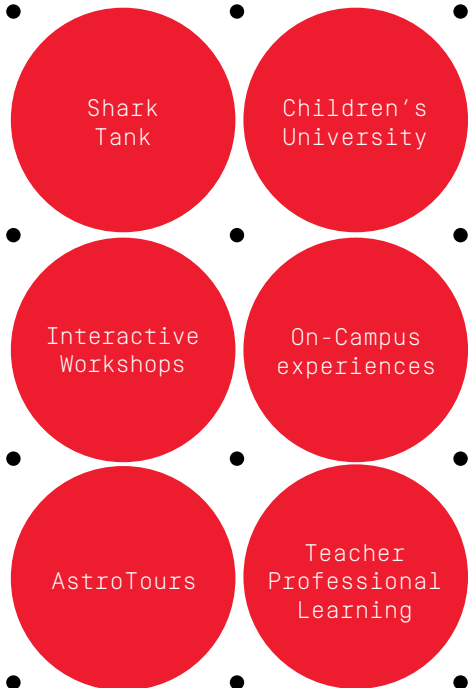


Swinburne School Programs

2024

Enhancing your students' learning



It is a belief very close to my heart that cultivating the natural curiosity of our young people can lead to a lifelong learning mindset.

It is this learning mindset that forms the foundation of a rewarding career – and a fulfilling life. And it is also this mindset that will lead to the next generation of thinkers, innovators and creators that are needed for our planet's future.

Swinburne's primary and secondary school programs aim to tap into the natural wonder children possess and encourage their capacity for independent investigation. We want young people to love learning and to use their creative and critical thinking skills to start seeking solutions to global problems.

Our broad range of school programs include a selection of STEM-based offerings that take learning outside the classroom. At Swinburne, we believe that STEM education is not just valuable, it is vital. The jobs of the future will all require STEM skills – whether that is as a builder, lawyer or engineer.

As we encourage curiosity, we also encourage endeavour. As a dual-sector university, Swinburne proudly offers education pathways for everyone – with our vocational and higher education courses sitting alongside our high-quality research. By exposing young people to the future possibilities open to them through a university like Swinburne, we hope that university becomes accessible and, indeed, an aspiration for even the youngest of students.

In 2023, we grew our Children's University program, which empowers students to make informed choices about their learning and career pathways. We welcomed year 9-12 students into the program for the first time and also launched our Immersion Days, giving high school students the opportunity to spend a day as a Swinburne student at our Hawthorn campus.

At Swinburne, we are inventing the university of the future – one that helps people and technology work together to build a better world. It is an exciting journey and one we look forward to taking with you and your students.



Pascale Quester
Vice-Chancellor and President
Swinburne University of Technology

TOP 1% GLOBALLY

We're ranked in the top 250 universities in the world
Times Higher Education World University Ranking 2024



For overall student experience
Good Universities Guide 2024

TOP 50 GLOBALLY

We rank in the top 50 universities under 50 years old
QS World University Rankings 2023

TOP 20 AUSTRALIA

We rank in Australia's top 20 universities
QS World University Rankings 2023

Acknowledgement of Country

We respectfully acknowledge the Wurundjeri People of the Kulin Nation, who are the Traditional Owners of the land on which Swinburne's Australian campuses are located in Melbourne's east and outer-east, and pay our respect to their Elders past, present and emerging.

Designed to connect learning with real-world outcomes, Swinburne offers a range of programs to suit the interests and aspirations of every member of your school community. Get in touch with our team to find the right fit for you and your students.

PRIMARY STEM.....P3
 PHYSICS.....P3
 ASTRONOMY.....P2&4
 MEDIA AND COMMUNICATION.....P4
 BUSINESS AND COMMERCE.....P5
 LAW.....P5
 DESIGN.....P5
 ENGINEERING.....P6
 ENRICHMENT PROGRAMS.....P6
 PRIORITY SCHOOLS PARTNERSHIPS..P6
 CAREERS.....P7
 EMOTIONAL INTELLIGENCE.....P8
 TEACHER PROFESSIONAL LEARNING..P8



Children’s University Swinburne

Encourage a love of learning beyond the classroom through the Children’s University. Students participate in a variety of learning activities, log their hours and ultimately graduate, donning caps and gowns to celebrate their achievements.

YEARS 3 to 8: The Junior program builds confidence and aspirations, and encourages new passions through a range of activities.

YEARS 9 to 12: The Senior program develops academic and transferable skills and leadership experience through workshops, mentoring sessions, community programs, campus tours and immersion days.

YEARS 3 to 12



AstroTours

Bring your students on an AstroTour and they’ll learn about astronomy from the professionals and discover virtual reality technologies, including animations, movies and simulations. Developed by Swinburne’s Centre for Astrophysics and Supercomputing, these sessions seat up to 55 people, and can be adapted to suit the audience. Each student will be loaned a pair of 3D glasses for a fully immersive session.

PRIMARY SCHOOL TOURS

Your AstroTour guide will investigate the concepts of night and day and the seasons on Earth before heading out to explore the other planets of the Solar System.

PREP to Grade 6 | 50 minutes

SECONDARY SCHOOL TOURS

Your AstroTour guide will discuss the life and death of stars through the 3D movies *Our Sun* and *AfterStars*, and focus broadly on stars, galaxies and cosmology. Tours are free for Years 10 to 12.



YEARS 7 to 12 | 50 minutes



PrimeSCI! Science Incursions

Ignite your primary students' curiosity with a broad range of interactive, hands-on STEM incursions. Choose from on-site and online lessons – all aligned with the Victorian Curriculum – across Science, Technologies, Geography, and Health and Physical Education.

With all programs tailored to developmental stages, you can expect lessons such as 'Toys in Motion' for Prep to Grade 2s, 'Electrical Circuits' for Grade 5 to 6s, plus more. Students will love watching demonstrations, getting hands-on, and asking all their questions. New in 2023 is a mobile planetarium where we can bring the universe to your school!

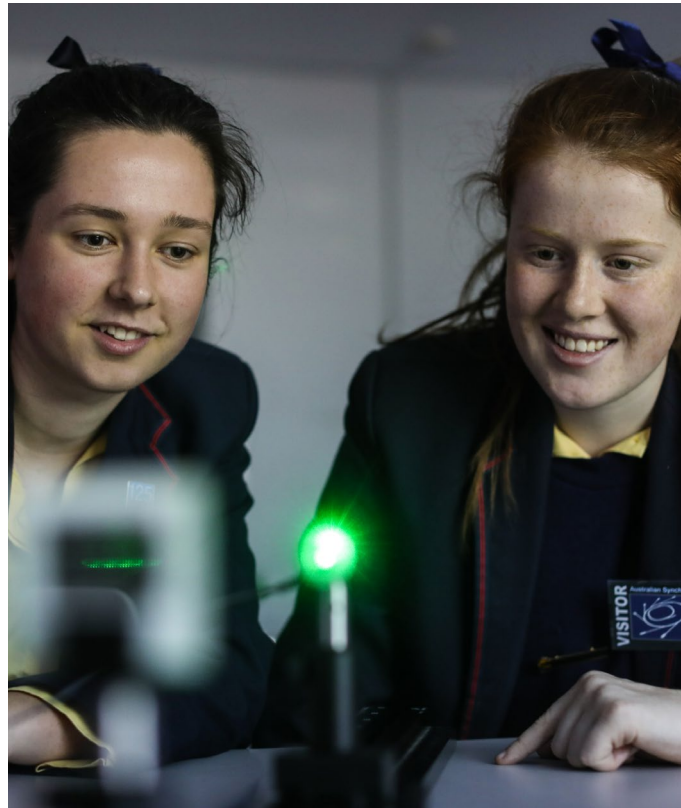
 PREP to Grade 6 |  1 hour



Chris was so knowledgeable and pitched the content perfectly to the students' level. The classroom management strategies were excellent and I was amazed at the amount of content he was able to get through, as well as having time for questions and comments. Fabulous!



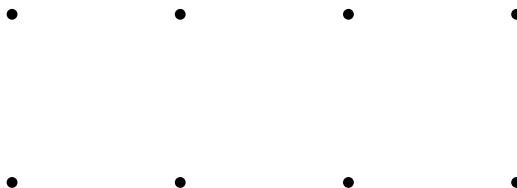
Teacher from St Michael's Grammar School on the PrimeSCI! Science Incursion experience



PRIMESCI! JUNIOR SCIENCE ENRICHMENT

These specialised science workshops are targeted to extend and enrich the learning of primary aged students in Melbourne and regional Victoria. We'll be offering hands-on science lessons for high ability students. Contact us if you would like to host a session at your school, or to find out when we will be in your area.

PREP to Grade 6 |  1.5 hours





PrimeSCI! Synchrotron Science

Get access to one of the southern hemisphere's most incredible scientific facilities through specialised learning programs for secondary school students and teachers.

The Australian Synchrotron (Clayton) supports research across medicine, nanotechnology, manufacturing and mineral exploration, and can even produce light a million times brighter than the sun.



LIGHT IT UP SESSIONS

Students explore physics concepts like the interaction of light and energy, nuclear physics, radioactivity, and dark matter – all in our education lab.

 YEARS 9 to 10 |  2.5 hours



VCE LAB SESSIONS

Australia's only hands-on experience to explore key curriculum concepts – such as nuclear physics and the interaction of light and energy – with a lab session and facility tour.

 YEARS 11 to 12 |  4.5 hours

SCHOOL TOURS

Expand your students' understanding of nuclear science and technology and get them talking about atoms, light refractions and vacuum centres. Tours run Monday to Friday during school term.

 YEARS 7 to 12 |  1.5 hours



We used the lab sessions as a basis for our SAC. The introduction and tour gave students a privileged view of this facility.



VCE Physics Teacher from Presbyterian Ladies' College

OzGrav

OzGrav exists to inspire the next generation of scientists to probe the frontiers of gravitational astronomy with research into gravitational waves, black holes and warped spacetime. Take your students on a virtual tour of the stars.

MISSION GRAVITY!

In our flagship OzGrav incursion, students collaborate to create a model of stellar evolution by collecting data from a virtual trip to nearby stars. Using the laws of physics and virtual reality, they'll discover how stars change over time and what tools scientists use to study them.

👤 YEARS 10 to 12 | ⌚ 1.5 to 2 hours

MISSION GRAVITY: THE LIFE OF A STAR

In this qualitative version of Mission Gravity, students collaboratively use observations to model the basic evolution of a star and build an understanding – through virtual reality – of how a star's features change over time.

👤 YEARS 6 to 10 | ⌚ 45 minutes to 1 hour

MISSION GRAVITY: VCE PHYSICS

Students deep dive into the physics of gravitational astronomy, including uncertainty, gravitation, blackbody radiation, and electromagnetic spectrum.

👤 YEARS 11 to 12 VCE Physics | ⌚ 45 minutes to 1 hour



My favourite part in the challenge has been without a doubt the mentoring sessions coupled with the theory videos. This is the case as both provide opportunities to network, project ideas and develop a much more keen understanding of the Australian Space Environment and its implications.

Swinburne Youth Space Innovation Challenge student



Media and Communication Experiences

SOCIAL MEDIA: THE NEXT BIG THING

Participants will work alongside Swinburne students to find a gap in the market and design the next big social media platform to address it.

👤 YEARS 10 to 12 | ⌚ 1 hour

CREATIVE WRITING UNLOCKED

Embark on a journey of self-expression and storytelling through short fiction and non-fiction writing. In this workshop, students will develop their writing skills by exploring the depths of their own stories. They'll tap into the power of personal experiences and emotions as catalysts for creative inspiration.

👤 YEARS 10 to 12 | ⌚ 45 minutes to 1 hour

Business and Commerce Experiences

LEGO® SERIOUS PLAY®

Join this hands-on session and discover how LEGO – yes LEGO! – can help you create a business. You'll come up with ideas, create a new 'product', and build a 3D prototype.

 YEARS 10 to 12 |  1 hour [workshop]

THE THING FROM THE FUTURE

Awaken your imagination with a game that challenges players to describe objects from a range of alternative futures. Students will put their unique perspectives to use, and their peers will vote for the most thought-provoking and fascinating ideas from the group. This session can be extended to include lo-fi prototyping of these objects using paper or Lego.



 YEARS 10 to 12 |  45 minutes to 1 hour



SHARK TANK

Create future innovators. Students will be taught innovation and entrepreneurship through the Shark Tank eSchool program. Run in partnership with MIE Lab, this semester-long program develops creative problem-solving and critical thinking skills.

Inspired by the Shark Tank TV show, students are taken through a journey of problem identification, conformation, ideation, prototyping, marketing, business modelling and, finally, pitching. The students' pitching event will be hosted by your school. The best teams will go through to a national final where they'll be judged by a panel of experts and receive feedback. Throughout the process, they'll develop their general capabilities as part of the Australian Curriculum. In addition, students who successfully complete the program will receive a two-point ATAR adjustment when they apply to study with Swinburne.

 YEARS 10 to 11 |  1 semester

Law School programs

We offer a range of online, on-campus and in-school experiences to get your Year 9 to 12 students excited about law.

40 FLOORS UP LAW GAME

In this card game of strategy, two to six players plot, scheme, and locate evidence in a fictional law firm on the 40th floor of a skyscraper. Players compete to become the firm's top lawyer. Play free via the Print & Play website or purchase as a classroom resource.

 YEARS 9 to 12 |  45 minutes to 1 hour

MOCK TRIAL

Find yourself in the center of a mock trial and experience the range of crucial and compelling roles to be found in the court room. Students will work together to create real-life trial experiences, drawing on previous cases and the guidance of our academic staff.

 YEARS 10 to 12 |  1 to 2 hours [workshop]

Design Experiences

INDUSTRIAL DESIGN CHALLENGE: DESIGN THE BOX

This challenge engages students' innovation and collaboration skills as they compete to create the most compelling product and pitch it to their peers. Students will be equipped with industry tips and tricks to help them develop their ideas into something that can be sold - or even change the world we live in.

 YEARS 10 to 12 |  1 hour [workshop]

MAKE A BUNYIP

Students will learn about experimental image-making and collage techniques from an academic, before working individually to create their own collage. Flexing their creative muscles, students will create an image of a bunyip using various materials such as photos, text and drawings.

 YEARS 10 to 11 |  1 hour [workshop]

HOW TO CREATE A BRAND IDENTITY

In this session, teams will be tasked with developing a brand identity or brand logo for a hypothetical company. Each group's design proposal will be pitched to the class for feedback and a vote on the most successful idea.

 YEARS 10 to 12 |  1 hour [workshop]



Engineering Experiences



LIVING ON THE MOON

It's been more than half a century since people first set foot on the moon. And thanks to NASA's Artemis mission, there will soon be a human habitat on the Earth's only natural satellite. Join Professor Geoffrey Brooks as we explore the engineering challenges associated with life on the moon.

 YEARS 10 to 12 |  1 hour [presentation]

BIONIC HAND

When biology meets electronics, we get bionics; bionic ears, eyes, legs, hands. Explore medical engineering and its role in the design and creation of bionic limbs. Discover how these fascinating devices operate, and create your own prototype of a bionic hand – then put it to the test.

 YEARS 10 to 12 |  1 hour

HELPING BABIES BREATHE

When babies are born premature, or with lung damage, they need ventilators to provide them with oxygen. This presents them with a second risk – if the pressure created in their lungs by the ventilator is not carefully managed, there could be further damage. Join us to discover how mechanical engineering and analysis techniques are helping to create new designs to avoid this risk.



 YEARS 10 to 12 |  45 minutes to 1 hour [presentation]

-
-
-
-
-
-

Victorian Challenge and Enrichment Scheme

SWINBURNE INNOVATION CHALLENGE

The future of work is changing. Tomorrow's leaders will be skilled creatives, critical thinkers, and problem solvers. In this program, small teams of high ability students will ideate a solution to a challenge framed by the UN Sustainable Development Goals. They'll spend a full day on-campus attending hands-on workshops in our labs and teaching spaces at Hawthorn, before submitting a video pitch to win fabulous prizes.

 YEARS 10 to 12 |  4 weeks



Centre for Higher Education Studies

SPACE TECHNOLOGY

The Centre for Higher Education Studies (CHES) offers advanced programs for high-achieving government secondary school students during their VCE. In partnership with CHES, Year 12 students with a keen interest in astronomy can complete an accelerated Space Technology subject with Swinburne. Upon completion of the subject, students will be eligible for university credits and a boost to their ATAR.

 YEAR 12 | APPLICATIONS CLOSE IN AUGUST 2024


Priority Schools Partnerships

Swinburne offers a range of education enrichment, career and aspiration building programs for years 9 to 12. These are tailored to address the unique needs of our equity partner schools. Our mission is to open doors for students - mentoring and empowering them to discover their passions and potential career paths. Our approach is fully aligned with the Victorian Schools Curriculum.




KIOSC: Ignite

This series of enrichment opportunities is designed to extend high ability students to reach their full potential. Activities will run right across the curriculum and include incursions, virtual excursions with hands-on activities, and online tutorials. They will be held in metropolitan Melbourne and regional areas, and will be delivered during school hours and after school hours.

 YEARS 5 to 10 - Government schools

KIOSC: First LEGO League

In this 2-day regional competition, students engage creatively in the principles of STEM through LEGO robotics. Under the guidance of mentors and through collaboration and communication, teams of students will design, program and operate a LEGO robot to undertake a mission. Included in the challenge is a research project for students to apply their innovation and critical thinking to a real-world issue.

 YEARS 5 to 10 - Government schools

A Day in the Life of a Swinburne Student

Students will experience the ultimate introduction to higher education by spending the day as a student at Swinburne. There will be different days tailored for the creatives, scientifically inclined, health enthusiasts and more. Students will get access to our state-of-the-art facilities, develop innovative skills in a series of interactive workshops, and experience a lecture from one of our thought leaders. Places are limited so registration is essential.

This program will run from 9-11 April and 24-26 September.

REGISTRATIONS OPEN IN TERM 1 AND TERM 3

Early Entry Program

Swinburne offers an opportunity for Year 12 students to access a conditional offer for a university degree, early and without using their ATAR score.

APPLICATIONS OPEN IN TERM 2

For updates and how to apply, visit our website.



Hawthorn Campus Tours



One of the best ways to get students excited about tertiary study is to come and experience our Hawthorn campus in person. See our next gen facilities, visit our student experience hubs and get info on pathways into university.

Contact us to book in a time and date. We can also include an optional 30-minute presentation.

 YEARS 10 to 12 |  45 minutes

Eastern Campus Tours

Explore Swinburne's vocational education opportunities at our Wantirna and Croydon campuses. With courses spanning across creative, practical and technical industries, talk to us about tailoring a Try VET campus experience for your students at ugteam@swin.edu.au.

 YEARS 10 to 12 |  20 minutes

VET delivered in Secondary Schools

As a dual sector university, Swinburne offers a wide range of VET Delivered in Secondary School Programs (VDSS) to students looking to gain practical, cutting-edge skills while they complete their Year 10-12 studies. Upon completion of a VDSS course at Swinburne, students are eligible for both credit and a pathway into further vocational study at Swinburne.

APPLICATIONS OPEN IN AUGUST 2023

Swinburne also delivers our own VCE Vocational Major program, so if students are looking for an alternative environment to complete their Year 11 and 12 studies, the VCE Vocational Major could be a great fit for them.



Moondani Toombadool Centre

Moondani Toombadool Centre is a transformational leader grounded in Aboriginal and Torres Strait Islander knowledges.

We offer ongoing support from course selection right through to graduation and beyond. This includes:

- campus experiences for schools
- a range of scholarships for Indigenous students
- tutoring through our Indigenous Academic Success Program
- a dedicated Indigenous student lounge
- social and cultural events throughout the year

For more information on available support for Indigenous students at Swinburne, please contact Moondani Toombadool Centre:

 indigenusstudents@swin.edu.au

 swinburne.edu.au/moondani

Aristotle Emotional Intelligence Programs

Over the last decade, Swinburne has been developing ways to assist schools to measure and enhance emotional intelligence. This includes Aristotle-EI — a suite of programs to help students and staff improve emotional intelligence competencies.

The student programs are tailored to a range of developmental stages with lessons for every year level of schooling. Each has a unique focus on achieving important student outcomes such as wellbeing, leadership, resilience and healthy friendships, in addition to the four dimensions of emotional intelligence:

- emotional recognition and expression
- understanding the emotions of others
- emotional reasoning
- emotional management and control

Our research has shown that developing emotional intelligence in schools improves students' academic, interpersonal, sporting and leadership capabilities and enhances personal resilience and wellbeing.

With extensive training and support for staff, fully resourced student programs, supplementary classroom posters and activities, parent resources and measures of emotional intelligence, Aristotle EI offers a comprehensive whole school approach to EI development.

 PREP to Year 12



OzGrav Teachers' Programs

OzGrav hosts teacher workshops on physics, astrophysics and our school programs. These offer opportunities to explore new content, design ways to incorporate it into your classroom and can contribute to your annual professional learning hours.

-
-
-
-
-
-

Teacher Professional Learning

Be empowered with knowledge and armed with the tools to deliver learning with impact. Our workshops and activities will not only set your classroom buzzing but will contribute to your annual professional learning hours.



Really enjoyable hands-on experiences with real classroom use.

Teacher from Sacred Heart Primary School, Diamond Creek, on the Primary Science Teacher Professional Learning experience



Primary Science Teacher Professional Learning

Build your confidence in delivering the national science curriculum through Swinburne's professional learning workshops.

OUTREACH WORKSHOPS

These 90-minute sessions are held at your school on topics that suit you. Select from a range of sessions across biological, chemical, earth, space, and physical sciences.

ONSITE WORKSHOPS

Alternatively, if you'd rather come to us, you can join our onsite workshops run at specific times throughout the year at Swinburne Hawthorn campus, the Australian Synchrotron in Clayton, or Swinburne's KIOSC centre in Wantirna.

Teacher Professional Learning Series

Clock up some PD hours with our illuminating professional learning series. Delivered by industry leading experts, these curriculum-based sessions will be offered across a range of topics, including design, psychology, computer science, legal studies, emotional intelligence and more.

OPEN DAY

Open Day is the best way for high school students to get a taste of life at Swinburne. Hawthorn campus comes alive with interactive workshops, live demos, facility tours and info sessions.

It's the chance to see Swinburne in action and chat with academics and current students about course options, career paths, subject selection and more.


SUNDAY 28 JULY, 2024

Learn more

To learn more about any of our programs or to book, please get in touch with us

 03 9214 3834

 schoolprograms@swinburne.edu.au

 swinburne.edu.au/collaboration-partnerships/school-programs/

The information contained in this prospectus was correct at the time of publication, December 2023. The university reserves the right to alter or amend the material contained in this guide. For the most up-to-date course information please visit our website. CRICOS 00111D RTO 3059 TEQSA PRV12148 Australian University SUT0101_202311