MONASH University **Handbook**

Unit

FIT3180 Management for health informatics

Overview

The aim of this unit is to examine the role of information and communication technologies (ICT), systems and hardware infrastructure that underpins secure delivery of the modern health services. Case studies of Picture Archive and Communication Systems (PACS) and Radiology Information Systems (RIS) will be covered more in depth, together with an overview of other health related software applications such as the Electronic Patient Record (EPR), medical classification schemas/ontologies, medical data standards and interoperability. The opportunities that new data analytics and artificial intelligence approaches offer to transform the modern healthcare will be reviewed in practical sessions. Students will also explore project and change management issues and learn how they impact efficiency of medical practice.

Faculty:
Faculty of Information Technology

Owning organisational unit:
Faculty of Information Technology

Study level:
Undergraduate

SCA band:
4

EFTSL:

Credit points:

0.125 6

Open to exchange or study abroad students?
Yes

Offerings

S2-01-CLAYTON-ON-C[illegible]

Location: Clayton

Teaching period: Second semester

Attendance mode: On-campus

Requisites

Prerequisite

→ FIT1052 6 CP

Digital futures: IT shaping society

Contacts

Chief Examiner(s)

Pamela Spink

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Offering(s):

- Applies to all offerings

Learning outc

On successful completi ould be able to:

1. Describe their obligations in relation to Patient Health Record Privacy and Security.

2. Explain how health informatics functions across the wider health domain.

3. Describe how interoperability and integration of clinical systems is achieved through implementation of medical ontologies.

4. Explain how knowledge of ICT terminology facilitates more effective outcomes for users of health services.

5. Critically evaluate the roles and interdependencies of the software applications of health information systems (eg. PACS/ HER, clinical decision support systems, RIS, and their relationship with other health IT applications.

6. Distinguish between the various components of the IT infrastructure including Network, Virtual Server environment and ICT support mechanisms.
7. Apply the principles of Project Management and Change Management methodologies in their work.
8. Analyse Business Continuity and Disaster Recovery Plans for their Health IT applications.

Teaching approach

Online learning

Assessment

Tutorials Participation

Value %: 10

Individual weekly quiz

Value %: 15

Class Test

Value %: 25

Assignment 1 (Case Study): Presentation

Value %: 20

Assignment 1 (Case Study): Report

Value %: 30

Scheduled teaching activities

Applied sessions

Total hours: 24 hours

Offerings:

- Applies to all offerings

Workload requirements

Workload

Minimum total expected workload to achieve the learning outcomes for this unit is 144 hours per semester typically comprising scheduled online and face to face learning activities and independent study. Independent study may include associated reading and preparation for scheduled teaching activities.

Learning resources

Required resources

- Coronel, C., & Morris, Steven (2017). Database systems: Design, implementation, and management. (12th ed.). ISBN: 9781305627482; ISBN: 9781305886841 (electronic bk.)
- Coronel, C., & Morris, Steven (2019). Database systems: Design, implementation, and management (13th ed.).ISBN9781337627900

The Library also has limited copies of both editions 12 and 13, available for borrowing.

Recommended resources

This unit will make use of the Oracle 12 database running on a Monash server. All students will have an account on this server which will suffice for all database work this semester.

To access this server, students will need to install and run the Monash VPN software. The client software for accessing Oracle (SQLDeveloper) will be available in the labs. It will also be available via a download from the Moodle site for installation at home (very limited bandwidth) and also, after registration (free), from the Oracle site:

- http://www.oracle.com/technology/software/products/sql/index.html.

Technology resources

Students must regularly check Moodle for announcements.

Students must have SQL Developer installed.

Students must have the) installed if they want to access the student database from outside Clayton C s provided by eSolutions, the teaching team may not be able to provide full supp ed to contact eSolutions help desk in their respective campuses.

Availability in areas of study

Radiation sciences