

Technology Studies

STAGE 1
Semester 1

Go-Kart Design and
Construction

Furniture Design and
Construction

STAGE 1
Semester 2

Go-Kart Design and
Construction

Automotive Studies
Automotive Maintenance
and Servicing

STAGE 2

Automotive Technology

Furniture Construction

Automotive Engineering

STAGE 1
Semester 1

Technical & Computer Drawing 1

STAGE 1
Semester 2

Technical & Computer
Drawing 1

Technical & Computer
Drawing 2

STAGE 2

Technical Graphics

STAGE 1
Semester 1

Electronics 1


STAGE 1
Semester 2

Electronics 2

STAGE 2

Electronic Systems

N.B. If students wish to achieve a Tertiary Entrance Rank (TER), used for entrance into universities, they may study no more than 2 units or 1 full year subject of Technology (this includes Movie Making Technology and Stage 2 Photography) in Stage 2.



Casuarina Senior College aims to provide an outstanding education and quality outcomes for all students through the provision of rich learning experiences and a varied curriculum designed to maximise student engagement.

Students are able to access all subjects without incurring tuition costs. A number of subjects also offer extended learning experiences which are optional and for which the College Council will seek the reimbursement of associated costs from parents of participating students. Examples include additional materials, excursions, etc. Indicative reimbursement costs for subjects containing extra-curricula activities are identified throughout the handbook by an asterisk (*).

For further information please contact the College on 8920 1211.

Go-Kart Design and Construction

Subject Description (Material Products)

This course aims to introduce and develop in students the basic hand and machine tool skills and knowledge necessary to construct functional artefacts in a safe and productive manner. The content will be delivered via a thematic approach, ie the group construction of a motorised Go-Kart.

Content

- Safe Work Methods
- Basic Mechanics
- Fitting and Machining
- Welding and Fabrication
- Design Sketching and Realisation

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit 10	Subject Length 1 x semester	Subject Offered Semester 1 & 2
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Furniture Design and Construction

Subject Description (Material Products)

This course is practically based and emphasises the development of skills in the modified design and production of contemporary furniture.

Content

- The design process
- Safe operation of hand and machine tools
- Characteristics of timber and timber products
- Finishing techniques
- Carcase and box joints

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit 10	Subject Length 1 x semester	Subject Offered Semester 1
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Code
1MM221

NTCET Code
1MMA10

*\$40 for materials and consumables.

Prerequisite
Year 10 Technical Studies would be an advantage or teacher recommendation.

Code
1MM231

NTCET Code
1MMA10

*\$50 for materials and consumables.

Prerequisite
Year 10 Technical Studies would be an advantage or teacher recommendation.

Automotive Studies

Subject Description

This subject introduces students to basic motor vehicle operation. Students will study the operation, maintenance and repair of motor vehicles and develop skills in the safe use of automotive hand and power tools.

Content (Systems & Control Products)

At the completion of this unit, students should be able to:

- identify the basic systems and components of a motor vehicle
- explain the basic operation of these systems in a motor vehicle
- apply safe work practices and OH&S principles in the operation and repair of motor vehicles
- select and safely use automotive tools and workshop equipment
- undertake basic maintenance and servicing on a motor vehicle.

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Automotive Maintenance & Servicing

Subject Description

This subject provides students with opportunities to develop an understanding of the design/problem solving process and develop knowledge and understanding of automotive technology practices. The focus of the unit is automotive maintenance and servicing.

Content (Systems & Control Products)

- Automotive Maintenance and Service
- Automotive Detailing
- Automotive Principles and Systems

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Code
1SS211

NTCET Code
1SSA10

*\$10 for materials
and consumables.

Prerequisite
An interest in motor
vehicle studies.

Code
1SS221

NTCET Code
1SSA10

*\$10 for materials
and consumables.

Prerequisite
An interest in motor
vehicle studies.

Technical and Computer Drawing 1

Subject Description

This unit introduces students to basic geometric constructions, drawing methods and computer aided drafting techniques to enable them to produce, interpret and evaluate technical drawings.

Content (Communication Products)

At the completion of this unit students should be able to:

- identify the methods of drafting and reproducing drawings
- construct geometric shapes as appropriate to the mechanical fabrication industries
- interpret the practical implications of information specified on technical drawings as appropriate to the mechanical, fabrication and electrical/electronic industries
- produce freehand sketches and CAD drawings from detailed specifications.

This subject includes Computer Assisted Drawing [CAD].

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit 10	Subject Length 1 x semester	Subject Offered Semester 1 & 2
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Technical and Computer Drawing 2

Subject Description

This unit will develop skills to enable students to identify, produce and evaluate technical drawings utilising a range of methods and materials.

Content (Communication Products)

At the completion of this unit students should be able to:

- demonstrate knowledge and skill in the application of the processes involved in drafting and design when developing solutions to problems
- demonstrate a high level of skill in the use of the equipment necessary to produce graphic materials
- demonstrate the ability to realistically evaluate their own graphic materials and that of other people
- produce freehand drawings/sketches and CAD drawings from detailed specifications.

This subject includes “The Design Process” and Computer Assisted Drawing [CAD].

Assessment

- Skills & Applications Tasks
- Folio
- Product

Credit 10	Subject Length 1 x semester	Subject Offered Semester 2
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Code
1CC241

NTCET Code
1CCB10

*\$10

Prerequisite
No prerequisite.

Code
1CC242

NTCET Code
1CCB10

*\$10

Prerequisite
Technical and Computer Drawing 1 would be an advantage or teacher recommendation.

technology studies stage 1

Electronics 1

Subject Description

Students engage in a study of modern electronic components and their assembly into practical and useful devices. The subject addresses introductory level circuit design, construction, testing and operation. The subject also contains critical elements of electrical safety and good working practice.

Content

Students who complete this subject should be able to:

- identify dangers and observe safety procedures in an electrical/ electronic environment
- identify and state typical applications for common electronic components
- use laboratory equipment to validate theoretical concepts
- design simple electronic circuits.

Assessment

- Product Analysis
- Design and Communication Task
- Product Realisation and Evaluation
- Specialised Skill Tasks

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 1 & 2

Electronics 2

Subject Description

This subject continues from Electronics 1 and has a more practical approach.

Content

Students who complete this subject should be able to:

- identify dangers and observe safety procedures in an electrical/ electronic environment
- use electronic components in circuits
- design and develop effective electronic circuits in line with industry practice.

Assessment

- Product Analysis
- Design and Communication Task
- Product Realisation and Evaluation
- Specialised Skill Tasks

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Code
1SS231

NTCET Code
1SSA10

*\$60 for project.

Prerequisite
Year 10 Level 2
Mathematics.

Code
1SS232

NTCET Code
1SSA10

*\$60 for project.

Prerequisite
Year 10 Level 2
Mathematics,
Electronics 1.