Physics is concerned with understanding the world around us at the most fundamental level. The knowledge generated through the study of Physics is also the driving force behind most new technologies; from radars to lasers, from transistors to quantum computers, and from electron microscopes to advanced medical imaging scanners.

**Research Focused**

Physics at UWA is strongly research focused, with a commitment to quality teaching at all levels. Our core focus is fundamental research and we translate the results of the research into the development of new technologies for the benefit of humankind.

**About the course**

The Master of Physics consists of an equal combination of advanced coursework, research project and dissertation. The research project is undertaken as part of an internationally recognised research group. Students develop a combination of high-level research, analytical and problem solving skills which are highly valued by industry and government employers.

For students wishing to continue to a PhD, the Master of Physics provides outstanding preparation.

The Master of Physics can be undertaken in one of the following:

- **Astronomy and Astrophysics**: Study the universe and understand the birth, life and death of stars, planets, galaxies, nebulae and other objects in the universe.
- **Computational Physics**: Implement numerical analysis to solve physics problems.
- **Experimental Physics**: Test how the world works, through complex physics experiments.
- **Medical Physics**: Apply physics concepts, theories and methods to benefit the healthcare profession.
- **Theoretical Physics**: Employ mathematical models and abstractions of physical objects and systems to rationalise, explain and predict natural phenomena.

**Fast Facts**

UWA is ranked among the top 1% of universities in the world in the Academic Ranking of World Universities.

UWA is the only Western Australian member of the Group of Eight – a coalition of prestigious, research-intensive Australian universities.

UWA School of Physics and Astrophysics awarded 5 out of 5 in Excellence of Research Australia (ERA) rankings in the area of Physical Sciences.
Accreditation

The Master of Physics is accredited by:
The Australian Institute of Physics (AIP)

The Master of Physics - Medical Physics is accredited by: The Australian College of Physical Scientists (ACPS)

Course Structure

Astronomy and Astrophysics
- Special topics in Astrophysics
- Advanced Topics in Astrophysics
- Master's Dissertation - Astronomy and Astrophysics Part 1 - 4

Computational Physics
- Principles of Scientific Computation
- High Performance Computing
- Master's Dissertation - Computational Physics Part 1 - 4

Experimental Physics
- Special Topics in Experimental Physics
- Advanced Topics in Experimental Physics
- Master's Dissertation - Experimental Physics Part 1 - 4

Medical Physics
- Human Biology for Medical Physicists
- Radiotherapy Physics
- Master's Dissertation - Medical Physics Part 1 - 4

Theoretical Physics
- Special Topics in Theoretical Physics
- Advanced Topics in Theoretical Physics
- Master’s Dissertation - Theoretical Physics Part 1 - 4

All Specialisations
- Physics Research Project Development
- Physics Research Presentation

Core Units
Students choose four additional units, see course handbook for options
handbooks.uwa.edu.au

Delivery

The Masters of Physics is offered by coursework and dissertation.

While the standard timeframe for completion of this degree is two years (full time), if you have previously completed an undergraduate degree in a cognate (related) area it may be possible to complete within 1.5 years.

The course offers a focused, advanced learning experience that will enhance career choices. You must complete all core units and specialisation core units.

Admission Requirements

To be considered for admission to this course an applicant must have:
A bachelor’s degree in physics, or an equivalent qualification, as recognised by UWA, and the equivalent of a UWA weighted average mark of at least 65 per cent.
or;
An honours degree in physics, or an equivalent qualification, as recognised by UWA.

Be able to meet the University’s required level of English Language Competency (visit study.uwa.edu.au/els).

How to apply

For information about the application process, both domestic and international applicants should refer to the Future Students Website at: study.uwa.edu.au/how-to-apply/lodging-your-application

International students should also visit international.uwa.edu.au/students/esus for more information about the study environment, course fees and refund policy, support services and schooling obligations for dependent children.

Course enquiries

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This publication should be treated as a general guide only. For further information, contact the UWA Faculty of Engineering and Mathematical Sciences

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