Health Data Science (HDS) is the science and art of generating data-driven solutions through comprehension of complex real-world health problems, employing critical thinking and analytics to derive knowledge from (big) data. HDS is an emergent discipline, arising at the intersection of (bio)statistics, computer science, and health. The Graduate Certificate Health Data Science covers the first part of the HDS pipeline concerned with comprehension of health context, statistical foundations, principles of programming, and data wrangling and management.

Graduate Certificate in Health Data Science graduates will be well suited to an identified area of workforce demand, in both public and private health sectors. High-achieving graduates will have potential for consideration of further study in Graduate Diploma in Health Data Science (5372) or MSc in Health Data Science (9372). The program is designed to appeal to both those new to Health Data Science and those already working in the field looking to upskill. The Graduate Certificate is appropriate for both an Australian and international audience. Potential students from any undergraduate background and/or who possess relevant work experience will be considered for admission.

The program can be completed in 6 months full-time or part-time over 18 months. The 24 unit of credit coursework program is fully articulated, with options for further study at Graduate Diploma (48 UoC) and MSc level (72 UoC).
<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th>Faculty of Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Campus</strong></td>
<td>Kensington</td>
</tr>
<tr>
<td><strong>Study Level</strong></td>
<td>Postgraduate</td>
</tr>
<tr>
<td><strong>Typical duration</strong></td>
<td>0.7 Years</td>
</tr>
<tr>
<td><strong>Delivery Mode</strong></td>
<td>Face-to-face</td>
</tr>
<tr>
<td><strong>Intake Period</strong></td>
<td>Term 1, Term 3</td>
</tr>
<tr>
<td><strong>Academic Calendar</strong></td>
<td>3+ Calendar</td>
</tr>
<tr>
<td><strong>Minimum Units of Credit</strong></td>
<td>24</td>
</tr>
<tr>
<td><strong>Award type</strong></td>
<td>Graduate Certificate</td>
</tr>
<tr>
<td><strong>Award(s)</strong></td>
<td>Graduate Certificate in Health Data Science - GradCertHDS</td>
</tr>
<tr>
<td><strong>CRICOS Code</strong></td>
<td>096227J</td>
</tr>
</tbody>
</table>
Learning Outcomes

1. Enquiry-based learning - Graduates will be able to apply enquiry-based learning and ways of thinking to Health Data Science contexts.
   - Scholars
   - Professionals
   - Leaders

2. Communication, adaptive and interactional skills - Graduates will be able to communicate foundational Health Data Science principles to a range of audiences, in a variety of formats.
   - Leaders
   - Professionals
   - Scholars

3. Global outlook - Graduates will be able to demonstrate an awareness of a global perspective for the potential of Health Data Science to positively impact health at both individual and community levels.
   - Global Citizens
   - Scholars
   - Professionals

4. Advanced disciplinary knowledge and practice - Graduates will be able to apply foundation Health Data Science principles to novel contexts.
   - Global Citizens
   - Professionals
   - Scholars

5. Cognitive skills and critical thinking - Graduates will be able to apply Statistical Thinking to synthesise and critically evaluate foundation Health Data Science concepts.
   - Professionals
   - Leaders
   - Scholars

Graduate Capabilities:

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

Students must complete 24 UOC as a standalone program.

Core Courses

Students must take 24 UOC of the following courses.

COMP9021  |  6 UOC
Principles of Programming

HDAT9100  |  6 UOC
Context of Health Data Science

HDAT9200  |  6 UOC
Statistical Foundations for Health Data Science

HDAT9400  |  6 UOC
Management and Curation of Health Data

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 program is designed for, and should appeal to, a broad local and international target student base. Student backgrounds will include healthcare (clinical, nursing and allied health), mathematics, statistics, and computer science.

The entry criteria are:

- an undergraduate degree in a cognate discipline
- a degree in a non-cognate discipline at honours level (or higher)
- an undergraduate degree in a non-cognate discipline and minimum 1 year full-time equivalent of relevant work experience
- or
- minimum 3 year full-time equivalent of relevant work experience

**Cognate discipline** is defined as a degree in one of the following disciplines:
- a science allied with medicine, including
  - medicine
  - nursing
  - dentistry
  - physiotherapy
  - optometry
  - biomedical/ biological science
  - pharmacy
  - public health
  - veterinary science
  - biology
  - biochemistry
  - statistics
  - mathematical sciences
  - computer science
  - psychology
  - (health) economics
  - data science
  - other (case-by-case basis)

**Relevant experience** is defined as:

- any (professional) position involving data acquisition, management or handling (e.g. database manager)
or

- any (professional) position involving analytics (e.g. data analyst)

and

- tertiary-level training, demonstrating capability in a cognate discipline
- exhibits potential to pursue postgraduate (level 8) studies

Evidence requirements will be a CV and an employer provided statement of service in relation to professional experience.

Recognition of prior learning (RPL) is awarded in accordance with UNSW 'Recognition of Prior Learning (Coursework Programs) Policy' and 'Recognition of Prior Learning Procedure' for both program admission and credit.

Criteria for RPL for admission is detailed in the program entry requirements.

Credit granted will yield specified credit for the equivalent 6 UoC course. Reduction in the total volume of learning due to advance standing is limited to a maximum of 50% of the total UoC for the program.

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

- Domestic Students
- International Student
Program Requirements

Recognition of Prior Learning

Credit (advance standing) is available for additional RPL beyond that acknowledged for program entry. Both formal and non-formal learning is considered. Recognition of formal learning is assessed for equivalence to an entire (HDAT) course, on a case-by-case basis. Credit granted for formal learning will yield specified credit for the equivalent 6 UOC course. Recognition of non-formal learning will result from micro-credentialing and awarding of Badges. Reduction in the total volume of learning due to advance standing is limited to a maximum of 12 UOC.

Progression Requirements

Students with at least a "Pass" in the core courses can be considered for entry into the Graduate Diploma in Health Data Science 5372 program.

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

Articulation Arrangements

Other program(s) within articulated suite:

Graduate Diploma in Health Data Science - GradDipHDS
5372 Health Data Science
Faculty: Faculty of Medicine
Campus: Kensington
Units of Credit: 48
Typical Duration: 1 Years

Read More

Master of Science - MSc
9372 Health Data Science
Faculty: Faculty of Medicine
Campus: Kensington
Units of Credit: 72
Typical Duration: 1.7 Years

Read More
Professional Outcomes

Career Opportunities

The Graduate Certificate in Health Data Science aims to graduate professionals with a sound grounding in the foundations of Health Data Science, appealing to an identified area of workforce need. Thus graduates will be well positioned for a range of roles in both the public and private healthcare sectors. High-achieving students will also be well suited to further academic study, particularly at MSc level.
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

N/A
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