Science Reimagined and RMIT's Future Technology Skills

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What's next...

RMIT UNIVERSITY

‘Our new first year in Science (BP229) provides a transformative learning experience in which students will learn and explore core science concepts across physical, life, data and mathematical science disciplines and develop and strengthen key scientific and transferable skills to underpin their future studies and careers’

Science Reimagined

Year 1 Program Structure

Semester 1

- Data for a Scientific World
- Physical Sciences in Action
- The World of Life Sciences
- A Mathematical Toolbox for Scientists

Semester 2

- Discipline-focused Course A
- Discipline-focused Course B
- STEM for Sustainable Development
- Foundations of AI for STEM

Science Reimagined Key Features

- Becoming a Scientist
- Develop breadth of understanding across science and maths disciplines
- Gain practical skills in science and maths
- Build expertise in data handling and mathematical analysis
- Acquire work-ready skills, including how to work effectively within teams
- Learn how to apply science to address global challenges (including climate change, pandemics, energy, and food security)
- Appreciate and gain understanding of the critical importance of diversity, inclusion, equity and reconciliation in science and mathematics

STEM for Sustainable Development

Highlights

- Introduction to Sustainability Global Challenges including UN Sustainable Development Goals, Climate Change, Energy, Health and Poverty
- Real world case studies of Sustainable Development in Action across STEM and Health disciplines
- Interdisciplinary team projects to create and present solutions to sustainability challenges posed by our industry partners
- Explore roles of diversity, inclusion, Reconciliation and equity as driving forces within sustainability, promoting and activating diverse voices to co-create sustainable futures for society and the environment
- Activating students to bring a sustainability focus, approach and agency into their future studies and careers

Foundations of AI for STEM

- Applications of AI are ubiquitous — transforming many fields in STEM.
- Applied AI requires AI expertise and domain expertise.
- We believe that 'AI literacy' is essential for all students in STEM.

On successful completion of this course, the student will be able to:

- **CLO1** Explain the foundations and applications of Artificial Intelligence (AI) in the fields of Health, Science, Technology, Engineering, and Mathematics.
- **CLO2** Identify, analyze and solve real-world health, science, technology, engineering and mathematics problems using AI approaches, algorithms and applications.
- **CLO3** Explore ethical and safety considerations in the development and deployment of AI applications in health, science, technology, engineering and mathematics.
- **CLO4** Communicate accurately and collaborate effectively using a variety of tools and techniques specific to the fields of AI and health, science, technology, engineering and mathematics.

Modules

Weeks 1-2	Weeks 3-5	Weeks 6-9	Weeks 10-12
Intro to AI	Classical AI	Machine Learning	Ethics, Safety & Future
	Data Science	Applications of AI	

- Sequenced
- Scaffolded
- Personalised

Course Pathways

Intro to AI	Data Science	Applications of AI	Ethics, Safety & Future
Intro to AI	Classical AI	Applications of AI	Ethics, Safety & Future
Intro to AI	Classical AI	Machine Learning	Ethics, Safety & Future
Intro to AI	Data Science	Machine Learning	Ethics, Safety & Future

Highlights

Large-scale

Multidisciplinary

Industry Insights

Custom built canvas shell

Virtual labs

Community

Thank you for listening

Questions?