

Science

YEAR 10

General Science

- High Pass
- Teacher Recommendation

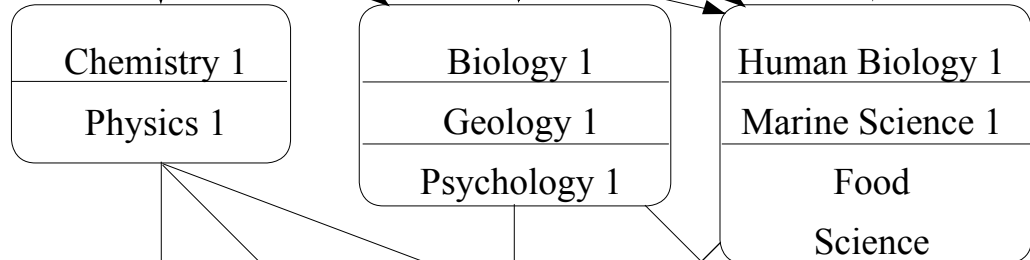
General Science

- Good Achievement
- Teacher Recommendation

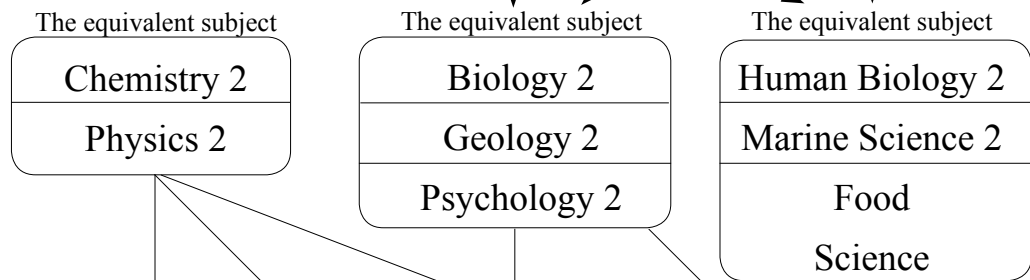
General Science

- Average Achievement
- Teacher Recommendation

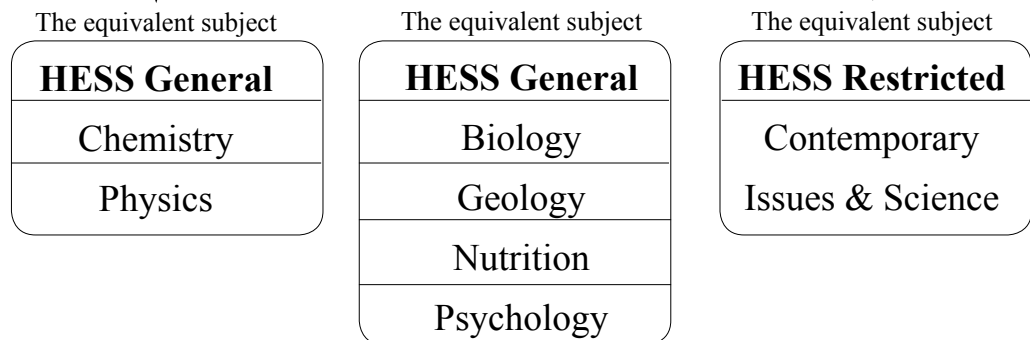
STAGE 1 Semester 1



STAGE 1 Semester 2



STAGE 2




There are no prerequisites for HESS General Geology, Nutrition, or Biology, or HESS Restricted Contemporary Issues and Science

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Teacher Recommendation

N.B. If Stage 2 students wish to achieve a Tertiary Entrance Rank (TER), used for entry into interstate universities, they may not study HESS Restricted Science with any HESS General Science subject.

Science



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.

science stage 1

Biology 1

Subject Description

In this subject, students use the methods of science to investigate living organisms. They focus on the structure and function of cells in different organisms and the interactions between organisms in their environment. Students also learn about current issues and techniques used in Biology that are relevant to the topics covered.

Content

Three units of work are offered. Each topic has a duration of six weeks:

- Cells: The Building Blocks of Life
- Plants
- Conservation of Animals

Assessment

- Topic Tests
- Field Report
- Practical Investigations
- Research Assignment
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 1

Note: Cannot be taken with Human Biology 1

Biology 2

Subject Description

This subject continues and extends the studies in Biology 1

Content

Three units of work are offered. Each topic has a duration of six weeks:

- Microbiology and Biotechnology
- Evolution
- Genetics
- Body Systems

Assessment

- Topic Tests
- Field Report
- Practical Investigations
- Research Assignment
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Note: Cannot be taken with Human Biology 2

Science

Code
1BI911

NTCET Code
1BIG10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
A good pass in Year 10 Science.

Code
1BI912

NTCET Code
1BIG10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
Teacher recommendation.
Biology 1 is advised.

science stage 1

Chemistry 1

Subject Description

Chemistry is the study of elements and compounds and the way in which substances react together. In this course students are introduced to the basic concepts and knowledge in Chemistry, with an emphasis on practical skills and the relevance of chemical compounds to our lives. A strong background in Science is recommended.

Content

- Materials and Bonding
- Organic Materials
- Alcoholic Beverages and other topics of chemical interest and social relevance.

Assessment

- Practical Reports
- Social Relevance Report
- Tests
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 1

Chemistry 2

Subject Description

This subject uses the skills and knowledge developed by students in Chemistry Part 1 to investigate a wide range of chemicals and chemical processes including their production and uses. Emphasis is given to the development of skills in practical work, problem solving and communication.

Content

- Household Chemicals
- Metallurgy
- Redox Reactions and other topics of chemical interest and social relevance.

Assessment

- Practical Reports
- Social Relevance Report
- Tests
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Code
1CM911

NTCET Code
1CME10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
A strong pass in Level 1 is strongly recommended.

Code
1CM912

NTCET Code
1CME10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
Successful completion of Chemistry Part 1, or Science Teacher recommendation.

Geology 1

Subject Description

This subject aims to provide an understanding of the materials that make up the surface of the earth, the processes that shape it and its history. The subject is predominantly practical and has field work components.

Content

Students study four topics of about four weeks each:

- Minerals
- Rocks and Structures
- Plate Tectonics and Coastal Geology

Assessment

- Field Work Report
- Project and Communication Task
- Practical Test
- Topic Tests
- Exam

Credit

10

Subject Length

1 x semester

Subject Offered

Semester 1

Geology 2

Subject Outline

This subject provides an understanding of the processes that build the face of the planet, the history of life on earth and the resources it contains. This subject is predominantly practical and has field work components.

Content

Three topics are studied:

- Life in the Past
- Rock Deformation and Mountain Structures
- Mining and Geo Hazards

Assessment

- Field Work Report
- Topic Tests
- Project or Communication Task
- Practical Test
- Exam

Credit

10

Subject Length

1 x semester

Subject Offered

Semester 2

Code
1GO911

NTCET Code
1GOY10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
No prerequisite.

Code
1GO912

NTCET Code
1GOY10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
No prerequisite.

Human Biology 1

Subject Description

This subject provides a study of human growth and development. It gives students a good knowledge of the workings of some sections of their own bodies and introduces them to some moral and ethical issues.

Content

The subject consists of three units which will be selected from a list of four options. All units are of the same duration.

- Genetics / Cells
- Human Reproduction and Sexuality
- Keeping the Body Going

Assessment

- Folio Presentation
- Practical Reports
- Tests
- Assignments

Credit 10	Subject Length 1 x semester	Subject Offered Semester 1
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Note: Cannot be taken with Biology 1

Human Biology 2

Subject Description

This subject examines the causes of diseases, the effects on people and how they can be treated. It also looks at the influences drugs can have on people's lives, both in treating disease and through misuse.

Content

The subject consists of three units which will be selected from a list of four options. All units are of the same duration.

- Drugs
- Microbes and Disease
- Behaviour and Mental Illness

Assessment

- Library/Research Assignments
- Presentation of Folio
- Practical Report
- Tests

Credit 10	Subject Length 1 x semester	Subject Offered Semester 2
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Note: Cannot be taken with Biology 2

Code
1BI921

NTCET Code
1BIG10

*\$20 for printed materials. Excursions may be a component of this course.

Prerequisite

Successful completion of Year 10 Science.

Code
1BI922

NTCET Code
1BIG10

*\$20 for printed materials. Excursions may be a component of this course.

Prerequisite

Successful completion of Year 10 Science.

science stage 1

Marine Science 1

Subject Description

Marine Science is a predominantly practical general science subject, designed to stimulate interest in the marine environments of the Northern Territory. It develops skills in practical and field work as well as broadening their knowledge about local marine environments and conservation issues.

Content

Three topics are studied:

- Oceanography
- Marine Organisms and Habitats
- Aquaculture and Recreational Fishing

Assessment

- Field Reports
- Practical Work
- Tests
- Library Research Assignment
- Folio

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 1

Marine Science 2

Subject Description

Marine Science 2 is designed to cater for students who have an interest in the marine environments of the Northern Territory. It continues the approach of Marine Science 1 in developing skills in practical and field work as well as broadening their knowledge about local marine environments and conservation issues. It is of interest to the student who may be looking at a possible career path in areas such as ecotourism, tour guiding or conservation ranger.

Content

Three topics are studied:

- Water Quality
- Marine Resources and Conservation
- Marine Biohazards, Safety and Recreation

Assessment

- Field Reports
- Practical Work
- Tests
- Library Research Assignment (communication task)
- Folio

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Science

Code
1BI931

NTCET Code
1BIG10

*\$95 for fishing trip and printed materials.
Excursions may be a component of this course.

Prerequisite
No prerequisite.

Code
1BI932

NTCET Code
1BIG10

*\$20 for printed materials.
Excursions may be a component of this course.

Prerequisite
No prerequisite.

science stage 1

Physics 1

Subject Description

This subject is an introduction to the processes and principles of Physics. It concentrates on three areas: motion; waves and optics; electrostatics. Since Physics applies mathematical calculations to practical situations, students will need to be competent in algebra and trigonometry.

Content

- Mechanics 1
- Forces
- Waves
- Optics
- Electric Fields

Assessment

- Practical Reports
- Engineering Project
- Topic Tests
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 1

Physics 2

Subject Description

This subject is an introduction to additional processes and principles of Physics. It concentrates on three basic areas: mechanics; electricity and magnetism; and nuclear physics.

Content

- Mechanics II
- Work and Energy
- Momentum
- Magnetic Fields
- Current Electricity
- Nuclear Physics

Assessment

- Practical Reports
- Engineering Project
- Topic Tests
- Examination

Credit	Subject Length	Subject Offered
10	1 x semester	Semester 2

Code
1PY911

NTCET Code
1PYS10

*\$25 for project and printed materials. A scientific calculator is required.

Prerequisite
Strong pass in Year 10 Science. High Pass at Level 1 Mathematics.

Code
1PY912

NTCET Code
1PYS10

*\$25 for project and printed materials. A scientific calculator is required. Excursions may be a component of this course.

Prerequisite
Successful completion of Physics 1. Teacher recommendation.

Food Science

Subject Description

This subject looks at various aspects of science linked by food. This subject shows how Science is related to aspects of every day life through the topic of food.

Content

Topics will include:

- Food groups and nutrition
- Food production
- Food safety
- Food technology

Assessment

- Collaborative presentation
- Practical Investigations
- Individual study
- Portfolio

Code
1NU911

NTCET Code
1NUT10

*\$45 for food sampling.
Excursions may be a component of this course.

Prerequisite
No prerequisite.

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

Psychology 1

Subject Description

Psychology is the study of human behaviour. This course aims to develop understanding of the way the human mind works and interesting aspects of interpersonal and group behaviour.

Content

- Introduction to Psychology
- Cognition (thinking)
- Social Influence and Social Interaction

Assessment

Between 4 and 6 summative tasks including:

- Application tasks involving applying psychological concepts to a scenario. May be a project or a timed task.
- Individual or group investigations allow students to conduct an in-depth study of a particular area.
- Assignments in forms such as reports, essays, debates, oral presentations, electronic presentations, models, timed responses.

Code
1PS911

NTCET Code
1PSC10

*\$20 for printed material.

Prerequisite
Nil

Credit
10

Subject Length
1 x semester

Subject Offered
Semester 1

Psychology 2

Subject Description

This subject includes the study of human behaviour and emotions and the ways that behavioural patterns develop in children and can be changed throughout life.

Content

- Brain and Behaviour
- Growth and Development
- Emotions

Assessment

Between 4 and 6 summative tasks including:

- Individual or group investigations allow students to conduct an in-depth study of a particular area.
- Assignments in forms such as reports, essays, debates, oral presentations, electronic presentations, models, timed responses.

Code
1PS912

NTCET Code
1PSC10

*\$20 for printed material.

Prerequisite
Nil

Credit
10

Subject Length
1 x semester

Subject Offered
Semester 2