Course Outline

Title: INTRODUCTION TO MAINFRAMES

Code: ITECH2114

Faculty / Portfolio: Faculty of Science

Program Level:

	AQF Level of Program					
	5	**6**	**7**	**8**	**9**	**10**
Level						
Introductory						
Intermediate			✔			
Advanced						

Pre-requisites: (ITECH1002)

Co-requisites: Nil

Exclusions: Nil

Progress Units: 15

ASCED Code: 020113

Learning Outcomes:

Knowledge:

K1. describe the basic concepts of mainframe computers including their usage and architecture

K2. discuss the fundamentals of a common mainframe operating system

K3. define typical mainframe workloads and its major areas of application

K4. outline the issues relating to system administration and application programming of mainframe computers

Skills:

S1. apply technical skills for maintaining job processes, status checking and evaluation of output

S2. implement and manage various types of mainframe data sets using system interfaces

S3. operate a job entry subsystem for control of job flows

S4. define, construct and run programs on a mainframe operating system

Application of knowledge and skills:

A1. demonstrate initiative and judgement to apply mainframe technologies and techniques to unique and diverse business contexts;

A2. relate and interpret emerging technologies of large computing systems to ever increasing business needs

Values and Graduate Attributes:

Course Outline

ITECH2114 INTRODUCTION TO MAINFRAMES

Values:

V1. Appreciate the importance of mainframe computing and its role in meeting the global needs of commercial and scientific communities
V2. Contribute to ever increasing global shortage of mainframe professionals

Graduate Attributes:

Attribute	Brief Description	Focus
Continuous Learning	In a blended learning approach facilitated by the use of contemporary industry based problems requiring planning, development and maintenance of jobs running on mainframe systems, students will continue to develop their knowledge and skills.	Medium
Self Reliance	Students will participate in a self-directed and collaborative learning environment to develop their theoretical and technical expertise in the field of mainframe computing.	Medium
Engaged Citizenship	Students will apply methods and techniques on mainframe systems, which meets industry design and accessibility standards.	Medium
Social Responsibility	By contributing to industry shortage of mainframe professionals students will have an obligation to act to benefit their customers, colleges and society at large.	Medium

Content:

Topics may include:

- Introduction to the mainframe environment
- Mainframe operating systems
- Working with data sets
- Batch processing
- Mainframe application programming
- Transaction and database management
- Messaging and queuing
- Mainframe security
- Network communication

Assessment:

Students should attend laboratory classes and complete laboratory worksheets. Students should maintain a folio and record for tutors to see at any time throughout the semester. Students should participate in lectures and computer laboratory classes and maintain a notebook with notes and exercises. The assessment for the subject will include at least one test during semester and a final examination will test the understanding of the concepts studied in this course.

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting

Course Outline

ITECH2114 INTRODUCTION TO MAINFRAMES

S1, S2, S3, S4, A1, A2	Attend lectures, read, summarise and apply theoretical aspects of the course, establish strong familiarity with practical application of material covered. Demonstrate the skills developed.	Lab Exercises, Practical tests and/or Assignments	30 - 50%
K1, K2, K3 and K4	Test on theoretical knowledge.	Tests and Examinations	50 - 70%

Adopted Reference Style:

APA

Presentation of Academic Work:

https://federation.edu.au/students/assistance-support-and-services/academic-support/general-guide-for-the-presentation-of-academic-work