

NATS 1020 SCIENTIFIC LITERACY (WSTC)

Credit Points 10

Legacy Code 700124

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

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 LGYB 0464 - Professional Skills for Science (UWSC) NATS 1019 - Scientific Literacy

Restrictions Students must be enrolled at Western Sydney University, The College. Students enrolled in Extended Diplomas must pass 40 credit points from the preparatory subjects listed in the program structure prior to enrolling in this University level subject. Students enrolled in the combined Diploma/Bachelor programs listed below must pass all College Preparatory subjects listed in the program structure before progressing to the Year 2 subjects.

Assumed Knowledge

Basic literacy & 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. Academic reading in the sciences ? understanding the question;
2. Note-taking & summarising information;
3. Getting the most from lectures, workshops, tutorials & practicals;
4. Time management & procrastination;
5. Scientific literacy ? the field of study, & the scientific method
6. Personal, academic and employability skills
7. Learning styles & theories of adult learning;
8. Writing in science ? structure, logic & constructing academic arguments;
9. Using the library - critical thinking & evaluation of research literature;
10. Using evidence to support your case - referencing and citation;
11. Plagiarism & academic integrity;
12. Other scientific writing formats ? essays, literature reviews, lab books & posters;
13. Working as a member of a group ? personal and group skills; teamwork and peer assessment.
14. Reflective thinking & problem solving;
15. Visual literacy ? using and reading graphs and charts;
16. Oral presentation skills; debating, using visual aids.
17. Taking exams ? approaches for success.
18. Creation of a peer support network - enhanced enjoyment through making friends

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	Writing: Reflection	10	N	Individual
Portfolio	Portfolio: In class and quizzes	30	N	Individual
Report	Writing: Report	40	N	Individual

Presentation	Speaking: Oral presentation	20	N	Individual
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Teaching Periods

Term 1

Nirimba Education Precinct

Day

Subject Contact Virginia Shepherd ([https://directory.westernsydney.edu.au/search/name/Virginia Shepherd/](https://directory.westernsydney.edu.au/search/name/Virginia%20Shepherd/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1020_22-T1_BL_D#subjects)

Term 2

Nirimba Education Precinct

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1020_22-T2_BL_D#subjects)