



STEM for Humanity 2027

Designing Technology for Human Need

Have you ever wondered how the devices and technologies around us are designed to help people live fuller, more supported lives?

This interdisciplinary course brings STEM and the Humanities together to explore how medical devices and assistive technologies are designed to meet genuine human needs. Students will investigate where these technologies have come from, how they have been adapted over time to suit the people who rely on them, and what it takes to design not just a good product, but a meaningful one.

At the heart of this course is empathy-based design and co-design. Students will follow the design process to research, develop and evaluate solutions, learning to gather appropriate data to inform their thinking through respectful interviews, community research and product evaluations. Throughout, students will consider context through the lens of the triple bottom line — weighing the social, environmental and economic factors that shape responsible, human-centred design.

This course is open to Year 9 students at Seaton High School as an Entrepreneurial Endeavour elective subject, with study focus topics being shaped by student interest.

By bringing together mathematics, science, technology and engineering, students will develop a holistic understanding of a person's needs and learn to design with both the past and the future in mind. By the completion of the course, students will understand how to create technologies that are practical, ethical and genuinely meaningful — equipping them to be thoughtful, human-centred problem solvers who appreciate the past and prepare for the future.



SEATON
HIGH SCHOOL

ENTREPRENEURIAL
SPECIALIST SCHOOL

Key Learning

- Empathy-based design and co-design
- The design process: research, prototype, evaluate
- Gathering data through respectful interviews and product evaluations
- The triple bottom line: social, environmental and economic factors
- The origins and adaptation of medical and assistive technologies
- Integrating STEM to meet real human needs