# COMMON ICT PROGRAMME (T63)

## Course Overview

There is a ton of tech career options out there. So, how do you decide which is the perfect fit for you? Simple, with this course! The Common ICT Programme provides you with the time you need to learn more about IT fundamentals and the various courses we offer.

The strong foundation you will gain in your first year is also the experience you can tap on to make an informed decision on the path you wish to pursue. These are the diploma courses you can choose to undertake in your next two years of study:

- Applied Artificial Intelligence
- Big Data & Analytics
- Cybersecurity & Digital Forensics
- Financial Business Informatics
- Game Design & Development
- Information Technology

## Entry Requirements

**To be eligible for consideration for admission, applicants must obtain 26 points or better for the net ELR2B2 aggregate score (i.e. English Language, 2 relevant subjects and best 2 other subjects) and meet the minimum entry requirements of this course. CCA cannot be used to meet the minimum entry requirements.**

| Subject | Grade |
|---|---|
| English Language (EL1)* | 1-7 |
| Mathematics (E or A) | 1-6 |
| Any two other subjects | 1-6 |
| **2021 Planned Intake** | **175** |
| **Net ELR2B2 aggregate range (2021 JAE)** | **4 - 16** |

To be eligible for selection, applicants must also have sat one of the following subjects: Additional Combined Science, Additional Science, Biology, Biotechnology, Chemistry, Combined Science, Computer Studies, Creative 3-D Animation, Design & Technology, Engineering Science, Food & Nutrition, Fundamentals of Electronics, General Science, Human & Social Biology, Integrated Science, Physics, Physical Science, Science (Chemistry, Biology), Science (Physics, Biology), Science (Physics, Chemistry), Science (Physics, Chemistry Biology).

See also the minimum entry requirements for:

- ITE Certificate Holders
- International Students

# What You'll Learn

YEAR 1

Learn to develop your own mobile and web applications with the coding and user interface skills you acquire. Also, learn the fundamentals of networking, and discover how to create your own analytics dashboard.

Note: Your learning journey and experiences in Year 2 and 3, as well as future career opportunities will depend on the diploma course you choose to be streamed into.

**TP Fundamentals (TPFun) Subjects**

| Subject Code | Subject | Credit Units |
|---|---|---|
| **LEA1011** | **Leadership: Essential Attributes & Practice 1**<br>LEAP 1, 2 and 3 are three fundamental subjects that seek to cultivate in you, the attitude, skills and knowledge for the development of your leadership competencies. This character-based leadership programme enables you to develop your life-skills through establishing personal core values, which will become the foundation for your leadership credibility and influence. | **1** |
| **CCS1006** | **Communication & Information Literacy**<br>In this subject, you will learn how to conduct research for relevant information and validate information sources.. You will also learn to recognise and avoid plagiarism, and follow standard citation and referencing guidelines when presenting information. In the course of learning, you will be required to plan, prepare and present information appropriately in written and oral form. You will also be taught to consider the **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) when writing and delivering oral presentations. | **2** |
| **LSW1002** | **Sports & Wellness**<br>This subject will help you develop both the physical and technical skills in your chosen sports or fitness activities. Through a structured curriculum that facilitates group participation, practice sessions and mini competitions, you will learn to build lifelong skills such as resilience, leadership, communication and teamwork. Physical activity sessions will be supplemented by health-related topics to provide you with a holistic approach to healthy living. | **2** |

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|---|---|---|---|---|
| | **MCR1001** | **Career Readiness 1**<br>This Career Readiness programme comprises three core subjects - Personal Management, Career Preparation and Career Management. It seeks to help you understand your career interests, values, personality and skills for career success. It also equips you with the necessary skills for seeking and securing jobs, and to develop professional work ethics. | **1** | |
| | **CCS1008** | **Persuasive Communication**<br>In this subject, you will be taught how to use persuasive language in written documents. You will be required to use information to your advantage to verbally communicate and convince an audience about your idea, product or service. Skills such as persuasive vocabulary, language features, graphical illustrations, tone and style would also be covered. The **M**essage, **A**udience, **P**urpose and **S**trategy (MAPS) will also be applied when engaging in verbal and written communication. | **2** | |
| | **GCC1001** | **Current Issues & Critical Thinking**<br>This subject presents you with a panoramic view of current local and global issues, which may have long term implications for Singapore. You will learn to apply critical thinking tools to examine current issues, support your views with relevant research and up-to-date data, articulate an informed opinion and mature as civic-minded individuals. | **2** | |
| | **CGS1002** | **Global Studies**<br>This subject provides essential skills and knowledge to prepare you for an overseas experience. You will examine the elements of culture and learn the key principles of cross-cultural communication. In addition, you will gain an appreciation and awareness of the political, economic, technological and social landscape to function effectively in a global environment. | **3** | |

# Diploma Subjects - Core Subjects

In Year 1 all students will go through a common curriculum which comprises the following subjects:

**Diploma Subjects - Core Subjects**

| | Subject Code | Subject | Credit Units | |
|---|---|---|---|---|
| | **CIT1C18** | **Computational Thinking**<br>This subject introduces students to the fundamentals of computational thinking and their application in developing programming solutions for problems. Topics covered include programming concepts, simple data structures and programming techniques. | **4** | |
| | **CIT1C20** | **Coding and Development Project**<br>This subject introduces students to coding principles and practices using an object-oriented approach. The subject also introduces the development of an IT application using the latest technologies. Topics covered include object and classes, composition, simple data structures, application architecture, design and development. | **4** | |

| | | | | |
|---|---|---|---|---|
| | **CIA1C11** | **Data Visualisation and Analytics**<br>This subject covers the data analytics lifecycle, including gathering, cleaning, processing and visualising of data. Exploratory data analysis methods, descriptive and predictive analytics and the presentation of insights will also be covered. | **4** | |
| | **CIA1C06** | **Database Application Development**<br>This subject introduces the fundamental concepts of relational database systems, the design methods specific to relational database, database manipulation using a database query language, and the techniques of implementing relational databases. It will also cover implementation of simple applications to access relational database. | **4** | |
| | **CIT1C14** | **Data Structures and Algorithms**<br>This subject introduces students to the fundamentals of recursion and data structures in solving problems using a programming language. Topics covered include stacks, queues, linked lists and trees. Searching techniques and sorting algorithms will also be covered. | **4** | |
| | **CCF1C02** | **IT Systems Security Essentials**<br>This subject introduces students to the key principles of information security namely confidentiality, integrity and availability and their application in various real world scenarios. Topics covered include IT law, international standards, security policies, procedures, processes to protect IT systems against cyber-attacks and information breaches and the architecture and organisation of the digital components of a computer system. | **4** | |
| | **CIA1C07** | **Logic and Mathematics**<br>This subject covers logic, sets, functions, recursion and graphs. It covers mathematical processes for developing algorithms in computing and other real-life applications. Topics covered include the fundamental mathematical concepts needed for computing. | **3** | |
| | **CMC1C08** | **Network Technology**<br>This subject covers the theoretical and practical aspects of networking and its related technologies. Topics covered include network protocols and communications, Ethernet networks, TCP/IP networking model, IP addressing, virtual local area networks (VLANs), routing and switching concepts and static and dynamic routing. | **4** | |
| | **CIT1C19** | **User Experience and Interface Design**<br>This subject introduces the concept of Human-Centered Design, and its practice to create useful digital products and interfaces that offer an enriching user experience (UX). The topics covered include deisgning interfaces, need findings, sketching and prototyping for interactive experiences, and usability testing. | **3** | |

At the end of Year 1, you will choose your diploma course and be streamed into Year 2.

**Graduation Requirements**

All students who enrol through this common programme will graduate with the same diploma as those who had joined a particular diploma right from Year 1. They will be subject to the graduation requirements of the respective diplomas into which they are streamed.
Please refer to the respective diploma websites below:

- Diploma in Big Data & Analytics
- Diploma in Cybersecurity & Digital Forensics
- Diploma in Financial Business Informatics
- Diploma in Game Design & Development
- Diploma in Information Technology