

# NATS 1025 MANAGEMENT OF AQUATIC ENVIRONMENTS (UG CERT)

**Credit Points** 10

**Legacy Code** 500051

**Coordinator** Jack Isherwood ([https://directory.westernsydney.edu.au/search/name/Jack Isherwood/](https://directory.westernsydney.edu.au/search/name/Jack%20Isherwood/))

**Description** This subject introduces students to the physical, chemical and biological nature of water systems and the linkages to human activity. These linkages include a development of an appreciation of the essential services and broad uses and values of water in modern human society, and the natural environment. Students are challenged to examine the causes and effects of water pollution and environmental degradation. Students are introduced to scientific water sampling, analysis and reporting of water quality and pollution.

**School** Science

**Discipline** Natural and Physical Sciences, Not Elsewhere Classified.

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 1 subject

**Equivalent Subjects** BIOS 1028 Management of Aquatic Environments  
BIOS 1027 Management of Aquatic Environments BIOS 1034 Management of Aquatic Environments

## Restrictions

Students must be enrolled in: 7175 ? Undergraduate Certificate of Environmental Sustainability

## Learning Outcomes

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

1. List and compare and contrast the physical, chemical and biological components of a freshwater system;
2. Design an experiment to measure the condition of a freshwater system using physical chemical and biological indicators.
3. Assess impacts of human development on the ecological health of freshwater aquatic environments;
4. Recommend management strategies for improved freshwater environmental management.
5. Explain the concept and principles of Ecologically Sustainable Development.
6. Demonstrate competencies in written and oral communication, teamwork, experimental design, information literacy and data processing.
7. Discuss the potential risk to human health from exposure to degraded aquatic environments.

## Subject Content

1. The role of water in modern society
2. Water as a renewable resource
3. Demands of human activity on waterways

4. Ecosystems and waterways
5. Disposal of waste using waterways
6. Water pollution and its causes
7. Water quality and recreation
8. Government policy and regulation of water
9. Water sample collection
10. Laboratory analysis of water chemistry and biology
11. Communication and teamwork
12. Designing and delivering an oral presentation
13. Interpretation of water quality data
14. Use of field water quality meters

## 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 |
|--------------|----------------------------|---------|-----------|-----------------------|
| Portfolio    | 2 x 600 words (1200 words) | 30      | N         | Individual            |
| Report       | 1200 words                 | 30      | N         | Individual            |
| Presentation | 10 minutes                 | 40      | N         | Individual            |

Teaching Periods

## Block A Session (2022)

Online

Online

**Subject Contact** Jack Isherwood ([https://directory.westernsydney.edu.au/search/name/Jack Isherwood/](https://directory.westernsydney.edu.au/search/name/Jack%20Isherwood/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=NATS1025\\_22-BA\\_ON\\_0#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1025_22-BA_ON_0#subjects))

## Block B Session (2022)

Online

Online

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## Block C Session (2022)

Online

Online

**Subject Contact** Jack Isherwood ([https://directory.westernsydney.edu.au/search/name/Jack Isherwood/](https://directory.westernsydney.edu.au/search/name/Jack%20Isherwood/))

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## Block D Session (2022)

Online

Online

**Subject Contact** Jack Isherwood ([https://directory.westernsydney.edu.au/search/name/Jack Isherwood/](https://directory.westernsydney.edu.au/search/name/Jack%20Isherwood/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=NATS1025\\_22-BD\\_ON\\_0#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1025_22-BD_ON_0#subjects))

## Block F Session (2022)

### Online

#### Online

**Subject Contact** Jack Isherwood ([https://directory.westernsydney.edu.au/search/name/Jack Isherwood/](https://directory.westernsydney.edu.au/search/name/Jack%20Isherwood/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=NATS1025\\_22-BF\\_ON\\_O#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=NATS1025_22-BF_ON_O#subjects))