Unit Outline (Higher Education)

Institute / School:	Institute of Innovation, Science & Sustainability
Unit Title:	CLOUD AND ENTERPRISE COMPUTING
Unit ID:	ITECH1104
Credit Points:	15.00
Prerequisite(s):	Nil
Co-requisite(s):	Nil
Exclusion(s):	(GPSIT1104 and ITECH2201)
ASCED:	029999

Description of the Unit:

The mainframes are large-scale computer system architectures and their services were established in early 1960s, whereas the cloud computing services were established in late 2000. This subject introduces the fundamental of these two services and the synergy between these two architectures.   This subject will enable students to understand the architecture, technologies and scalable applications supported by these services.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Does Recognition of Prior Learning apply to this Unit?   No

Placement Component: No

Supplementary Assessment: Yes

Where supplementary assessment is available a student must have failed overall in the Unit but gained a final mark of 45 per cent or above and submitted all major assessment tasks.

CourseLevel:

Level of Unit in Course	AQF Level of Course					
	5	**6**	**7**	**8**	**9**	**10**
Introductory			✔			

Level of Unit in Course	AQF Level of Course					
	5	**6**	**7**	**8**	**9**	**10**
Intermediate	☐	☐	☐	☐	☐	☐
Advanced	☐	☐	☐	☐	☐	☐

Learning Outcomes:

Knowledge:

K1. Identify the key elements in cloud and mainframe computing.

K2. Explain the importance of cloud and mainframes in contemporary business models.

K3. Recognise the need for security and privacy in cloud and mainframes.

K4. Infer various services provided by cloud and mainframes.

Skills:

S1. Demonstrate cloud architecture models for different user types.

S2. Describe mainframe workloads for business needs.

S3. Use Cloud environment and services for various business-related needs.

S4. Interpret security and privacy needs in a shared environment.

S5. Critique contemporary IT industry practices/presentations related to cloud and enterprise computing, and relate them to professional standards and your own career aspirations

Application of knowledge and skills:

A1. Apply knowledge of the cloud and mainframe service for range of business models.

A2. Interpret cloud and mainframe environment for enterprise computing.

Unit Content:

Topics may include:

- The changing nature of businesses, changing nature of ICT professionals and the relationship between Business, ICT and Higher Education.
- Cloud computing fundamentals.
- Cloud architecture.
- Cloud service model.
- Cloud security fundamentals.
- Introduction to the mainframe environment.
- Similarities in mainframes and cloud computing.
- Mainframe workloads for business needs.
- ICT technical skills for Cloud and Mainframes.
- Overview of the popular cloud computing platforms.

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**ttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are be embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly*

assessed in each Course.

FEDTASK attribute and descriptor	Development and acquisition of FEDTASKS in the Unit	
	Learning Outcomes (KSA)	Assessment task (AT#)
FEDTASK 1 Interpersonal	Students will demonstrate the ability to effectively communicate, interact and work with others both individually and in groups. Students will be required to display skills in-person and/or online in: • Using effective verbal and non-verbal communication • Listening for meaning and influencing via active listening • Showing empathy for others • Negotiating and demonstrating conflict resolution skills • Working respectfully in cross-cultural and diverse teams.	Not applicable	Not applicable
FEDTASK 2 Leadership	Students will demonstrate the ability to apply professional skills and behaviours in leading others. Students will be required to display skills in: • Creating a collegial environment • Showing self -awareness and the ability to self-reflect • Inspiring and convincing others • Making informed decisions • Displaying initiative	Not applicable	Not applicable
FEDTASK 3 Critical Thinking and Creativity	Students will demonstrate an ability to work in complexity and ambiguity using the imagination to create new ideas. Students will be required to display skills in: • Reflecting critically • Evaluating ideas, concepts and information • Considering alternative perspectives to refine ideas • Challenging conventional thinking to clarify concepts • Forming creative solutions in problem solving	Not applicable	Not applicable
FEDTASK 4 Digital Literacy	Students will demonstrate the ability to work fluently across a range of tools, platforms and applications to achieve a range of tasks. Students will be required to display skills in: • Finding, evaluating, managing, curating, organising and sharing digital information • Collating, managing, accessing and using digital data securely • Receiving and responding to messages in a range of digital media • Contributing actively to digital teams and working groups • Participating in and benefiting from digital learning opportunities	S3	AT1
FEDTASK 5 Sustainable and Ethical Mindset	Students will demonstrate the ability to consider and assess the consequences and impact of ideas and actions in enacting ethical and sustainable decisions. Students will be required to display skills in: • Making informed judgments that consider the impact of devising solutions in global economic environmental and societal contexts • Committing to social responsibility as a professional and a citizen • Evaluating ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Embracing lifelong, life-wide and life-deep learning to be open to diverse others • Implementing required actions to foster sustainability in their professional and personal life.	Not applicable	Not applicable

Learning Task and Assessment:

Learning Outcomes Assessed	Assessment Tasks	Assessment Type	Weighting
S1-5, A1-2	Develop skills in the analysis and practical application of content introduced.	Tutorials/Assignment(s)	60 - 80%
K1-4, S1, S2, S4	Participate in lectures and labs/tutorials, read and summarise theoretical and practical aspects of the course.	Tests and/or Presentations	20 - 40%

Alignment to the Minimum Co-Operative Standards (MiCS)

The Minimum Co-Operative Standards (MiCS) are an integral part of the Co-Operative University Model. Seven criteria inform the MiCS alignment at a Course level. Although Units must undertake MiCS mapping, there is NO expectation that Units will meet all seven criteria. The criteria are as follows:

1. Co-design with industry and students
2. Co-develop with industry and students
3. Co-deliver with industry
4. FedTASK alignment
5. Workplace learning and career preparation
6. Authentic assessment
7. Industry-link/Industry facing experience

MiCS Course level reporting highlights how each Course embraces the principles and practices associated with the Co-Operative Model. Evidence of Course alignment with the MiCS, can be captured in the Course Modification Form.

MICS Mapping has been undertaken for this Unit   No

Date:

Adopted Reference Style:

APA

Refer to the library website for more information

Fed Cite - referencing tool