

# THE CDU SCIENCE EXPERIENCE

## The CDU Science Experience Post-Event Report

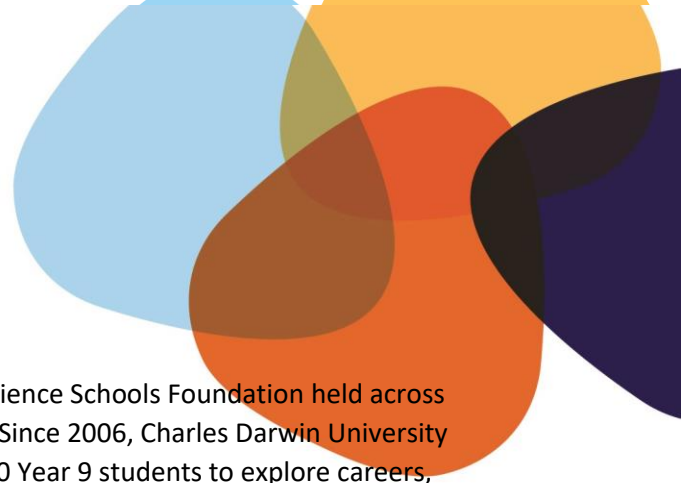
4-6 June 2024

Charles Darwin University, Casuarina Campus



Students from Good Shepherd Lutheran College, Haileybury Rendall College, The Essington School Darwin, St John's Catholic College, Dripstone Middle School, Henbury School, O'Loughlin Catholic College, Palmerston Christian School, St Joseph's Catholic College (Katherine), Katherine High School, Taminmin College, Darwin Middle School, Sattler Christian College, and Nightcliff Middle School.

# THE CDU SCIENCE EXPERIENCE



## Program Overview

The *Science Experience* is a nationwide initiative from the Science Schools Foundation held across Australia by 34 universities in various states and territories. Since 2006, Charles Darwin University (CDU) has hosted this three-day event aimed at inspiring 100 Year 9 students to explore careers, study, and employment opportunities in science, engineering, and technology through an immersive experience.

One of the unique aspects of the CDU's *Science Experience* is that it does not pass on the \$190 national registration fee to students or their families. This ensures that students from any location and socio-economic background can participate, thanks to generous sponsorships from a variety of organisations, community stakeholders, CDU staff, and Student Ambassadors who volunteer their time.

## Program Objectives

The **CDU Science Experience** is designed to provide Year 9 students with a comprehensive understanding of what to expect as they enter the final stages of their schooling and the critical link between education and future opportunities. CDU recognises that this period in a student's life is pivotal, and by fostering a positive attitude toward education, they aim to make a significant impact on students' academic and career aspirations.

The program ensures that students are equipped to make informed decisions about their subject choices for Stage 1 and 2 studies, helping them to lay a strong educational foundation for their future paths.

## Key Program Goals

### 1. Student Acceptance Equality

Commitment to supporting and encouraging participation from students of Indigenous or low socioeconomic status (SES) background, regardless of their academia, by seeking financial support to cover entire costs, including accommodation for regional and remote students. Schools are sent EOI forms to distribute to students, working on a first-in basis for acceptance.

### 2. Prepare Students for Their Final Years of Schooling:

The program helps students understand what lies ahead in their education and provides a clear connection between what they learn now and the career opportunities available to them in the future. A focus on positive educational experiences encourages students to make thoughtful and confident decisions about their studies.

### 3. Highlighting Opportunities in the Northern Territory (NT):

CDU aims to demonstrate the growing demand for skilled workers in the NT and the diverse range of opportunities available to students in their local area, introducing students to CDU's industry partnerships. This emphasises the potential for students to secure rewarding jobs close to home after completing their studies.

# THE CDU SCIENCE EXPERIENCE

## 4. Broad Range of Learning Experiences:

The program offers students both theoretical knowledge and practical hands-on experiences in various fields, including Technical and Further Education (TAFE) and Degree Education sectors.

## 5. Career Investigations and Educational Pathways:

The program includes career investigations, giving students a sense of the options available to them in the final three years of secondary schooling.

Students learn about the Northern Territory Certificate of Education and Training (NTCET) and the option to combine it with the Australian Tertiary Admissions Rank (ATAR), helping them understand the different educational pathways that can lead to tertiary education and employment opportunities.

By engaging in these activities, students gain a solid understanding of their educational and career options, empowering them to make decisions that align with their interests and aspirations. The program helps ensure that students from across the NT are prepared for a successful future, both academically and professionally.

## Support and Sponsorship

CDU is committed to fostering inclusivity and ensuring that students from all socioeconomic backgrounds have the opportunity to participate in the *Science Experience*. Each year, CDU helps secure additional sponsorship to cover the travel, accommodation, and meal expenses for remote students. The university acknowledges the vital role of its sponsors, including the national sponsor, the Science Schools Foundation, INPEX, the Northern Territory Government, local businesses, and community organisations. Their support ensures that all students, regardless of their financial situation, can benefit from this enriching event.

## Our Invaluable 2024 Student Sponsors

### Science Schools Foundation





# THE CDU SCIENCE EXPERIENCE



**INPEX**



**Rotary Club of Palmerston/Litchfield**



**Minister for Education, Hon. Mark Monaghan**



**Rotary Club of Darwin Sunrise**



**Minister for Environment, Climate Change and Water, Hon. Kate Worden**



**Casuarina Lions Club**

# THE CDU SCIENCE EXPERIENCE

## The Experience!

### INPEX Keynote Speaker

Our keynote speaker for 2024 was Joeline Puntoriero, CDU Alumni who studied a Bachelor of Environmental Science with double majors in Biodiversity and Conservation and Eco-Cultural Resource Management and is now an onshore environmental advisor with INPEX. Joeline's story was inspirational, sharing her challenges through schooling, journey through tertiary education and pathway into a successful and rewarding career, providing students with a home grown, lived experience perspective.

### Northern Territory Medical Program (NTMP)



The NT Medical Program gives students a direct pathway to study medicine on campus in Darwin, preparing them for a rewarding career as a doctor. In affiliation with Flinders University, students complete both the Bachelor of Clinical Sciences and the Doctor of Medicine. Students had an opportunity to view the anatomage table, practice their CPR skills and test their knowledge of human anatomy to rebuild a skeleton.

[Bachelor of Clinical Sciences \(WCSCI1 - 2024\) | Charles Darwin University](#)

### Environmental Engineering



Students assumed the position of an environmental engineer to identify an oil spill problem and develop a solution to combat the oil spill pollution using an experiment. They documented their findings and reported the better solutions from the experiment using the tools prepared.

[Engineering | Charles Darwin University](#)



# THE CDU SCIENCE EXPERIENCE

## Exercise and Sport Science



Exercise and Sport Scientists are experts in understanding how human bodies respond to exercise, and how to make a difference to the quality of life for all people. Exercise and Sport Scientists use exercise as an intervention to improve health and fitness, enhance physical performance and prevent and rehabilitate injury in both healthy and physically challenged populations. Students tested their concentration and teamwork with individual and group fitness activities.

[Bachelor of Exercise and Sport Science \(WESS01 - 2024\) | Charles Darwin University](#)

## Nursing & Midwifery



Students explored the diverse and dynamic careers of nursing and midwifery. Students participated in a hand hygiene activity, 'Glitter Bug,' using black lights to highlight germs and bacteria. In the midwifery suite, students learned how to care for a baby, including correct handling techniques and wrapping of the baby. They also had the chance to try on a pregnancy simulation suit.

[Nursing and Midwifery | Charles Darwin University](#)

## Paramedicine



Students were introduced to life as a Paramedic in the vast NT. Experiencing the resources available in the fully kitted out CDU Ambulance, as well as the tools and techniques used to move injured patients. Students got to put their skills to the test on one another and learned some life-saving techniques to inspire them in the coming years.

[CDU Paramedicine | Charles Darwin University](#)

# THE CDU SCIENCE EXPERIENCE

## Environmental Science



This activity looks at biodiversity and the amazing variety of small creatures living in simple, everyday environments. Students developed skills in collecting samples from simple environments (such as pond water and decomposing flora waste) and examine under microscopes the different forms of life present. Students were encouraged to use the resources provided to identify the life forms discovered, ask questions and then participate in discussion.

[Bachelor of Environmental Science \(WENVS1 - 2025\) | Charles Darwin University](#)

## Museum and Art Gallery of the NT (MAGNT) Activity

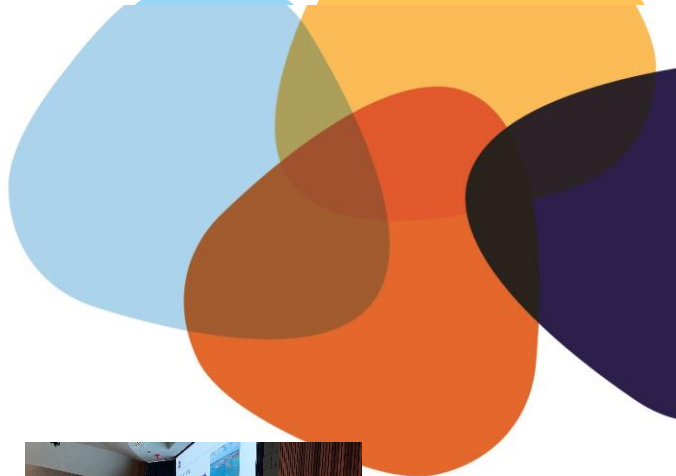


This activity was conducted off-site, with students traveling to Lake Alexander by bus. Facilitated by scientists from the Museum of Art Northern Territory (MAGNT), students put into practice their learnings from the environmental science session with the following two activities:

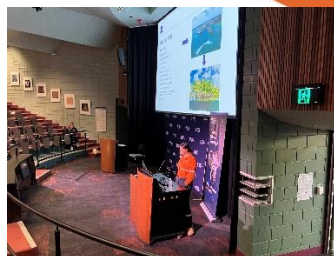
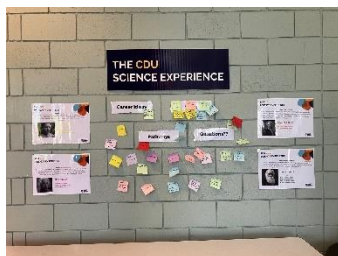
1. School of Ants – Setting up an experimental design using both active and passive collection techniques to understand ant diet, diversity and distribution at Lake Alexander.
2. What's in the sand? – Using active collecting techniques to understand the invertebrates in the sand both in shallow water and on exposed sand at Lake Alexander.



# THE CDU SCIENCE EXPERIENCE



## Career Pathways Exploration



What do you need to do now, at school, to prepare for your dream career?

CDU has a unique offering as a dual-sector university, allowing students to study either TAFE or degree education or both. We explain the differences between TAFE and Degree Education, define what an ATAR is, and prepare students for their senior years of high school. Students were provided with an insight into the different job and career opportunities available to them, with information about the different levels of qualifications. Students were encouraged to 'post' career-related questions over the first 2 days, which were answered and discussed in this presentation on day 3.

[Schools Engagement | Charles Darwin University](#)

## Trades Tour



Students were taken on a tour of our TAFE precinct, highlighting the numerous trade options available at CDU. VET for Secondary Schools program opens to students in year 9, with this session providing an opportunity for students to see the facilities and register their interest in enrolling in a program.

Students were shown through engineering, plumbing, electrical workshops, and automotive, and they had a chance to see some first-year apprentices putting what they had learned into practice.

[CDU TAFE | Charles Darwin University](#)





## Event Evaluation

In 2024, 12 schools participated in the program, including Good Shepherd Lutheran College, Haileybury Rendall College, The Essington School Darwin, St John's Catholic College, Dripstone Middle School, Henbury School, O'Loughlin Catholic College, Palmerston Christian School, St Joseph's Catholic College (Katherine), Katherine High School, Taminmin College, Darwin Middle School, Sattler Christian College, and Nightcliff Middle School.

Schools from East Arnhem Land and Central Australia were unable to attend due to not being able to secure grant funding for flights.

## Student Evaluation – Summary

97 students completed the survey:

- 100% of students who completed the survey confirmed having a better understanding of the courses available to them at CDU.
- 99% of students stated that the activities included in the event were both informative and fun, with Paramedicine and the NT Medical Program as two of their favourite activities. This was followed closely by, Exercise and Sport Science, Biomedicine and Nursing & Midwifery.
- 96% of students stated that they would now consider studying a TAFE or Higher Education qualification.

## Student Career Aspirations

Tradie	Medical Doctor	Electrician	Midwife
Detective	Drone/Aviation	Marine Biologist	Biomedicine
Nurse	Accountant	Inventor	Dancer
Teacher	Surgeon	Artist	Sports Science
Engineer	Paramedic	Lawyer	Nautical Engineer
Pilot	Business	Computer Science	App Developer
Physiotherapist	Dentist	AFL star	Law

# THE CDU SCIENCE EXPERIENCE



## Student Evaluation

2024 CDU Science Experience Student Survey Results

Q1 - Did the event give you a better understanding of the courses available at CDU?



Q2 - Were the activities involved in this week interesting and fun?



Q3 - Did you find the sessions informative? Did you learn something new?



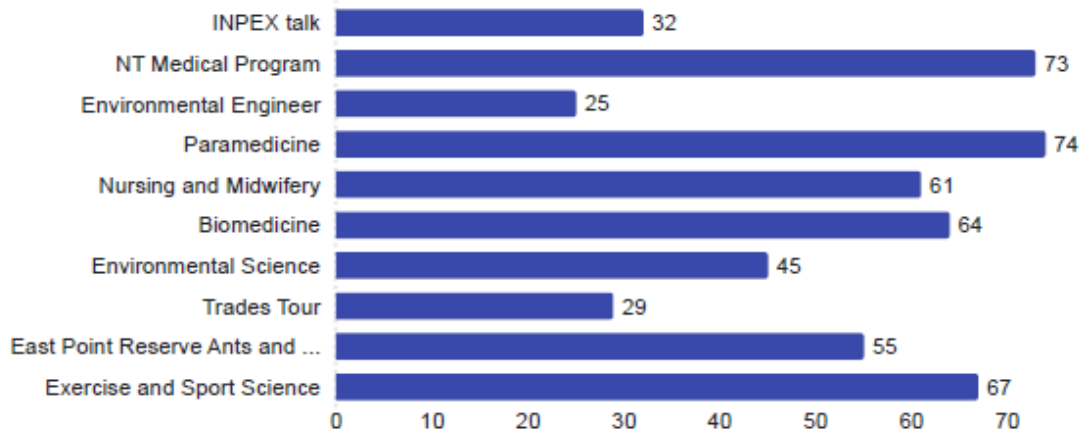
Q5 - After school, would you be interested in studying a TAFE or Higher Education course?



# THE CDU SCIENCE EXPERIENCE



Q8 - Please tick the activities you loved!



## Sponsor 'Thank You' Letters

All students are encouraged to write a 'thankyou' letter to the sponsors to explain what the CDU Science Experience meant to them.

Dear Hon. Kate Warden

My name is Grishma Desai and I'm from Darwin Middle School. It means a lot for me to be able to experience such an amazing event for absolutely free. I personally think these types of activities <sup>provide</sup> are a great opportunity for students who look for chances to improve and keep growing; like me. In the span of three days, I ~~was~~ learnt an uncountable amount of things - ~~as~~ everything ~~of~~ from how to save a person's life to what midwives' roles are.

My favourite activity was our introduction to Biomedical Sciences, in which we dyed our oral cells and later inspected them under a microscope. It gave me a deep insight of what the specialists do in their everyday life in the field.

Although I don't have any specific goals as of right now, this experience has provided me with sufficient information. I would like to thank you for sponsoring us. THANK YOU!!!

- Grishma



# THE CDU SCIENCE EXPERIENCE

Dear Rotary Club of Litchfield / Palmerston.

My name is Tyler I go to Sattler Christian collage It means a lot that you have gave me the oppertinity to come to CDU and have a look at all the Science ~~these~~ careers. At a young age it is cool to look at all Bifferent careers and maybe ~~on my way~~ maybe get these types of job In the furter. I am so glad you have gave me this change to see what job I mityn want to do when I am old and this is helping me with the Dision of what I will want to do when I am older. your Sponnser has given so many young kids that don't really know what they want to do for there furter and this will help so much with there furter path for the carriea. ~~Th~~ Thank you so much for this oppertinity.

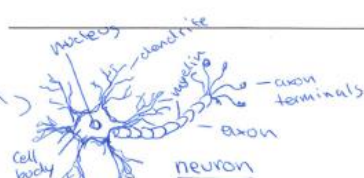
From Tyler King,

Dear Hon. Mark Monaghan,

Thankyou so much for sponsoring this science trip. I have enjoyed it so much and learnt alot. Without you helping me financially, I would not have had this opportunity. For you, I hope that every meal you eat is as delicious as the ones we have had. I hope you never get sunburnt and enjoy your day!

I know that you probably won't read this but here is my letter with all my sincerity. Now, I have a an incling of an idea on what I want to do, and I am very grateful for to you for it. In payment, I have drawn you a picture 😊.

In case you wish to know I will be a billionaire, and I will thank you later for your help now with a much greater Prize. Thankyou again so much, you have helped me much more than you could know ☺



Thanks, Orange  
Coriana  
from  
essington) Group ☺



**CHARLES  
DARWIN  
UNIVERSITY  
AUSTRALIA**

# THE CDU SCIENCE EXPERIENCE

Dear Inpet

Thank you so, so much for sponsoring the CDU experience, and I am glad I am here only due to your own efforts. I am currently in Henbury Bendall year 9 and have been ecstatic for attending the experience as soon as the information filled my ears. I've learned the wide and broadness of science in general like sports and athletics and environmental engineering in which we had to separate oil from a tub of water as a simulation of an ocean. Learning about environmental science was my favourite and I put it at the top of my list when I look back at this wonderful event, we looked at worms, icodpods, little fish (cuppy I think), shrimp, baby dragon fly and even a little water borne insect that swam backwards. There is so much more to write about experience in just 2 days here at CDU (6 fields) but not the amount space to even ~~light~~ scratch the surface, however I will cherish and will remember the ones that helped me attend, Thank you Inpet you helped fuel the dreams of so many of us students here I am forever Thank full.



Kind Regards Aarthva Shukla

Dear

Lions Club of Darwin Casuarina  
I appreciate you for letting Henbury School attend this fun, life opportunity CDU Science experience for three days.  
Thank so much love all of you,  
from Jade Obadin in the green group and from Henbury School. Oh! and maybe see you at the caned ~~regatta~~ regatta See you soon  
bye (☺)



## An abstract graphic consisting of several overlapping, rounded, organic shapes in various colors. The colors include light blue, yellow, brown, orange, and dark purple. The shapes are layered, creating a sense of depth and movement. The overall composition is dynamic and modern.

My Name is Sofia Korecki and I am from St John's Catholic College. It means so much to me that I am one of this small group of student that had this opportunity entirely for free and I thank you so much for doing this for us. I have had an amazing time so far and even found interests that I didn't even know I had thanks to you. In these

Something  
I might  
consider  
for a  
career

Thank you so much for giving me the experience to attend this event. This experience has allowed me to look at life as a 16 year old girl, really confused, really confused about what I want to become about my future, really confused on what to become gained amazing insight on the different careers, ranging from Trade to a medical Scientist. I now am more enthusiastic eager to move forward a life with a better understanding about career - the so many types of careers. I particularly enjoyed learning about the human anatomy, learning about the bones with Dr Gray, and talking to a 3rd year medical student<sup>physician</sup> on his amazing experience as a med student in CDU, and how he gets to give back to his community by working in remote areas. Surprisingly, I also developed a key interest in trade, something I wasn't aware about, and midwifery, something I wasn't aware of. I was also like warmly thank Josh, for being the best group leader ever, and for answering my many questions. Thank you so much Inex, Josh and CDU once again for this wonderful experience.

From, Dugan

Hege Thanks. and Regards,





# THE CDU SCIENCE EXPERIENCE

Dear Lions Club of Darwin  
Thank you for Sponsoring Me  
to go CDU science Experience  
I have enjoy my time, made lots  
of friends and learning lots of things  
Kind Regards Kristine HenBury School



**A HUGE thank you to all who made this event possible!**

## **Sponsors**

Science Schools Foundation	INPEX
Rotary Club of Litchfield/Palmerston	Minister for Environment, Climate Change and Water, Hon. Kate Worden
Rotary Club of Darwin Sunrise	Minister for Education, Hon. Mark Monaghan
Darwin Casuarina Lions Club	