

Science Extension (1 Unit)

Stage 6



AURORA
COLLEGE

Background

NESA has created *Science Extension Stage 6* with the aim to engage students with complex scientific concepts and theories and to critically evaluate new ideas, discoveries and contemporary scientific research. Students are challenged to examine a scientific research question influenced by their study of one or more of the scientific disciplines.

In doing this, students extend their knowledge of the discipline(s), conduct further analysis and authentic scientific investigations, and uniquely for this course, produce a detailed scientific research report that reflects the standards generally required for publication in a scientific journal (NESA – Science Extension Syllabus 2017).

Offering online for HSC 2019

Aurora College has the capacity and expertise to teach, guide and mentor rural and remote high ability and gifted students to pursue higher levels of scientific research, with the aim to motivate students to pursue careers in STEM. Dr Goldrick and Dr Rudmann will lead the teaching of *Science Extension* in Aurora College. They have 10 years of experience in supervising honours and postgraduate students and extensive careers in research themselves. Both teachers have been lectures at universities and were working as consultants in the private research industries in Australia and overseas.

Science Extension will be delivered 'off line' as period 0 (8:00 am start) from the beginning of Term 4, 2018. This timeslot is allocated to avoid clashes with current senior studies in the student's home school. Lessons will be delivered via *Adobe Connect* and will utilise *Microsoft TEAMS*, *OneNote* and *Stile* platforms.



Dr Geoff Goldrick



Dr Silvia Rudmann

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About the course

Science Extension is a new course with a focus on the authentic application of scientific research skills to produce a Scientific Research Report generally acceptable for publication. Students propose and develop a research question, formulate a hypothesis and develop evidence-based responses to create their Scientific Research Report which is supported by a Scientific Research Portfolio. The four modules integrate the skills of Working Scientifically within the course content to form the framework for the Scientific Research Project.

The syllabus can be accessed [here](#).

The Year 12 course consists of four modules.

- **Module 1** The Foundations of Scientific Thinking
- **Module 2** The Scientific Research Proposal
- **Module 3** The Data, Evidence and Decisions
- **Module 4** The Scientific Research Report

Eligibility

Students who have shown an achievement in, and/or aptitude for, any of the Stage 6 Science courses: Biology, Chemistry, Earth and Environmental Science, Investigating Science or Physics, in Year 11 may choose to study Science Extension in Year 12.

Pre requisites are one of, or a combination (up to 6 units of study) of, Biology, Chemistry, Earth and Environmental Science, Investigating Science or Physics in Year 11.

Co-requisites are one of, or a combination (up to 7 units of study) of, Biology, Chemistry, Earth and Environmental Science, Investigating Science or Physics in Year 12.

Application

Applications for enrolment for Year 12 (2019) open 18 July 2018 and close 24 August 2018.

For further information, please visit <http://www.aurora.nsw.edu.au/learn/enrol/>

If you have any questions, please contact the school via:

Phone: 1300 287 629

Email: auroracoll-h.school@det.nsw.edu.au