

ENP336 Strategic Infrastructure Planning

School: School of Law and Society

2022 | Semester 2

UniSC Sunshine Coast

**BLENDED
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

Please go to usc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

This course will focus on the planning and provision of infrastructure in the strategic planning context. You will consider the principles, complexities and processes necessary for delivering various types of necessary physical and social infrastructures. You will consider the relationship between influences like population and employment growth and the correlation between the demand and provision of infrastructure. The criticality of planning for infrastructure will be explored including the impacts of limited infrastructure planning on achieving smart and sustainable communities.

1.2. How will this course be delivered?

| ACTIVITY | HOURS | BEGINNING WEEK | FREQUENCY |
|---|-------|----------------|-----------|
| BLENDED LEARNING | | | |
| Learning materials – each week | 1hr | Week 1 | 13 times |
| Tutorial/Workshop 1 – 2hrs/week for 11 weeks | 2hrs | Week 1 | 11 times |

1.3. Course Topics

Planning for social and physical infrastructure

Transport planning and design (including active mobility and public transport networks).

Water and energy infrastructure planning

Infrastructure systems (cycle management, decentralised solutions)

Governance provision (e.g. public private partnership)

2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

| COURSE LEARNING OUTCOMES | | GRADUATE QUALITIES |
|---|---|--|
| On successful completion of this course, you should be able to... | | Completing these tasks successfully will contribute to you becoming... |
| 1 | Identify the range of infrastructures that contribute to the operation and facilitation of regional and urban systems. | Knowledgeable Sustainability-focussed |
| 2 | Identify and describe the issues around supply and demand of infrastructures, including details of a range of demand management strategies. | Empowered |
| 3 | Carry out research into different infrastructures and communicate findings across a range of regional and urban contexts and organisations. | Creative and critical thinker Sustainability-focussed |
| 4 | Perform critical analysis and synthesis with both qualitative and quantitative data in reports. | Creative and critical thinker Empowered |

5. Am I eligible to enrol in this course?

Refer to the [UniSC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

Not applicable

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

Reflection and review of all content is encouraged in weekly interactive tutorials, and feedback will be given in class.

6.3. Assessment tasks

| DELIVERY MODE | TASK NO. | ASSESSMENT PRODUCT | INDIVIDUAL OR GROUP | WEIGHTING % | WHAT IS THE DURATION / LENGTH? | WHEN SHOULD I SUBMIT? | WHERE SHOULD I SUBMIT IT? |
|---------------|----------|------------------------|---------------------|-------------|---|-----------------------|---|
| All | 1a | Oral and Written Piece | Group | 10% | 15 minute presentation & draft report (approx. 1000 words excluding references, appendix) | Week 3 | Online Assignment Submission with plagiarism check |
| All | 1b | Report | Group | 40% | 3000 words (excluding references, appendix) | Week 7 | Online Assignment Submission with plagiarism check |
| All | 2 | Report | Individual | 40% | 2000 words (excluding references, appendix). | Week 12 | Online Assignment Submission with plagiarism check and in class |
| All | 3 | Oral and Written Piece | Individual | 10% | 15 minute presentation | Week 13 | Online Assignment Submission with plagiarism check and in class |

All - Assessment Task 1a: Draft project report and presentation

| | | | | | | | |
|------------------|---|---|--|--|--|--|----------------------------------|
| GOAL: | As a group you will provide the client (council) with a scoping report of a SWOT (strength, weaknesses, opportunities and threats) analysis of different transport and mobility modes from a vulnerable road user perspective (using a range of datasets including travel demand data, qualitative user behaviour data). The oral presentation conveys a compelling synopsis of the findings. | | | | | | |
| PRODUCT: | Oral and Written Piece | | | | | | |
| FORMAT: | Your group will produce a draft scoping study that will be closely aligned with related strategies of the council area subject to interrogation. | | | | | | |
| CRITERIA: | No. | | | | | | Learning Outcome assessed |
| | 1 | the depth of understanding of infrastructure planning concepts and their application | | | | | 1 2 3 4 |
| | 2 | the quality of critical analysis of strategies and policies | | | | | 1 2 3 4 |
| | 3 | the level of professional credibility through use of appropriate academic, technical, and policy references providing evidence, and succinct quality writing and presentation | | | | | 1 2 3 4 |

All - Assessment Task 1b: Technical project report

| | | | | | | | |
|-----------------|--|--|--|--|--|--|--|
| GOAL: | As a group you will provide the client (council) with a scoping report of a SWOT (strength, weaknesses, opportunities and threats) analysis of different transport and mobility modes from a vulnerable road user perspective (using a range of data sets including travel demand data, qualitative user behaviour data). | | | | | | |
| PRODUCT: | Report | | | | | | |
| FORMAT: | You will develop a progressive scoping study for an Integrated Transport and Mobility Strategy to ensure people can move safely around the case study area. This final scoping study needs to be closely aligned with related strategies of the council area subject to interrogation. The aim of this technical report is to assist in the decision-making process that delivers a sustained performance of key transport and mobility modes in a resilient, sustainable and progressive fashion for a low carbon future. | | | | | | |

| CRITERIA: | No. | Learning Outcome assessed |
|-----------|--|---------------------------|
| | 1 the depth of understanding of infrastructure planning concepts and their application | 1 2 3 4 |
| | 2 the quality of critical analysis of strategies and policies | 1 2 3 4 |
| | 3 the level of professional credibility through use of appropriate academic, technical, and policy references providing evidence, and succinct quality writing | 1 2 3 4 |

All - Assessment Task 2: Technical report

| GOAL: | The goal is to use demographic, spatial, and technical information and literature to critically analyse options for water or energy supply for a nominated case study area. | |
|-----------------|--|---------------------------|
| PRODUCT: | Report | |
| FORMAT: | <p>Topic: Resilient and regenerative solutions to water or energy infrastructure provision on the Sunshine Coast for a proposed development.</p> <p>Undertake a comparative analysis of a distributed and a centralised mechanism for delivery of either water or energy infrastructure on Sunshine Coast.</p> <p>You are expected to refer to at least 6 journal articles and 2 technical reports in your report.</p> | |
| CRITERIA: | No. | Learning Outcome assessed |
| | 1 The clarity, understanding, critical analysis of literature and relevance of the development strategy in context of the project vision, aims and objectives. | 3 4 |
| | 2 The quality, comprehensiveness, and accuracy of the GIS model input data. | 3 4 |
| | 3 The findings and recommendations of your report. | 3 4 |
| | 4 Quality of syntax; mapping and graphics to illustrate your analysis. | 3 4 |

All - Assessment Task 3: Strategic infrastructure presentation

| GOAL: | To allow you to reflect on, demonstrate and evaluate your own knowledge of key concepts, definitions, theories and principles applied in the real world context while effectively communicating your findings to an audience relevant to infrastructure planning. | |
|-----------------|---|---------------------------|
| PRODUCT: | Oral and Written Piece | |
| FORMAT: | You will present key findings of your technical report to a captured audience. With this presentation you will demonstrate capability to apply professional terminology, knowledge, critical thinking using relevant theories and concepts for strategic infrastructure planning. | |
| CRITERIA: | No. | Learning Outcome assessed |
| | 1 Ability to correctly identify and apply terminology, knowledge, concepts and theories related to strategic infrastructure planning. | 1 2 4 |
| | 2 The depth of understanding of policy and planning concepts demonstrated | 1 2 3 4 |
| | 3 The quality of critical analysis, writing with supporting evidence and appropriate academic referencing | 1 2 3 4 |

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

There are no required/recommended resources for this course.

8.2. Specific requirements

laptop or other electronic device

9. How are risks managed in this course?

Health and safety risks for this course have been assessed as low. It is your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the [online induction training for students](#), and following the instructions of the University staff.

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%

The course is graded using the Standard Grading scale

You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:

- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.

- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.

- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: [07 5430 1168](tel:0754301168) or using the [SafeZone](#) app. For general enquires contact the SafeUniSC team by phone [07 5456 3864](tel:0754563864) or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call [07 5430 1226](tel:0754301226) or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the [Learning Advisers](#) web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to [Student Hub](#), email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, [AccessAbility Services](#) can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to [Student Hub](#), email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.10. General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au