Overview

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 Diploma Health Data Science covers the second part of the HDS pipeline concerned with data analytics, machine learning and data mining, data modelling, and communication including data visualisation.

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 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 Diploma 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 12 months full-time or part-time over 3 years. The 48 unit of credit coursework program is fully articulated, with options for further study at MSc level (further 24 UoC).
<table>
<thead>
<tr>
<th><strong>Faculty</strong></th>
<th>Faculty of Medicine</th>
</tr>
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<tbody>
<tr>
<td><strong>Campus</strong></td>
<td>Kensington</td>
</tr>
<tr>
<td><strong>Study Level</strong></td>
<td>Postgraduate</td>
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<tr>
<td><strong>Typical duration</strong></td>
<td>1 Years</td>
</tr>
<tr>
<td><strong>Delivery Mode</strong></td>
<td>Face-to-face</td>
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<tr>
<td><strong>Intake Period</strong></td>
<td>Term 1, Term 3</td>
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<tr>
<td><strong>Academic Calendar</strong></td>
<td>3+ Calendar</td>
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<tr>
<td><strong>Minimum Units of Credit</strong></td>
<td>48</td>
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<tr>
<td><strong>Award type</strong></td>
<td>Graduate Diploma</td>
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<tr>
<td><strong>Award(s)</strong></td>
<td>Graduate Diploma in Health Data Science - GradDipHDS</td>
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<tr>
<td><strong>CRICOS Code</strong></td>
<td>096226k</td>
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Learning Outcomes

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

Professionals  Scholars  Global Citizens

2. Advanced disciplinary knowledge and practice - Graduates will be able to apply Health Data Science principles to novel contexts.

Professionals  Global Citizens  Scholars

3. Cognitive skills and critical thinking - Graduates will be able to apply Statistical Thinking to synthesise and critically evaluate complex Health Data Science concepts.

Professionals  Leaders  Scholars

4. Communication, adaptive and interactional skills - Graduates will be able to communicate knowledge arising from Health Data Science insights to diverse audiences, in a variety of media including data visualisation (Vis), oral and written word.

Professionals  Leaders  Scholars

5. Enquiry-based learning - Graduates will be able to generate data-driven solutions through comprehension of real-world health problems, employing critical thinking and analytics to derive knowledge from (big) data.

Leaders  Professionals  Scholars

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 48 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

HDAT9500  |  6 UOC
Health Data Analytics: Machine Learning and Data Mining

HDAT9600  |  6 UOC
Health Data Analytics: Statistical Modelling I

HDAT9700  |  6 UOC
Health Data Analytics: Statistical Modelling II

HDAT9800  |  6 UOC
Visualisation and Communication 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:

- successful completion of Graduate Certificate in Health Data Science 7372 program

or

- qualifications equivalent to or higher than Graduate Certificate in Health Data Science 7372 program on a case-by-case basis

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)

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.

In the case of HDAT9200 and HDAT9300, combinations of both formal and non-formal learning, and RPL accepted for program entry will be considered towards credit. For all other courses in the program, non-conferred formal learning beyond that acknowledged for program entry will be considered towards credit. Recognition of formal learning is assessed for equivalence to an entire (HDAT) course on a case-by-case basis. Recognition of non-formal learning will result from successful completion of an equivalent course from our suite of Continual Professional Development.

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

Progression Requirements

Students enrolled in the Grad Dip Health Data Science program may exit early at the Graduate Certificate 7372 program if they meet the requirements of this degree.

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

Articulation Arrangements

Other program(s) within articulated suite:

Graduate Certificate in Health Data Science - GradCertHDS
7372 Health Data Science

Faculty: Faculty of Medicine
Campus: Kensington
Units of Credit: 24
Typical Duration: 0.7 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 Diploma in Health Data Science aims to graduate professionals with a sound grounding in 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