Cambridge International General Certificate of Secondary Education (IGCSE) - Computer Science (0478)

Cambridge International General Certificate of Secondary Educations (IGCSE) are considered to be an excellent preparation for Cambridge International AS and A Levels, the Cambridge AICE (Advanced International Certificate of Education) Group Award, Cambridge Pre-U, and other education programmes, such as the US Advanced Placement program and the International Baccalaureate Diploma programme. They are the world's most popular international qualification for 14 to 16 year olds.

Cambridge IGCSE Computer Science enables learners to develop an interest in computing and to gain confidence in computational thinking and programming. They develop their understanding of the main principles of problem-solving using computers.

Futurekids Computer Learning Center (Sch Reg No: 29075, 29076)
Registered Cambridge International School
Futurecyber Technology Solution Limited
(Centre No: HK071)

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Introduction

Cambridge IGCSE Computer Science enables learners to develop an interest in computing and to gain confidence in computational thinking and programming. They develop their understanding of the main principles of problem-solving using computers. Learners apply their understanding to develop computer-based solutions to problems using algorithms and a high-level programming language. They also develop a range of technical skills, as well as the ability to test effectively and to evaluate computing solutions. This qualification will help learners appreciate current and emerging computing technologies and the benefits of their use. They learn to recognise the ethical issues and potential risks when using computers. Cambridge IGCSE Computer Science is an ideal foundation for further study in Computer Science.

Scheme of Assessment

All candidates will be entered for Paper 1 and 2.

Paper 1 Theory (1 hour 45 minutes)
This paper is consisting of short-answer and structured questions set on Section 1 of the syllabus content. All questions are compulsory. Candidates will answer on the question paper.

Paper 2 Problem-solving and Programming (1 hour 45 minutes)
This paper is consisting of short-answer and structured questions set on Section 2 of the syllabus content. All questions are compulsory. Candidates will answer on the question paper.

Both papers will take place at FUTUREKIDS Computer Learning Center, by means of a CIE-set assessments, under controlled examination conditions. The documentation and printouts produced in the assessment will be externally marked by CIE.

Weighting of Papers

Paper	Weighting
1	50%
2	50%

Examinations Schedule

Examinations are held in June and November each year with results issued in August and February respectively.

Grading System

Cambridge IGCSE results are shown by one of the grades A*, A, B, C, D, E, F or G indicating the standard achieved, A* being the highest and G the lowest.

Recognition

IGCSE is a high profile qualification. It has exactly the same value in admitting students to institutes of further education and employment as the UK equivalent – GCSE.

◊   *IGCSE is comparable with GCE O Level and the UK GCSE*
◊   *IGCSE has an excellent reputation amongst international schools worldwide*
◊   *IGCSEs are recognised as a reliable record of attainment which counts towards entry to universities and colleges around the world*

Curriculum Content

The curriculum content is set out in eight interrelated sections. These sections should be read as an integrated whole and not as a progression. The sections are as follows:

Section 1
Computer System
1. *Data representation*
2. *Data transmission*
3. *Hardware*
4. *Software*
5. *The internet & its uses*
6. *Automated and emerging technologies*

Section 2
Algorithms, programming & logic
7. *Algorithm design and problem-solving*
8. *Programming*
9. *Databases*
10. *Boolean logic*

Course Outline

Module	Section(s) Covered	Study Hours
Module 1: Fundamental Programming	*7, 8*	*30 (20 Lessons)*
Module 2: Programming & Databases	*8, 9*	*30 (20 Lessons)*
Module 3: Data Representation & Communication	*1, 2, 3*	*18(12 Lessons)*
Module 4: Computer Architecture & Software	*3, 4, 10*	*18 (12 Lessons)*
Module 5: Internet Technologies & Security	*5, 6*	*18 (12 Lessons)*

<u>Prerequisite</u>
Students should pass a computer programming aptitude test. Please contact Futurekids for further details.

<u>Further Enquiries</u>
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Course Schedule

The course is scheduled on every Friday from 4:30pm to 6:00pm or Saturday from 9:30am to 11:00am / 3:30pm to 5:00pm

Module	Date		Fee
	Friday	**Saturday**	
Module 1: Fundamental Programming (I)	2023 Nov 03, 10, 17, 24, Dec 01, 08, 15, 22, 29, 2024 Jan 05	2023 Nov 04, 11, 18, 25, Dec 02, 09, 16, 23, 30, 2024 Jan 06	**10 lessons** $6,000
Fundamental Programming (II)	2024 Jan 12, 19, 26, Feb 02, 09, 16, 23, Mar 01, 08, 15	2024 Jan 13, 20, 27, Feb 03, 10, 17, 24, Mar 02, 09, 16	**10 lessons** $6,000
Module 1 Test	**Date and time to be confirmed**		$500
Module 2: Programming & Databases (I)	2024 Mar 22, 29, Apr 05, 12, 19, 26, May 03, 10, 17, 24	2024 Mar 23, 30, Apr 06, 13, 20, 27, May 04, 11, 18, 25	**10 lessons** $6,000
Programming & Databases (II)	2024 May 31, Jun 07, 14, 21, 28, Jul 05, 12, 19, 26, Aug 02	2024 Jun 01, 08, 15, 22, 29, Jul 06, 13, 20, 27, Aug 03	**10 lessons** $6,000
Module 2 Test	**Date and time to be confirmed**		$500
Module 3: Data Representation & Communication	2024 Aug 09, 16, 23, 30, Sep 06, 13, 20, 27, Oct 04, 11, 18, 25	2024 Aug 10, 17, 24, 31, Sep 07, 14, 21, 28, Oct 05, 12, 19, 26	**12 lessons** $7,200
Module 3 Test	**Date and time to be confirmed**		$500
Module 4: Computer Architecture & Software	2024 Nov 01, 08, 15, 22, 29, Dec 06, 13, 20, 27, 2025 Jan 03, 10, 17	2024 Nov 02, 09, 16, 23, 30, Dec 07, 14, 21, 28, 2025 Jan 04, 11, 18	**12 lessons** $7,200
Module 4 Test	**Date and time to be confirmed**		$500
Module 5: Internet Technologies & Security	2025 Jan 24, 31, Feb 07, 14, 21, 28, Mar 07, 14, 21, 28, Apr 04, 11	2025 Jan 25, Feb 01, 08, 15, 22, Mar 01, 08, 15, 22, 29, Apr 05, 12	**12 lessons** $7,200
Module 5 Test	**Date and time to be confirmed**		$500
Examinations	**May - Jun 2025, details will be announced later**		

Remarks:
1. Full payment should be made one week before the commencement date of each module.
2. Any make up class other than the scheduled time will require $200 administration fee.
3. No class on public holiday, make-up class will be arranged.
4. A course book will be chosen for student to study, student can buy the book through bookshop or Futurekids.
5. Enhancement courses and mock examinations will be held after course end for students to re-enforce their knowledge in each module covered and familarise the examination patterns. Details of schedule and fee will be announced later.
6. Price are subject to change in due course, details will be announced one month before the module begins.