

STEM Manufacturing Futures

Hi-tech manufacturing futures for Geelong region students

In collaboration with the Geelong Manufacturing Council and key industry partners, Year 9 to 12 students are provided with an exciting opportunity to explore hi-technology advanced manufacturing education and employment pathways.

The six-month program engages students in potential careers in advanced technologies, design, innovative manufacturing and engineering.

Participating students will:

- Build awareness of the exciting STEM related advanced manufacturing options available for future employment
- Develop employability skills and gain awareness of regional advanced manufacturing businesses

Aims of the Program

- Raise awareness in Year 9 to 12 students of STEM related pathways to advanced manufacturing
- Engage Year 9 and 10 students in STEM related advanced manufacturing industries
- Promote STEM related pathways for female students
- Increase levels of educational attainment in STEM related subjects in secondary and tertiary education

Key elements of the Program

- Visits to selected advanced manufacturing businesses and educational providers
- An exploration of leadership and entrepreneurial skills needed to succeed in design and advanced manufacturing along with STEM related skills and knowledge
- Student work experience, where students engage with real world challenges facilitated by the work placement within advanced manufacturing businesses
- Encouragement of girls to pursue STEM related career pathways

Program Strands

There are two strands to the program, both delivered by the Geelong Manufacturing Council, in partnership with Skilling the Bay and key industry organisations.

Both programs are open to Year 9 and 10 students from Geelong region schools with one intake per year of 15-25 students. Students can complete 2-3 days of 'Buddy' Work Experience' during the Term 3 school vacation. The programs culminate with a graduation event including high profile and inspirational speakers.

Fast Facts

- Geelong's manufacturing sector employs over 8,000 people across 400 companies.
- Geelong is home to important education and research facilities such as CSIRO, Deakin University's Centre for Advanced Design in Engineering Training, Institute for Intelligent Systems Research & Innovation, Carbon Fibre Hub (home to Carbon Revolution, Quickstep, Carbon Nexus) and Manufactures Advanced Manufacturing Innovation Hub; The Gordon; and the Geelong Technical Education Centre.
- The manufacturing sector generates \$563 million in salaries and wages for the Geelong community.
- The sector generates \$6.3 billion, or 22% of the region's total economic output.
- Geelong has a diverse manufacturing and processing sector across food, automotive design & research, advanced fibres, textiles, petroleum, cement, chemicals, renewables timber and engineering.
- Deakin University's Geelong Technology Precinct is at the forefront of global research in the fields of advanced materials, nanotechnology, intelligent systems biotechnology and the environment.

Source: Geelong Manufacturing Council and City of Greater Geelong
W: economyprofile.com.au



Girls Leading Advanced Manufacturing (GLAM)

Tailored for female students, a creative, problem solving approach is emphasised to explore a breadth of careers in STEM related industries. The students are supported by female industry professionals as they learn about education and training pathways into advanced technology, design, engineering and manufacturing careers.

Industry Involvement

The success of this program is dependent on industry support. Recent industry partners include: Deakin University, LyondellBasell, Thornton Engineering, Boomaroo Nurseries, Viva Energy, Barwon Water, Geelong Quality Council, Sykes Racing, The Gordon & Geelong Tech School, Ford Australia, Malteurop, Powercor, Quickstep, CSIRO, Air Radiators and 4P Consulting.

Graduates

The program is successful in achieving its aims:

- 81% of GFLOI and 83% of GLAM students feel better prepared to plan for a future career in a STEM related field.
- 82% of GFLOI and 92% of GLAM students will choose subjects that will enable them to pursue an advanced manufacturing or STEM related pathway.

Further Information

Lindy Mills - Project Officer

Skilling the Bay

P: 5225 0475

E: lmills1@gordontafe.edu.au

W: skillingthebay.org.au

Leanne Nelson - Project Manager

Geelong Manufacturing Council

P: 5222 8000

E: ep@geelongmanufacturingcouncil.com.au

W: geelongmanufacturingcouncil.com.au