Overview

With an increasing urbanised world there is a critical need to do more with less. The City Analytics programs will play an integral role in growing the skill set and culture of data driven evidenced based policy and decision-making across our Cities, both in Australia and Internationally. Smart cities, big data, virtual reality and such technologies promise much in their use in planning more sustainable, productive and resilient cities. However, such technologies need to be properly understood, critically appraised and used effective by government industry to ensure our cities of the future are equitable, prosperous and sustainable.

The new City Analytics articulated suite of programs will provide a unique offering upskilling the next generation of practitioners and policy-makers with the ability to harness the power of data driven approaches to understanding the spatial and temporal dimensions of our cities, both past, present and future.

The core elements of the City Analytics Graduate Diploma primarily comprise courses specifically relevant to Smart Cities; namely: Scientific Programming, Digital Cities, GIS in Planning, and Urban Data Visualisation.
Faculty
Faculty of Built Environment

Campus
Kensington

Study Level
Postgraduate

Typical duration
1 Years

Delivery Mode
Face-to-face

Intake Period
Term 1, Term 3

Academic Calendar
3+ Calendar

Minimum Units of Credit
48

Award type
Graduate Diploma

Award(s)
Graduate Diploma in City Analytics - GradDipCA

CRICOS Code
093860G
Learning Outcomes

1. Demonstrate understanding of professional and ethical conduct and personal accountability consistent with industry expectations in the context of new technology and data governance.

2. Demonstrate grounding to be competent and confident in understanding, analysing, modelling, and visualising urban data.

3. Develop skills in relevant computer technologies and a critical appreciation technology transfer in practice in the changing global context.

4. Apply specialised knowledge and analytical skills to urban challenges.

5. Interpret and communicate knowledge, skills and ideas to both specialist and non-specialist audiences with a focus on technology

Graduate Capabilities:

For more information on Graduate Capabilities, please click on this link.
Program Structure

Students must complete 48 UOC as a standalone program.

Core Courses

Students must take 36 UOC of the following courses.

- BENV7500  |  6 UOC  
  Programmable Cities

- BENV7501  |  6 UOC  
  Urban Data Visualisation

- BENV7502  |  6 UOC  
  Geodesign

- BENV7503  |  6 UOC  
  Geocomputation

- BENV7504  |  6 UOC  
  Digital Cities

- BENV7728  |  6 UOC  
  Geographical Information Systems and Urban Informatics

Prescribed Electives

Students must take 12 UOC of the following courses.

Students may take other relevant UNSW courses on approval of Smart Cities & Urban Informatics Program Director.

- BEIL6002  |  6 UOC  
  Urban and Regional Design

- BENV7307  |  6 UOC  
  Writing the City
<table>
<thead>
<tr>
<th>Course Code</th>
<th>UOC</th>
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<tr>
<td>BENV7712</td>
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<tr>
<td>Healthy Built Environments</td>
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<tr>
<td>BENV7811</td>
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<td>Urban Renewal</td>
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<td>CONS0005</td>
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<td>Construction Informatics</td>
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<td>CVEN9405</td>
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<tr>
<td>Urban Transport Planning Practice</td>
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<tr>
<td>ECON5330</td>
<td>6</td>
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<tr>
<td>Real Estate Economics and Public Policy</td>
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<td>MUPS0001</td>
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<tr>
<td>Drivers of Urban Change</td>
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<td>MUPS0002</td>
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<tr>
<td>Strategic Urban Policy</td>
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<td>MUPS0007</td>
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<tr>
<td>Research for Evidence-Based Policy</td>
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<tr>
<td>PLAN7142</td>
<td>6</td>
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<tr>
<td>City Equity &amp; Wellbeing</td>
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<td>PLAN7143</td>
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<tr>
<td>Urban Design</td>
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<td>PLAN7145</td>
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<tr>
<td>City Building - Infrastructure Planning</td>
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<tr>
<td>PLAN7146</td>
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</table>
City Economics, Urban Development & Finance

**PLAN7148 | 6 UOC**  
Strategic Spatial Planning

**PLAN7156 | 6 UOC**  
Housing Policy and Finance

**PLAN7157 | 6 UOC**  
Engaging Communities

**PLAN7320 | 6 UOC**  
Housing Management and Markets

**PLAN7321 | 6 UOC**  
Implementing Urban Regeneration Projects

**SRAP5001 | 6 UOC**  
Policy Analysis

**Enrolment Disclaimer**

Unless advised otherwise by your program authority, you should follow the rules for the handbook for the year you commenced your program. You are also responsible for ensuring you enrol in courses according to your program requirements. myUNSW enrolment checks that you have met enrolment requirements such as pre-requisites for individual courses but not that a course will count towards your program requirements.
Admission Requirements

Entry Requirements

Admission Requirements:

The emerging field of smart cities and urban informatics is of interest and relevance to a wide range of professions and disciplines areas. Accordingly, the range of Bachelor degree subject areas considered a relevant background for admission to this program is quite broad. Applicants with undergraduate degrees in the following subject areas and who have achieved a credit average will be eligible for admission. Applicants who don't have a credit average may be considered for entry to the Graduate Certificate.

- Built Environment subject areas
- Business
- Computer Science
- Environmental Sciences
- Engineering
- Law/Jurisprudence
- Social science, social and public policy

Recognition of prior learning [RPL]

Consideration of advanced standing may be granted for completed or partially completed postgraduate awards from UNSW or another institution and is in accordance with UNSW RPL Policy and Procedures. When considering the granting of advanced standing on the basis of previous p/g study at another institution, the program authority will take into account the quality of the institution and the quality, level and content of p/g courses previously undertaken.

For more information about admission requirements for various UNSW programs, visit the following website(s):

Domestic Students
International Student
Program Requirements

Progression Requirements

Students may apply to progress from the Graduate Certificate or the Graduate Diploma to Masters level with full credit for courses completed in earlier programs in the sequence.

For more information on university policy on progression requirements please visit Academic Progression.
Pathways

Post Graduate

**Doctor of Philosophy - PhD**

**1120 Built Environment**

Faculty: Faculty of Built Environment  
Campus: Kensington  
Units of Credit: 144  
Typical Duration: 3 to 4 Years

Read More

**Master of Philosophy - MPhil**

**2222 Built Environment**

Faculty: Faculty of Built Environment  
Campus: Kensington  
Units of Credit: 72  
Typical Duration: 1.7 Years

Read More

Articulation Arrangements

Other program(s) within articulated suite:

**Graduate Certificate in City Analytics - GradCertCA**

**7451 City Analytics**

Faculty: Faculty of Built Environment  
Campus: Kensington  
Units of Credit: 24  
Typical Duration: 0.7 Years

Read More

**Master of City Analytics - MCA**

**8151 City Analytics**

Faculty: Faculty of Built Environment  
Campus: Kensington  
Units of Credit: 72  
Typical Duration: 1.7 Years
Master of City Analytics (Extension) - MCA(Ext)

8152 City Analytics (Extension)

Faculty: Faculty of Built Environment
Campus: Kensington
Units of Credit: 96
Typical Duration: 2 Years
Program Fees

At UNSW fees are generally charged at course level and therefore dependent upon individual enrolment and other factors such as student's residency status. For generic information on fees and additional expenses of UNSW programs, click on one of the following:

Domestic Students
Commonwealth Supported Students
International Students

Additional Expenses

Access to own computer. Cost of printing, books, reference materials
Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions