

Science

YEAR 10

General Science

- High Pass
- Teacher Recommendation

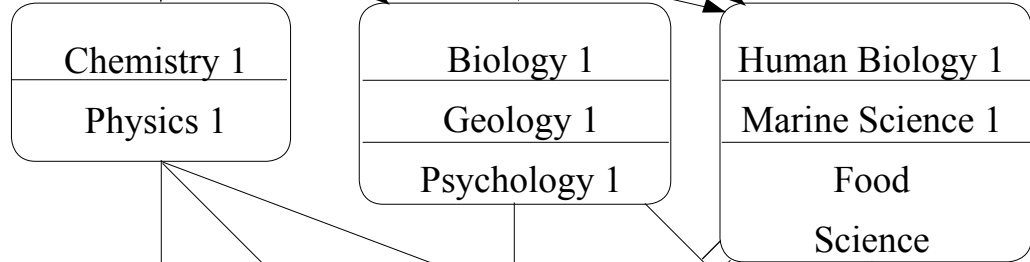
General Science

- Good Achievement
- Teacher Recommendation

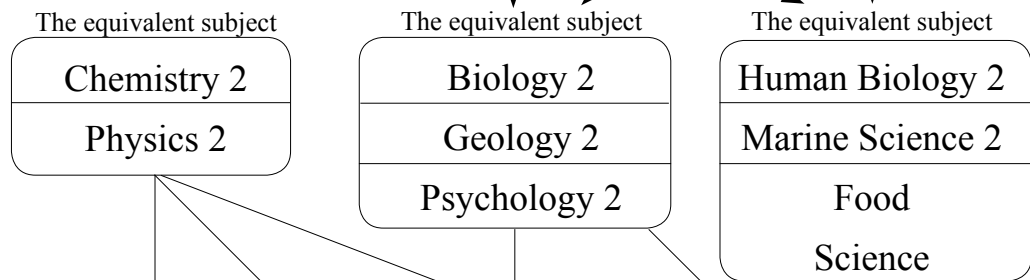
General Science

- Average Achievement
- Teacher Recommendation

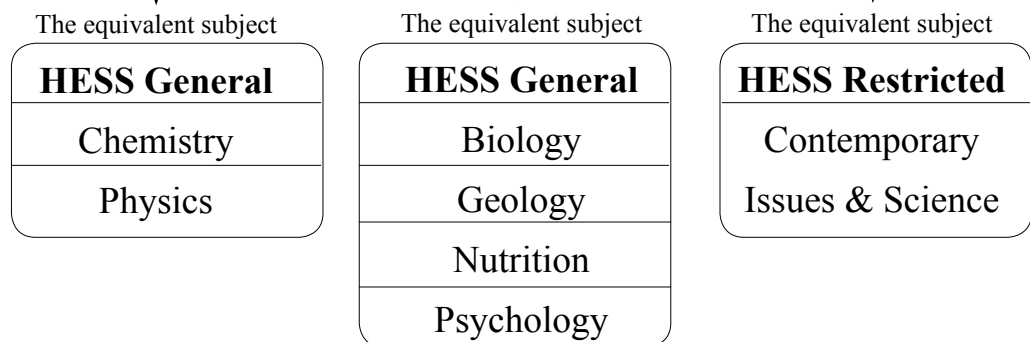
STAGE 1 Semester 1



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.



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 2

Biology

Subject Description

This subject aims to develop an understanding of:

- the structure and function of macromolecules, organelles and cells
- the processes that occur within cells and organisms
- the interactions between species and their environments, with an emphasis on evolution
- the social impact of biological developments.

Content

- Macromolecules
- Cells
- Organisms
- Ecosystems

Assessment

- External Examination – 50%
- College Assessment
 - Tests – 22.5%
 - Practical Work – 17.5%
 - Human Awareness Essay – 10%

Subject Length
Full Year

Chemistry

Subject Description

This subject aims to develop students' concepts in chemistry, particularly in relation to the relevance of chemistry to everyday life and in the global environment.

Content

- Elemental and Atmospheric Chemistry
- Analytical Techniques
- Biological and Organic Chemistry
- Chemistry and Industry

Each topic is divided into a number of sub-topics

Assessment

- Practical Work – 17.5%
- Theory – 25%
- Social Relevance Report – 7.5%
- External Examination – 50%

Practical work and the social relevance report are externally moderated.

Subject Length
Full Year

Science

Code

22304

SACE Code

2BIO2

Category

HESS General

*\$35 includes printed materials and excursions are a component of this course.

A revision guide for approximately \$26 is highly recommended.

Prerequisite

No prerequisite, but students who have not successfully completed Stage 1 Biology or Chemistry will find this subject very difficult. A strong pass in English is also highly recommended.

Code

22305

SACE Code

2CHM2

Category

HESS General

*\$20 includes printed materials and excursions are a component of this course.

A scientific calculator is required for this subject. A revision guide for approximately \$26 is highly recommended.

Prerequisite

Successful completion of Stage 1 Chemistry and teacher recommendation.

science stage 2

Geology

Subject Description

This subject will develop a knowledge of the earth's history, before and after the evolution of life. The materials which make up the earth's crust. The structure of the earth and operating global processes are studied. The causes and effects of hazards such as earthquakes and volcanoes and man's impact on the earth's environment are also examined. Students gain practical knowledge of geology through a field program.

Content

- The Rock Cycle
- Global Patterns and Processes
- The History of the Earth
- Geological Hazards
- Impact of Human Activities on the Earth

Assessment

- 30% End of Year Examination
- 70% College Based Assessment:
 - *Field Work (20 hours)* – 20%
 - *Course work* – 30%
 - *Practical work* – 20%

Subject Length

Full Year

Physics

Subject Description

This subject involves investigation into mechanics, fields, waves and photons; and the atom and its nucleus. It also looks at some of the important every day applications of physics in each of these areas. Students develop skills of logical thinking, problem solving and effective scientific communication.

Content

- Mechanics
- Motion of Charged Particles Interacting with Electric and Magnetic Fields
- Waves and Photons
- Nuclear Physics

Assessment

- Tests – 25%
- Practical work – 15%
- Information Search and Oral Presentation – 10%
- External Examination – 50%

Subject Length

Full Year

Code

22309

SACE Code

2GLY2

Category

HESS General

*\$200 for camp and \$20 for printed material. A revision guide for approximately \$26 is highly recommended.

Prerequisite

No prerequisite.

Code

22312

SACE Code

2PHY2

Category

HESS General

*A revision guide for approximately \$26 is highly recommended. \$25 includes printed materials and excursions are a component of this course.

Prerequisite

Successful completion of Stage 1 Physics.

science stage 2

Nutrition

Subject Description

This course looks at the food people eat and how it affects health and fitness. Students taste food, change recipes to make them healthier and learn how to evaluate a person's diet and recommend improvements. Students also study the diets of people from around the world.

Content

Compulsory Core Topics:

- Topic 1: The Fundamentals of Human Nutrition
- Topic 2: Diet, Lifestyle and Health
- Topic 3: Food Selection and Dietary Evaluation
- Topic 4: Food, Nutrition and the Consumer

Option Topics:

- Topic 1: Global Nutrition and Ecological Sustainability or
- Topic 2: Global Hunger

Assessment

- External Examination – 30%
- School Assessed
 - topic tests, practicals, research essay, oral, assignments – 70%

Subject Length

Full Year

Contemporary Issues and Science

Subject Description

This subject deals with the interaction of science with society, technology and environment. This is an outcome-based subject which gives students opportunities to apply scientific methods to collect and evaluate data, and solve problems. Students undertake experimental activities and design their own experimental research.

Content

There are five modules in this subject:

- Disease
- Health
- Human Environment
- Biodiversity
- Water Resources

Assessment

- Collaborative Presentation – 15%
- Practical Investigation – 20%
- Individual Study – 15%
- Portfolio (3 Theme Tests, 2 Practical Work Reports) – 50%

Subject Length

Full Year

Science

Code

22800

SACE Code

2NTS2

Category

HESS General

*\$45 is for food sampling.

Prerequisite

No prerequisite but students who have not successfully completed Stage 1 Biology, Chemistry or Physics will find this subject very difficult. A strong pass in English is also highly recommended.

Code

22620

SACE Code

2CSC2

Category

HESS Restricted

*\$20 includes printed materials and excursions are a component of this course.

Prerequisite

No prerequisite.

science stage 2

Psychology Subject Description

This subject takes an overview of some of the areas of psychology including: the psychological factors that produce similarities and differences between people; the application of psychological principles to real-life situations and producing beneficial changes in people's lives; analysing the behaviour of individuals and groups of people; experimental psychology and its ethical considerations.

Content

- Experimental Psychology
- Psychobiology of Altered States of Awareness
- Social Cognition
- Learning
- Personality
- Healthy Minds

Assessment

- Collaborative investigation – 15%
- Individual investigation – 25%
- Assignments, tests, article analysis and timed response – 30%
- External Examination – 30%

Subject Length
Full Year

Code
22320

SACE Code
2PSY2

Category
HESS General

*A revision guide for approximately \$26 is highly recommended. \$35 includes printed materials and excursions are a component of this course.

Prerequisite
No prerequisite, however students will need the ability to compose extended and express in writing responses to psychological questions and situations.