COURSE OUTLINE

ENP104 Urban Economics and System Analytics

School: School of Law and Society

2026 | Trimester 2

UniSC Sunshine Coast
UniSC Moreton Bay

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 unisc.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 provide you with the knowledge and tools to understand and communicate urban design and planning proposals that consider the influence of economics, from the micro to the global. It will also allow you to explore and understand urban settings and cities as complex systems comprised of people, technology and their environments. You will learn to collect and analyse the vast new data resources that are becoming available from social media, crowd sourcing, and sensor networks, and how these can be used to support evidence-based decision-making for urban design and town planning.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Online asynchronous learning materials	1hr	Week 1	11 times
Tutorial/Workshop 1 – Synchronous on-campus workshop	2hrs	Week 1	11 times

1.3. Course Topics

Micro and macro urban and planning economics

Information and communication technologies in cities

Urban analytics, data and systems thinking

Cities as complex systems

Visualisation of data for urban decision-making

2. What level is this course?

100 Level (Introductory)

Engaging with discipline knowledge and skills at foundational level, broad application of knowledge and skills in familiar contexts and with support. Limited or no prerequisites. Normally, associated with the first 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 On successful completion of this course, you should be able to...	GRADUATE QUALITIES MAPPING Completing these tasks successfully will contribute to you becoming...	PROFESSIONAL STANDARD MAPPING * Planning Institute of Australia
1 Describe and discuss contemporary micro and macro planning and property economic theory and the applicability to urban development decision-making.	Knowledgeable Empowered	3.2.1, 3.2.2, 3.2.4, 3.2.5, 3.2.6
2 Reflect on the implications of information and communication technologies and big data for contemporary cities and smart cities.	Knowledgeable Ethical	2.1.4, 2.2.8, 3.4.1, 3.4.2
3 Demonstrate an understanding of how cities are shaped and transformed through economic, social, technological and environmental interactions and dependencies.	Empowered Sustainability-focussed	2.1.3, 2.1.6, 2.2.3, 3.3.5
4 Demonstrate an understanding of visualisations and their usage in a wide variety of applications, including the core skills required to create effective visualisations.	Creative and critical thinker	2.1.11, 2.2.8, 3.6.2

* Competencies by Professional Body

CODE	COMPETENCY
PLANNING INSTITUTE OF AUSTRALIA	
2.1.4	Knowledge of and capacity to use relevant technical tools for data collection, analysis and mapping, and have knowledge of quantitative methods, spatial mapping, relevant digital software, and geographic information systems (GIS)
2.2.8	Capacity to gather qualitative and quantitative data relevant to different planning circumstances including global trends and emerging issues, to analyse it and to communicate its relevance and any shortcomings of findings
2.1.3	Knowledge of the development of planners' roles over time and in various contexts including the challenges and requirements of contemporary circumstances
2.1.6	Capacity to make appropriate choices in ethically ambiguous situations based on knowledge of social, economic, environmental, and cultural aspects of planning
2.2.3	Knowledge and theories of urban and regional planning and environmental planning and design, including but not restricted to principles of land use, urban form, infrastructure systems, ecological systems, global trends and emerging issues, climate change, transport, the integration of land use and transport, heritage conservation, landscape and human settlement patterns
2.1.11	Capacity to communicate in written, oral, and graphical form about planning issues, development proposals and actions via a range of media to various audiences in a manner appropriate to the situation
3.2.1	Knowledge of the spatial-economic underpinnings of urban regions and cities including the economic principles of land use distribution.
3.2.2	Knowledge of the fundamentals of the economics of development including land and property development
3.2.4	Capacity to analyse spatial economic plans at a basic level.
3.2.5	Capacity to produce basic spatial economic plans and development strategies at a level demonstrating understanding and use of relevant market related concepts.

CODE	COMPETENCY
3.2.6	Capacity to link economic understandings with other ethical and practical dimensions of planning, such as socio-spatial disparities associated with globalisation.
3.4.1	Knowledge of the main sources of information about communities, including census and survey data.
3.4.2	Ability to undertake basic primary and secondary data gathering and analysis utilising quantitative and qualitative methods
3.3.5	Capacity to practically and critically link plans into wider frameworks of environmental action and influence at a variety of scales.
3.6.2	Capacity to read and understand drawings and plans, including visualisation of the items represented, and to recognise and be able to critique inadequate drawings and representations.

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

5.5. Microcredential Information

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

Timely and detailed feedback is provided for each assessment. Feedback is provided both within text and general comments to build scholarly skills. Students can seek feedback through face-to-face discussion with the course coordinator. Tutorials will include extended discussion and review of the assessment task requirements and scope.

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	1	Quiz/zes	Individual	20%	90 minutes	Week 4	Online Test (Quiz)
All	2	Artefact - Technical and Scientific, and Written Piece	Group	35%	1500 words	Week 8	To be Negotiated
All	3	Report	Individual	45%	2000 words	Week 12	To be Negotiated

All - Assessment Task 1: Quiz

GOAL:	This assessment will allow you to demonstrate your knowledge and understanding of the course material.
PRODUCT:	Quiz/zes
AUTHORSHIP STATEMENT:	
FORMAT:	This is an individual quiz, undertaken online. It will be a mix of multiple choice and short answer questions.
CRITERIA:	

No.		Learning Outcome assessed
1	Ability to correctly identify and apply terminology, knowledge, concepts and theories related to planning and property economics	1 3
2	Accuracy of your answers	1

GENERIC SKILLS:	

All - Assessment Task 2: Analyses and visualisation of a complex urban setting

GOAL:	The goal here is to allow you to work as a group to identify, assess, and communicate an opportunity and / or challenge associated with a complex urban setting utilising appropriate visualisation techniques.
PRODUCT:	Artefact - Technical and Scientific, and Written Piece
AUTHORSHIP STATEMENT:	
FORMAT:	The format will involve the identification of current and emerging critical issue/s in urban design and planning, focused around a particular urban setting (e.g. public open space, main street, school zone, car park, etc). In a group you will explore ways in which you can assess, model and redesign the urban setting and communicate the difference your approach has made in addressing the issue. The outcome will have a written component but will also utilise appropriate visualisation techniques to communicate your work to a broader audience (poster, presentation, systems diagram, physical model etc).
CRITERIA:	

No.		Learning Outcome assessed
1	The extent to which the issue represents a contemporary or future challenge and/or opportunity in urban design and town planning – the justification of the issue	3
2	The identification of the range of interdependent technical, social, and environmental factors present in this issue	1 2
3	The innovation in the analyses and assessment of the issue which considers urban complexity	3
4	The coherence in the modelling and redesign of the system demonstrating the mitigation or optimisation of the issue	4
5	The clear presentation and interpretation of the issue outcomes for a broader audience via appropriate visualisation techniques	4

GENERIC SKILLS:	

All - Assessment Task 3: Exploring the use of big data for decision-making

GOAL:	The goal is for you to write a report on an urban design and town planning topic which investigates how the use of big data may impact future decision-making on that topic.
PRODUCT:	Report
AUTHORSHIP STATEMENT:	
FORMAT:	The format will be an individual written research report on an urban design and town planning topic of your choice, approved by your course coordinator. You will explore how technologies and big data may impact this topic and if they are able to offer insights for decision-making on planning and design. You will also be required to present an overview of your research in the form of an A1 poster.
CRITERIA:	

No.		Learning Outcome assessed
1	The extent to which the identified urban design and town planning topic represents a contemporary or future focussed issue	1
2	The coherence in understanding the ways in which urban data is transforming traditional decision-making and research	2
3	The justification and appropriateness of the use of information and communication technologies and big data for the urban design and town planning topic	3
4	Quality of syntax and report writing; and the presentation of the poster as a visualisation technique	4

GENERIC SKILLS:	

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

Information regarding prescribed texts or other associated resources or readings will be made available on the Canvas site prior to commencement of study.

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:
(a) The final mark is in the percentage range 47% to 49.4%; and
(b) The course is graded using the Standard Grading scale

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 submissions may be penalised up to and including the following maximum percentage of the assessment task's identified value, with weekdays and weekends included in the calculation of days late:
(a) One day: deduct 5%;
(b) Two days: deduct 10%;
(c) Three days: deduct 20%;
(d) Four days: deduct 40%;
(e) Five days: deduct 60%;
(f) Six days: deduct 80%;
(g) Seven days: A result of zero is awarded for the assessment task.

The following penalties will apply for a late submission for an online examination:
Less than 15 minutes: No penalty
From 15 minutes to 30 minutes: 20% penalty
More than 30 minutes: 100% penalty

10.4. 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

10.5. 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.

10.6. General Enquiries

For course-specific questions, contact your teaching staff or Course Coordinator.

For other enquiries or to access support, please contact Student Central:

- UniSC Student Central
- UniSC Adelaide Student Central