

NATS 7057 RESEARCH PREPARATION IN POST GRADUATE STUDIES

Credit Points 10

Legacy Code 301387

Coordinator Rodrigo Neves Calheiros ([https://directory.westernsydney.edu.au/search/name/Rodrigo Neves Calheiros/](https://directory.westernsydney.edu.au/search/name/Rodrigo%20Neves%20Calheiros/))

Description Academic research operates on the cutting edge of what is known, creating new knowledge and informing the future. In this subject, students are introduced to the fundamentals of research including current research techniques and methodologies related to Science, Technology, Engineering & Mathematics (STEM). Students will explore and use advanced tools that support research activities as well as develop critical research skills in areas such as research design, academic writing, data collection and analysis, publishing and ethics. The skills developed in this subject will prepare students to engage in more complex research activities and positions in both academia and industry.

School Computer, Data & Math Sciences

Discipline Other Natural And Physical Sciences

Student Contribution Band HECS Band 2 10cp

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

Level Postgraduate Coursework Level 7 subject

Equivalent Subjects ENGR 7018 - Research Preparation in Post Graduate Studies

Restrictions

Students must have successfully completed 30 credit points of post graduate subjects before enrolling in this subject. This rule does not apply to students enrolled in the 3761 Master of Architecture (Urban Transformation)

Learning Outcomes

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

1. Identify plausible STEM research projects
2. Implement the steps in research methodology to formulate a research question or hypothesis and to select an appropriate research methodology
3. Identify and critically evaluate research literature synthesising a broad range ideas and concepts
4. Justify the role of ethics-related documents, such as the Australian Code for the Responsible Conduct of Research, in research practice
5. Apply quantitative methods to data collection and analysis
6. Communicate research to a diverse audience in a range of formats

Subject Content

1. What is Research
2. How to conduct a Research project
3. Essential Tools to Support Research
4. Research writing styles and publication channels

5. Literature Review
6. Research Methodologies and methods
7. Ethics
8. Data collection and data analysis methods

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Literature Review	2,000 words	30	N	Individual	N
Practical Report	60 minutes	15	N	Individual	N
	2,000 words	40	N	Individual	N
Presentatio	11 minutes	15	N	Individual	Y

Prescribed Texts

- Ranjit, Kumar (2014). Research Methodology, A Step-by-Step Guide for Beginners (4th ed.). Los Angeles: SAGE.

Teaching Periods

Autumn (2025)

Parramatta - Victoria Rd

Hybrid

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS7057_25-AUT_PS_3#subjects)

Sydney City Campus - Term 2 (2025)

Sydney City

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=NATS7057_25-SC2_SC_1#subjects)