

SWIN
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SWINBURNE
UNIVERSITY OF
TECHNOLOGY

Study high performance computing

Computer Science / Astrophysics
and Supercomputing

course information hotline 1300 368 777

astronomy.swin.edu.au

The Swinburne Bachelor of Science allows students to study a combination of majors, co-majors and minors from a range of science disciplines.

The combination of the Computer Science major with the Astrophysics and Supercomputing co-major will develop your skills in problem-solving, analytic thinking, and applications of information technology that are transferable to a range of career opportunities, particularly those involving supercomputing.

This unique combination uses Astrophysics as the context in which to explore the use of supercomputers including image processing and analysis, numerical simulations and information and data management. The astrophysics co-major will also cover the Universe and how it works, including a wide range of topics from planets to galaxies to the large scale structure of the Universe.

Careers

- ▶ Astrophysics
- ▶ Supercomputer programming
- ▶ System administration
- ▶ Scientific computing
- ▶ Scientific instrumentation
- ▶ Industrial research
- ▶ Software engineering
- ▶ Banking/finance
- ▶ High-end financial modelling
- ▶ Aerospace
- ▶ Remote sensing

Learning

Topics to be covered include: computer systems, software development and programming, data structure, scientific computing, and supercomputing, as well as the solar system, stars and stellar evolution, galaxies and cosmology, astronomy data processing techniques and simulation methods.

Students will have access to the Swinburne Supercomputer, one of Australia's most powerful research supercomputers, along with advanced visualisation facilities.

Further information

Telephone: 1300 368 777

Website: astronomy.swin.edu.au

The material in this brochure was correct at the time of printing (July 2007) but is subject to alteration or amendment without notice by Swinburne.

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