Module: Mainframe 361

Module name:	Mainframe 361
Code:	MFR361
NQF level:	6
Type:	Elective – Diploma in Information Technology (Networking Speciality)
Contact time:	48 hours
Structured time:	6 hours
Self-directed time:	46 hours
Notional hours:	100 hours
Credits:	10
Prerequisites:	OPS361

Purpose

Providing students of information systems technology with the background knowledge and skills necessary to begin using the basic facilities and concepts found within the mainframe Z/OS environment.

Outcomes

Upon successful completion of this module, the student will be able to:

- Demonstrate detailed knowledge about Z/OS basic concepts.
- Demonstrate the ability to evaluate, select, and apply appropriate methods within the Z/OS environment to create and modify datasets.
- Demonstrate the ability to use Job Control Language to perform administrative tasks.
- Demonstrate an understanding of utilities that allows administrator to monitor, control and view the output of jobs in the Z/OS environment.
- Demonstrate the ability to identify, analyse, solve problems and trouble shoot JCL code.
- Demonstrate an understanding of OLTP and batch workloads.

Assessment

Assessment is performed using a variety of instruments:

- Continuous evaluation of theoretical work through a written assignment, 1 formative test and a summative test.
- Continuous evaluation of project work, where the student must design, manage and report on the evaluation of testing methodologies and the selection of an appropriate methodology for a given scenario, justifying the choice made with well-formed arguments and evidence.
- Final assessment through an examination.
- The assignments or projects collectively will count 30% of your class mark.
- All tests will collectively account for 70% of your class mark.
- Your class mark contributes 30% towards your final mark for the subject, while the final assessment accounts for 70% of your final mark.

Teaching and Learning

Learning materials

Prescribed books (EBSCO)

📖 ***IBM Red books master the Mainframe.***

Learning activities

Learning will be facilitated by the lecturer with student centred activities that involve problem-based learning where pupils are presented with challenges that replicate the situation in the real-world environment. This will be achieved through a combination between presentation of theoretical concepts, guided exercises, group work and discussions during the module. One compulsory assignment and a project must be completed during this course.

Notional learning hours

Activity	Units	Contact Time	Structured Time	Self-Directed Time
Lecture		41.0		15.0
Formative feedback		5.0		
Project	1	2.0		7.0
Assignment	1			3.0
Test	2		4.0	9.0
Exam	1		2.0	12.0
		48.0	**6.0**	**46.0**

Syllabus

- History of mainframe computing
- Introduction to the new mainframe.
- Mainframe hardware systems and high availability.
- Z/OS overview.
- TSO/E ISPF and interactive facilities of z/OS.
- Working with datasets.
- Using JCL and SDSF.
- Logical partitioning
- Batch processing and JES.