Online Enrichment courses for Secondary School Students aged 13–17
Course Structure
This Spring, CTYI is delighted to provide a series of online courses for secondary school students aged 13-17 years, who have qualified for CAT or CTYI courses. Courses will run on Friday evenings and Saturday mornings and afternoons.

Students choose one course from either the Friday evening, Saturday morning or Saturday afternoon options.

Class sizes are small with up to 20 students per class. Each course will run over six weeks, for two hours per session. Classes will have an instructor and a teaching assistant. CTYI staff are chosen on the basis of mastery of the subject, enthusiasm and good communication skills. Courses will take place over Zoom, therefore students will need access to a device which Zoom can be used on and the internet.

Students are assigned to courses on a first-come, first-served basis. If the course you are interested in is full, we would ask you to consider an alternative one.

To apply for one of these exciting courses please purchase the relevant ticket using the link below. Students who wish to take part in multiple courses will need to purchase a ticket for each course.

### Dates

**Fridays**

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<th>5th February</th>
<th>12th February</th>
<th>19th February</th>
<th>26th February</th>
<th>5th March</th>
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**Saturdays**

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<th>6th February</th>
<th>13th February</th>
<th>20th February</th>
<th>27th February</th>
<th>6th March</th>
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### Application Process

- If you are interested in applying for one of these courses, please follow the link provided below each timetable, which will take you to our Eventbrite listing.
- As our team are all working remotely at the moment, we will not be processing application forms and payments as usual.
- To apply you need simply enter your details & your child’s details and pay with credit/debit card for your chosen course through Eventbrite.
- Please note, as staff are still mainly working remotely, you will be required to fill out a section on the application form regarding whether your child has any special educational needs as the application site is not connected to our database which usually would show this information. Only the staff of CTY will be able to access this information and it will not be shared anywhere else.
- Course places are limited & are on a ‘first come, first served basis’ so please apply as soon as possible to avoid disappointment.
- Tickets on Eventbrite will close as soon as a course is full.
- The email address you use for eventbrite will be the email address that will be used to communicate class details such as the Zoom link which allows you to enter the class.

### Course Fee

€150*

*This fee does not include the Eventbrite booking fee, which will be included at checkout.
Saturday Morning Classes
February 6th - March 20th 2021. (No classes on February 20th)
10am - 12pm
- Engineering Psychology
- Maths with Applications
- Pediatric Medicine

Saturday Afternoon Classes
February 6th - March 20th 2021. (No classes on February 20th)
1pm - 3pm
- Emergency Medicine
- Flash Fiction
- Forensic Science

Alternatively, you can copy and paste this link into your browser;
https://www.eventbrite.ie/e/ctyi-os-online-spring-programme-tickets-132078740067
**Behavioural Psychology**

This domain of psychology is based upon the concept that behaviours can be explained through observation, and that individuals behave according to their environment. It contends that our actions are a response to stimuli. This course will bring into sharp focus the environmental component of the nature vs nurture discussion. Assuming that each of us is born with a blank canvas, it will seek to better understand the impact of different life experiences and environmental factors. Students can expect to learn about the work of Skinner, Pavlov, Thorndike, Erikson, and Bandura. With a myriad of fascinating topics, including, fight or flight syndrome, overcoming fears, conformity, aversion and altruism, students on this course will sit back, observe and develop their own conclusions as to why human behaviour is as it is.

**Emergency Medicine**

Emergency medicine is a field of medicine which provides care to patients who have experienced a sudden accident, traumatic injury or worsening of an existing medical problem. Medical emergencies can happen to anyone, at any time and at any age, which is why knowing how to help people calmly and effectively are skills that are not solely reserved for medical professionals. Identifying basic steps in managing acutely unwell patients in the pre-hospital setting can greatly improve patient outcomes and is the first step in returning that patient to good health. Skills which are necessary include; Injury recognition (bleeding, breaks and burns), bleeding management and bandaging injuries, recognising and treating heart attacks/strokes/epilepsy. Emergency medicine is much more comprehensive than the above skills, however by mastering these simple techniques, even the lay person can provide emergency care until paramedics arrive and can improve patient outcomes.

**Engineering Psychology**

Also known as human factors engineering, this relatively new field of engineering psychology is concerned with how technological design and systems can assist human capability. It includes the study of things like how over-work affects productivity and efficiency, and how the use of mobile phones while driving affects performance. An applied field of psychology, this marriage brought also about what we now know as ergonomics and user-friendly design. Engineering psychologists have been responsible for the redesign of many things including supermarket checkouts, car seats, as well as specialised dental and surgical equipment. This course will provide an interesting look at both engineering and psychology in the real world, and will be of interest to any student who enjoys thinking about human behaviour and engineering design.

**Flash Fiction**

“For sale: baby shoes, never worn.” - Ernest Hemingway

Flash fiction is the art of the very short story, ranging from just 6 words to 1,500 words at the maximum. Flash fiction boils storytelling down to its essence, and is a great place for both novices to get started and practiced writers to refine their skills. We will study key topics such as character, plot, conflict, dialogue, and word choice, and try our hand at a range of short forms from twitterature to two-sentence horror stories. By challenging ourselves to word constraints, we will learn how to craft tight and focused pieces, with smart surprises, powerful hooks, and profound truths. Two golden rules of writing are ‘Always leave the reading wanting more’ and ‘Edit, edit, edit’. Flash fiction will show you exactly how to do that!
Forensic Science

It has long been an axiom of mine that the little things are infinitely the most important - Sir Arthur Conan Doyle, The adventures of Sherlock Holmes

One of the most captivating of all of the sciences, forensics never ceases to appeal to human curiosity. Whether it forms part of a real life police investigation or a tv drama, we all enjoy trying to figure out the whodunnit. What ultimately figures it out, is forensic science, by illuminating tiny pieces of evidence to unlock the truth. On this course, students will learn about the role of a forensic scientist in collecting, preserving and analysing evidence, and testifying as an expert witness. Through the fields of toxicology, fingerprinting, ballistics, document analysis, DNA analysis, blood stain pattern, and digital analysis, students will gain a greater understanding and examine actual cases and how they were ultimately solved. This course will appeal to anyone with an enquiring mind and help develop critical thinking skills.

Maths with Applications

In “Maths with Applications” we will look at real world problems that require advanced mathematics to solve – and solve them. We'll discuss questions no computer (past, present, future, or quantum) can ever answer, and travel back to the 1700’s to solve Sunday-walk-arguments with modern graph theory. We'll see how basic geometry allows us to accurately measure the distance between two stars, and discuss Deep Learning and how computers are now better than humans at tasks it was thought computers could never understand. No prior knowledge of maths or computer science is assumed or required – just prepare to have your mind blown!

Pediatric Medicine

Pediatrics is the medical specialty dedicated to the health and wellbeing of infants, children and adolescents. It includes subspecialties such as neonatology, cardiology, surgery, hematology/oncology, amongst many others. On this course students will learn about how pediatricians diagnose and treat childhood illness, including congenital diseases. Students will learn how pediatric medicine differs from the treatment of adults, and how this impacts how patients are dealt with. Taking a case based approach to learning, students will see the challenges that face pediatricians in the course of treating their patients, and the ethical dilemmas that they are faced with on a daily basis.

Sociology 101

Are you curious about people, society, cultures, and the patterns of social relationships? Then perhaps sociology is the course for you! Sociology is a social science that uses various methods of empirical investigation and critical analysis to develop a body of knowledge about social order, acceptance, and change or social evolution.

Key figures such as Marx, Weber and Foucault will be explored along with fundamental topic of the discipline. This course introduces some of the institutions and processes that shape the social world by providing some sociological explanations for media, class, gender, religion, community, power, and the state. Also explored in the course are some of the different methods that sociologists use to conduct their research, providing a firm grounding in aspects of classical and contemporary sociological theory.

Click Here To Apply!
Application Deadline
Friday 15th January