

## Year 10 – Computing Technology 2024

### TERM 1-2

	<b>Robotics and Animatronics 1</b>	
	Students apply computing skill domains to build and program a mechatronic and/or automated system using a range of sensors, actuators and end effectors. Projects explore the use and application of robotics, controllers and the programming of these devices using an object-oriented programming language.	
	<b>UNIT OVERVIEW</b>	<b>ASSESSMENT</b>
<b>TIMING</b> Weeks: 18	<p><b>Building Mechatronics and Automated Systems</b></p> <p>Students develop their knowledge and skills in programming and the use of a variety of microcontrollers to develop a simple device to support the physical, emotional, social or cognitive wellbeing of a user. This could include devices that promote access and participation for people with disability. This unit will support students as they develop, plan, design and construct a mechatronic system using algorithms and/or automated systems to solve a real-world problem. Students will evaluate their own project, ensuring functionality, code validation and data security.</p> <p>Focus outcomes: CT5-DPM-01, CT5-COL-01, CT5-EVL-01, CT5-OPL-01, CT5-THI-01</p>	<p>Task Number: 1</p> <p>Nature of Task:</p> <p>Topic Test</p> <p>Percentage: 10%</p> <p>Week: 9 Term 1</p> <p>Reported: Semester 1</p> <p>Task Number: 2</p> <p>Nature of Task:</p> <p>Folio and Design Product</p> <p>Week 4 Term 2</p> <p>Percentage: 40%</p>

## Year 10 - Information and Software Technology 2023

### TERM 3-4

	<b>Designing for User Experience</b>	
	<p>Students apply computing skill domains to the development of a project considering human-centred design. Projects explore the use of interactive/multimedia software and hardware to demonstrate the importance of digital design and interactive multimedia as a communication tool. Projects may include the safe and ethical use of online tools, collected and/or curated media files, and may leverage current and innovative software to design and develop an interactive or multimedia presentation/production.</p>	
	<b>UNIT OVERVIEW</b>	<b>ASSESSMENT</b>
<b>TIMING</b> Weeks: 18	<p><b>Development of the interface</b></p> <p>Students develop their knowledge and skills in the use of a variety of tools, materials and techniques related to multimedia production, user interfaces and the user experience. This unit supports students as they develop an interactive presentation (up to 3 minutes in length) that uses interactivity to store user input for future analysis and prediction modelling. Design qualities are emphasised to ensure functionality, accessibility, usability and aesthetics while adhering to privacy and copyright requirements including legal and ethical responsibilities.</p> <p>Focus outcomes: CT5-SAF-01, CT5-DPM-01, CT5-EVL-01, CT5-DAT-01, CT5-COM-01, CT5-THI-01, CT5-DAT-02, CT5-DES-01</p>	<p>Task Number: 3</p> <p>Nature of Task:</p> <p>Folio and Product</p> <p>Percentage: 20%</p> <p>Week: 9 Term 3</p> <p>Reported: Semester 2</p> <p>Task Number: 4</p> <p>Nature of Task:</p> <p>Yearly Examination</p> <p>Percentage: 30%</p> <p>Week: 3 Term 4</p> <p>Reported: Semester 2</p>