



COMPUTER SCIENCE

General course

Year 12 syllabus – What’s changing: Rationale and Aims

For teaching in 2027

Acknowledgement of Country

Kaya. The School Curriculum and Standards Authority (the Authority) acknowledges that our offices are on Whadjuk Noongar boodjar and that we deliver our services on the country of many traditional custodians and language groups throughout Western Australia. The Authority acknowledges the traditional custodians throughout Western Australia and their continuing connection to land, waters and community. We offer our respect to Elders past and present.

Background

As part of the Western Australian Certificate of Education (WACE) Refreshment for reviewing the nomenclature of courses, the Authority has updated the rationale and aims of each syllabus.

The revised rationale and aims are aligned with the mapping of the general capabilities to provide clear connections between the rationale, aims and syllabus content. The rationale outlines what the subject is about and why it is important. It describes what students can expect to study in the course, along with the knowledge, skills and understandings they will develop throughout the course. It also explains how these can be applied in everyday life and references potential future pathways, outlining how students might connect what they learn in the course to further education, training and employment opportunities.

Important information

WACE Refreshment: Reviewing the nomenclature of courses

This document contains information that will be included in the syllabus effective from 1 January 2027.

Users of the syllabus are responsible for checking its currency.

Syllabuses are formally reviewed by the Authority on a cyclical basis, typically every five years.

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Rationale

The Computer Science General course focuses on the fundamental principles, concepts and skills of the technology field, and provides students with opportunities to develop flexibility and adaptability in their application as developers and users. The course explores the underpinning knowledge and skills of computer science and how these are applied in a practical way to the development of computer systems and software, as well as the connectivity between computers, peripheral devices and software used in the home and in the workplace.

The course investigates personal and social impacts of technological developments. It explores the ethical and legal factors that influence developments in information technology so that students can identify the consequences of decisions made by developers. Students are given the opportunity to develop and maintain databases and digital solutions using a programming language and skills.

Throughout the course, students develop problem-solving and technical skills as they learn how to diagnose and solve problems, improving their understanding of the building blocks of computing. These also develop skills in computational thinking, programming and software development, data management and security, digital systems and networking, and collaboration and project management.

This course provides students with practical and technical skills that equip them to function effectively in daily life and are vital for employability, including programming, data analysis, cybersecurity awareness, project management and problem-solving through a systematic approach. It provides a sound understanding of computing to support students pursuing further studies in related fields.

The Computer Science General course provides students with foundational skills that prepare them for further education, vocational training and employment in various technology-related fields. Students may develop skills to support employment opportunities in the information technology field as a support technician, junior web developer, helpdesk operator or network assistant, or in data entry or administration.

Aims

The Computer Science General course aims to develop students’:

- skills in designing, maintaining, adapting and producing databases and digital solutions
- problem-solving skills using algorithms, data structures and programming languages
- skills in assessing networking issues within a digital environment
- understanding of the design, application and interactions of data and software in digital systems through the creation and maintenance of databases, network data transmission and programming constructs
- understanding of how to apply a technology process accurately to develop a digital solution
- understanding of the interrelationships between the development and use of digital solutions for individuals and societies in relation to the legal and ethical implications of software design and data management.