The Year in Design and Technology 2025

Overview

Design and Technology offers students a chance to explore how creativity, problem-solving, and innovation come together to shape the world around us. Through hands-on projects, students learn to design, build, and refine ideas that respond to real-world needs. They work with a variety of materials and technologies, developing practical skills while also strengthening their ability to think critically and collaborate effectively.

The subject encourages students to embrace challenges as opportunities, testing different approaches, learning from mistakes, and celebrating breakthroughs. Creativity is at the heart of Design and Technology—whether it's designing sustainable solutions, prototyping with new technologies, or re-imagining everyday products.

This year I was delighted to join Merici College in Term 2 as the new Faculty Coordinator. I am very excited to be part of such a welcoming and dynamic community and look forward to contributing to the continued growth of our faculty. My passion lies in Food Technology, Hospitality, and Sustainability, and I am eager to further develop these areas to create meaningful and engaging opportunities for our students.

Our team for 2025

The success of Design and Technology at Merici College is a reflection of the dedication and expertise of our teachers. Our staff are committed to creating engaging, hands-on learning experiences that inspire curiosity, creativity, and resilience in every student. They not only teach essential technical skills but also nurture problem-solving, collaboration, and critical thinking—qualities that prepare students for the challenges of the future.

Teachers in Design and Technology invest significant time and energy into supporting individual growth, encouraging students to take risks, learn from mistakes, and celebrate achievements. Their commitment ensures that students develop both the confidence and the capability to explore innovative ideas and apply their learning in meaningful, real-world contexts.

Many thanks to our teachers and support staff!

Mrs. Stephanie Spiller (Design and Textiles), Ms. Jill Rennie (Textiles, Food and Hospitality), Ms. Amy Hazlewood (Design, Food and Hospitality), Ms. Diana Davis (Textiles and Design), Dr .Tom White (Engineering), Mrs. Victoria Goss (Engineering), Mrs. Erin Barry (Sustainability), Mr. Chan Webber (Information Technology), Mrs. Ellie Jones (Food and Hospitality), Miss Brittney Pimm (Graphic Design), Miss Brielle Papa (Graphic Design).

Support Staff: Mrs. Kellie Thurling, Ms. Virginia McLeod, Mrs, Karen William, Mrs. Sharon Henderson and Mr. Dylan Craven.

Year 7 Design and Technology

When you hear the word textiles many things come to mind; clothes, needles, sewing machines, fabrics, thread and much more. But through our term in Textiles, we have learnt that it means so much more. Textiles has taught us that even though things may look the same at the beginning we can reflect on our own creativity and personality through colour and style. What started out as a plain piece of fabric turned into a beautiful intricately coloured handy pouch that will be treasured by many of the Year 7s and offer valuable memories to look back on and have a good laugh at.

All students began with limited to no knowledge about how to use a sewing machine or stitching at all, yet with the help from the Ms. Davis we were able to create a functional pouch and students were able to help each other as well. Whether that be threading a bobbin, asking for help attaching a zipper or for plain feedback on our swing tag, everyone pitched in to make the class go as seamless as possible.

Ms. Davis was helpful by advising us on the best ways to stitch the fabric together without the thread becoming loose. This was done by using a reverse stitch, the stitch in which you begin the line for 1.5cm before reversing it backwards. In a way this stitch helped us remember that sometimes you need a little extra support to stay intact. Everyone helped each other out when someone felt stressed or had missed a lesson by demonstrating to the student how to do it in a simple way to understand.

During our Textiles unit in Year 7, we were taught many new skills. The most notable was our assessment, where we had to create a handy pouch.

Students began by learning about Shibori tie dye which is a Japanese dyeing technique used to make unique patterns. This dyeing method was straightforward and fun. Many ways to dye the fabric caused many different outcomes. Most students used the rosette method in which you put a paddle-pop stick and twisted the fabric around the stick. Because people used the rosette method with different levels of tightness, the fabrics all turned out to be unique and special, much like the many different people and personalities in our class.

After we had a dyed pattern, we started the quilting process. After all that was completed, we finally began making the pouches. We were given three options for the type of pouch: a flat pouch with a zipper at the top, a flat pouch with a zipper in the middle and, the most popular, being the box corners. Ms. Davis carefully and patiently taught all of us how to properly sew together a handy pouch- allowing us to work at our own pace and ask for help or instructions at any time.

Overall, throughout our Textiles unit we have learnt so many skills that will help us when needed. Whether that be stitching a ripped seam, hemming an ankle length skirt, supplying friends and family with scrunchies, continuing the pursuit of sewing or just the pure memories of people falling from chairs, worrying about sewing their fabric to their hands or shirt and many more things that thankfully never happened; it's safe to say that Textiles will have many lasting memories.

By Matilda Donnelly and Lila Haralambopoulos

Ms. Diana Davis, Technology Teacher

Year 8 Textiles and Engineering

Textiles - Hoodie

This year in Textiles and Engineering I've learned so much, and one of the best parts was making my own hoodie. It was really cool to go from just pieces of fabric to an actual piece of clothing that I can wear. It wasn't always easy, but seeing the final hoodie coming together made it worth it.

I also learned how to use the overlocker, which seemed scary at first but ended up being one of the most useful resources in the classroom. It makes everything look so much neater and more professional, and I'm glad I know how to use it now.

Textiles not only taught me how the hoodie was made, but it also showed me the process behind it and the effort that goes into making it. Before this unit, I had no idea how much work goes into creating one single piece of clothing.

Overall, Year 8 Textiles has been a fun and creative subject. I've learned new skills, gained confidence, and I feel proud of what I've made, learned and achieved this term.

By Marianna Rositano

Textiles Years 9-12

Textiles students in Years 9-12 worked collaboratively to bring the Director's vision for costuming *Legally Blonde Jr. The Musical* to life. Juxtaposing elements of Avant Garde couture with Tokyo Street Style firmly within Merici's commitment to sustainability required our students to think outside the box, while still honouring the much-loved films.

Student designers each chose a focus character and pitched their vision to the Director via colourful fashion illustrations and mood boards. When it came time to start making costumes, students pieced together otherwise unusable scraps, upcycled existing costume stock and thrifted business wear, and used large scale production techniques to minimise waste and make the most of our available resources.

It was a big ask for students, especially those in their very first semester of Textiles! We are incredibly proud of their work and grateful to the Director and his production team for the opportunity to be part of this very special production.

Students in Years 10-12 across the Design Technology & Creative Arts also enjoyed a Fashion Illustration workshop at the Whitehouse Institute of Design in July, a great day of expert drawing techniques and celebrity encounters (Hello, Akira Isogawa, teaching fashion illustration to the second years!).

Engineering Year 9 and 10

The Year 9/10 Engineering elective stayed popular in 2025, with three classes (two Year 9 and one Year 10) learning and applying design and technology skills across a range of practical projects and challenges.

In Semester 1, the Year 9 classes donned their metaphorical hard hats as structural engineers, learning why triangles are the strongest shape and how to design and build truss frames to be strong and light. The major project was to build a balsa bridge to meet a set of design requirements, with the strongest bridges supporting a load of 45kg - almost as much as some of the students! Students also learned about assistive design and developed solutions to assist a hypothetical client with a physical disability. In Semester 2, the Year 9 classes were focusing on renewable energy – what it is, how it works, advantages and disadvantages, and future engineering challenges. The major project involves designing and testing wind turbine blades to improve their performance.

The Year 10 class started off the year learning about rockets and space engineering. Their design task was to build a 3D-printed model rocket from scratch to a strict mass and cost budget. This culminated with a launch day at the Canberra Rocketry Group's launch site outside Yass on a cold and frosty morning in May. Students quickly learned that launching rockets is difficult – just ask SpaceX – but despite multiple launch-pad, engine and parachute failures, every team achieved at least one near-perfect flight and recovery during the day. We'd like to express a huge thank you to the Canberra Rocketry Group volunteers – John, Neville, Richard and Tony – for their very generous support.

In Semester 2, Year 10 were learning about mechatronics engineering through a project to design and build a robot hand that can be controlled with a flex-sensing glove. Along the way they were researching how modern prosthetics work and improving their skills at understanding user needs and defining engineering requirements.

Students have also competed in several engineering challenges. In Semester 1, several Year 10 teams competed in the ACT STEM Bridge challenge against schools from across the ACT, with one team progressing to the final with a bridge that supported 85kg. At the end of semester, Year 9s and 10s went head-to-head in a rubber band car competition to see whose design could travel the furthest. The extra year of engineering experience shone through in the end, with the Year 10s coming out on top. The winning car travelled 11m on a single small rubber band.

Dr. Tom White and Mrs. Victoria Goss

Engineering – Lamp

In the Engineering unit students research one of the United Nations' Sustainable Development Goals to promote. Students will learn to use 3D designing software such as xTool to construct a laser cut lantern featuring elements of their Sustainable Development goal (SDG).

In the Engineering unit, I personally learned a lot from the variety of skills used to make the lantern like soldering and 3D design. Originally, I was petrified of soldering and nervous that I would mess up the electrical components and was hesitant to try it. Somehow, I was able to successfully attach all the LED lights to the board, although I was very daunted by the stress of constructing it. I was surprised by my ability to trust myself and use the soldering iron. In the end, I was so proud of the finished product after painstakingly gluing each of the faces of the lantern together, praying the format of my design would agree with the laser cutter and soldering with laser precision. Although I

was most defiantly challenged by the unit the results were so rewarding that they make the haul all worth it.

By Sabine Lange

Ms Diana Davis and Ms. Jill Rennie, Technology Teachers

Year 7, 8 and 9 Food Technology

Year 9

Food Technology has been quite fun this year, with student learning about food in the community, food trends, ethical eating and sustainable eating. The Food Trend unit, focuses on food seen on social media, incorporating native Australian ingredients into modern cookery and reviewing a range of diet trends was interesting and engaging for students to learn about and practice in the kitchen. In the first semester, students learnt about food security and food in the community. Year 9 had the chance to design and produce a meal for the Blur Door Café. Students found this to be a very meaningful experience. It showed them how food can make a positive difference in people's lives and reminded them that cooking isn't just about learning skills, but also about giving back to the community. One of the standout recipes was the cheesecake.

In the Food Trend unit, one of the highlights was learning about different food trends and how they are shaping the way people cook and eat. Students found it interesting to see how social media influences what becomes popular, such as plant-based dishes and sustainable cooking. Students have enjoyed being able to cook a variety of dishes with their friends and practice skills that they can use outside of the classroom.

Throughout the year, students have engaged in Food Technology by consolidating their foundational cookery skills and extending these through the preparation of a diverse range of creative dishes. The unit concludes with a community-focused initiative, in which students produce chocolate Christmas trees for donation to charity. This activity not only reinforces their practical skills but also encourages social responsibility and a spirit of generosity.

Year 8

Year 8 students have had a fabulous year learning about ethical and sustainable eating and Engineering. In Engineering, students have had the challenge of mastering new design software and using the laser cutter. Through researching a United Nations Sustainable Development goal, Year 8 design laser light lamps using the laser cutter. They also developed skills in soldering and 3D design. While in Food Technology, students got to choose their own practical assessment and cook it in the bays. This gave them an excellent chance to showcase their culinary and teamwork skills.

In Year 7, students were introduced to Food Technology through a unit on Superfoods, designed to highlight the importance of nutrition and healthy eating habits. They explored what makes food nutritious and began developing their understanding of how everyday choices can contribute to a balanced lifestyle. Alongside this theory, students focused on building foundational kitchen skills, including safe food handling, correct knife techniques, measuring, and following recipes with accuracy.

Practical lessons allowed students to apply their learning in enjoyable and hands-on ways. They prepared a variety of dishes such as scones, chicken pesto pasta, and fried rice, which helped them gain confidence in using a range of ingredients and cooking methods. This unit not only fostered creativity and independence in the kitchen but also encouraged students to reflect on the role of food in supporting health and wellbeing.

Ms. Amy Hazelwood and Mrs. Jill Rennie, Food Technology Teachers

Year 10 Hospitality

This year in Year 10 hospitality has been such an amazing and eye-opening experience. I've really enjoyed the fact I have been able to take control of my own learning while being guided and supported by amazing teachers like Mrs. Rennie and Mrs. Jones. They have been more then teachers, they have been mentors who are always patient and encouraging towards students. Their encouragement and passion for cooking has not only helped me grow in confidence while cooking but have also ignited my love for cooking even more. They have played a huge role in my now love for cooking.

The dishes we have created this term have been nothing short than incredible. I have learned new life skills like learning how to fry, poach, bake, and roast. We have also learned about food safety, hygiene, and preparation techniques. I have enjoyed the balance between theory and practice as it teaches us why we do things not just how we do it. This course really shows how hands on Merici likes to be with learning. The two highlights of Hospitality have been the Mother's Day Lunch and The Father's Day lunch. I was able to use my skills that I had learned from Hospitality and use them as real life experiences. It was very warming to see how much people enjoyed the food and service we provided.

Hospitality has taught me so much, not only about food preparation and presentation but also about teamwork, time management and being creative. Overall this subject has been so rewarding and I am extremely grateful for the experiences and opportunities this subject had given me.

By Erin Barry, Year 10 Hospitality student

Year 11 and 12 Hospitality

Merici College Hospitality started it all for me. In 2024 Year 11, I was incredibly excited to start this class. I made a goal for myself that I would try something new. Never working in any hospitality industry and only knowing how to cook 2-minute noodles, it was fairly challenging to begin with. But the Hospitality teachers at Merici are fantastic people to work with. They have amazing experiences in this industry that they share with us and teach us. Learning how to prepare food, create menus, and run a real restaurant is what brought my passion to life. Now as a Year 12 student graduating in 2025, I have never been so grateful to have taken this class. This year I was able to run and make my own restaurant. I created a Ratatouille themed restaurant, and I was able to have full creative freedom. I set up my space, talked to my class about what my goal and vision was. We all worked together and served lunch to the Merici staff. I have gained more knowledge about customer service and food service than I thought. Having the opportunity to work with your classmates and

collaborate in running your own restaurant was great experience. Now going into any industry whether that's Hospitality or retail, I know how to communicate with a range of people, I can put customers first and understand how to meet there needs. The Merici College Hospitality class not only lets you make delicious and unique foods it also gives you the skills to work confidently in a somewhat stressful environment. Serving real customers in a student-based restaurant where we design the menu, as well as cook and serve the food, means that we get to apply meaningful and valuable skills that will help us in our future career. In 2026 the Hospitality classes will be better than ever! Every year we make improvements on this class, so the students have the best opportunities and the best learning experiences.

By Cameron Johns, Year 12 Hospitality student

This year in Hospitality has been such a fun and rewarding experience. Since starting the subject in Year 10, I've loved learning more about cooking and what it really takes to run a restaurant. One of the best parts this year was getting the chance to design and run our own restaurants. It wasn't just about cooking, but also planning menus, setting up the space, and working together as a team to make everything come together.

I've enjoyed trying out different cuisines, learning new skills, and seeing how all the hard work pays off when customers/ teachers enjoy the food and the atmosphere we've created. It's taught me how important teamwork, organisation, and creativity and freedom are in Hospitality, and it's made me love the subject even more.

I can't wait to see what we get to do in 2026, and I'm looking forward to building on everything I've learnt so far because its been amazing and a highlight of my year.

By Matilda Fitje du Preez, Year 11 Hospitality student

Mrs. Ellie Jones, Hospitality Teacher

Year 9 and 10 Sustainability

This year in Sustainability, students explored global and local challenges related to energy, transport and waste. In Semester 1, students learnt about energy solutions and sustainable transport systems. They researched a range of renewable and non-renewable energy sources, including solar power, wind farms, biofuel, and nuclear power and evaluated them in terms of their environmental, social, and economic impacts. Students learnt about the carbon footprint of different transport options and the ways that cities can be designed to avoid traffic congestion and pollution. They considered the challenges of public transport in Canberra and proposed designs aimed to attract users to Canberra's public transport system.

The focus for Semester 2 was over-production of waste, and more specifically, the ubiquity and impact of single-use plastics and microplastics, as well as the role of circular economies in reducing waste. In the first half of Term 1, students practiced a range of practical techniques to re-use waste products and researched female-led entrepreneurial initiatives that generate income for communities by repurposing post-consumer materials such as metals, plastics, paper, and fabric. Building on this knowledge, in the second part of the unit, students designed and created their own accessories and homewares from waste materials, demonstrating both creativity, sustainable

practice and an understanding of circular economy principles. A practical waste audit was also conducted, encouraging students to connect classroom learning with real-world data and everyday habits.

Students have also been busy in Merici's kitchen garden, planting, harvesting a range of produce for the canteen, Food Technologies, and Hospitality classes, including tomatoes, capsicums, kale, garlic, corn, broccolini, and much more!

Mrs. Erin Barry, Teacher

Year 9/10 Information Technology

Python (S1):

This year, our IT class dove into the exciting world of Python coding. Using Visual Studio Code, we developed programs that showcased a range of coding skills, including loops, functions, variables, strings, and user inputs/outputs. Along the way, we learned how to problem-solve through syntax errors and challenges, strengthening our critical thinking and resilience.

We also applied design skills by planning our programs with pseudocode and evaluating our solutions just like real developers. Highlights of the year included creating a "Text Searcher" and a "Password Creator" tool for clients, demonstrating how coding can solve real-world problems. It has been an innovative and rewarding journey, with plenty of creativity, collaboration, and fun along the way!

By Therese Brooker, Lola Reardon and Ashlyn Edghill

Robotics (S2):

In our Robotics Unit, we explored the fascinating world of programming with EV3 Classroom. Using robots equipped with sensors to detect colours and distances, we programmed our creations to complete a variety of fun challenges from moving in perfect squares to making random sounds that had the whole class laughing.

The real highlight came when persistence paid off. After reprogramming and troubleshooting multiple times, that moment when the robot finally worked brought huge smiles and sighs of relief. Along the way, we discovered that even a single missing character in our code could make all the difference.

This unit not only gave us a chance to enjoy hands-on learning, but also prepared us for the future by engaging with the exciting possibilities of robotics and technology.

By Ashlea Lewis and Alexandra Witt

Mr. Weber Chan, Information Technology Teacher

Year 11 and 12 Design & Graphics

This year in Senior Design and Graphics, we explored the foundational interconnection of visual communication through graphical elements. Understanding the importance of the principles of colour, line and typography, among other concepts, helped us to unpick the impact of design on the audience's cognitive responses.

In Semester 1, this consisted of exploring and learning how to apply visual communication to our digital medium. Learning from established designers, our class applied graphical ideals through the practical creation of a 'Google Doodle'. Followed by our major work centring around a social issue, which enabled a focal shift towards maximising design messaging and elements to ensure the visual vocalisation of societal injustices. Additionally, upholding the responsibility and ability as designers to engage and inspire, graphic design can shape narratives, captivate viewers, and make crucial messages more impactful. Creating a visually aesthetic and eye-catching composition that delivers the designs message right to the heart of the target audience and is exactly what this task aimed to achieve.

In Semester 2, our topic was designing for screens. We have explored how to adapt designs for different media, from large scale billboards like Times Square, to mobile ads that pop up on your social media. Each platform has specific design requirements and it's our job to understand how to control each element we design and enhance its visual impact.

Design and Graphics provides foundational skills in visual marketing and aesthetics, helping to foster the abilities and creativity of every student. From creating a sustainable impact to empowering people, design fostered a positive difference in the community surround us and within ourselves.

By Isobella Moore, Year 12

This year, the Year 11 and 12 Design and Graphics students explored the world of designers and media for the screen. In Semester 1, they studied influential graphic designers and examined how impactful designs are created for different media. Drawing on current social issues, students developed their own visual campaigns and applied practical skills to screen print their very own tote bags. In Semester 2, the focus shifted to designing for the screen. Students analysed how professional designers apply design principles to create engaging visuals, before selecting their own themes and producing a series of digital works for multiple screens. This unit encouraged students to connect real-world issues with creative design solutions, bringing their ideas to life through thoughtful and visually striking graphics.

Miss. Brittney Pimm and Miss. Brielle Papa, Design and Graphic Teachers