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 Masters Program 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**
1.7 Years

**Delivery Mode**
Face-to-face

**Intake Period**
Term 1, Term 3

**Academic Calendar**
3+ Calendar

**Minimum Units of Credit**
72

**Award type**
Masters (Coursework)

**Award(s)**
Master of City Analytics - MCA

**CRICOS Code**
093861G
Learning Outcomes

1. Demonstrate both theoretical and practical grounding to be competent and confident in understanding, analysing, modelling, and visualising urban data.
   
   Professionals  Scholars

2. Develop skills and applications in relevant computer technologies and a critical appreciation of technology transfer in practice in the changing global context.
   
   Leaders  Global Citizens

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

4. Develop and apply specialised knowledge and analytical skills to inform evidence-based policy and decision making processes.
   
   Scholars  Professionals

5. Demonstrate ability to apply research principles and methods applicable to smart cities in local, national and international contexts.
   
   Global Citizens  Scholars

6. Demonstrate ability to interpret and communicate knowledge, skills and ideas to both specialist and non-specialist audiences with a focus on technology
   
   Professionals  Leaders

Graduate Capabilities:

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

Students must complete 72 UOC as a standalone program.

**Capstone Course**

Students must take 12 UOC of the following courses.

- **BENV7550** | 12 UOC
  Smart Cities and Urban Informatics Major Project

**Core Courses**

Students must take 42 UOC of the following courses.

- **BENV7020** | 6 UOC
  Research Seminar

- **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 18 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

BENV7712  |  6 UOC  
Healthy Built Environments

BENV7811  |  6 UOC  
Urban Renewal

CONS0005  |  6 UOC  
Construction Informatics

CVEN9405  |  6 UOC  
Urban Transport Planning Practice

ECON5330  |  6 UOC  
Real Estate Economics and Public Policy

MUPS0001  |  6 UOC  
Drivers of Urban Change

MUPS0002  |  6 UOC  
Strategic Urban Policy

MUPS0007  |  6 UOC  
Research for Evidence-Based Policy

PLAN7142  |  6 UOC  
City Equity & Wellbeing
PLAN7143 | 6 UOC
Urban Design

PLAN7145 | 6 UOC
City Building - Infrastructure Planning

PLAN7146 | 6 UOC
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

REST0004 | 6 UOC
Property Investment and Finance

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

The emerging field of smart cities 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 to the suite of City Analytics programs. Applicants who don't have a credit average may be considered for entry to the Graduate Certificate or Graduate Diploma.

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

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 Diploma in City Analytics - GradDipCA

5151 City Analytics

Faculty: Faculty of Built Environment
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More

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
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
Recognition of Achievement

Award with Excellence

The Award with Excellence is awarded in coursework masters programs, including Masters (Extension) but with the exception of Masters (Extended) such as JD and MD, when a Weighted Average Mean (WAM) of at least 80% has been achieved and at least 50% of the requirements of the award are completed at UNSW. All eligible programs will award 'with Excellence' except in special circumstances where approval of Academic Board has been given for a program to opt out.

For more information, please visit:

Current Students Award with Excellence
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

Pre-2019 Handbook Editions

Access past handbook editions (2018 and prior)

Pre-2019 Handbook Editions
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Authorised by Deputy Vice-Chancellor (Academic)
CRICOS Provider Code 00098G
ABN: 57 195 873 179