CENTRE FOR ACADEMIC TALENT

2 week Summer Academic Programme

For 12-17 year olds with high academic ability

Session 1: 24th June - 6th July 2018
Session 2: 15th July - 27th July 2018

CTY IRELAND
Invitation to the Centre for Academic Talent

by Director, Dr. Colm O’Reilly

On behalf of the Centre for Talented Youth, Ireland (CTYI), I would like to welcome you to the 6th annual summer programme of the Centre for Academic Talent (CAT). In the last 6 years, over 1500 students have participated in courses at Dublin City University. This year some 16 courses from various exciting academic disciplines will be offered at DCU.

The goal of this programme is to offer students the chance to study exciting college-like subjects, to meet students who have similar interests, and to have fun all the while. The social programme at CAT is every bit as important as the academic one. Our staff are carefully selected to meet students needs and the information atmosphere makes for a great learning and recreational environment.

Parents can be satisfied that their children are being well looked after, and students can enjoy the excellent benefits of a programme like this. I really hope that you will join us this summer for the CAT programme. It’s an experience that you will remember fondly for many years to come.

Colm

Introduction to CTYI

by DCU President, Prof. Brian McCraith

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!
The Centre for Academic Talent (CAT) was developed to give high ability students access to courses, not ordinarily available in the secondary school setting. Drawn typically from a university curriculum, the courses open up new avenues of learning and opportunities for greater challenge and stimulation than students would be used to at school. Students may also use this as an opportunity to trial run a university course that they may be considering after they leave school. CAT offers small class sizes (~18 students), led by an instructor and teaching assistant. CAT academic staff are carefully selected. We look for individuals who have an expertise in the area, are enthusiastic about their subject and can communicate well with young people.

Ensuring that students can relax and become acquainted outside of the learning environment, students can participate in a range of extra-curricular activities from 3.15 – 5pm each day. Here they can expect to participate in sports, arts & crafts, explore mutual interests in music and drama etc.

Eligibility Criteria

The Centre for Academic Talent is for secondary school students aged 12-17 years, who have;

- participated in our Talent Search, and have scored in the top 15% of their age group
- have previously taken part in the CTYI Young Students Programme

Where does it take place?

Centre for Academic Talent will be held in Dublin City University. Please note that residential and commuter places are available.

Why should you consider taking part?

Courses at the Centre for Academic Talent will be of benefit to students in a wide number of ways:

- It's an opportunity to study a university level subject that would otherwise be unavailable;
- You'll meet similarly interested and motivated students;
- You'll learn from an instructor who is working in the field;
- You have access to some of the university’s top quality facilities;
- The course will give you greater focus and motivation on your learning.

Application & Fee Deadline

Early Application Deadline: Friday 26th January 2018

Application Deadline: Friday, 6th April 2018

Balance of Fees Deadline: Friday, 11th May 2018
Our courses are fast paced and cover material in more depth and at greater levels of complexity than is usual at post primary school. They are designed to be intellectually stimulating. There are 16 courses are on offer and many of these courses deal with topics not normally encountered in post primary school. Textbooks and hand-outs, where required, will be provided on the first day of class. Further information about course requirements will be posted to students as soon as possible after the closing date.

**Structure of Courses**

Students take one subject which they study intensively for approximately 65 hours over 2 weeks. Class sizes are small with about 15-20 students. Overall student to staff ratio is approximately 5 to 1. Classes typically have an instructor, a teaching assistant (TA) and a residential assistant (RA). We choose our staff on the basis of mastery of the subject, enthusiasm and good communication skills. Homework will be assigned to be completed during the two hour study period each evening. Commuting students in DCU are encouraged to stay for the supervised study period.

**Course Assignment**

All students who meet the eligibility criteria may apply to the CAT Programme, whether or not they have been Talent Search participants. Students should think very carefully about their alternative course choices, listing only those courses which they will accept if they do not receive their first choice. Students are assigned courses on a first-come, first-served basis.

**Note to Returning Students**

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

**One Session, One Programme**

Please note, students can only attend one session from the CAT programme.
**General Information**

**Weekday Schedule**

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

Commuting students should bring a packed lunch. Students will have access to the Spar shop on campus to buy sandwiches etc. or buy the set lunch (and dinner) provided for residential students. The recreational 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.

**Weekend Schedule**

No classes are held at weekends and study periods are on Monday - Friday evenings only. There is a full schedule of events at the weekend that may include sports, shopping; sightseeing and the like. Weekend activities may also include special events such as discos, movies, a students’ Talent Show and quizzes. The weekend schedule allows time for doing laundry, writing emails, relaxing, socialising and attending religious services if so desired. All weekend activities are supervised by the Residential Assistants.

Commuting students are strongly encouraged to take part in the weekend activities and trips.

**Sign in & Sign Out**

Students must not leave campus at any time except with the express permission of the Director or 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 college insurance policy and DCU and CTYI accept no liability for them.

**Commuting Students**

Commuting students sign in at their classroom in the morning. They sign out at the Site Office when they leave the class at 3pm, 5pm, 8.30pm or 10pm. There will be a designated person with whom students should sign out.
**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. All students will be required to submit a Medical form which will be held by CTYI. This will be referred to should medical intervention be required. The Medical form will be included in the acceptance pack. 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 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.

**Advice to Parents**

Some students approach their first experience at CAT with a little trepidation. We would suggest that you try to encourage them to overcome these normal and natural apprehensions. No matter how enthusiastic you may be about the programme, we do not recommend that you send very reluctant young people to CAT.

**Residential Students**

Being away from home especially for the first time can be difficult for some students. CTYI makes every effort to create a supportive environment to help students settle in. 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 the weekend, 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.

**Computer 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.

**Campus Facilities**

Students have access to the following facilities available on campus: library, bank, inter-faith chaplaincy centre, laundrette, restaurant and shops.

**Stay Residentially or Commute?**

We encourage students, where possible, to attend on a residential basis. We do however reserve places for students who wish to commute to class at the university Monday - Friday. Commuting students are encouraged to attend after class activities as much as possible, and immerse themselves in both the academic and social aspects of the programme. We particularly encourage these students to stay for evening study and the subsequent social period however, they are free to sign out at any stage after class. Commuting students must sign out by 10pm.

Residential students live in the purpose built campus residences at Dublin City University. Students may be sharing an apartment with other students or be sharing a twin bedroom. If it is your preference to share a room this summer please tick the appropriate box on the application form. We encourage any first time CAT students to share a room, as it is a great way to foster friendships early on! We will endeavour to accommodate as many students as possible, however due to limited room availability this is not always feasible. All students will be roomed with students of the same gender and approximate age. Male students are not permitted to visit female students in their rooms and vice versa.
Residential Assistants

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.

Both residential and commuting students are assigned a Residential Assistant (RA). The RAs are usually university students who stay in the Campus Residences with the students. They are assigned a group of (same gender) students, and they are responsible for leisure and sports activities and 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, whether academic, social or emotional. The RAs are a bright and caring group of people with a wide range of interests and experiences.

Campus Safety

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 college insurance policy, and Dublin City University and CTYI accept no liability for them.

Insurance

Students attending CAT 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 CAT students may not visit current students during the programme. Students found on campus in the company of previous students may be dismissed from the programme. A student who has been dismissed from the programme will no longer be the responsibility of CTYI once a parent/guardian or a person nominated 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 they or a substitute authorised to act on their behalf is contactable and available to receive the student in the event of dismissal.

What should I bring?

Specific information will be included in the acceptance pack that will be posted in April. All students should bring general class materials (paper, pens, pencils, notepads, dictionaries, calculators, etc.). In general your child should bring warm, comfortable clothes for class, sports and other recreational activities. As the weather is notoriously changeable, we suggest that students bring clothing which can be layered and also bring a warm, waterproof jacket or coat along with sensible waterproof shoes for field trips and outings. Students should bring an 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.

The use of cell/mobile phones is confined to those times when students are not engaged in class or activities. Rules concerning their use will be explained to students on their arrival to the programme.
# Travel Arrangements

## 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 (6th 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 (6th 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 (27th July) as CTYI staff is only employed until midday on 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 (27th July) as CTYI staff is only employed until midday on this Date.

**An orientation session for commuting students will take place on Saturday, 13th July 2018.**

## Overseas Students

### Arrival

When booking flights, please note that students should not arrive any earlier than the morning of, Sunday, 24th June on session 1 or; Sunday, 15th July on 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, 6 July on session 1 or; Friday, 27th July on session 2.

If students cannot depart from Dublin airport before 2pm on Friday, 27th July, they MUST book a flight on Thursday, 26th July.

## Shuttle Service

Airport/train/bus Station Shuttle Service will be available on arrival and departure days to students only (not to family members) from Dublin airport, Busararas Bus Station and train stations. Shuttles are charged at a rate of €50 (one way) or €100 (round trip). Details will be provided in the acceptance pack.
**Course Descriptions**

**Biotechnology - Session 1**

Biotechnology is the fascinating study of how living organisms can be manipulated to improve many areas of society. This course will investigate how animals and plants are cloned and why and how the fields of pharmaceuticals, medicine, food and agricultural have all advanced using this form of biological engineering. Famous case studies, such as Dolly the sheep, and the controversy behind Monsanto's genetically modified fertilizers, will be discussed. The ethical dilemmas of using biotechnology, especially in the case of human and animal cloning, and also in genetically 'designing' babies to have particular traits, will be debated. The course will also have a strong practical element with students carrying out related experiments in a biology laboratory, including: amplifying DNA using polymerase chain reaction (PCR); growing microorganisms; extracting DNA; microscope work and more. Visits by guest speakers and project work will also be included.

**Clinical Psychology - Session 2**

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 Gaming - 2**

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.

**Computers & Animation - Session 1**

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.
Criminology

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.

Engineering

In reality, without engineers, the world would fall down around our ears. Yet, most of their work goes largely unnoticed. If we examine the world around us, practically everything manmade that we can see, an engineer has been involved in it. This course introduces the basics of the various fields of engineering. The class will work on developing the problem solving and communication skills that are essential for a career in Engineering. We are faced with basic needs in everyday life. It is these needs and providing for them that fuels the problems for which engineers must provide solutions in the most efficient, socially aware, aesthetic and cost effective manner. Civil Engineering: buildings and roads, Mechanical Engineering: machinery and manufacturing, Electronic Engineering: circuits and robotics, Computer Engineering: programming and hardware. As the Engineering umbrella covers so many areas, this should prove to be a demanding, interesting, challenging and extremely enjoyable course.

International Relations

‘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 interdependence. 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.

Law

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.
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.

Music Production – Session 1

Never before has Music Technology been so accessible to young producers. All platforms, from the smart phone to the desktop computer are capable of running some sort of music production software putting creative control into the hands of musicians, wherever they are. The Music Technology course will introduce the area of music production and chart its development from analog studios up to modern day standalone computer setups. Each class will consist of theoretical and practical parts. The theoretical side of the course will focus on an analysis of different musical styles and how they are made, science of sound, how waves and frequencies work and what that means for music production, as well as an in-depth look at how digital audio works and its implications for the music industry. The practical side will see the students creating and editing their own recordings with a view to eventually recording and producing songs as a class. This will be done through the Reaper and Apple Garage-band music production programs.

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? Interested in these questions? Then the CAT Neuroscience course is for you! Neuroscience is one of the most interesting fields of study and we have made huge strides in neuroscience from the days when we thought that the only function of the brain was to produce snot! 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 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 they process the world around us and what happens when these systems break down. We shall also look at and discuss how this fascinating research is carried out in laboratories in Ireland and around the world. The class will be lecture based but enthusiastic discussions are welcome! Don’t know what a neuron is? Don’t worry! Everything will be taught from first principals.
Novel Writing – Session 2

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!

Social Psychology – Session 1

If psychology is the study of human behaviour, social psychology looks at that behaviour in action in the world. This course seeks to impart a detailed understanding of the burgeoning field of social psychology, focusing specifically on the applied use of psychology in the fields of politics, advertising and healthcare. Students will be introduced to psychological theory of attitudes, attractiveness, prejudice, groups and teams, attribution, self-identity and helping behaviour. How do our attitudes affect our behaviour? Can we ever truly overcome prejudice? What is the best way to address racial tension in schools? How important are a candidate’s looks in a political campaign? How do juries behave, what influences them, and why? This wide ranging course will use case studies from Irish advertising campaigns, the healthcare system, recent Dáil elections and the 2008 American presidential campaign to deepen students’ understanding of the structure and function of human behaviour and its effects in the world. Students will conduct and present research to the class on topics of current interest, and will have the opportunity to design and present the results of a psychological experiment of their choice.

Zoology – Session 2

From microscopic investigation to the basics of veterinary medicine, Zoology covers principles of comparative animal anatomy, physiology, and genetics. This course begins with an overview of key concepts in zoology as students examine the characteristics of the animal cell and discuss heredity and issues of evolution, including natural selection. They then turn to taxonomy, as they study increasingly complex types of animals. As students’ progress through the course, they research and discuss topics including animal behaviour, environmental adaptation, husbandry and domestication, and the human impact on animal life-including environmental degradation and species extinction. In lab work and in the field, students put science into practice: they learn to formulate research questions, gather and analyse data, and interpret results. On field trips to nearby zoos or veterinary facilities, students observe animals and meet with scientists to discuss current medical research and animal care.
How many places are available on the summer programme?
There are approximately 150 places in total available per session.

When will I receive notification of acceptance for course I applied for?
You will receive notification of acceptance after the application deadline (6th April 2018).

What if I withdraw from the programme before it begins?
Refunds are not 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. (Please see our Refund Policy at the back of this brochure).

Are there safe-keeping facilities available?
Residential DCU students must avail of the safe-keeping facilities that will be available for money, passports and important papers when they arrive.

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 activities such as cinema or bowling where there is an entrance charge). Residential 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 3 ATMs on the DCU campus.

What sort of clothes should I bring?
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. 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 that if students are wearing inappropriate clothing they will be asked to change.

What certifications are received at the end of the course?
All students who complete a CAT course receive a Certificate.

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 (12-17 years) are covering 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? (Residential)
If students are travelling without an adult and arriving at Dublin Airport, Busaras or Heuston or Connolly Station, they may be collected by a CTYI representative and taken to DCU. A fee of €50 (one way) or €100 (round trip) will be charged for this service if required.

We insist that students arriving at Dublin airport 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.

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 call or email the CTYI Site Office (+353 1 700 5634 & 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 and signed in at the site office when 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 their 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
- Abusive language in verbal or written form to students or staff member
- 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 another student without their prior 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 music players 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.
Application Information

Application & Fee Deadlines

- Early Application Deadline: Friday, 26th January 2018
- Normal Application Deadline: Friday, 6th April 2018
- Balance of Fees Deadline: Friday, 11th May 2018

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.
- **No Fees enclosed** - The application fee (which includes the €100 registration fee) is required as part of the application.
- **Incomplete Applications** - Please note that incomplete application forms will be returned.

Financial Assistance

Students who wish to apply for financial assistance should request an application form from CTYI. Please note, applications from students wishing to apply for financial aid must include €100 registration fee. (This fee can only be paid by debit or credit card.) The deadline for applications is Friday 23rd March 2018.

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.

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 cheque/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 €50 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 €100 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

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Closing Date
6th April 2018
Early Application Deadline
26th January 2018
Balance of Fees Deadline
11th May 2018

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