INFS 7001 ADVANCED HEALTHCARE DATA ENVIRONMENTS

Credit Points 10

Legacy Code 301028

Coordinator Anupama Ginige (https://directory.westernsydney.edu.au/search/name/Anupama Ginige/)

Description This subject extends the students 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. Advanced skills and knowledge on researching into recent developments in specific sub-topics will be acquired through assessment components in the subject.

School Computer, Data & Math Sciences

Discipline Systems Analysis and Design

Student Contribution Band HECS Band 2 10cp

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

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in a postgraduate program.

Learning Outcomes

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

1. Evaluate the usage of electronic health records in Australian Health System situations, including standards, messaging, terminologies, classification systems and clinical languages, security and privacy, health data linkage and minimum data sets.
2. Develop data environments to support functional e-Health applications.
3. Explain and the concepts of epidemiology and population health in relation to data capture, analysis and research.
4. Analyse the purpose of healthcare evaluation in relation to accreditation/certification standards including evaluation methods and policies and procedures for health information management, to the extent of their typical use in Australian Health System situations.
5. Apply new knowledge gained from unit to complex cases arising in the Australian Health System workplace, exercising professional judgement in the context of the new knowledge area.
6. Apply research methods consistent with planning, implementation and evaluation of e-Health data solutions to address previously unseen workplace problems in the Australian Health System.
7. Evaluate the impact of Security, Privacy, Trust, Medico-Legal aspects and Ethics related to health data.

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
12. Critical evaluation techniques of clinical and population research

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
Portfolio	Minimum 1,000 words per each entry	40	N	Individual
Quiz	40 minutes each	30	N	Individual
Report	3,000 words	30	N	Individual

Teaching Periods

Spring (2023)
Online
Online
Subject Contact Anupama Ginige (https://directory.westernsydney.edu.au/search/name/Anupama Ginige/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS7001_23-SPR_ON_2#subjects)

Parramatta - Victoria Rd
On-site
Subject Contact Heidi Bjering (https://directory.westernsydney.edu.au/search/name/Heidi Bjering/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=INFS7001_23-SPR_PS_1#subjects)

Spring (2024)
Online
Online
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