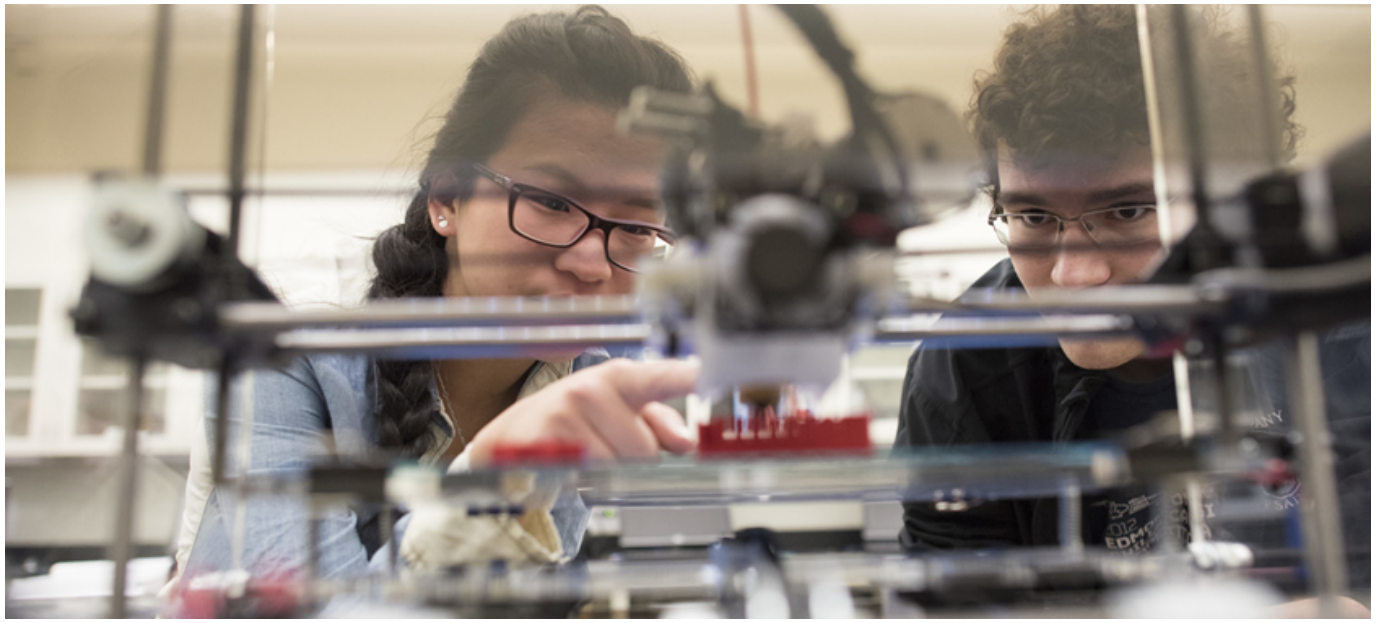
Explore Physics



Explore physics at the University of Alberta in a dynamic environment for graduate and undergraduate learning and research. The Department of Physics offers research opportunities in the following areas:

Astrophysics & Cosmology: Apply analytical theory and cutting-edge numerical simulations using the world's best telescopes to learn how stars and galaxies form; probe stellar mergers and explosions; reveal the nature and behaviour of neutron stars and black holes.

Biophysics: Measure how molecules fold and unfold, unravel RNA, learn how prions operate and explore quantum biosystems.

Condensed Matter Physics: Study and develop quantum nanoscience and technology, including quantum fluids and solids, topological materials, nanomechanics and quantum simulation; research and use scanning microscopes, including atom-scale manipulation and ultrafast terahertz atomic imaging.

Geophysics: Study seismic monitoring, paleomagnetism, petrophysics and fluid dynamics; perform innovative computational studies of Earth and planetary dynamics; participate in one of our international field programs.

Particle Physics: Design, build and operate detectors to study high energy particles from the Higgs boson to neutrinos to dark matter and help to solve extremely complex calculations that make physical predictions about particle interactions.

Space and Plasma Physics: Study how charged particles and magnetic fields interact and apply it to plasmas in fusion experiments, lasers and space; probe space weather from both the ground and space to illuminate the physics of magnetic storms and particle energization.

Explore physics at the University of Alberta

www.physics.ualberta.ca/explore-physics

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