

ADVANCED TECHNOLOGY PROJECT

Adrian Smith (TaSC) & Steve O'Connor (DECD)

Project Update

Now in its fourth year, the Advanced Technology project (ATP) is well established in the three lead schools, Aberfoyle Park High School, Henley High School and Valley View Secondary School. In addition two specialist schools, Saint Patrick's Technical College and Le Fevre High School (Maritime High School) have embedded specific focus STEM courses. The appointment of STEM senior leaders in each of the lead schools has been a significant factor in changing the culture in those schools and the project's success. Recent participation data shows an increase in enrolments in Year 10-12 STEM between July 2009 and July 2013 between 5-10%.

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Advanced Technology Award shortlist

The Advanced Technology Project capped off an exciting year by being announced as a finalist for the Industry Collaboration Award at the South Australian Training Awards*.

The Industry Collaboration Award recognises outstanding collaboration between an employer or industry body and at least one other organisation, resulting in the delivery of exemplary skills development.

Steve O'Connor, manager of the Advanced Technology Project, said being shortlisted was recognition of the extra effort made by teachers and the commitment of the industry.

"The school-industry collaborations have improved their understanding of each other and have ensured students are work-ready and better informed of their career choices," Steve said.

"We must encourage students to study science, technology, engineering and mathematics, at school, university and into vocational training if we are to fully realise our state's potential.

"That's what has been at the heart of the Advanced Technology Project all along".

Nomination into the category required a presentation to a panel of judges. Held at Le Fevre High School, the presentation successfully highlighted the great work and achievements of the program, from inception to now.

Thank you to all parties who contributed to the presentation, including schools, TAFE and the defence industries.

**The South Australian Training Awards are the peak state awards for vocational education and training (VET) and recognise innovation and excellence in the training sector.*

Developing future workforce skills

South Australia's Maritime Skills Centre (MSC) and the ASC are preparing secondary students for a career in the state's defence industries. With changing workforce requirements the MSC have engaged TAFESA to develop a new Defence Industry Pathways course (DIPP4), with a focus on futuristic skills and capabilities required in the highly skilled defence industries. The aim is to expose students to skill sets that can be applied to all engineering and advanced manufacturing career pathways.

The new DIPP4 course allows Year 10 and 11 students to study a course with a focus on Advanced Manufacturing while achieving Stage 1 SACE credits. In July 12 students from a total of 22 students were selected to be part of the first semester 2, 2013 DIPP4 course.

The recently completed Advanced Manufacturing Centre based at Regency TAFE houses some of the most advanced manufacturing technology in Australia. While here, students learn to produce a solution to a design brief by using industry-standard design and prototyping applications. They test and analyse their designs to determine methods on improvement prior to manufacturing the final design solution.

The DIPP program requires students to design and build

a model aircraft. The initial model begins with free-hand sketches and is built using traditional workshop tools and machinery. The students test and analyse the model's performance to determine improvements for the next stage.

The refined model is designed using state-of-the-art 3-dimensional modelling software and is manufactured using an advanced 3-dimensional additive printing machine. The students also use this software to test and analyse the effectiveness of this model's design.

The results from the 3-dimensional testing are used to inform the design of the final aircraft model. The students use reverse engineering techniques, which involves scanning the design in three dimensions and then creating its mathematical geometry coordinates. Computer-aided manufacturing software is used to build the final model. This is done by a conventional milling machine that controls tool cutting paths to remove material to reveal the final product.

Applications for the semester 1, 2014 enrolments will be available to students in term 4, 2013. For further information check the Advanced Technology site <http://dlb.sa.edu.au/atmoodle>.



Project update (cont.)

In November, 2012 the Defence Materiel Organisation approved project funds be redirected to provide seven selected partner schools with additional resources to accelerate outcomes for 2013. Those schools were:

- Craigmore High School
- Golden Grove High School
- Pedare Christian College
- Gleeson College
- Hamilton Secondary School
- Unley High School
- Blackwood High School

This year all 19 project schools continued their participation in a significant professional development program developed and delivered by the Australian Science and Maths School. Each region held three professional development days to help their teachers deliver an enquiry and interdisciplinary approach to STEM in their schools. In total 70 teachers participated in the program and developed in teams a range of STEM curriculum units.

An online planning tool (www.eductec.com.au) was used to assist teachers aligning their curriculum with the new Australian Curriculum. This provided teachers with the opportunity to share and view each others work across all project schools.

Science expo is all go in the south

Science was the star at the Southern region's Science Expo 2013.

Following the success of last year's inaugural expo, the Southern Advanced Technology Project team held an even bigger event at the Marion Fitness and Leisure Centre with over 150 secondary and 200 primary school students attending.

The Southern Science Expo involves some of the region's secondary school* students showcasing science, technology, engineering and mathematics STEM projects to their feeder Year 7 students. Primary students learnt about the science behind projects such as quad-copters, kinetic cars and Nano materials while seeing firsthand what type of skills they might be involved with at secondary school.

Primary school students voted on which project they would like to receive the People's Choice Award for 2013 and a panel of industry representatives voted on which project to receive the Judge's Awards.

This year's winners were:

- People's Choice – Australian Science and Mathematics School, Designing Space Colonies
- People's Choice Runner Up – Hallett Cove School, Plane Models (trade school physics)
- Judge's Award – Blackwood High School, Quadcopters

Liz Mead, Principal of Aberfoyle Park High School, said this year's displays showed a much higher level of complexity and interest than last year.

"The secondary students spoke confidently and passionately about their learning and this clearly inspired the year 7 students," Liz said

"The whole expo buzzed with excitement as students participated in the myriad of displays. A number of Year 7 students were heard to say that they couldn't wait to get to high school so they could get involved in science."

Julia Burdakova, a teacher from Hallett Cove School, said her students really enjoy displaying at the expo.

"It's a wonderful chance for them to represent their school and to have discussions with students from other schools and guests," Julia said.

"The Science Expo will be an unforgettable experience for our students. It's helped them improve their communication skills and build their confidence."

The Science Expo is the culmination of weeks of work by the secondary school students who are supported by their STEM teachers. All participating schools were supported by the Advanced Technology Project.

*Showcasing at the 2013 expo were Aberfoyle Park High School, the Australian Science and Mathematics School, Blackwood High School, Hallett Cove School, Hamilton Secondary College, Reynella East College and Unley High School.



STEM at Hamilton takes off!

Hamilton Secondary College recently hosted its 'project week', a showcase of Science, Technology, Engineering and Mathematics (STEM) by Year 8 and 9 students.

The week consisted of a series of hands-on projects that incorporated the school's STEM curriculum. Students were asked to form teams and design and build either a kinetic car, wind turbine, space shuttle or a water rocket for presentation at the end of the week.

The projects were specifically designed to engage students in STEM and also encourage real-world skills such as team work and participation. The students were also given the opportunity to work with a professional mentor, Sarah Wentworth from Adelaide University, on the design and build process.

At the end of the week, each team's final product was tested and compared to see which one travelled the furthest and fastest, or generated the highest output. Deputy Principal Roger Hooper presented the teams with medals for their hard work and achievements.

The students loved the challenges.

"The teams worked well and shared the work amongst

each other by utilising each person's strengths", said one Year 9 student.

The staff were very pleased with the level of excitement and engagement shown by the students towards STEM.

'Project week' concluded with the students presenting their learning to a select group of staff, parents and peers. Students then got to hear about real-world STEM career opportunities from industry representatives, which included Craig Birbeck, Manufacturing Industry Apprenticeship Advisor, Pam Gerrard, Industry Broker for the Advanced Technology Project, and Teresa Janowski, Northern Advanced Manufacturing Industry Group.

Hamilton's 'project week' aims to increase the level of student engagement in STEM for their school life and careers. The projects break down the traditional curriculum boundaries and make learning more inquiry-based and problem solving in nature.

Written by Karen Palumbo,
Coordinator of STEM Projects





Lord Mayor Stephen Yarwood, Jeremy LeCornu, Karen Palumbo and DECD Chief Executive Tony Harrison.

Aerospace in the north

Advanced Technology students from Adelaide's north were treated to a two-day aerospace event at UniSA and the RAAF.

The students from Valley View Secondary School, Fremont Elizabeth City High School, Craigmore High School and St Patricks Technical College participated in the event, which included a range of activities relating to the aerospace and avionic industries.

On the first day, representatives from Lockheed Martin spoke to the students about the various career pathways into the South Australian aerospace industry. This was followed with a practical challenge where students were required to design a paper plane that could travel the furthest distance. The students were engaged in applying engineering principles in fun ways.

Representatives from UniSA then held a series of small practical tasks designed to help the students understand the principles of airflow.

The day ended with representatives from the South Australian aviation industry talking to the students about what it's like to work in the industry. The students were excited to hear from:

- Chris Izzo, avionic student at UniSA
- Timothy Hudson, Flying Officer and electronics/electrical engineer at Joint Electronic Warfare, Operational Support Unit, RAAF
- Stewart Schreckengast, Senior Lecturer, Aviation Department, University of SA

On the second day, the students visited Australian Aerospace and the RAAF base in Edinburgh. Tony Bernardo from Australian Aerospace gave a guided tour of a hangar that housed a P3 Orion (aircraft), which students got to see inside of. The students were also given a history of the RAAF and a breakdown of the types of trades that support aircraft maintenance.

Paul Nenasheff, a work experience officer at RAAF, took the students on a tour of another hangar where they got to meet and chat with aircraft maintenance staff about their jobs and a career in the air force.

After two intense and engaging days, the students left the experience with a greater understanding of the different types of jobs available in the aerospace and avionics industries.

Thanks to Bob Haskard, Karen McBride, Cheryl Ball, Celina Bolding and all others involved in organising an inspiring student experience.

Teachers rewarded for excellence

Two Advanced Technology Project teachers have been rewarded at the prestigious 2013 South Australian Science Excellence Awards held at the Adelaide Town Hall.

Karen Palumbo, from Hamilton Secondary College, and Jeremy LeCornu, from Henley High School, were the joint winners of the Early Career STEM Educator of the Year – School Teaching award.

A third Advanced Technology teacher, Rogan Tinsley from Blackwood High School, was also shortlisted for the award.

The Hon Jennifer Rankine MP, Minister for Education and Child Development, congratulated them on being innovative teachers who inspire students to study science, technology, engineering, mathematics (STEM) subjects.

"This award is recognition for their excellent work at Hamilton Secondary College and Henley High School,

and they complement the national Prime Minister's Prizes for Science," Ms Rankine said.

"Karen, Jeremy and Rogan, have set a fantastic example for their achievement as early career STEM teachers and for their contribution to the Advanced Technology program.

"The Early Career STEM Educator of the Year award recognises individuals from the schooling sector who are making an outstanding contribution to education and inspiring students to further study in the STEM disciplines."

Of the eight applications for this award, five were teachers from Advanced Technology schools and the judges commented that apart from the Scientist of the Year award, this was the most difficult to judge due to the high calibre of applications.

Profiles of the three teachers appear on page 4 within this newsletter.

Blackwood (is flying) High

If you visit Blackwood High School, you might see Quadcopters in flight.

Advanced Technology Project students are embracing emerging technologies in science, technology, engineering and mathematics (STEM) to build the copter as well as program the microprocessor that controls it.

The students build the Quadcopters using materials they have sourced from a range of suppliers. Their choice of materials is tested for function and reliability.

Once the students are satisfied with their Quadcopters, they are met with a series of 'missions' for completion; these are a list of challenges that test their copters' functionality and their knowledge in maths, physics, geography and technology. For example, the Delivering Aid Mission required the students to consider an Australian natural disaster, such as the 2011 Queensland floods, using a set of coordinates, program their Quadcopters flight path to deliver aid to the stranded victims. Success in this challenge is dependent on the accuracy of the Quadcopters programming and interpretation of the coordinates. A new 'mission' can be attempted only when the previous one is achieved.



This project is a great example of how Blackwood High School is integrating STEM curriculum on a single activity. It has also challenged the Year 9 and 10 students to continue their engagement in STEM.

The Quadcopters display received the Judges Awards at the 2013 Southern Science Expo. See article 'Science expo is all go in the south' for more information.

Written by Thomas Oliphant, Design and Technology Teacher, Blackwood High School



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SA Science Excellence Awards 2013

Early Career Stem Educator of the Year – School Teaching

JOINT WINNERS:

Karen Palumbo, Hamilton Secondary College

Karen is a highly motivated teacher who has significantly influenced and impacted the direction and shape of the science curriculum at Hamilton Secondary College. She has designed, implemented and managed several innovative interdisciplinary projects that aim to encourage students into STEM subjects.

Karen has revolutionised the traditional school setting to a progressive cross-curricular learning environment, providing a flexible structure allowing for team teaching and mapping of the curriculum across disciplines.



Jeremy LeCornu, Henley High School

Jeremy is an enthusiastic and dedicated teacher who has been teaching at Henley High School since 2009. During this time, he has taught STEM subjects from years 8-12 and has been instrumental in enhancing the profile of STEM at his school. Jeremy has also developed a highly engaging STEM curriculum, which has resulted in a significant increase in enrolments in STEM subject areas.

Jeremy believes in encouraging educators who are inspiring young people to be passionate about STEM subjects and the many opportunities they can provide.



FINALIST:

Rogan Tinsley, Blackwood High School

Rogan worked as a medical researcher for a decade before moving into secondary teaching. In 2011, he commenced his teaching career and is currently teaching biology, science and mathematics subjects at Blackwood High School.

During the past two years he has worked hard to promote STEM, providing engaging and stimulating lessons for his students. Outside of the classroom, Rogan is a keen contributor to programs that advance STEM, including Aboriginal Summer School for Excellence in Technology and Science and CSIRO's Scientist in Schools program.



What's happening in the Western Region?

During Terms 2 and 3, Advanced Technology Project students in the Western Adelaide Region took part in a variety of STEM events:

Young Women in Engineering Challenge: 73 girls attended the University of Adelaide where they participated in workshops taught by young women in STEM-related careers. The workshops included biomedical engineering, petroleum engineering, sports engineering and electrical/electronics engineering.

"We really enjoyed being a part of this challenge. It was a great experience for us as we saw how women have a lot more job opportunities in engineering than compared to previous years," said one Year 10 student.

UniSA & CSIRO Innovation Day: 95 Year 10 students attended educational lessons at the University of South Australia. The lessons focused on water quality and the environment, separating genes from strawberries, testing blood sugar levels and making slime.

UniSA Maths Experience Day: Year 10 students attended a half-day 'maths experience' at the University of South Australia. Hosted by Dr Amie Albrecht, the students participated in a variety of group and interactive maths activities.

"I enjoyed the maths excursion and found it very useful in regards to career options that involve maths," said Lachlan, a Year 10 student.

Seaton High School Electro Science Workshop: 50 students and teachers attended an electronics and science workshop at Seaton High School. The workshop required students to construct and operate a hovercraft using commonly found items such as milk cartons and plastic plates. Once the models were built, the students carried out a series of tests to measure the craft's thrust, speed, weight and engine torque.

The day concluded with a presentation by Associate Professor Karl Sammut from Flinders University. Professor Sammut spoke about career pathways in the different fields of engineering, particularly maritime engineering.

Written by Sandi Moran, Assistant Principal, Henley High School

Scalextric at Salisbury East

Salisbury East High School is committed to providing an engaging science, technology, engineering and mathematics (STEM) curriculum for its students.

The school is attempting to combat the advanced technology skills shortage in South Australia, particularly in the north, with an innovative Scalextric project.

During Term 2, the Year 8 students take on the project, which requires them to build and paint their own Scalextric car. They then race the cars to study a range of mathematical and science concepts. In doing this, the students also develop an understanding of the advanced manufacturing process.

Because of the nature of the project, student

engagement is very high. But the Scalextric project also brings about a range of different benefits that:

- Provide strong links to the Australian Curriculum, with an emphasis on digital technologies and cross-curricular priorities.
- Apply maths and science to real-life situations, ie speed, mass and measurement.
- Allow students to inquire, collect data, identify patterns and trends, which they can scientifically explore, to review their findings.
- Allow students to follow the manufacturing process from design to product.



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Engineering in the Classroom expands

The Engineering in the Classroom initiative has expanded to Salisbury East High School.

In 2011, Lockheed Martin introduced the initiative at Valley View Secondary School. It connects students with real-life engineers and aims to inspire them to pursue careers that require study in science, technology, engineering, and mathematics (STEM) courses.

In August, Lockheed Martin engineers visited Salisbury East High School and worked with a select group of Year 9 mathematics students on a bridge building activity. The students then took part in a survey about engineering and their futures.

All students said they enjoyed working with the

Lockheed Martin engineers on the activity. And 44% of them said they were interested in pursuing a career in engineering; three of these respondents were female.

Yvette Riley, Advanced Technology Manager at the high school, said the visit was very beneficial for the students and reinforced the need to study science and mathematics for future careers in engineering.

"The session had an amazing impact on some of our students," Yvette said.

"They now have a better understanding of the importance of maths in their future career pathways."

ATP in full speed at the Cove

Hallett Cove School has embraced the Advanced Technology Project.

The school has developed a number of innovative programs that aim to give students in years 6-11 a more engaging experience in STEM (science, technology, engineering and mathematics):

STEM gifted and talented program: students study an advanced science and mathematics curriculum, which includes engineering, modelling and robotics, while learning important life skills such as communication, teamwork and presentation.

One student in Year 8 said she and her classmates found real benefits in the program.

"Maths and science can be fascinating, especially when you discover new concepts and learn how to think differently about what you already knew," she said.

Energy efficient housing project: Year 8 students use data loggers and calculators to design, build and test a model of an energy efficient house. While the models are constructed with paper, plastic and cardboard the engineering behind the energy efficiency principles are the same as those used in real-life construction.

Engineering construction projects: Stage 1 Trade Physics and Senior Physics students explore the principles of construction through computer simulators and 'design and test' competitions. These projects have been very successful in 2013 and a greater level of interest in anticipated for 2014.

Bridge building project: students study iconic bridges from around the world to identify the principles of successful design and construction. They also look at ways to improve the designs and make the bridges stronger.

At the end of the project students are required to design and build their own 50cm wooden bridge for weight testing. This year's winner was able to hold 40kg!

Radio-controlled plane construction project: senior students are challenged to build a model plane and use a computer simulator to learn how to fly it. They must overcome obstacles such as using the right materials and glues to build the plane and ensure its correct centre of gravity for flying.

This project is one of the most popular at the school with students often working through recess and lunch to finalise the build and begin test flights.

Written by Julia Burdakova, Advanced Technology Manager, Hallett Cove School,

Electro-science Hovercraft Project

Seaton High School recently hosted an electronics and science workshop for students in the Western Adelaide region.

Hosted at Seaton High School, Toni Nash said the workshop involved students interpreting drawings, building and operating a simple hovercraft using electronic components and commonly found items such as milk cartons and plastic plates. The students used science, technology, engineering and mathematics (STEM) principles to test the performance of their hovercraft in relation to thrust, speed, weight and engine torque.

The students had a lot of fun watching their creations fly around the testing track and experimenting with different ways to get it to go faster. They also learnt valuable skills such as team work, interpreting working diagrams, fabrication and soldering.

This Hovercraft design is the brainchild of Nigel Stone from WENNIG Designs who along with Dave Symonds from Aztronics provided invaluable instruction and assisted students and teachers to construct their project during the day.

The workshop culminated with a presentation by guest speaker, Associate Professor Karl Sammut from Flinders University. Professor Sammut spoke about the various study and career pathways in engineering.

Written by Toni Nash, Senior Leader, Seaton High School

Teacher placements

Since its inception, Advanced Technology Project teachers have undertaken work placements in industry organisations relevant to their field. It's a unique opportunity for the teachers to increase their knowledge, which they can incorporate into their classroom teaching.

In 2013:

Thierry Herman from Le Fevre High School (Maritime High School) is undertaking a placement at the Air Warfare Destroyer Alliance at Osborne. So far, Thierry has developed four a range of engineering activities under the following headings curriculum units: the hull;

propulsion systems; radar and ballistics. He is currently working on a 5th unit.

Rogan Tinsley from Blackwood High School has started a placement with SAGE Automation. Rogan will use his time at the company to develop a range of career pathways in engineering processes and equipment, manufacturing, project management, site installation and estimating.

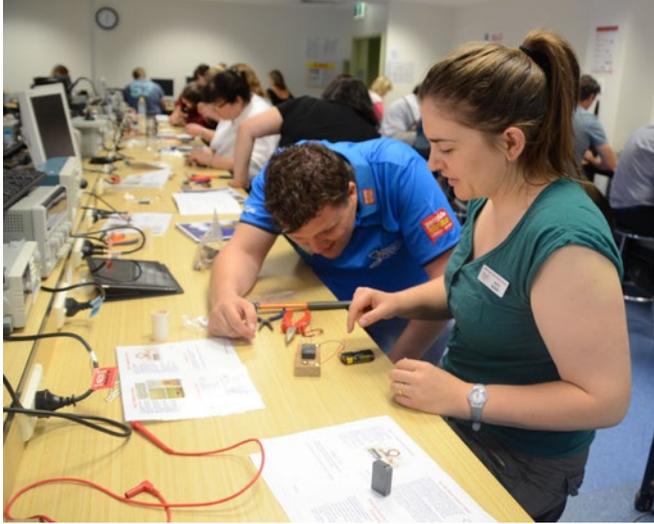
Previous placements of Advanced Technology Project teachers include:

Nicole Mitchell, Valley View Secondary School, explored electrotechnology pathways at the ASC

(formally the Australian Submarine Corporation). Nicole reviewed the pathways' trade numeracy requirements against the ASC apprenticeship testing requirements. She also investigated the skills set the ASC look for when selecting new apprentices.

Martin Thompson, Reynella East College, went to Flinders University to refine the resources used teach Stage 2 Design. Martin also worked with the Electronics Engineering Faculty on programing an interactive electronics game called Flii. The resources are available on the Flinders University wiki at <https://wiki.flinders.edu.au/>.





Teachers get equipped

In March 2013, secondary teachers of science, technology, engineering and mathematics (STEM) were invited to the University of Adelaide for Engineering Equipped, a professional development workshop about demystifying engineering.

Hosted by the university's Faculty of Engineering, Computer and Mathematical Sciences (ECMS), the workshop was a follow-up to the inaugural and very popular engineering day held in 2012.

More than 45 teachers attended the workshop. They participated in practical hands-on activities and then enjoyed a tour of the university's mechanical, electrical and

electronic engineering laboratories.

Dr Cristian Birzer, from the School of Mechanical Engineering, and Dr Wen Soong, from the School of Electrical and Electronic Engineering, demonstrated how engineering principles and practical ideas can be worked into classrooms and the curriculum.

The teachers left Engineering Equipped with a better understanding of the types of engineering degrees available at the University of Adelaide and also important information for students on entry requirements.

For more information about Engineering Equipped, visit www.adelaide.edu.au.

Maritime engineering is a favourite alternative

Over 40 students and teachers from Adelaide West schools gathered at the old Loft in the Maritime Museum, Port Adelaide to hear about Maritime related engineering. Associate Professor Karl Sammut from Flinders University presented a range of activities performed by naval engineers and architects and the study required to work in these areas.

Students and teachers heard about maritime study opportunities at Flinders University and in particular the '2+2' program where students commence qualifications in Adelaide then specialise at the Australian Maritime College (AMC) in Launceston Tasmania in their remaining two years of study. The AMC is a specialist institute of the University of Tasmania and has extensive maritime facilities where courses incorporate quality practical work and research.

Mr Rob Palmer, AMC consultant also spoke to students and described life as a student in Tasmania and reiterated the great success students in maritime are experiencing after completing their study.

We were privileged to also have Nathan Doyle, a young Naval Architect and AMC graduate who is a part of the ASC (formally known as the Australian Submarine Corporation) team at Osborne.

Further information was given around the opportunities offered by Flinders Ports, the main operators of a range of Logistical Maritime Pathways in South Australia.

Mr Thierry Herman, a mathematics and science teacher from Le Fevre High school led the students on a mathematical expedition to the waterfront. The extent of engineering past and present was described to students and they worked through a trigonometry exercise to calculate the height of the Lighthouse located on the wharf.

In addition students were informed that Maritime Engineering Graduates are generally employed before they graduate by Australian and international companies. Maritime opportunities are often forgotten but there are extensive opportunities and students are encouraged to investigate careers in this area.

Visit the AMC's web-site www.amc.edu.au to give you a greater understanding of the variety of pathways and study in the Maritime sector.

The need for a significant understanding of science, technology, engineering and mathematics (STEM) by all and suitable education in schools was obvious from the presentation and the engagement by students with the dock side exercise.

Learn more about STEM at the very new <http://stemaustralia.org.au/about/stemaustralia>

Written by Rod Hunter, Maritime Coordinator, Le Fevre High School

Western Adelaide students visit the Australian Maritime College

In August, six students and three teachers from western Adelaide schools visited the Australian Maritime College (AMC) in Launceston, Tasmania.

Once in Tasmania, the group undertook three fun-filled intensive days of maritime activities. This involved lectures in Maritime Engineering and Mathematics, a tour of the college's world-class maritime facilities and discussions on study and maritime career pathways.

The students with engineering aspirations were excited by the innovative programs offered by the college, in particular the practical nature of courses leading to a Bachelor of Naval Architecture and Engineering.

The students also got to helm* the AMC's 400ton training and research vessel, the Bluefin, along the Tamar River, out of the college's Beauty Point faculty.

Further practical experiences included simulating life raft rescue by jumping safely from great heights into the college's indoor pool and putting out fires at the fire fighting facility.

The students and teachers gained valuable experience by using AMC's world-standard equipment and having discussions with maritime engineering experts at the college.

The visit finished with a visit to the AMC's real-time maritime simulation technology centre that includes a full-mission ship's bridge, a tug simulator and six ship operations bridges where students carefully steered a bulk carrier through Sydney harbor. This simulator is so authentic it is capable of causing sea sickness and is used for maritime modelling of projects and ship handling activities. The students then visited the college's cavitation tank facility where they discussed high-level physics related to water turbulence.

The trip to Tasmania was a chance for the students to experience life as an AMC and University of Tasmania student, living in the student accommodation and dining in the cafeteria.

Travis Bancroft, Le Fevre High School, was one of the students on the trip.

"Seeing another type of world has motivated me to do better and aim higher," Travis said.

Nick Kyriazis, science teacher from Le Fevre High School, said the visit to AMC will benefit his maritime curriculum at Le Fevre.

"Seeing the science that is usually only talked about has made it not only tangible but also teachable," Nick said.

Visit www.amc.edu.au to experience the range of maritime career pathways available to students. The AMC has an association with Flinders University in 2 plus 2 arrangements where students can commence study in Adelaide for two years and then complete their degree at the AMC in Launceston, Tasmania.

It is expected that there will be similar study tours of the AMC for students next year.

Written by Rod Hunter, Maritime Coordinator, Le Fevre High School

* The steering gear of a ship, especially the tiller or wheel.



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