

INFS 3010 HEALTHCARE DATA ENVIRONMENTS

Credit Points 10

Legacy Code 300955

Coordinator Heidi Bjering ([https://directory.westernsydney.edu.au/search/name/Heidi Bjering/](https://directory.westernsydney.edu.au/search/name/Heidi%20Bjering/))

Description This subject extends the student's knowledge of Health Informatics by introducing concepts relating to electronic communications within the health industry. It exposes students to a variety of environments used to create, store, transfer and deliver healthcare data. Areas include minimum data sets, data linkage, messaging concepts/standards, terminologies, healthcare evaluation, electronic health records and related standards, security, privacy and trust, medico legal, epidemiology and population health together with TeleHealth/ TeleMedicine approaches, methodologies, tools and techniques.

School Computer, Data & Math Sciences

Discipline Information Systems

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Pre-requisite(s) INFS 2004

Equivalent Subjects INFS 3019 - e-Health

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Evaluate the use of minimum data sets in LHD (local health district), State and National reporting and the importance of data linkage.
2. Evaluate the impact of Security, Privacy, Trust, Medico-Legal aspects and Ethics related to health data.
3. Analyse messaging concepts and standards and how it affects the interoperability between EMR systems.
4. Interpret the use of clinical terminology and classification systems in health.
5. Characterise the concepts of epidemiology and population health in relation to data capture, analysis and research
6. Evaluate the purpose of healthcare evaluation in relation to accreditation/certification standards.
7. Critically evaluate and articulate purpose of electronic medical record (EMR) systems and functional e-Health applications.

Subject Content

1. Electronic Medical Record (EMR) systems and standards
2. Health data, interoperability and messaging concepts/standards
3. Minimum health data sets and mandatory reporting
4. Clinical terminology and classification systems
5. Data linkage and special data types
6. Consideration of the impact of Security, Privacy and Trust for EMR
7. Medico Legal and Ethics related to health data

8. Exploration and application of approaches, methodologies, tools and techniques to support the design and development of e-Health applications
9. Population health
10. Health data mining and big data
11. Approaches to the evaluation of health care at a national, organisational and individual level with a view to improving the quality of health care through practice guidelines, program evaluation, clinical indicators and consumer satisfaction surveys

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Portfolio	Four entries: 800 - 1,000 words per entry	40	N	Individual	Y
Quiz	Three quizzes: 40 minutes each	30	N	Individual	Y
Report	2,000 words	30	N	Individual	Y

Teaching Periods

Spring (2025) Campbelltown

On-site

Subject Contact Heidi Bjering ([https://directory.westernsydney.edu.au/search/name/Heidi Bjering/](https://directory.westernsydney.edu.au/search/name/Heidi%20Bjering/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS3010_25-SPR_CA_1#subjects)

Penrith (Kingswood)

On-site

Subject Contact Anupama Ginige ([https://directory.westernsydney.edu.au/search/name/Anupama Ginige/](https://directory.westernsydney.edu.au/search/name/Anupama%20Ginige/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS3010_25-SPR_KW_1#subjects)

Online

Online

Subject Contact Heidi Bjering ([https://directory.westernsydney.edu.au/search/name/Heidi Bjering/](https://directory.westernsydney.edu.au/search/name/Heidi%20Bjering/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS3010_25-SPR_ON_2#subjects)

Parramatta - Victoria Rd

On-site

Subject Contact Anupama Ginige ([https://directory.westernsydney.edu.au/search/name/Anupama Ginige/](https://directory.westernsydney.edu.au/search/name/Anupama%20Ginige/))

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS3010_25-SPR_PS_1#subjects)