

STEMC

Careers Day student guide

Wednesday 11 June 2025



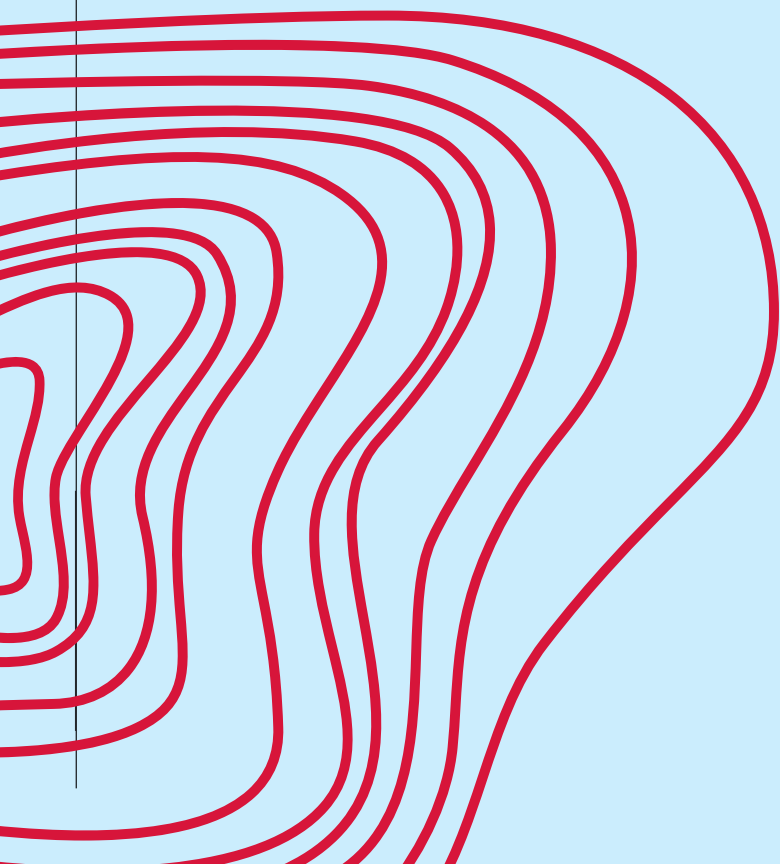
Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal and Torres Strait Islander people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal and Torres Strait Islander peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.



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Josh Murray Secretary, Transport for NSW Welcome message

Thanks for joining us to learn about the exciting ways Transport for NSW (TfNSW) is using Science, Technology, Engineering, Mathematics, and Construction (STEMC) at the heart of all we do. I am certain you'll discover projects that will spark your interest or would help the lives of those around you.

When I was leaving high school - sometime last century - I remember being focused on finding a career that would keep me engaged with the issues that mattered most to my community and the people around me.

Fast forward a couple of decades and here I am at Transport for NSW, where I get to support so many people who are driving better connections for the people of NSW.

From railways, roads and waterways, from buses, the metro, cars, ferries, trams, trucks or trains – TfNSW relies on the diverse skills, backgrounds and experiences of our people to keep our transport network moving. That also means we unlock new opportunities for people to access healthcare, education, jobs and housing with new ideas generated by the next generation of STEMC professionals.

The world is changing – fast! As a student, a job in drone piloting, social media, automated vehicles or AI would've seemed like something out of science fiction – but they're all very much a part of our broad approach at TfNSW.

So, if you're not sure what type of career you want, please don't worry. Chances are, it doesn't exist yet. But Transport is an industry that can help you design it, while helping your community move. I encourage you to explore this guide and see what opportunities await you. The future is full of possibilities, and I hope to welcome you to TfNSW one day soon.



Josh's top three tips

Stay curious: The world of STEMC is always changing, and chances are your future job might not even exist yet. Keep an open mind, be engaged in the debate, and be willing to evolve.

Embrace the side quests: The path ahead won't always be straight forward. Enjoy the ride, learn from the people you meet and be prepared to grab an opportunity that sits outside the linear path.

Find what interests you: Look at what areas you're interested in and passionate about. For me, I always wanted to be involved in the daily challenges and issues that make a difference to people's lives, and helping keep them safe.

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Transport for NSW Careers

jobs.transport.nsw.gov.au

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About Transport for NSW

People are at the heart of everything we do, from our customers to our teams. We connect people, communities and industry across the state, supporting them in navigating how they use our road, rail and maritime networks and services, as well as active modes like walking and cycling. We're proud to say our work connects the journeys you take every day.

We are a workforce of more than 30,000 people across diverse areas. Not only are we delivering infrastructure on a massive scale, but we are committed to safety, innovation, technology and meeting the needs of our customers across all modes of transport.

We always want to ensure we reflect the communities we serve, which means a commitment to inclusion and diversity and job opportunities in metropolitan and regional areas across NSW.

Joining us means you have the chance to be part of creating a legacy that will benefit generations to come.

Find out more about [Transport for NSW](#)



About STEMC Careers Day

The Science, Technology, Engineering, Mathematics, and Construction (STEMC) Careers Day is a free event that connects students in Years 9 to 12 with real STEMC teams and projects from across Transport. It will take place on Wednesday 11 June, and is run by Transport for NSW in collaboration with the NSW Department of Education.

Our teams will answer questions and provide insights into real Transport projects, roles, entry-level programs, and career pathways to encourage students to consider the many opportunities available in STEMC and with Transport.

This is your opportunity to delve deeper into the world of STEMC, make valuable connections with people working in the field, and learn more about Transport's many early career options.

Preparing for your visit

Get the most out of your visit by taking these steps before the event.

Plan your visit

STEMC Careers Day will be hosted at Rosehill Gardens, James Ruse Drive, Rosehill NSW.

There is a cashless onsite café at the venue if you wish to purchase food and drinks.

Explore the list of exhibitors and the event floor plan and make a list of the ones you're most interested in visiting.

Timetable

Time	Session
09:00	Registration opens
10:30 – 10:50	Panel Q&A
12:30 – 12:50	Panel Q&A
14:30	Event closes



Prepare some questions for our teams

Consider a few questions to ask the people you meet. Asking questions and listening to different people speak about jobs and training options will help you understand your future career options.

Not sure what to ask on the day? Here are a few suggestions to start you off.

1. Could you tell me about a typical day at your job and your usual tasks?

2. Do you usually work on your own, or do you work with a team of people?

3. How do you manage your job and your personal life?

4. What kind of training or education do you need to do your job?

5. What skills do you think are important for your job?

6. What do you think it takes to do well in your job?

7. What do you enjoy most about your job?

8. How can someone like me get started in your industry?

9. Do the subjects I'm taking or planning to take for the HSC
(Higher School Certificate) align with the requirements of this industry?

10. Are there any aspects of your job that you don't like?

11. Could you share how you ended up in this career?

12. How has the world of work changed since you began your career?

13. What inspired you to choose this line of work?

Event highlights

Bright Ideas	12	Bright Ideas is an innovation platform developed to harness ideas and is accessible to everyone across Transport. Bright Ideas promotes an organisation-wide approach to innovation. As part of Bright Ideas, our Pitch to the Panel campaign is an annual innovation program where employees across Transport are invited to pitch their ideas to the Innovation Leaders Panel on how we can do things better at Transport. We look for ideas, big and small, that will benefit customers, communities or our people.
Drones for Roads	5	Explore some of the ways we use drones at Transport through our interactive virtual reality experience, videos of the work our team carries out, check out a display of some of our drone models, and get a close up look at our flagship Drone Field Operations Vehicle.
Entry Level and Aboriginal Programs at Transport	S4	Whether you're considering studying at university, working towards a TAFE qualification, learning a trade, or looking for a job straight out of high school, Transport offers a variety of entry-level roles and specialty programs for students looking to begin their careers in all sorts of areas. Discover more about the opportunities for professional development, learning and practical work experience across Transport's agencies, locations, and work disciplines.
Future Mobility Testing and Research Centre	31	The Future Mobility Testing and Research Centre is Australia's next world-class testing centre for safer vehicles and sustainable transport technologies. Explore interactive digital displays to see how we test things like emergency braking at the centre.
NSW Maritime: Safer, Smarter Waterways	7	Discover how NSW Maritime leverages cutting-edge technology to enhance maritime safety and operational efficiency, setting new standards for the future of our waterways. See how our teams uses technology like drones as well as maritime surveying tools like advanced sonar and LiDAR technologies, and put your safety knowledge to the test and see if you have what it takes to stay safe on the water with our lifejacket challenge!

Booth name	Booth number	About
Road Safety Technology	11	<p>Road Safety Technology's mission is to discover and deploy technologies that can save lives and reduce injuries on NSW roads. We use design thinking to look to the future and test emerging technologies, including connected vehicles, artificial intelligence, and safety-based smartphone applications.</p> <p>Join us to see our safety research vehicle, discover the latest road safety technologies, and test your knowledge with a quiz.</p>
Sydney Metro	27	<p>Find out more about the new Sydney Metro railway in an interactive display about Australia's first driverless metro system. Visit the Sydney Metro West Van to explore a range of videos, hands-on activities and games and speak to some of our Sydney Metro project experts.</p>
Sydney Trains Lego Education	S10	<p>Take part in Lego and Infrastructure challenges, including our Driver Challenge, for a glimpse into Railway & Reliability engineering.</p>
Sydney Trains Virtual Reality	18	<p>Virtual Reality Technology has been tested for providing relevant experiences for crew training purposes. Put on our virtual reality goggles to explore a simulated Train Crew work environment and work training scenario.</p>



Panel Q&A session

Careers in STEM C at Transport for NSW

This session will empower you with knowledge, insights, and inspiration to help you learn about the huge range of STEM C career opportunities with Transport.

Our panellists will share their personal professional journeys, talk through the diverse range of jobs at Transport, and offer tips on preparing for a career in STEM C.

The interactive Q&A panel allows you to ask our panellists questions. Whether you're curious about a specific career, our entry-level programs, or how to get started in STEM C, this is your chance to gain valuable insights and advice that could help shape your future.

Panellist bios

Samiha Najem, Associate Director Operational Tech, Engineering & Maintenance, Sydney Trains

Samiha joined RailCorp as an intern in 2009 as part of a Talent Program. She graduated from the program and commenced work in the Engineering Asset Management team, where she quickly became known as a problem solver.

This led to a series of career opportunities across bus, ferry, and rail modes — managing projects for Metro, light rail, and Western Sydney Airport — before returning to (arguably her first love) Engineering and Maintenance in rail.

In 2022, Samiha joined the Operational Technology (OT) team as Associate Director, leading a team of 180 people to ensure the reliability of OT systems was maintained, secure and that system configuration is monitored and managed throughout the life of these systems.

Abigail Apiiyah, Senior Engineer, Technical Services, Sydney Metro

Abigail is a qualified civil engineer who began her career after completing her first degree overseas. In 2010, she migrated to Australia to pursue further studies, which led to her acceptance into the CPB Contractors graduate program. During her time there, she gained hands-on experience as both a Quality Engineer and Site Engineer, contributing to a range of road infrastructure projects. She later transitioned into residential construction, working as an estimator before joining Sydney Metro in 2022. Currently, Abigail serves as a Senior Engineer in the Engineering and Design Assurance team, where she supports her manager across multiple Sydney Metro projects, ensuring quality and compliance throughout the design and delivery phases.

Roukaya Hijazi , Graduate, Environment and Sustainability team

Roukaya is a Graduate Environmental and Sustainability Engineer at Transport for NSW, working within the Assurance, Performance and Improvement team. She recently graduated with a Bachelor of Civil and Environmental Engineering (Honours) and a Diploma in Professional Engineering Practice from the University of Technology, Sydney.

Her love for engineering was inspired early on — her dad is a civil engineer and her mum a biology teacher, naturally sparking her interest in civil and environmental solutions. As a cadet, she worked across two impactful teams within Major Works at Sydney Trains: the Rerailing Team, where she gained hands-on experience in rail maintenance infrastructure, and the Operational Technology Condition Monitoring & Security Team, where she explored emerging technologies and project delivery.

Roukaya is passionate about STEM education and giving back to the community. She's volunteered at World Engineering Day and participated in several STEM programs to inspire future engineers. Outside of work, she is the eldest of three siblings and brings her caring nature and enthusiasm into everything she does.

Firas Sabbagh , IT Customer Support Officer, Finance, Technology and Commercial

Firas Sabbagh works as an IT Customer Support Officer and has a background in Information Technology. He studied IT Engineering and later moved to Australia in late 2019 on a humanitarian visa

After arriving in Australia, Firas completed a Certificate IV in IT Networking at TAFE NSW. He then joined Transport for NSW through the Humanitarian Cadets Program, which supports newly arrived migrants in finding jobs that match their skills and qualifications within the organisation.

Firas really enjoys his job. He helps staff with their IT problems, answers questions, and makes sure their technology is working properly. He likes meeting different people every day and making their work easier through good customer service.

Outside of work, Firas is a husband and a proud father to his young son, Lucas. He enjoys spending time with his family, watching Lucas grow, and catching up with friends. He's also a big fan of soccer and basketball.

Gabby Puskas , Program Associate, Career Accelerator Programs (host)

Starting her career as a Graduate at Transport for NSW, Gabby has explored various roles and exciting projects. Her current role involves helping entry-level employees find career pathways in Transport, and she loves seeing people grow and succeed.

She has worked across the banking and government sectors, gaining experience in areas like entry-level talent, inclusion and diversity, digital, culture and engagement, information technology and internal communications. Before Transport, she worked at Westpac.

Gabby studied a Bachelor of Business degree focusing on Information Technology at the University of Technology, Sydney. Her background in marketing and information technology has given her a unique perspective that she brings to her work every day.

Outside of work, she's a proud wife and mum to Elena and a dog-mum to Winter, a cheeky Golden Retriever. She loves playing soccer, eating good food, and watching Brooklyn Nine-Nine (the best show ever!).

Gabby's advice to anyone thinking about their career is to stay curious, embrace new experiences, and never stop asking questions. There are so many career paths beyond the traditional roles like teacher, vet, or doctor - industries are constantly evolving, and exciting opportunities exist in places you might not have considered.

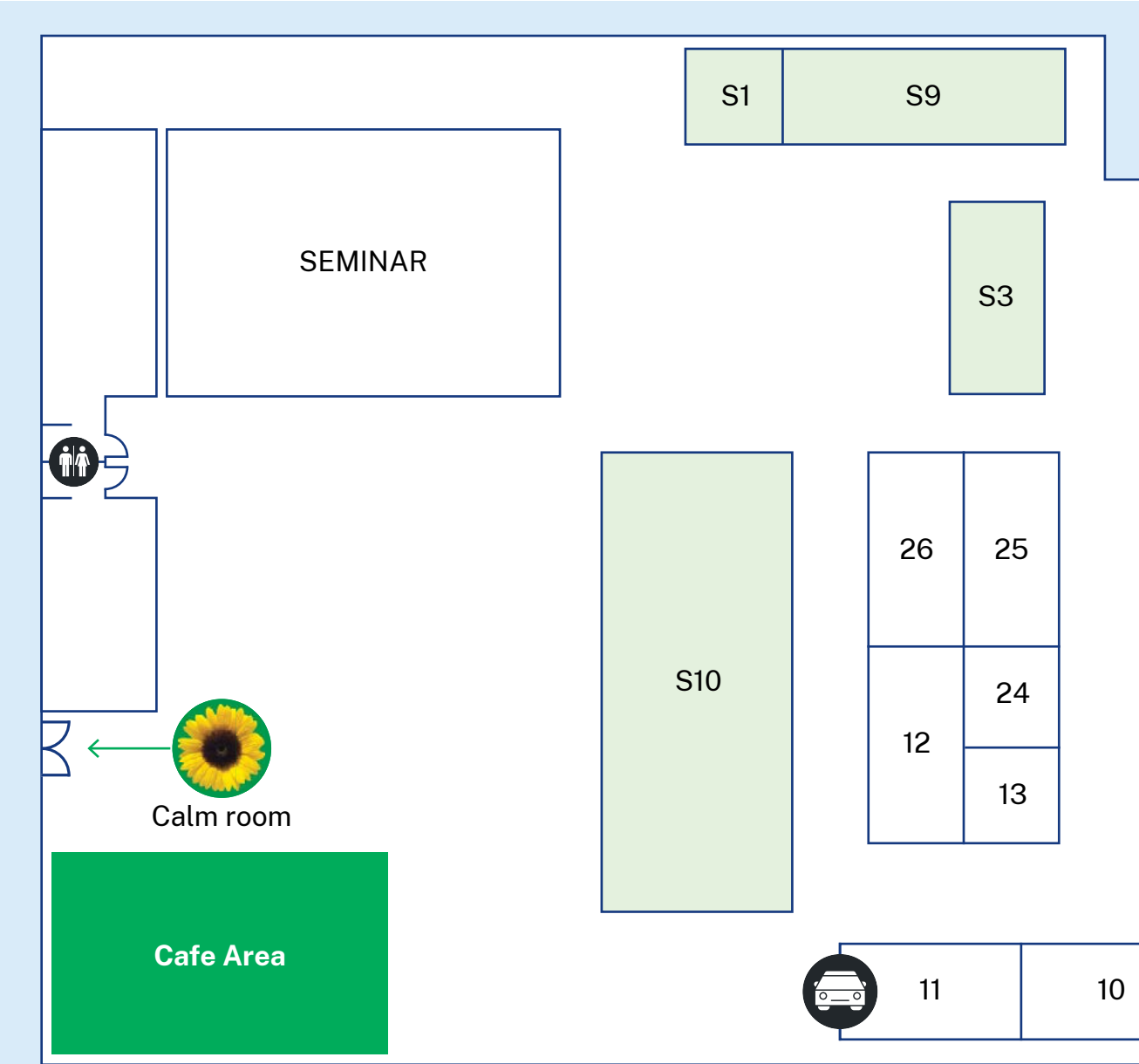


List of exhibitors

Booth	Exhibitor name
1	Digital Engineering Services
2	Smart Infrastructure
3	Transport Emergency & Crisis Coordination Hub
4	Transport Cyber Defence
5	Drones for Roads
6	Automated boarding ramp solutions
7	NSW Maritime: Safer, Smarter Waterways
8	Rail Operations
9	Special Projects / Track Worker Safety
10	Sydney Trains Asset Management Tech Showcase
11	Road Safety Technology
12	Bright Ideas
13	Glow Roads
14	Fleet Innovation & Technology
15	Asset AI
16	Bus Timetable Validation
17	Emergency Bussing Tool
18	Sydney Trains Virtual Reality
19	Sydney Trains - Operational Technology - Take a Splice
20	Transport for NSW Digital Products Hub
21	Tools and Technology in Systems Engineering
22	Train Crew - Initial Employment Training
23	Sydney Trains Automatic Train Protection
24	CIVIL: AI powered de-escalation training tool
25	Our communities within transport
26	Public Transport Projects

Booth	Exhibitor name
27	Sydney Metro
28	Strategy, Insights & Customer Experience or Insights, Innovations & AI
29	Signalling & Control Systems
30	Advanced Analytics and Applications -IPE
31	Future Mobility Testing and Research Centre
S1	Public Transport Projects
S2	Zero Emission Buses Program
S3	Sydney Trains Apprentice Program
S4	Entry Level and Aboriginal Programs at Transport
S5	Transport for NSW Apprenticeships & Traineeships
S6	Environment and Sustainability
S7	Western Sydney Aerotropolis
S8	Advanced Technical Services
S9	Build-a-Bridge Workshop
S10	Sydney Trains Lego Education

Event map



Stand	Exhibitor
1	Digital Engineering Services
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4	Transport Cyber Defence
5	Drones for Roads
6	Automated boarding ramp solutions
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22	Train Crew - Initia
23	Sydney Trains Au
24	CIVIL: AI powered
25	Our communities
26	Public Transport Pr
27	Sydney Metro
28	Strategy, Insights &
29	Signalling & Contro
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S7	Western Sydney Aerotropolis
S8	Advanced Technical Services
S9	Build-a-Bridge Workshop
S10	Sydney Trains Lego Education

Post-event information

Make the most of your careers day experience, even after the event.

Complete the post-event survey

Your feedback is important to us. Please complete the [post-event survey](#) to share your thoughts and suggestions.

Reflect

Take some time to reflect on the day's discoveries and which career options intrigued you the most. Why? What did you find inspiring or interesting?

Pathways to a STEMC career at Transport

Whether you're considering studying at university, working towards a TAFE qualification, learning a trade, or looking for a job straight out of high school, Transport offers a variety of entry-level roles and specialty programs for people looking to begin their careers in all sorts of areas.

Our programs, traineeships and apprenticeships offer professional development, learning and practical work experience across Transport's agencies, locations, and work disciplines.

High school senior programs

Aboriginal HSC Scholarship program is a one to two-year program comprising two weeks of work experience and reimbursements for educational items. It is for Aboriginal or Torres Strait Islander students entering either Year 11 or Year 12.



Post-high school programs

Career accelerator programs Transport's Graduate, Cadet and Scholar programs are for students looking to study business, IT or engineering at an undergraduate degree level or higher.

Graduate program is for recent or soon-to-be university graduates. This paid work experience and learning program runs for 18 months and offers placements in different teams across Transport and its agencies.

Cadet program is a one-to-two-year learning and paid work experience program for people who are currently studying an undergraduate degree.

Vocational Education and Training (VET) Cadet program is a two-year program that combines work experience with studying a Cert IV qualification in either business, project management or IT. It is for Aboriginal or Torres Strait Islander people.



Apprentice and trainee programs

Combine paid, on-the-job learning with structured training and work towards a nationally recognised trade qualification.

Regional and Outer Metropolitan Apprentice and Trainee Programs (Transport for NSW)

Choose from various programs and work areas across the Hunter, Northern, Western, South West, and Southern regions in NSW.

Our trainee programs include business, project management, finance, operational management systems, marketing and communications painting and blasting or engineering technical traineeships.

We offer apprenticeships across civil construction, bridge construction and maintenance, heavy diesel mechanical, electrical, and metal fabrication apprenticeships.

Sydney Trains Apprenticeships Sydney Trains offers a range of trade apprenticeships in electrical, telecommunications and mechanical engineering across Greater Sydney.

Aboriginal Civil Construction Training is for Aboriginal people interested in learning the ropes of civil construction.

Technical Services entry-level programs

Get structured training and experience while you study with Transport for NSW's technical services trainee programs.

Road Designer in Training program is designed for anyone interested in a career designing roads for NSW.

Electrical Designer in Training offered by Transport in conjunction with The College, Western Sydney University.

Traffic Engineering Officer in Training is for people interested in designing traffic engineering solutions while completing their studies in engineering.

Laboratory Officer in Training embark on a career in the road construction industry as a Laboratory Technician.

How to apply

Follow the program links in the above list to find out about each program's application process.

Expressions of interest are currently open for our **Apprentice and Trainee programs 2026 intake | Transport careers**

To search for more job opportunities and set up job notifications, visit **Transport careers**

Need some help navigating our application process? Visit **Recruitment process tips | Transport careers**

Contact our Talent team talent@transport.nsw.gov.au





Talk to your family members, careers advisor, year advisors or teachers

Chatting to people you know and trust can help you navigate decisions about your future.

Share your interests and career goals, ask them questions about their careers, and see how they might be able to support you.

Questions for your school's Careers and Transition Advisor

Continue the conversation with your school career advisor, who can provide practical advice and help you create a plan to work towards your career goals.

Before you book an appointment with them, think of a few questions you'd like to ask them. Here are a few suggestions to start you off:

1. How can I explore different STEMC fields to determine which one interests me most?
2. What important skills or subjects should I focus on to prepare for a career in STEMC?
3. Are there any STEMC-related extracurricular activities or clubs I can join at school?
4. What types of qualifications or degrees are typically required for STEMC careers?
5. I'm considering a career in [specific field]. Are my current subjects preparing me with a strong foundation in this area?
6. I want to estimate my ATAR, and discuss whether I'm on the right track for admission into my preferred uni degree/tertiary program.
7. Can you suggest some bridging courses and other pathways to university that aren't based on ATAR results?
8. Does the industry I'm interested in require a vocational qualification or a university degree?
9. Can you recommend any holiday programs, school career sessions, online learning opportunities, work experience, volunteering opportunities or other options to explore and prepare for a STEMC career?

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