



Physics

School of Physics



Physics

Physics explores the physical world at a fundamental level. Many important technologies used in everyday life, medicine and other science disciplines owe their existence to physics.

Why study physics?

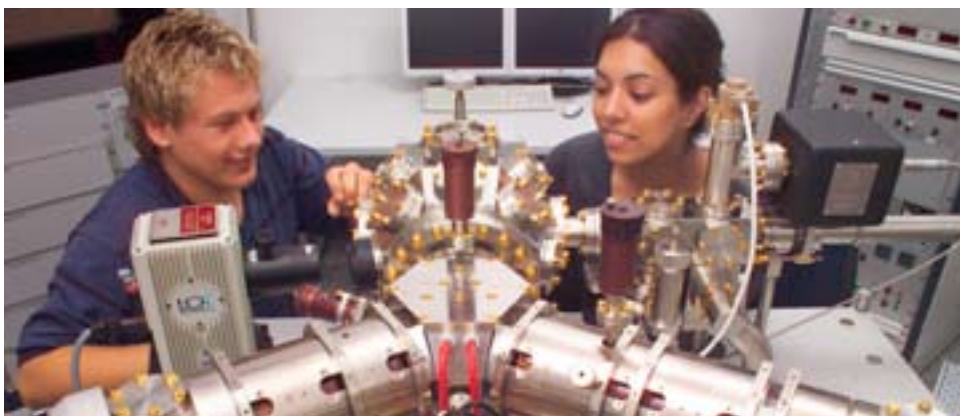
The discipline of physics ranges from the very practical, such as an explanation as to why the sky is blue, to fundamental philosophical questions about the quantum world. Students explore diverse topics ranging from cosmology to nanotechnology and particle physics. A degree in physics provides a sound scientific background for today's complex and technologically orientated world.

Where does study in physics lead?

Graduates with physics majors are skilled in computational and technical tasks, problem-solving, analytical thinking, information handling, written and spoken communication. These skills are sought by employers in a broad range of industries, from fundamental physics research to industrial applications, and even as far afield as banking, finance and law.

Physicists use their specific knowledge in diverse areas including macromolecular biology and drug design, particle accelerators and synchrotron physics, design of advanced materials, photonics and lasers, astronomy, meteorology, medical and scientific instrumentation, energy conversion and utilisation, solar power, industrial product development, science teaching, and science journalism.

Graduates in physics are highly employable both in industry and scientific organisations. Physics graduates have found employment in companies and organisations including: the Australian Synchrotron, Varian, Australian Pulp and Paper, Australian Antarctic Division, Hospitals, CSIRO Divisions including Oceanography, Atmospheric Research, Molecular Science, Building, Manufacturing, Construction and Engineering, Environment, and Maritime Research, Australian Nuclear Science and Technology Organisation, Anglo-Australian Telescope, Parkes Radio-Telescope, Optiscan, Telstra, Amcor Research and Technology, Australian Optical Fibre Research, Australian Standards Lab., EPA, Sola, Bosch, BP Solar, and many others.



Course structure

Recognising the diversity of future careers for physics graduates in industry, commerce, education and research, the physics program at Monash provides a solid and broad foundation in physics. Levels one and two physics cover the foundations of classical and quantum physics while developing experimental and analytical skills. Level three provides some choice, primarily between experimental and theoretical physics, and offers an elective research project. Level four, the honours level, offers choice in lecture topics and a research project worth 50% of the year's work.

What degrees can I take if I choose physics?

Physics combines particularly well with the physical sciences, such as chemistry, the mathematical sciences, astronomy, and also the life sciences such as physiology. The Faculty of Science offers the three-year programs: Bachelor of Science and Bachelor of Science (Science Scholar Program); Bachelor of Science Advanced with Honours. Majors and Honours programs are available in physics or astrophysics (jointly with School of Mathematical Sciences). Physics can also be studied as part of a double degree program such as the Bachelor of Science/Bachelor of Engineering, the Bachelor of Arts/Bachelor of Science, the Bachelor of Science/Bachelor of Education, the Bachelor of Commerce/Bachelor of Science, or the Bachelor of Science/Bachelor of Laws.

Further information

Details of courses are provided in the Monash University Undergraduate Handbook, online at www.monash.edu.au/pubs/handbooks

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