



ENVS8229

Sustainable Cities

Session 2, In person-scheduled-weekday, North Ryde 2026

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Convenor

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Lecturer

Peter Davies

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Lecturer

David Martin

Lecturer

Michael Chang

Credit points

10

Prerequisites

Admission to MEnv or MSc or GradDipEnv or GradCertEnv or MEnvPlan or MPlan or MConsBiol or MPH or MMarScMgt or MScInnovationEnvSc or MSusDev or GradDipResFSE or GradCertResFSE

Corequisites

Co-badged status

Unit description

This unit examines scientific and technical principles related to the management of sustainable cities. Major themes include city biodiversity and blue-green infrastructure (e.g. green walls and living seawalls), waste management (e.g. scientific innovation to support a circular economy and smart sensing technologies), air, land and water pollution (e.g. regulation and reduction through water sensitive urban design), and resource management (e.g. urban agriculture and vertical farming). The challenges for sustainable cities in a changing climate will be explored through each major theme. Different local, national and international case studies will be explored to demonstrate key concepts in the science and management of sustainable cities. The unit includes a field trip where students will apply their knowledge to enhance sustainability in an urban context.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Clean Water and Sanitation; Sustainable Cities and Communities; Climate Action

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: demonstrate an understanding of the socio-technical principles affecting the planning and management of sustainable cities

ULO2: apply your understanding of sustainable cities to critically evaluate relevant case studies

ULO3: identify and assess the interests, roles and responsibilities of stakeholders involved in making cities sustainable

ULO4: demonstrate individual and group writing and research skills for different target audiences

General Assessment Information

Assessments are the means used to assess if you have reached the learning outcomes for the unit. The criteria by which the assessment will be marked are made clear in each case. **As a rough guide, 10 marks is equivalent to about 10 hours of quality work.**

Evidence of wide and comprehensive reading is required, drawing on journals, international examples, thought pieces, and reports. All ideas must be cited inclusive of the source/author. Unless otherwise stated in the detailed assessment guide, any recognised referencing style may be used so long as it is consistent and accurate.

Detailed information on assessment tasks, marking criteria, and supporting resources will be provided via the iLearn site by the end of Week 1.

Requirements to Pass this Unit

To pass this unit you must achieve a total mark equal to or greater than 50%.

Late Assessment Submission and Penalties

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark of the task) will be applied for each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is 11:55 pm. A 1-hour grace period will be provided to students who experience technical concerns. For any late submission of time-sensitive tasks, such as scheduled presentations, please apply for Special Consideration. For example, if the assignment is worth 8 marks (of the entire unit) and your submission is late by 19 hours (or 23 hours 59 minutes 59 seconds), 0.4 marks (5% of 8 marks) will be deducted. If your submission is late by 24 hours (or 47 hours 59 minutes 59 seconds), 0.8 marks (10% of 8 marks) will be deducted, and so on.

Special Consideration

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through <http://connect.mq.edu.au/>.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Sustainability index and data report	25%	No	30/08/2026	Individual	Yes	Open
Sustainability plan evaluation	50%	No	08/11/2026	Individual	Yes	Open
Application of a sustainability index	25%	No	20/09/2026	Individual and Group	Yes	Open

Sustainability index and data report

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **30/08/2026**

Weighting: **25%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

You will complete an individual assessment where you will develop a sustainability index. The index can be designed to be used at the different geographic scales (e.g. neighbourhood to city) or to assess a particular land use type (e.g. parks and recreation facilities, high-rise residential developments).

On successful completion you will be able to:

- demonstrate an understanding of the socio-technical principles affecting the planning and management of sustainable cities
- apply your understanding of sustainable cities to critically evaluate relevant case studies
- demonstrate individual and group writing and research skills for different target audiences

Sustainability plan evaluation

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 30 hours

Due: **08/11/2026**

Weighting: **50%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Critically evaluate sustainable city plans or strategies drawing on both theory and practice.

On successful completion you will be able to:

- demonstrate an understanding of the socio-technical principles affecting the planning and management of sustainable cities
- apply your understanding of sustainable cities to critically evaluate relevant case studies
- identify and assess the interests, roles and responsibilities of stakeholders involved in making cities sustainable
- demonstrate individual and group writing and research skills for different target audiences

Application of a sustainability index

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 hours

Due: **20/09/2026**

Weighting: **25%**

Groupwork/Individual: Individual and Group

Short extension ³: Yes

AI Approach: Open

You will undertake a group task to refine and apply a sustainability index (building on Assessment 1), report the findings and data, and present the outcomes to the class in small groups.

On successful completion you will be able to:

- demonstrate an understanding of the socio-technical principles affecting the planning and management of sustainable cities
- apply your understanding of sustainable cities to critically evaluate relevant case studies
- identify and assess the interests, roles and responsibilities of stakeholders involved in making cities sustainable
- demonstrate individual and group writing and research skills for different target audiences

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- [Academic Success](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

The unit is delivered in person and workshop recordings will be available on Echo360. **Classes start in Week 1, Wed 29th July 9am.**

The content is based on a weekly workshop program supported by a core reading/s and a fieldtrip. The teaching process includes:

- Background reading by the students
- Interactive group sessions to provide opportunities for experiential learning on tasks and through discussion with other class members (preparation is essential)
- A field trip to appreciate the practical, technical and socio-ecological aspects of

sustainable cities.

- Assessments that require students to practice key skills, including critical and integrative thinking and communicating through diverse forms including writing and presenting in a logical and clearly argued manner.
- Assessments provide opportunities for presenting in different formats, working with people of different skills and cultural perspectives.

Students are expected to:

- participate in group activities
- read set readings in advance for classes and
- follow current developments about sustainable cities in the media/ internationally.

There is a mandatory field trip scheduled for FRIDAY 11 September 2026. This will be a full day activity starting at Green Square and concluding at Barangaroo.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

Unit Schedule

Week	Date	Wed Workshop 9 -12pm	Assessment and due date
1	29 Jul	Introduction to Sustainable Cities (PD)	
2	5 Aug	Transport and mobility, accessibility (PTAL) and socio-economic (dis)advantage (SEIFA index) (MC)	
3	12 Aug	Cities and wellbeing (PD)	
4	19 Aug	Green city planning approaches (CT)	
5	26 Aug	Community empowerment and action (PD)	Assessment 1: Sustainability index (25%) Due 30th August
6	2 Sept	Sustainability planning at the local (government) and place (making) levels (PD)	
7	11 Sep	Fieldtrip FRI 9am-4pm (CT, PD)	

8	16 Sep	Open space, recreation and placemaking + Assessment 2 presentations	Assessment 2: Application of a sustainability index (25%) Due 20th September
RECESS			
9	7 Oct	Urban climate, nearmap and land surface temperature (MC)	
10	14 Oct	Green infrastructure, restoration and creating of green places in cities (CT)	
11	21 Oct	Energy resources, Smart buildings and renewable energy (PD)	
12	28 Oct	Waste recycling and the circular economy (CT)	
13	4 Nov	Site restoration and rehabilitation in practice – Field Trip Coal Loader Waverton	Assessment 3: Sustainability plan evaluation (50%) Due 8th November

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://policies.s.mq.edu.au\)](https://policies.s.mq.edu.au). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)

- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Changes from Previous Offering

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

Student feedback from the previous offering of this unit was very positive overall, with students pleased with the clarity around assessment requirements and the level of support from teaching staff. As such, no change to the delivery of the unit is planned, however we will continue to strive to improve the level of support and the level of student engagement.

Unit information based on version 2026.03 of the [Handbook](#)