

NATS 7040 RESEARCH SKILLS IN SCIENCE

Credit Points 20

Legacy Code 401154

Coordinator Mark Williams ([https://directory.westernsydney.edu.au/search/name/Mark Williams/](https://directory.westernsydney.edu.au/search/name/Mark%20Williams/))

Description This subject builds on undergraduate level science to develop a strong appreciation of postgraduate research skills. It will develop knowledge and understanding of techniques and skills applicable to postgraduate scientific study and research methodologies and critical awareness of literature. It will support you in understanding and evaluating current research. You will use technology to develop your information literacy skills, to communicate and to collaborate with others. You will also learn to act autonomously in planning and implementing work at a professional level. You will recognise how skills are continually developed through experience and can be transferred to other situations.

School Science

Discipline Natural and Physical Sciences, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 20cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Demonstrate an understanding and knowledge of research methodologies.
2. Demonstrate an understanding of techniques and skills applicable to scientific study.
3. Critically evaluate current research.
4. Evaluate research methodologies, to develop critiques, and to propose alternative hypotheses.
5. Communicate information and conclusions to specialist and non-specialist audiences.
6. Effectively present scientific and technical information.
7. Demonstrate self-direction in tackling and solving problems.
8. Plan and implement tasks at a professional level.
9. Use ICT to develop and enhance information literacy.
10. Use ICT in the effective and logical handling and analysis of data.
11. Use ICT to communicate and collaborate with other students.
12. Reflect on skills development and on the acquisition of knowledge and understanding.
13. Explain their awareness of health and safety and ethical issues.

Subject Content

- information literacy skills
- scientific investigation and experimental design
- Analysing scientific data and interpreting results
- presentation skills
- Risk assessment
- developing scientific Projects
- professional skills