

Course Outline

Title: MAINFRAME INTERFACE

Code: ITECH2116

Faculty / Portfolio: Faculty of Science

Program Level:

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

Pre-requisites: (ITECH2114)

Co-requisites: Nil

Exclusions: Nil

Progress Units: 15

ASCED Code: 020113

Learning Outcomes:

Knowledge:

- K1.** describe mainframe operating system and its end-user interfaces
- K2.** identify functions, utilities and libraries of Interactive System Productivity Facility (ISPF) and Program Development Facility (PDF) interfaces
- K3.** explain application framework for eBusiness and WebSphere application services
- K4.** describe Data Facility Storage Management Subsystem utilities
- K5.** explain integration of Unix System Services with z/OS
- K6.** interpret and manipulate batch jobs through the use of job control language
- K7.** research and discuss benefits to businesses using mainframes' processing power, capabilities and the numerous facilities to support day-to-day operations

Skills:

- S1.** operate with Interactive System Productivity Facility (ISPF) functions and utilities
- S2.** manipulate and run jobs for background processing
- S3.** manipulate datasets with selected utility programs
- S4.** interpret and code basic JCL statements
- S5.** interpret, create and execute CLIST, REXX and JCL scripts

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

Course Outline

ITECH2116 MAINFRAME INTERFACE

increasing business needs

Values and Graduate Attributes:

Values:

- V1. Appreciate the importance of mainframe computing and its role in meeting the global needs of commercial and scientific communities
- V2. Appreciate the contribution that graduates can make to the 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:

This course introduces students to the basic end-user mainframe interface. The course also covers the fundamentals of manipulating data sets, including browsing, viewing, and allocating data. Students will learn to customise the environment through edit modes and creating edit profiles. Advanced techniques like finding and changing text, excluding and redisplaying lines, and shifting text are described. This course teaches students how to code basic statements, create new data sets, refer to existing data sets, test condition codes, use conditional phrases, code in-stream and catalogued procedures, use symbolic parameters in procedures, use utility programs, and recognize and resolve common problems.

Topics may include:

- The basic end-user interface of the mainframe operating system, Interactive System Productivity Facility (ISPF), with special emphasis on the Program Development Facility (PDF),
- Application Framework for e-business; WebSphere Application Server for zOS
- Fundamentals of manipulating data sets, including browsing, viewing, and allocating data,
- Describing, inserting, repeating, copying, moving, and deleting lines using utilities,
- Foundation in using ISPF utilities,
- The processing phases of background jobs,
- z/OS Unix System Services,
- Scripting with CLIST, REXX and JCL

Course Outline

ITECH2116 MAINFRAME INTERFACE

Assessment:

For the first assessment task students will sit a written test in week 4. The test will be based on theoretical and practical knowledge obtained from the first 4 lectures and tutorial/laboratory exercises. For the second assessment students are required to submit a written assignment. The objective of this assignment is to write a report in conjunction with an annotated bibliography. Students are expected to write approximately 2500 words (excluding references) discussing benefits to businesses using mainframes' processing power, capabilities and the numerous facilities to support day-to-day operations. In the final exam students will be tested on the theoretical and practical knowledge obtained from all lectures and tutorial/laboratory exercises.

Learning Outcomes Assessed	Assessment Task	Assessment Type	Weighting
K1,K7, S1-S5, A1, A2	Attend labs, read and summarise theoretical aspects of the course, establish strong familiarity with practical application of material covered.	Exercises and/or Assignments	30-50%
K1-K6, S4, A1	Lecture attendance, reading of reference material and lecture notes	Supervised Test(s) and Examination(s)	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>