Applied Computing

Subject Guide

Computing and digital technologies are rapidly changing many aspects of society. From the way we pay for shopping, to factory automation, scientific discoveries and medical advances, computing and digital technologies play an important role in shaping who we are and how we live. Applied Computing provides students with the knowledge and the 21st century skills to be the innovators and creators of the future.

Skills that students develop in Applied Computing include data analytics, programming, problem solving, communication, planning, project management and teamwork. Students are provided with practical opportunities to create digital solutions that address real-world problems across a wide range of industries and environments.

Major themes in this study include cybersecurity, working with spreadsheets, databases, data visualisations, Python programming, and working on innovative and emerging digital technologies.

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Unit focus areas

Unit 1 – Data analysis and programming

In data analysis, students explores the whole process of data-driven problem solving, from collecting useful data, to data processing and data visualisation. Students will learn to use important tools such as Excel, Access and PowerBI to perform technical tasks to address authentic problems.

In programming, students are introduced to the fundamentals of software development via the Problem Solving Methodology. Students at different levels of programming skills will benefit from learning the Python programming language, and using it to design, develop and test functional console and web applications.

Unit 2 – Innovative solutions and network security

This area of study provides students with an opportunity to undertake a real-world project of their choice, by utilising creativity and innovation to design, build and test a technological solution relevant to the study and matching their interests.

Students also explore how a computer network operates, learn about cybersecurity and examine the types of threats faced by organisations in a digitally connected world.

Pre-requisites

There are no pre-requisites to study Applied Computing Units 1 and 2. All Year 10 students can choose to study this subject. This subject is also an important foundation for students wishing to study Units 3 and 4 Computing subjects.

Note: VCE Applied Computing Units 1 and 2 is also running on Pangea, subject to numbers.

Assessment

All assessments are school-based, with the award of satisfactory completion for the units based on whether the student has demonstrated proficiency in the key knowledge and key skills.