

UNSW Engineering

2025 UNSW Careers Advisers' Seminar

Please note: the information shared at the event and in the slides is correct as of the event date, **Friday, 21 February 2025**. UNSW reserves the right to change the information detailed in this document at any time without notice.

Professor Julien Epps
Dean, UNSW Engineering

Amela Mahmic
Future Students Activity
Coordinator (Engineering)



Engineering Landscape & Program Updates

Professor Julien Epps
Dean, UNSW Engineering

Engineering Industry Overview

Skills Shortage

Australia's engineering skills and labour shortage is the highest it has been for more than a decade, and only 8.5% of Australian graduates have an engineering qualification.

Graduate Success

Engineering graduates experience strong employment outcomes – around 87% of engineering graduates were in full time employment in 2021 and 2022.

Engineering graduates are also in the top five highest graduate salaries with a median salary of \$71,500.

In Demand Areas

Engineering occupations likely to be in highest demand in the short-term include

- *Civil Engineering*
- *Mechanical Engineering*
- *Electrical Engineering*
- *Industrial Engineering.*

Our Undergraduate Degrees

Bachelor of Engineering (Hons)

4-year degree

- 20 specialisation options + flexible first year
- Optional minors in Humanitarian & Nuclear Engineering
- 60 days industrial training
- Accredited by Engineers Australia

Bachelor of Computer Science

3-year degree

- 8 specialisation options (including general Computer Science option)
- Optional minor in business or science
- Accredited by Australian Computing Society

Bachelor of Advanced Computer Science (Hons)

4-year degree

- Study advanced computing electives (Security Engineering, Computer Science and Artificial Intelligence)
- Designed for students with a desire to study a PHD

Bachelor of Food Science (Hons)

4-year degree

- Specialise in nutrition or technology
- Optional minor in Humanitarian Science and Technology
- Only Australian degree to be recognised by the US Institute of Food Technologists

Bachelor of Cyber Security (Sydney)

3-year degree

- Study key areas such as programming, computer systems, and data structures & algorithms
- Choose from a diverse range of Cyber Security electives and gain skills in designing secure systems, networks and data platforms

What's new at UNSW Engineering

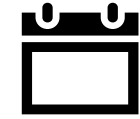
Bachelor of Engineering (Honours)

Geoenergy & Geostorage



Duration

4 years full-time



Intake

T1, T2 & T3



Delivery Mode

Face-to-face

- Combines the foundations of petroleum engineering with future-focused solutions to support the global transition to renewable energy.
- Potential future careers in Geoenergy & Geostorage Engineering:
 - *Carbon Capture and Storage Engineer*
 - *Geothermal Energy Specialist*
 - *Petroleum Engineer*
 - *Reservoir Engineer*
 - *Subsurface Hydrogen Storage Engineer*
 - *Subsurface Resource Manager*
 - *Environmental Consultant*
 - *Sustainable Energy Advisor*



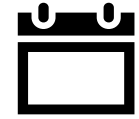
Bachelor of Engineering (Honours)

Biomedical Engineering



Duration

4 years full-time



Intake

T1, T2 & T3



Delivery Mode

Face-to-face

- New undergraduate Biomedical Engineering specialisation – previously only offered via the Bachelor of Engineering (Hons)/Master of Biomedical Engineering dual degree.
- Potential future careers in Biomedical Engineering:
 - Biomedical Engineer in hospitals, government bodies, industry or academic areas
 - Clinical Support Specialist
 - Medical Device Assessor
 - Patent Examiner and Field Service Engineer
 - Biomedical Device Designer
 - Prosthetist
 - Forensic Engineer

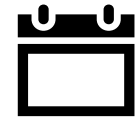


Bachelor of **Cyber Security**



Duration

3 years full-time



Intake

T1



Delivery Mode

Face-to-face

- Gain skills in designing secure systems, networks and data platforms using industry-standard technologies, discover how human behaviour affects security and learn to analyse security failures.
- Potential future careers in Biomedical Engineering:
 - Cryptography Engineer
 - Cyber Defense Incident Responder
 - Cyber Security Analyst
 - Data Privacy Analyst
 - Information Security Analyst
 - Security Consultant
 - Security Engineer
 - Software Engineer



Engineering Opportunities for High School Students and Educators

Amela Mahmic

Future Students Activity Coordinator (Engineering)

Engineering Work Experience Programs

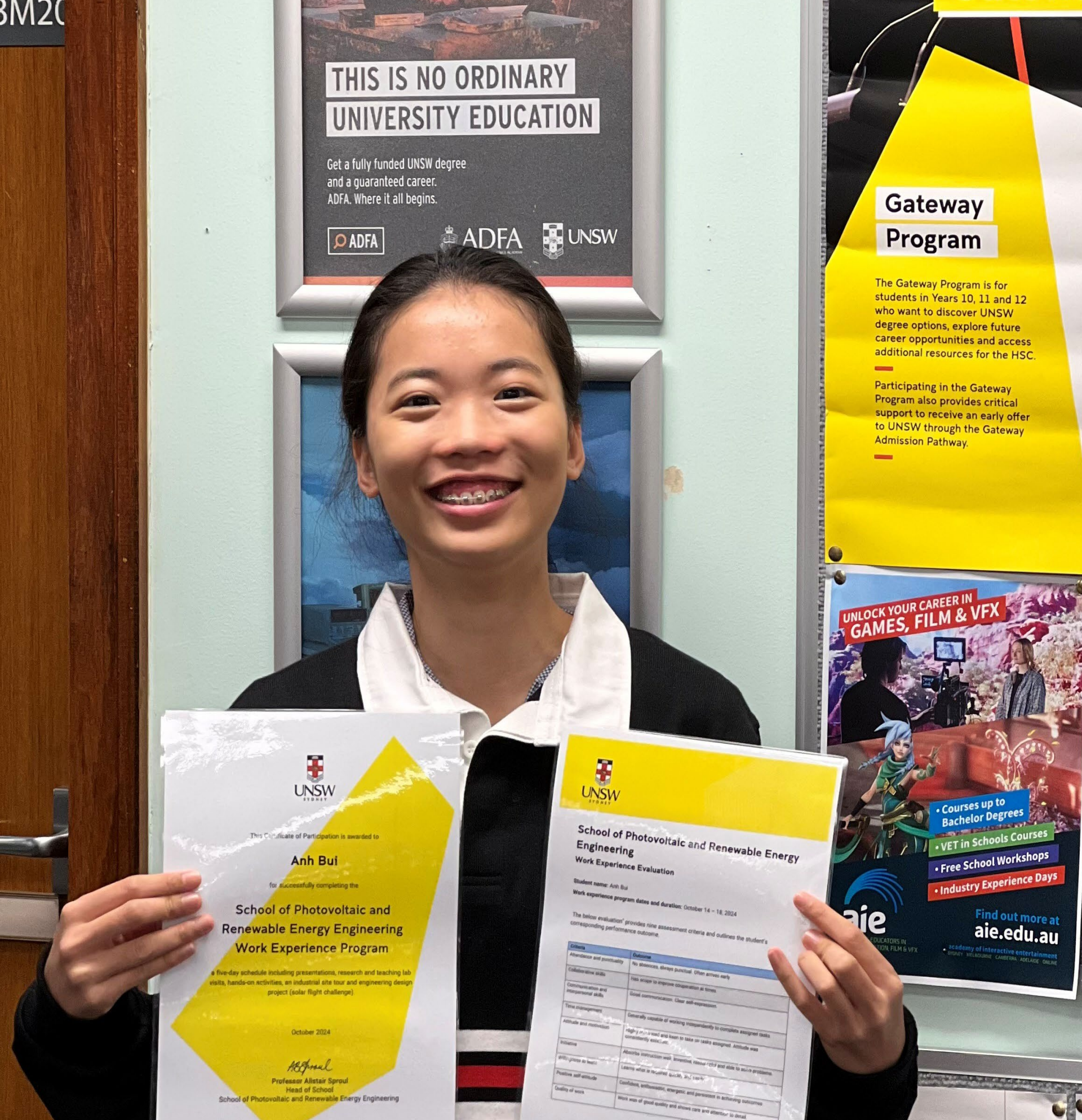
In addition to our long-standing Civil and Environmental Engineering WEP, two new 5-day programs are on offer:

- Photovoltaic and Renewable Energy Engineering
- Chemical Engineering

Provides students with industry insights and helps them explore potential career paths in these fields.

Funding is available for eligible students.

EOIs open 1st April via the links provided on our new High School Teachers and Students web page



Teaching Resources

Our aim: to bridge the gap between secondary and tertiary education

The new Engineering High School Teachers and Students webpage serves as a central hub, offering tailored resources designed to assist teachers in supporting the delivery of engaging and relevant content across various STEM subjects.

Our resources are designed to provide insight into how university level research and technology can bolster the development of practical resources to support secondary curriculum delivery.

High School Excursion Opportunity

Yr 11 Chemistry excursion delivered by our School of Chemical Engineering

NESA links

- Stage 6 Chemistry syllabus – Module 3: Reactive Chemistry
- Content related to Rates of Reactions

Practical investigation

- Explores how catalysts affect the rate of a chemical reaction
- Provides insight into the use of catalysts across various industrial scale applications as it pertains to chemical engineering

Schedule and bookings

- **August – exact dates TBC**
- Bookings are made after the EOI form is filled, on a first-come-first-serve basis
- Link to the form will be included in the May edition of the Educators Newsletter once the application goes live



UNSW Young Women in Engineering (WIE) Club

Workshops and events

To help students explore their career options in engineering

Monthly inspo

Bespoke newsletter delivered via email

Social media

Students can join the closed Facebook group or follow Young WIE on Instagram [@unsw_youngwomeninengineering](https://www.instagram.com/unsw_youngwomeninengineering)

