

Astrophysics investigates the nature and distribution of matter and radiation throughout all time and space in the universe – from dark matter and black holes to stellar evolution, super clusters and neutron stars.

If you're curious about the unknown and have a deep desire to understand the wonders of the universe, astrophysics could be a great fit for you.

“I love learning how the universe works – from how it’s structured down to subatomic particles.”

– Jade, studying towards a BSc in Astronomy



Why astronomy?

Astrophysics is an exciting field with many amazing and unexpected discoveries being made. It's helping answer some of life's biggest mysteries, like where we came from, where we're heading and what else is out there. As an astrophysicist, you could pursue career paths in science, technology or operations, such as operating satellites, for example.

Where do I start?

The minimum requirement for most entry-level jobs in astrophysics is a Bachelor of Science (BSc) majoring in astronomy or physics. A BSc is just the beginning. You could boost your career options further by gaining a postgraduate degree.

UC astronomy students have access to state-of-the-art astronomical equipment and technology from their first year, they get to visit UC's renowned Mt John Observatory in Tekapo and are taught by experts in their field.



BSc in Astronomy – what you need to know

A BSc in Astronomy is a three-year degree that can open up a world of career opportunities – from science and engineering to meteorology and medicine.

Here are some courses you can study in your first year of astronomy:

- Astrophysics (ASTR112)
- Engineering Physics A: Mechanics, Waves, Electromagnetism and Thermal Physics (PHYS101)
- Engineering Physics B: Electromagnetism, Modern Physics and ‘How Things Work’ (PHYS102)
- Mathematics (MATH102)
- Mathematics (MATH103)
- Science, Society and Me (SCIE101)
- Introduction to Computer Programming (COSC121)
- Planet Earth: An Introduction to Geology (GEOL111)

Explore more course options at www.canterbury.ac.nz/science/

Transferable skills: Data analysis and modelling, computing, critical thinking, imagination, maths, problem-solving.

Postgraduate study options: Bachelor of Science with Honours; Postgraduate Diploma in Science; Master of Science in Physics, Astronomy or Medical Physics; Doctor of Philosophy.

Career options: Astronomer, computing and information technologist, engineer, geophysicist, material technologist, medical physicist, meteorologist, patent agent, scientist, teacher.