



VCE APPLIED COMPUTING

INFORMATION GUIDE



VCE APPLIED COMPUTING

INTRODUCTION

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. VCE Applied Computing facilitates student-centred learning that enables students to build capabilities in their critical and creative thinking, communicate and collaborate with their peers, and develop personal, social and digital literacy skills. Students are provided with practical opportunities and choices to create digital solutions for real-world problems in a range of settings.

AIMS

This study enables students to:

- Understand how digital systems and solutions can be used by individuals and organisations
- Develop an understanding of the roles and applications of data analytics, programming, cyber security and emerging technologies within society
- Build a capacity to solve problems by applying the problem-solving methodology to analyse problems, needs and opportunities, design and develop solutions and evaluate how effectively solutions meet needs
- Apply project management techniques to assist with the development of digital solutions
- Develop an informed perspective on current and emerging digital tools and trends
- Identify and evaluate innovative and emerging opportunities for digital technologies
- Develop critical and creative thinking, communication and collaboration, and personal, social and digital literacy skills.

UNIT 1

Outcome 1

Data Analysis

- Collect, interpret and manipulate data
- Create database, spreadsheet and data visualisations solutions using the data collected

Outcome 2

Programming

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

UNIT 2

Outcome 1

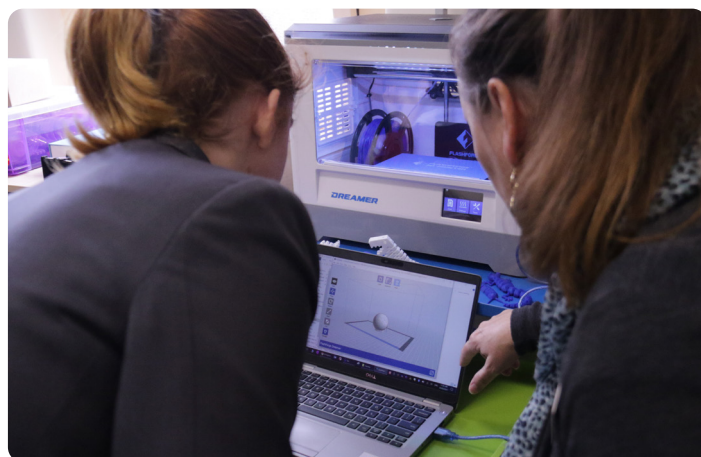
Innovative Solutions

- Investigate the use of digital devices and emerging technologies and their applications
- Work in a group to develop an innovative solution to an identified need or opportunity

Outcome 2

Network Security

- Investigate how networks enable data and information 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.



CAREER OPTIONS

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 3

Outcome 1

Data Analytics

- Select and extract authentic data from large repositories and manipulate the data to present findings
- Develop software solutions using database, spreadsheet and data visualisation software tools

Outcome 2

Data Analytics Analysis and Design

- Determine and propose a research question and collect and analyse data
- Generate design ideas for creating database and/or spreadsheet solutions and infographics or dynamic data visualisations to present finding
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UNIT 4

Outcome 1

Data Analytics: Development and Evaluation

- Develop the design prepared in Unit 3, Outcome 2 into infographics or dynamic data visualisations
- Evaluate the quality of their infographics or dynamic data visualisations

Outcome 2

Cybersecurity: Data and Information Security

- Analyse the impact of a data breach on an organisation
- Identify and evaluate threats, evaluate current security strategies
- Make recommendations to improve security strategies



To find out more information
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This flyer is correct as of July 2024, however may be subject to change.

