



## WENTWORTH COLLEGE

**NEWMARKET CAMPUS** 

# A SCHOOL FOR THE FUTURE

An exciting, innovative, co-educational, private secondary school specialising in Information and Communication Technologies (ICT), Computer Science, and the traditional STEM subjects of Science, Technology, Engineering and Mathematics, alongside English and Economics/Commerce.

www.wentworthcomputerscience.school.nz

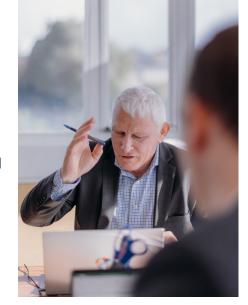




#### Message from the

## **Executive Principal**

Welcome to Wentworth College - Newmarket Campus. As the founding Principal of Wentworth College (opened in Gulf Harbour in 2003) I am proud to establish and lead our first satellite campus. Offering an innovative and specialist programme for Years 8 to 13 students, the curriculum focuses on Digital Technologies as well as the more traditional STEM subjects of Science, Technology, Engineering and Mathematics.



These subjects are complemented with Economics, Business and English, as well as a specialist course that fosters the 'soft skills' that are so important in our students' future personal lives and careers.

Wentworth College - Newmarket campus offers an individualised education pathway where students with an interest and passion for the traditional Sciences (Chemistry, Physics and Biology) and Computer/Digital Technologies, can focus their study in a knowledge-rich curriculum in subjects they enjoy.

Wentworth's Gulf Harbour campus has developed a culture and reputation for academic excellence in achievement and this provides an outstanding foundation for our Newmarket campus. We combine the best of the traditional Cambridge International Education (CIE) curriculum framework with the opportunity to study industry-recognised IT qualifications. This creates a progressive and relevant future-focused educational environment. We embrace technological innovation, creativity, critical thinking and problem-solving skills – all key skills and competencies which our students need to acquire to be successful.

Small class sizes, combined with our highly skilled and dedicated teachers, help to prepare our students to achieve to the best of their abilities. Our low teacher to student ratio allows us to create a detailed, individualised academic pathway that assists students to maximise their learning in a positive and supportive teacher/student environment.

At Wentworth College - Newmarket Campus, we can provide exceptional learning opportunities for your child. We invite and welcome you to tour the campus, meet our teaching faculty and discuss your child's educational future with us.

**Bruce Tong** 

M.Ed.Admin, B.Ed, Dip Tchg Executive Principal -Wentworth Schools

Wentworth College was founded in 2003 and is one of the leading co-educational private schools in Auckland catering for students from new entrants through to Year 13.

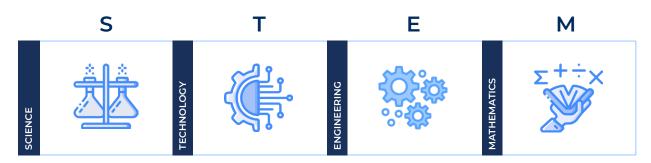


The Wentworth main campus in Gulf Harbour, Whangaparaoa

Wentworth College - Newmarket campus recognises that preparing students for the world into which they will graduate is one of the most important roles that a school can play in a student's life. As careers change, a greater understanding and competence across different digital technologies and sciences will be needed.

A report published by Dell Technologies and authored by the Institute For The Future (IFTF) and a panel of 20 tech, business and academic experts from around the world noted that 85 per cent of the jobs that will exist in 2030 have yet to be invented. Our school aims to prepare students for these future careers.

From horticulture to medical science, from engineering to programming, technology continues to play a growing role across all industries and a strong digital education will provide our students with ever increasing career opportunities.









## **Academic Curriculum**





Cambridge International School

"A top-class Cambridge education prepares students for life, helping them develop an informed curiosity and a lasting passion for learning."

(Cambridge International)



Since 2009, Wentworth College - Gulf Harbour has been successfully teaching the prestigious Cambridge International Education (CIE) programme. This is an internationally recognised academic syllabus covering a wide range of subjects. Cambridge is the world's largest provider of international qualifications for secondary schools.

Students study towards their IGCSE (International General Certificate of Secondary Education) qualifications in Year 11, followed by AS in Year 12 and A2 in Year 13. This combination of AS and A2 qualifications provides students with their A Levels. Under the CIE programme, students are able to attain University Entrance at the end of Year 12, based on their AS results. CIE's international reputation allows students to apply to top universities worldwide.

#### YEAR 9 TO YEAR 10

Students develop skills and understanding in a variety of subjects including English, mathematics and science.

- · English
- Mathematics
- Science (Physics, Chemistry, Biology)
- Information and Communications Technology
- $\cdot \, \mathsf{Computer} \, \mathsf{Science}$
- · Digital Media and Design
- Social Science/Global Perspectives
- · Physical Education
- Life Skills (financial literacy, study skills and Duke of Edinburgh)

#### YEAR 11

Students will study towards their Cambridge **IGCSE** (International General Certificate of Secondary Education).

#### **IGCSE** subjects\*

- $\cdot$  English
- Mathematics
- Physics
- · Chemistry
- Biology
- · Information and
  Communications Technology
- · Computer Science
- Global Perspectives
- · Business Studies
- · Economics
- · Digital Media and Design

#### YEAR 12 to YEAR 13

Students will study towards their Cambridge **AS Levels** in Year 12 and **A2 Level** in Year 13 that will give them their full A Levels.

## AS and A2 options\*

- English
- Mathematics
- Physics
- $\cdot$  Chemistry
- ·Biology
- · Computer Science
- · Information Technology
- Digital Media and Design
- · Business Studies
- · Economics
- · Chinese

<sup>\*</sup>Other subjects may be offered if requested

## Junior Programme – Years 9 & 10

Wentworth have developed a curriculum for our Years 9 and 10 students that aims to give them the strongest possible foundation for their senior Cambridge examinations at the College. The curriculum covers the core learning areas and is compulsory to ensure that all of our students have a wide range of options open to them when they come to select their senior school courses. The core subjects offered are Science, Mathematics, English, Global Perspectives (Social Studies), Life Skills and PE and Health.

Wentworth College - Newmarket campus values the study of technology-rich subjects. In our Junior Programme, students spend 10 hours per week studying the compulsory subjects of Computer Science, ICT and Digital Media and Design. Alongside the strong digital technology curriculum, we also teach industry-based qualifications with students able to sit online examinations to gain certification.

All Years 9 and 10 students also participate in our Life Skills programme as part of our commitment to providing the best holistic education. This provides our students with experiences to help advance personal responsibility, health, well-being, community and leadership development.









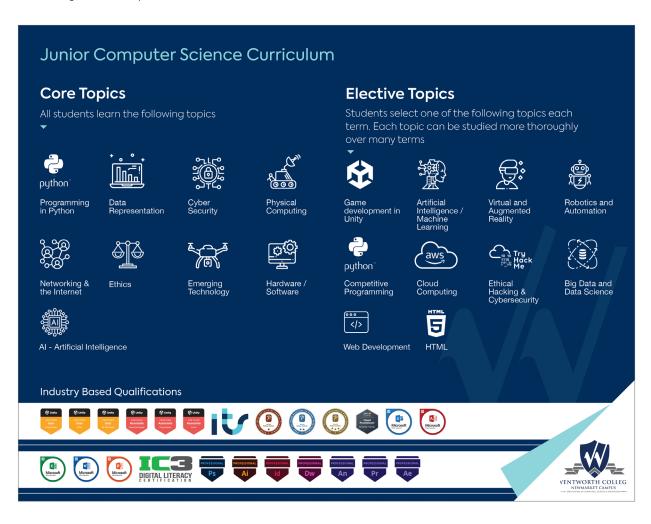
## **Junior Digital Technology Curriculum**



## **Computer Science**

Students study the core topics of Programming in Python, Data Representation, Cyber Security, Physical Computing, Networks and the Internet, Ethics, Emerging Technology, Hardware/Software and Al.

Students are also able to choose 'elective' subjects within the Computer Science framework. These include subjects such as Unity game development, HTML, Cloud Computing, Robotics and Automation, Cyber Security, Web Development and Artificial Intelligence/Machine Learning. Many of these topics are matched to industry-based qualifications.



## **Junior Digital Technology Curriculum**



## ICT (Information and Communications Technology)

The ICT course helps students to develop skills when working with documents, databases and presentations, as well as gain knowledge of a full range of software programmes.

## **Topics covered:**

- Keyboard/touch typing skills
- Computer hardware and software
- File management
- HTML and CSS
- Microsoft products (Word, Excel, PowerPoint, Access)

- Safety and security
- Databases
- Website design
- App development
- Research skills

Students will have the ability to complete industry-based qualifications using online 'TestOut' assessments. These include Digital Literacy Pro and Office Pro. Further global qualifications include Microsoft Office User Specialist in Word, Excel, PowerPoint and Access.



















## Digital Media and Design

This part of the course develops each student's ability to think and work creatively. Students learn to use a wide range of Adobe software, developing skills in Art, Photography, Animation, Video Editing, 3D Printing and Web development.

These skills and programmes are relevant to careers in movies, game development, animation, website and App development, and design and marketing.

#### Students will learn the following Adobe software products:



## Senior Programme – Years 11-13



Wentworth's senior programme is structured around the globally recognised Cambridge International curriculum. However, our school can offer a flexible pathway where students may be able to study for industry qualifications alongside their Cambridge subjects. Every senior student receives individualised advice to ensure their subjects will help them toward their future aspirations. Due to our school's smaller size, we are able to ensure that students regularly check-in and are able to amend their plans as their goals grow or change.

As with the junior curriculum, students are required to study both English and Mathematics to meet University Entrance literacy and numeracy requirements. Students will then choose subjects in accordance with their passions, skills and future plans.

**Year 11:** Consolidation and completion of the International General Certificate of Secondary Education (IGCSE). In many subjects, students commence this course in Year 10.

**Years 12 & 13:** Students begin their A Level studies in Year 12, usually studying AS in Year 12 and A2 in Year 13. AS and A2 Levels combined give a full A Level.





## Science Options in Year 11 (IGCSE)



Not all students choose our school in order to study computer subjects. After studying the tradition sciences of Biology, Chemistry and Physics as part of the junior programme, from Year 11, students may choose to specialise in one (or all!) of these subjects.

In Year 11, students are able to study the foundational Cambridge science courses of IGCSE Biology, Chemistry and Physics. These subjects provide a solid grounding in essential scientific principles, fostering critical thinking and practical skills that are vital for further studies in AS (Y12) and A-Level Courses.

- **IGCSE Physics** introduces students to fundamental concepts such as motion, forces, energy, waves, thermal physics, electricity and astronomy.
- **IGCSE Biology** explores the complexity of living organisms, covering topics such as cell biology, human anatomy, ecosystems, and genetics.
- **IGCSE Chemistry** focuses on the properties and reactions of substances, delving into areas such as atomic structure, bonding, and chemical reactions.

In all 3 of these courses, the curriculum emphasises both theoretical understanding and practical application through experiments and hands-on laboratory work. Together, these subjects prepare students for advanced studies in the sciences, instilling a passion for inquiry and a deeper appreciation of the scientific principles that govern the world around us.





## Science Options in Years 12 & 13 (A Levels)



In Years 12 and 13, students study the Cambridge A-Level programmes. These 2 programmes (AS in Year 12 and A2 in Year 13) build on the knowledge covered in IGCSE and Junior Science but aim to incorporate more complex aspects and mathematical rigour. Students benefit from our small class sizes as they have increased opportunities to ask questions or do more experiments themselves.

- Physics: A Level Physics serves as a foundational course for students aiming
  to pursue higher education in fields such as engineering, physics, and other
  sciences. The syllabus emphasises a deep understanding of core concepts,
  including mechanics, electricity, magnetism, waves, nuclear physics and
  astronomy.
- **Biology:** The A Level Biology curriculum is structured to foster critical thinking and scientific literacy, essential skills for future studies and careers in medicine, environmental science and bio-technology. It prepares students for university education but also encourages them to investigate real-world issues, fostering an appreciation for the role of biology in addressing global challenges such as health and environmental sustainability
- Chemistry: The A Level Chemistry curriculum encompasses a broad spectrum of topics, including organic and inorganic chemistry, physical chemistry, and analytical techniques. This equips students with a solid foundation for higher education and careers in fields such as medicine, engineering, environmental science and pharmaceuticals.





Students can also work towards gaining industry-recognised qualifications or certificates from world-leading organisations. The available certificates cover certifications from Microsoft, Adobe, Python Institute, Unity and Amazon Web Services (AWS). We also offer IC3 Digital Literacy and IT Specialist certifications. These are taught in conjunction with our main Cambridge curriculum.

Qualifications:	Students work towards gaining their industry recognised qualifications or certificates from organisations such as Microsoft Technology Associate (MTA) certification examinations, EC-Council, Adobe, Autodesk and more.	
Courses:	IC3 Digital Literacy Certification	Year 9 & 10
	Microsoft Office Specialist	Year 9+
	Adobe Professional	Year 10+
	IT Specialist: Python Programming	Year 9 & 10
	IT Specialist: Cybersecurity	Year 9 & 10
	IT Specialist: Computational Thinking	Year 12-13
	IT Specialist: Software Development	Year 12-13
	Python Institute PCEP & PCAP	Year 9-13
	Unity User (Programmer, Virtual Reality and Artist)	Year 9-10
	Unity Associate (Game Developer, Programmer, Artist)	Year 10-13
	Amazon Web Services Fundamentals Cloud Practitioner	Year 10-13
	ESB Certification in Entrepreneurship and Small Business	Year 13





## University pathway and admission counselling



The Cambridge International curriculum prepares students for studying in Australia, the United States, or the United Kingdom, simplifying the extensive process and entry requirements for those students looking at overseas universities. Wentworth College - Newmarket Campus offers individualised academic and university pathway counseling. Students are able to discuss their aspirations and make sure their subject choices are on track.

Wentworth College - Newmarket Campus is registered with UCAS. UCAS is the system used by all students who wish to apply to universities across the UK. Wentworth College - Newmarket Campus is also a registered test centre for the ACT, SAT and AP examinations. These examinations are some of the options available to students seeking entry to universities in the USA.







## **Student Success**







#### Jerry Dai

Jerry, passionate about mathematics, was selected for the New Zealand team at the International Mathematical Olympiad in July 2024 in Bath, UK, a testament to his hard work and exceptional talent. Competing internationally is a remarkable achievement. Additionally, Jerry won the Auckland Mathematical Olympiad in May 2024, beating 120 competitors from Year 9-13.

## Zhaozhou (Jimmy) Chen

While at Wentworth Computer Science College, Jimmy excelled in Computer Science and received university counseling from Victor Li. His dream of attending a top university came true with his acceptance to Oxford University for Engineering in October 2023. Since 2021, Wentworth graduates have also been accepted into the University of Auckland, AUT, and universities in China and the US.

## **Testimonials**

"Our son commenced at Wentworth College in 2021 as one of the inaugural first year students. He is now in Year 12 and has flourished at WCSC, achieving a 'Top Scholar' award for his IGCSE year.

We chose WCSC because of their vision for much higher-level digital skills for students as well as the innovative opportunities in Year 13 to undertake entrepreneurship programmes or industry placements alongside obtaining University Entrance.

As a small school, students do not get lost in the crowd, with customised learning to support their individual ambitions. The teaching staff are impressive and highly motivated to help every student achieve their best. The interaction between teachers and students is much more peer-to-peer than we have experienced elsewhere which creates an engaged and positive learning environment."

**Parent Year 12 student** 

"We have been more than impressed with Wentworth. It has exceeded our expectations and the quality of education and teachers is outstanding".

Parent, Year 12 student

## **Alumni Destinations**

Graduated Dux 2021: Jeongyun Kim -

University of Auckland - Software Engineering

**Graduated Dux 2022:** Kevin Wang - UCLA

Riverside - Bachelor of Business

**Graduated Dux 2023**: Selena Lee - University

of Otago - Health Sciences

**Graduated Dux 2024:** Isaac Chen - University of Auckland - Bachelor of Science with double major in Quantitative Economics and Computer Science

**Graduated 2024:** Edward Peng - Imperial College London Bachelor of Science

**Graduated 2024:** Lennox Younan - University

of Auckland - Bachelor of Property

Management



## • Is Wentworth College - Newmarket Campus a full New Zealand High School?

Yes. Wentworth Computer Science College is a Ministry of Education approved satellite school (faculty) of Wentworth College (MoE number 484), a successful private school in Gulf Harbour. All students are enrolled as Wentworth College students, but study at the Wentworth Computer Science College in Newmarket.

#### · Who is suited to attend Wentworth College - Newmarket Campus?

Any student who has a real interest in computers, the computer industry, information technology, the sciences (Physics, Chemistry & Biology) and Business/Economics.



# • What if I find that after one year, I haven't got the interest in Digital Technology subjects that I thought I had?

The curriculum is broad enough for you to easily complete your secondary education and gain entrance to a wide variety of courses at university. Due to the academic nature of the CIE curriculum, you will be ahead of many of your peers once you reach tertiary education. Our curriculum is also perfect to prepare students to study Health Science, Engineering, Commerce and Law.

#### • How is this school different to my current school?

Wentworth College - Newmarket Campus has small classes providing an excellent teacher to student ratio. It is a school for students wanting to study a curriculum of interest to them as well as receiving a quality education which will set them up for success in any future career or studies.

## **FAQs**



#### What if I like Art as well as Digital Technologies and Science?

Your art talent will be encouraged and fostered. Digital Media and Design is a subject that we offer. Students learn and develop creative digital arts. Examples include animation, graphic design, product design, Computer Assisted Design (CAD), photography and film.



## Are there any Social Science subjects offered at this school?

Yes. Years 9 and 10 students will study Global Perspectives - a broad social science subject encompassing elements of Geography, History and Economics. This leads on to Business Studies and Economics in their senior years. Other social sciences may be offered under special circumstances.

# • If I am not interested in coding/programming or computer science, will this school suit me?

Yes. Wentworth College - Newmarket Campus has an equally strong focus on the 'pure' sciences – Physics, Chemistry and Biology. Economics and Business Studies are also important to our curriculum. The digital technology Cambridge subjects are broad in subject matter and cover many disciplines.

#### · Would I do Physical Education?

Yes. Each week our Years 9-11 students enjoy a two hour excursion/activity outside of the classroom. Examples of this include badminton, table tennis, games at the Auckland Domain, visiting exhibitions at Auckland Museum, and climbing some of the local volcanic cones. During Life Skills, the junior students are also encouraged to work through their Duke of Edinburgh award.







If you have further questions or would like to organise a tour of the school or meet with the Principal, please contact **info@wentworth.school.nz**. One of our team will then contact you to arrange a time to meet with the Principal to discuss your enrolment.

Address: 25-27 Crowhurst Street, Newmarket, Auckland Postal address: PO Box 650, Whangaparaoa 0943

Phone: 09 520 0591

www.wentworthcomputerscience.school.nz