

NATS 1019 SCIENTIFIC LITERACY

Credit Points 10

Legacy Code 300811

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

Description This unit is designed to provide students with scientific literacy, personal and employability skills and attitudes required to successfully undertake science-related undergraduate studies and to prepare for professional life. Students learn, develop and utilise academic and interpersonal methodologies and approaches within the context of applied scientific principles and take responsibility for their own learning and develop a work ethic. Students are introduced to the contestable and uncertain nature of science and the scientific method that underpins academic integrity and ethical behaviour. Activities encourage development of oral and written communication skills, self-confidence, self-efficacy, creative and critical thinking through problem solving, group process, and peer support and assessment. Academic and employability skills include scientific reading and writing, time management, researching scientific information and library skills, oral presentation, taking tests and exams, effective personal and group based learning strategies, and approaches to online learning.

School Science

Discipline Other Natural And Physical Sciences

Student Contribution Band HECS Band 2 10cp

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

Level Undergraduate Level 1 subject

Equivalent Subjects NATS 1018 - Professional Skills for Science
NATS 1020 - Scientific Literacy (WSTC)

Assumed Knowledge

Basic literacy and numeracy.

Learning Outcomes

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

1. Communicate effectively through a written report that meets the professional standards of scientific discipline
2. Present a structured argument confidently in front of peers, as audience, and assessors
3. Apply the processes of thinking and writing reflectively to develop the ability of reflecting on their learning
4. Develop an understanding of the skills and attitudes required for group work interactions
5. Apply critical thinking to make informed decisions

Subject Content

1. How to Succeed at University;
2. Academic Research: Finding, Assessing, and Referencing Information;
3. Writing for Scientists;
4. Public Speaking for Scientists;
5. Science is Empirical

6. Science is Inductive
7. Science is Falsifiable;
8. Science is Non-Linear;
9. Science is Quantitative I: Statistics and Probability;
10. Science is Quantitative II: Measurement and Uncertainty;
11. Science is Quantitative III: Data and Computing;
12. Academic Integrity and Ethics;
13. Science, Society and the Environment.

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.

Item	Length	Percent	Threshold	Individual/ Group Task
Reflection	Report preparation and reflection, 400 words, Successful Searching Online Quiz	15	N	Individual
Presentation	6 minute presentation	20	N	Individual
Report	Final report and reflection, 1,500 words	35	N	Individual
Multiple Choice	60 minutes	30	N	Individual

Prescribed Texts

- Zeegers, P, Deller-Evans, K, Egeegge, S and Klinger, C 2011, Essential skills for science and technology, Oxford University Press, Melbourne. (Provided online)
- subject resource document - written by the development team

Teaching Periods

Autumn

Campbelltown

Composite

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Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1019_22-AUT_CA_D#subjects)

Hawkesbury

Composite

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Parramatta - Victoria Rd

Composite

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Spring

Campbelltown

Composite

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Day

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Hawkesbury

Day

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Online

Online

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Parramatta - Victoria Rd

Day

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