

Earth and Environmental Sciences

The following contains a description of the course we offer to students at St Marys Senior High. It is intended as a guide to help you select your subjects and you should read it carefully.

Please note:

- The details given represent the way that the course is delivered at St Marys Senior High and may involve different choices from the way other schools might operate the same course.
- Classes can only be formed where sufficient students select the particular course. The fact that a course is listed here is not a commitment to run the course in a particular year.
- The arrangements for particular courses are subject to change for a variety of reasons.
- HSC students may elect to take extension courses which we offer in English, French, History, Japanese, Mathematics and Music.

Earth and Environmental Sciences - Course Details

Units	Type	ATAR	Faculty Teaching This Course
2	Board Developed Course – Examinable at the HSC, marks can be used to count towards an ATAR	A – Counts towards an ATAR with no restrictions	Science

What will I be doing in this course?

- The Earth and Environmental Science course explores Earth's renewable and non-renewable resources and environmental issues. An understanding of Earth's resources and the ability to live sustainably on the planet is a central purpose of the study of Earth and Environmental Science.
- Students undertake practical and secondary-sourced investigations to acquire a deeper understanding of the Earth's features and naturally occurring phenomena and cycles. Earth and Environmental Science involves the analysis, processing and evaluation of qualitative and quantitative data in order to formulate explanations and solve problems.

What should I be able to do at the end of this course?

- Students will be able to apply experimental skills in observation, manipulation, measurement and experimental design, as well as using computers and data-loggers to access information. This course will prepare students for further tertiary studies in science and engineering.

Year 11 Course Structure and Requirements

Year 11 course (120 hours)	Working Scientifically Skills	Modules	Indicative hours	Depth studies
		Module 1 Earth's Resources	60	*15 hours in Modules 1–4
		Module 2 Plate Tectonics		
		Module 3 Energy Transformations	60	
		Module 4 Human Impacts		

Year 12 Course Structure and Requirements

Year 12 course (120 hours)	Working Scientifically Skills	Modules	Indicative hours	Depth studies
		Module 5 Earth's Processes	60	*15 hours in Modules 5–8
		Module 6 Hazards		
		Module 7 Climate Science	60	
		Module 8 Resource Management		

*15 hours must be allocated to depth studies for each 120 indicative course hours.



How will I be assessed in this course?

Practical Requirements

- Scientific investigations include both practical investigations and secondary-sourced investigations. Practical investigations are an essential part of the Year 11 and Year 12 course and must occupy a minimum of 35 hours of course time per a course, including time allocated to practical investigations in depth studies.

Practical investigations include:

- undertaking laboratory experiments, including the use of appropriate digital technologies
- fieldwork

Secondary-sourced investigations include:

- locating and accessing a wide range of secondary data and/or information

Depth Studies

- A depth study is any type of investigation/activity that a student completes individually or collaboratively that allows the further development of one or more concepts found within or inspired by the syllabus. It may be one investigation/activity or a series of investigations/activities.
- Depth studies provide opportunities for students to pursue their interests in Earth and Environmental Science, acquire a depth of understanding, and take responsibility for their own learning. Depth studies promote differentiation and engagement, and support all forms of assessment, including assessment for, as and of learning. Depth studies allow for the demonstration of a range of Working Scientifically skills.

Requirements for Depth Studies

- A minimum of 15 hours of in-class time is allocated in both Year 11 and Year 12.
- At least one depth study must be included in both Year 11 and Year 12.

How will this course help me in the future?

- The course provides the foundation knowledge and skills required to study earth and environmental science after completing school, and supports participation in careers in a range of related industries. The application of earth and environmental science is essential in addressing current and future environmental issues and challenges. It is also necessary for the use and management of geological resources that are important to Australia's sustainable future.

The course is designed for students who have attained a high level of achievement in Science and wish to pursue further study in Science, Technology, Engineering or Mathematics (STEM) based courses offered at the tertiary level.