

# SCiX: SCALABLE AND SUSTAINABLE AUTHENTIC RESEARCH EXPERIENCES FOR HIGH-SCHOOL STUDENTS

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In NSW, the new Year 12 Higher School Certificate Science Extension course recommends students find university mentorship to support their individual research projects. The SciX high-school outreach program ([unsw.to/scix](http://unsw.to/scix)) has been developed and refined to meet this demand in an equitable, sustainable, scalable, effective and quality-controlled way.

SciX centres around an intensive one-week authentic research experience with online pre-work and post-summer-school Q&A sessions. High school students select a research area and are placed in small groups led by SciX mentors, usually paid PhD researchers. Students are taught disciplinary research topics and tools, and then supported to develop their individual hypothesis and conduct their research. Qualitative and quantitative surveys show that students really enjoy the experience – especially their interaction with mentors, increase their self-identification as a scientist and develop crucial transferable and scientific skills.

Through their role as SciX mentors, paid PhD students are supported in developing important professional skills, e.g., in supervising, mentoring, teaching and management. Project development and delivery is carefully scaffolded with training, structured support and regular reviews. Time expectations are clearly set and reasonable to avoid interfering with PhD progression.

The success of the program is clearly demonstrated by its strong increasing enrolments, now exceeding 150 students annually. The program is clearly addressing equity, diversity and inclusion goals, with our 2023 enrolments 63% female, 40% fee-waiver positions supporting students from a low socioeconomic, regional or rural area.

This talk will be targeted at those interested in supporting research for high-school and/or undergraduate (pre-Honours) research students through supervision and/or program design. As inspiration for how you might deliver this enriching student experience, I will describe how SciX has addressed key challenges, specifically careful project design, program design appropriate to the local context, securing funding and developing a scalable team structure.

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