UNSW SYDNEY

# SciX@UNSW 2026 Information Guide

**Don't just learn Science.**
**Do Science.**

# About SciX

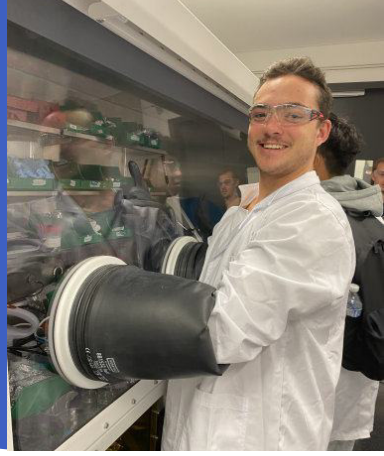
SciX@UNSW is a structured research experience enabling senior high school students to engage in authentic research. It provides mentors and access to research facilities at UNSW. Developed with the NSW Science Extension syllabus in mind, the program also suits students undertaking IB research projects, or any Year 11 or 12 students with an interest in science.

This initiative involves a one-week intensive Summer School held each year in January at UNSW Sydney. To begin, students have access to online preparation material and scheduled mentor-led Q&A sessions, ensuring they have a foundational understanding of their chosen SciX project topic.

During the January Summer School, students are grouped with experienced researchers who provide specialised subject knowledge, instruction in a relevant research tool or techniques, and access to appropriate data sources. This will enable students to formulate their individual hypotheses, collect or generate necessary data, and begin initial analyses. This allows students to deeply engage with their projects during the summer break and begin term 1 with a significant proportion of their project sorted out.

The research undertaken during the SciX Program can serve as the basis for Extension Science or IB projects, or individual research for any purpose. The program offers an authentic research experience, guided by academic researchers and delivered primarily by PhD scholars, to ensure a rigorous educational experience.

# SciX in a nutshell



**On-campus one week experience in January**

**Supported university-level research projects**

**Learn directly from experts in the field**

**Skills, science enrichment, and STEM experiences**

**Online pre-work and scheduled mentor support**

**Inclusive and accessible with no selection criteria.**

## SciX Leadership Team

**Dr Laura McKemmish**
Quantum Chemist
SciX Director

**Gabrielle Green**
Faculty of Science
Senior Project Officer

**Caitlin Griffiths**
UNSW Student
SciX Admin Assistant

**James Cleaver**
Data Scientist
SciX Advisor
(volunteer role)

# The SciX advantage

Connecting high school students with university researchers to support independent research projects can be a balancing act. The benefits of the approach taken by UNSW include:

- Authentic-but-feasible tested research tools that define project groups
- Student creativity in research questions carefully maximised within resourcing constraints
- Projects designed and overseen by UNSW's talented research-active academics
- Mentoring by trained and appropriately-remunerated PhD scholars
- Program available to all students- no selection or access criteria
- Structured, intensive (and transformative) week-long experience with like-minded peers


# SciX student feedback

## "What was the most valuable part of SciX?"

"Conducting high level research independently and forming friendships with new people."

"Definitely being able to conduct an experiment using equipment I don't have access to at school under the supervision of an incredibly supportive and patient mentor."

"Connecting with the mentors and being able to talk to them and get to know what uni is like"

"The ability to work with mentors that wanted to help us and seemed to enjoy the experience as much as we did. I loved learning everything I could and experiencing uni life for a short period."

"Talking to the mentors and having access to their knowledge and help the whole week was so great."

"Labs and hands on experience related to the topic, researching and conducting experiments by ourselves"

# SciX@UNSW 2026

**October 2025**
- Registration opens **27th October, 7am** via Eventbrite
- Project preferences submitted

**November 2025**
- Project allocations finalised
- Students enrolled onto Microsoft Teams
- Preparation materials available

**December 2025**
- Online orientation session

**19-23 January 2026**
- SciX Summer School
- UNSW Sydney Kensington Campus (Randwick)

**February - June 2026**
- Monthly bookable follow-up sessions with mentors
- Support for project completion

# We hear you!

## Changes to SciX for 2026 are based on student feedback

As well as seeking feedback about the value of SciX, we also ask every group of students how we can continue to make SciX better and better. Past students told us that they'd prefer fewer structured panels and more time to focus on their individual topics. Our new structure allows for more time to process learning and seeking help where needed.

We have introduced a social event at the beginning of the week, and a streamlined check-in and support stream each morning. We can't wait to get to know you all and support you in your research projects!

# SciX Summer School Schedule January 2026

(sample timetable- final timetable will be shared with participants prior to the event)

| | Monday 19th | Tuesday 20th | Wednesday 21st | Thursday 22nd | Friday 23rd |
|---|---|---|---|---|---|
| 8:30am | **Registration** | | | | |
| 9am | **Welcome and Campus Tour** | **Doing Science** Project planning and keynote lecture | **Research Lab** session 5 | **Research Lab** session 7 | **Research Lab** session 9 |
| 9:30am | | | | | |
| 10am | | | | | |
| 10:30am | **Morning Tea** | **Morning Tea** | **Morning Tea** | **Morning Tea** | **Morning Tea** |
| 11am | **Research Lab** session 1 | **Research Lab** session 3 | **UNSW Science Expo** | **Lab tours 2** | **Sharing Science** Student presentations |
| 11:30am | | | | | |
| 12pm | | | | | **Lunch** |
| 12:30pm | **Lunch** | **Lunch** | **Lunch** | **Lunch** | |
| 1pm | | | | | **Keynote lecture** |
| 1:30pm | **Research Lab** session 2 | **Lab tours 1** | **Research Lab** session 6 | **Research Lab** session 8 | |
| 2pm | | | | | **Next Steps** Research group wrap-up |
| 2:30pm | | | | | |
| 3pm | **Trivia** Snacks provided | **Afternoon tea** | **Donuts and Downloads** Supported lit review time Snacks provided | **Afternoon tea** | **Afternoon tea** |
| 3:30pm | | **Research Lab** session 4 | | **Masterclass** Ext Sci Exam Skills OR Writing for Exams | **Finale** |
| 4pm -4:30pm | | | | | |

**Note: Students bring own meals or purchase on campus**

# SciX FAQ

**What is the time commitment for SciX?**

Students should expect about ten hours of pre-work (depending on the project) that can be completed anytime from November to mid-January. This is primarily gaining familiarity with the project context (often through readings and YouTube videos), and potentially some basic programming (this depends on the project and is very low-pressure).

Summer School runs for five days, 20 - 24 January 2026 from 9am to 4.30pm on the UNSW Sydney Kensington Campus.

Follow-up sessions with mentors are optional but encouraged. Four hour-long sessions (approximately monthly) are available to book into.

**Do I have to come to the January Summer School?**

The Summer School is the cornerstone of the SciX program, and at this stage we do not have a hybrid model for students who are unable to attend. As the majority of mentor support is concentrated in this week, we find that students need to attend all five days of the program to benefit from the SciX program.

**Can students come to SciX if they are not doing Extension Science or NSW HSC?**

Yes! Though SciX is designed with the requirements of the HSC Science Extension curriculum in mind, it is suitable for all Year 12 science students and enthusiastic incoming Year 11 students.

While fee waivers are restricted to Year 12 students studying in NSW, students from anywhere in Australia are welcome to register.

After the Summer School, non-Science Extension students are not obligated to undertake any further work, though they are welcome to continue to write a project report that could be entered, for example, to the Young Scientist Awards.

**How do I choose a project?**

In addition to your interests and background knowledge, another consideration is whether the project is computational or laboratory-based. Benefits to computational projects include the ability to continue your research from anywhere you computer can go. Larger data-sets, future-ready skills, and more flexibility with hypotheses are other advantages. Advantages of laboratory projects are the technical skills gained and the “screen-free” science. For lab-based projects, we do our best to maximise the amount of data that can be collected during the week of SciX, but there are limitations to this data collection that vary project to project. Note that mentors can only offer support within the scope of the project.

**What if I've already chosen to research a different topic?**

SciX does not have capacity to provide support for individual topics. The project groups offered align with research being undertaken at UNSW.

If you have already selected a research question that involves analysing large datasets, we encourage you to join the "Bring Your Own Data" project group, where experienced data scientists will support you in developing the analysis skills needed to investigate a dataset you have identified.

**How does registration and project selection work?**

Registration for SciX opens for 2026 at 7am on **27 October 2025** via the Eventbrite platform. Registration closes at the end of term four. Project allocation is on a "first-come, first-served" basis, and we confirm most project allocations in mid-November. Some projects fill very quickly, but most students are allocated to their first or second preference.

**How much does SciX cost?**

The fees for SciX 2026 are $745 per student. A limited number of fee waivers are available thanks to support from university and philanthropic sources.

We recognise that the cost of SciX is a significant barrier to participation for many students, and we want to do whatever we can to enable equitable access for all students. We are constantly seeking additional funds for fee waivers, and we encourage schools and individuals to seek philanthropic support to enable students to participate in this transformative experience.

We would gladly provide letters of support for students pursuing philanthropic or other avenues to fund their participation.

**What criteria are used to assess the allocation of fee-waiver positions?**

A limited number of fee waivers (either full or partial) is generally available depending on funding.

Applications received from eligible students before 8 November will be assessed based on the level of need, with preference given to students enrolled in Extension Science.

Our priority criteria for fee waivers include:

- Students who identify as Aboriginal and/or Torres Strait Islander.
- Students enrolled in a UNSW Gateway School, or a school that has an index of community socio-educational advantage (ICSEA) less than 1000. (ICSEA can be found on the MySchool website).
- Students who live in an outer regional, remote, or very remote location.
- Students affected by financial difficulty or other factors, such as those assessed by the UAC's Educational Access Scheme.

We may ask for additional information to assess eligibility. Please note that fee waivers are assessed on an individual basis and there is no guarantee a waiver will be available. If a fee waiver is not available, students will be given the option of registering for a fee-paying position, and project allocation will be held for one week following notification.

**What is the typical research group size and how is it organised?**

Group sizes on average are 7-14 students with a ratio of approximately 1 PhD mentor for every 7 students. These numbers have been chosen to create a strong and vibrant student cohort in each group, with sufficient one-on-one support time to allow every student to flourish in their projects.

**What will students do before the Summer School?**

Before the Summer School, students will engage with:

- Project-specific pre-work introducing key scientific concepts and relevant scientific papers
- For some projects, pre-installation of specialised software.
- For some projects, programming training in Python, R, or the project-specific software

**What do students need for SciX?**

Students should bring their own food for each day or purchase from one of the many food outlets on campus.

All projects include work on computers and an individual laptop is required for each student. Students who do not have access to a laptop should get in touch as early as possible so that alternative arrangements can be made.

Please wear comfortable casual clothing including enclosed footwear. Trousers are recommended on days students are visiting labs.

Some project groups will require students to bring their own lab coats and safety glasses. Schools may lend these items, or they can be pre-ordered via the UNSW bookshop before the end of November 2025. Information will be available in the pre-work for each project group.

**What software will be used in SciX?**

The central platform for SciX is Microsoft Teams, which supports communication across the cohort and within research groups, as well as enabling collaborative learning between students. Teams is also used for the virtual orientation and follow-up sessions.

Teams is required on student laptops for file sharing and online meetings, and we recommend installing it on other devices (e.g. phone/tablet) with notifications enabled during Summer School.

Project channels are moderated by mentors and accessible to teachers of the registered students. In any direct messages with students, a teacher or SciX leader will always be included.

Students may also use specialised open-source software such as Anaconda (Python3) or RStudio. Installation instructions will be provided, but admin access to the laptop may be needed.

**Do students need to know programming for some projects?**

No. We will teach students the necessary skills during the pre-Summer School period through self-directed learning and other support.

Some projects will use pre-written Python or R notebooks for data analysis and visualisation students can use for their own data, modify and expand as desired. Based on previous cohorts, these notebooks are extremely accessible to all students, and allow more sophisticated research results than would otherwise be possible.

Confidence in basic programming is one of the important employability skills students can learn during SciX - regardless of whether a student chose a project needing programming or not!

**Where do I find more information?**

If you have unanswered questions about the program or specific projects, please email us.

Once students are invited into our SciX Teams Channel they are encouraged to ask questions through our chat.

# Ready to register?

1

**Browse the list of projects**

You can find all of the project details on the SciX website https://scix.au/info

2

**Complete the registration form on Eventbrite**

Payment, or a completed fee waiver application is required via Eventbrite at the time of registration. Link at scix.au/student_info

3

**Accept your offer and enrol onto the Teams Platform**

From mid-November we will confirm project availability and start enrolling students to Teams groups where you will find your pre-work and get started!

4

**Stay connected!**

Reach out to us at scix@unsw.edu.au with questions before you're on Teams, or via Teams message after that. Our team is here to help!