TECHNOLOGY and ENTERPRISE COMPUTING

<table>
<thead>
<tr>
<th>Year 10</th>
<th>Possible Senior School Pathway</th>
</tr>
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<tbody>
<tr>
<td>Computer Generated Animation</td>
<td>Certificate II ICT</td>
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<tr>
<td></td>
<td>ATAR Computer Science</td>
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<tr>
<td>Computer Programming</td>
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<td>Robotics</td>
<td>Certificate II ICT</td>
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10 COMPUTER GENERATED ANIMATION (CODE 10CGA)

PREREQUISITE: Year 9 Computer Animation and Multi Media
Students will develop digital technology skills to design computer generates imagery, build animations using 3D modeling and rendering techniques, apply special effects to digital video and use the latest movie industry standard software including After Effects, Premiere, Studio 3DS MAX and MAYA. Students will:

- Develop skills and techniques in digital capture, manipulation, 3D modelling, computer generated animations (CGA) and computer generated imagery (CGI)
- Investigate, design, produce and evaluate CGA and CGI solutions
- Understand hardware and software systems used in CGA and CGI.

10 COMPUTER PROGRAMMING (CODE 10COM)

PREREQUISITE: Nil
Students develop and apply skills in computer control and programming. Various programming languages are used to produce simple computer games, applications and simulations.

Students will develop IT skills in programming and structured programming techniques; investigating, designing, producing and evaluating solutions to computer control and programming problems; understanding of hardware and software systems used in computer control and programming; understanding of different and relevant data types and data structures; societal and environmental issues.
10 ROBOTICS (CODE10ROB)

**PREREQUISITE:** Year 9 Robotics 1
Robotics2 will cover in more depth the engineering components of robotic devices including electrical, electronic and mechanical using CAD (AutoDesk Inventor) and 3D printing systems, and the study of dynamic and kinematic movement. It will provide opportunity for students to learn at a higher level how to give “intelligence” to autonomous robotic devices by using problem solving techniques, computer programming and coding. Students will put knowledge into practice by using simulation software in the design & development process and by working in teams to prototype using 3D modelling software and 3D printers, design, build and program advanced robotic devices to accomplish set tasks.

**DESIGN AND TECHNOLOGY**

<table>
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<tr>
<th>Year 10</th>
<th>Possible Senior School Course</th>
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<tbody>
<tr>
<td>Industrial Systems*</td>
<td>General Automotive Engineering and Technology</td>
</tr>
<tr>
<td>Metals Technology*</td>
<td>General Design Metals</td>
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<tr>
<td>Wood Technology*</td>
<td>General Design Wood</td>
</tr>
<tr>
<td>Technical Graphics*</td>
<td>General Design Technical Graphics</td>
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</tbody>
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* extra cost option

10 INDUSTRIAL SYSTEMS* (CODE 10IND)

**DESIRABLE PREREQUISITE:** Year 9 Industrial Systems
This course is available to all students and follows on from Industrial Systems Year 9, where students will further develop skills in an extended range of industrial processes. The key outcomes of working in groups, problem solving and investigation /analysis are reinforced in this course.

Students undertake practical and theory tasks in the key industrial systems areas of:
- Mechanics
- Welding
- Pneumatics and hydraulics
- Control and building
- Electronics.

10 METALS TECHNOLOGY* (CODE 10MET)

**DESIRABLE PREREQUISITE:** Year 9 Metals Technology
Students develop skills in the use of hand and power tools, read workshop drawings (with the added emphasis on design), and make and appraise related skills.

The principle concepts for this course are:
- Personal and general workshop safety
- Safe and correct use of hand, power tools and machines
- Utilise the design process to solve some complex problems
Maintain a safe and effective workshop environment
Independent learning.

10 WOOD TECHNOLOGY*

(CODE10WD)

DESIRABLE PREREQUISITE: Year 9 Wood Technology
This course allows students to broaden their knowledge, skills and processes, refining skills in the areas of design, problem solving and machine operations.
This course provides students with the opportunity to:

- Develop expertise in the safe use of hand and power tools
- Learn new skills, processes and construction techniques
- Reinforce and further develop safety routines and procedures
- Use problem-solving strategies through the Design Process
- Independent learning

10 TECHNICAL GRAPHICS

(CODE 10TGR)

DESIRABLE PREREQUISITE: Nil
This course allows students to broaden their knowledge, skills, graphic communication and improve their computer skills.
This course provides students with the opportunity to:

- Further develop and consolidate computer literacy
- Implement problem solving skills
- Improve communication skills and knowledge of computer assisted drawing programmes

HOME ECONOMICS

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<th>Year 10</th>
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<tbody>
<tr>
<td>Childcare*</td>
<td>General Children. Family and Community</td>
</tr>
<tr>
<td>Special Occasion Catering*</td>
<td>General Food Science and Technology</td>
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<tr>
<td>Fashionister (2016→)</td>
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* extra cost option

10 CHILDCARE*

(CODE 10CC)

PREREQUISITE: Nil
If you are interested in working with children, or if you simply enjoy spending time with children, then this course is for you!
This course will cover key aspects related to:

- Growth and development
• Learn through play
• Create a positive environment for children
• Introduction to the Real Care Baby Program – virtual baby
• Have contact with children
• Be involved in practical activities.

Work covered will involve both practical and theoretical activities. Students will be assessed in the Materials and Technology Process outcomes.

10 SPECIAL OCCASION CATERING*  (CODE10SOC)

PREREQUISITE: Nil
Special Occasion Catering is a fun and interesting course which studies four main areas Sharing Food with Friends; Cafe Foods; International Foods; and Cake Decorating.

• Meal planning
• Prepare entree, main and dessert
• Prepare foods from countries all over the world
• Investigate foods for special occasions
• Design and make a Christmas cake
• Produce foods suitable for a café