UNIT 1 & 2 APPLIED COMPUTING

VCE Applied Computing equips students with the knowledge and skills required to navigate and adapt within a dynamic technological landscape, use emerging technologies, envisage new uses for digital tools and consider the benefits to society at a local, national and global level. Students develop a range of data analytics, programming and cyber security skills that are in high demand in today's digital age.

VCE Applied Computing leads directly to further studies in areas such as artificial intelligence, computer science, cyber security, data analytics and data science, data management, digital literacy, games development, networks, programming, robotics, software engineering, systems analysis and telecommunications. The skills acquired in VCE Applied Computing could be utilised across a range of industries including healthcare, finance, entertainment, education, construction and business/commerce.

UNIT 1

Students will use software tools to create data visualisations in response to teacher-provided solution requirements, designs and data. They will examine the features of different design tools to represent the functionality and appearance of software solutions. Students focus on the appropriate functions and techniques to manipulate and validate data and to make use of suitable formats and conventions.

Students apply computational thinking skills when extracting meaning from data and apply design thinking skills and knowledge to develop data visualisations.

AREAS OF STUDY

- Data Analysis
- Programming

OUTCOMES

Outcome 1: Interpret teacher-provided solution requirements and designs, analyse data and develop data visualisations to present findings.

Outcome 2: Interpret teacher-provided solution requirements to design and develop a software solution using an object-oriented programming language.

UNIT 2

Students focus on developing an innovative solution to a problem, need or opportunity that they have identified, and develop an understanding of network environments, cyber security risks, threats to networks and strategies to reduce the risks to data and information.

AREAS OF STUDY

- Innovative Solutions
- Cyber Security

OUTCOMES

Outcome 1: Students should be able to, in collaboration with other students, identify a problem, need or opportunity to analyse, design, develop and evaluate an innovative solution.

Outcome 2: Student should be able to respond to a teacher-provided case study to examine a cyber security incident or a network vulnerability, evaluate the threats to a network, and propose strategies to protect the security of data and information on the network.