are on campus?**

We advise parents not to visit their child during the programme because of its intensive nature. If however, you wish to take your child off campus for a special event at the weekend please email ctyi@dcu.ie to arrange this activity around the student’s schedule. Parents must report to the Site Office upon arrival at the campus. In the interests of students’ security, it is very important that we know what visitors are on campus. In particular, parents are not permitted to enter the students’ residence unless accompanied by a member of CTYI staff. All students must be signed off campus when leaving with parents. Students must sign back in at the site office as soon as they return.
Discipline

CTYI demands the same standards of behaviour which one would normally find in a caring well-organised home. Cleanliness, honesty, co-operation and respect will be expected from all students. Rules concerning student conduct will be explained at the beginning of the session. Our rules are for the safety and well-being of all students, hence, we ask both parents and students to co-operate fully with the programme.

Students may be **immediately dismissed** from the course for any of the following reasons:**

- Bullying
- Possession or use of alcohol, drugs or a substance controlled by law
- Being off campus without specific authorisation
- Being in restricted areas of the campus (including parts of the Residential Building) unaccompanied by a CTYI staff member
- Violating or putting at risk the safety and well-being of any person
- Residential students being absent from your room or campus residence between "lights out" and "morning call"

Students **may be subject to dismissal** from the course for any of the following reasons (on a case by case basis):**

- Punctuality (applicable to all aspects of the course)
- Stealing
- Vandalism
- Bullying
- Possession or use of tobacco or e-cigarettes
- Not attending satisfactorily to their academic work
- Inappropriate behaviour on or off campus
- Using computing facilities for purposes other than assigned course work

**For other reasons which in the opinion of the director are of a sufficiently serious nature to warrant dismissal

General Rules

Students may not contact a staff member on any social network unless the account is a registered CTYI one.
Students may not take a picture or video of a staff member or student without their express permission.
Students should not interact with those who are not part of the programme during their time on campus.
Students should not use mobile phones or iPods/iPads at unauthorised times – i.e. during class/activities

Important to Note

Students who violate programme rules are subject to the disciplinary actions outlined below. No refunds will be made to students dismissed from the programme. Students and their families will be billed for any Damage they cause. No evaluation for the course will be given to a student who has been expelled. Details on CTYI Data Protection and Equality policies can be found on our website [www.dcu.ie/ctyi/CTYI-Policies.shtml#dataprotection](http://www.dcu.ie/ctyi/CTYI-Policies.shtml#dataprotection)

Insurance

Students of CTYI are covered by Dublin City University’s public liability insurance policy while in the care of CTYI. This cover does not extend to students who leave campus without permission or without a staff member in attendance. Previous CTYI students may not visit current students during the programme. A student who has been dismissed from the programme will no longer be the responsibility of Dublin City University or of CTYI once his or her parent/guardian or a person nominated by him or her for that purpose has been notified of the impending dismissal and given reasonable time to make arrangements to receive the student. It is the responsibility of the parent/guardian to ensure that he or she or a substitute authorised to act on his or her behalf is contactable and available to receive the student in the event of dismissal. CTYI staff will assist in making travel arrangements for the dismissed student, and escort him or her to the airport or other departure point.
Application Information

Application & Fee Deadlines

Early Application Deadline Friday, 26th January 2018
Financial Aid/Scholarship Deadline Friday, 23rd March 2018
Normal Application Deadline Friday, 6th April 2018
Balance of Fees Deadline Friday, 11th May 2018

Please Note: Course & Residential places are allocated on a first-come, first-served basis.

Avoiding delays in the application process

Applications will not be processed unless full information is provided. An incomplete application slows down the application process and causes unnecessary confusion and delay. Please review your application carefully before posting it.

The following items cause delay in the application process:

- Missing signatures - both the student’s signature and a parent/guardian’s signature are required on the application form.
- Fees not enclosed - The application fee (which includes the €100 registration fee) is required as part of the application.
- Not eligible for the requested course - Please read the requirements for each course, particularly the SCAT/SAT minimum required scores, carefully, before making your selection.

Scholarship & Financial Aid Applications

This form must be received by 23rd March 2018. Send along with your child’s application to:

2018 CTYI Older Student SUMMER PROGRAMME
CTY Ireland
DUBLIN CITY UNIVERSITY
DUBLIN 9
IRELAND

Requests for Receipts

If you wish to receive a receipt for payment of fees, please enclose a stamped- addressed envelope.

Receipts are only prepared when the full fees are received.
Terms & Conditions

**Registration Fee:** All fees include a €100 registration fee, which is non-refundable. (This fee is included in the application fee).

**Late Payment Fee:** A late payment fee is applicable on all accounts not paid in full by Friday, 11th May, 2018. Students will not be permitted to attend the Summer Programme until all fees have been paid.

**Returned Cheques/declined Credit Cards:** Returned cheques/declined credit cards are liable for a €10 fee to cover Handling costs. Please note, your child’s application will be suspended until the payment has been processed.

**Early Application Deadline:** Applications paid in full and received before Friday, 26th January will receive a €100 reduction in fees.

**Course Allocations:** All communication relating to course allocations 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**

Due to the fact that accommodation and catering costs have to be paid in advance by CTYI an administrative cost will be factored in to all potential refunds.

Written requests for a refund of Application Fees received up to and including 6th April will be considered.

After this date there will be no refund of Application Fees.

Written requests for a refund of Balance of Fees received up to and including 11th May will be considered.

Application Fees will not be refunded after 6th April and the Registration Fee is non-refundable.

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.
Contact Us

Dr. Colm O’reilly  
Director  
01 700 5634  
ctyi@dcu.ie

Dr. Catriona Ledwith  
Academic Coordinator  
01 700 8423  
catriona.ledwith@dcu.ie

Ms. Emily Church  
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Ms. Orla Dunne  
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01 700 7051  
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Ms. Linda Murphy  
Student Applications Manager  
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General Enquiries  
+353 1 700 5634  
ctyi@dcu.ie

Nurturing Talent, Maximising Potential
Closing Date: 6th April 2018
Early Application Deadline: 26th January 2018

Please Note: Students are assigned courses on a first-come, first-served basis.

Applications will not be accepted after 6th April 2018.

Limited places will be held for students taking SCAT in January & February.

Centre for Talented Youth, Ireland
Dublin City University, Dublin 9,
www.dcu.ie/ctyi
ctyi@dcu.ie
+353 1 700 5634