

Module: Mainframe 361

Module name:	Mainframe 361
Code:	MFR361
NQF level:	6
Type:	Elective – Diploma in Information Technology (Networking Speciality)
Contact time:	72 hours
Structured time:	12 hours
Self-directed time:	36 hours
Notional hours:	120 hours
Credits:	12
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 written assignments, formative tests, and a summative test.
- Continuous evaluation through tracking of progress, offering support, guidance and provision of constant stream of opportunities to prove mastery of subject material and pursuing more challenging work as they master the basics.
- Final assessment through an examination.

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.

Notional learning hours

Contact	Distance	Other	Type of learning activities	% Learning
y	y	n	Lectures (face-to-face, limited interaction or technologically mediated)	40%
y	y	n	Tutorials: individual groups	20%
n	y	n	Syndicate groups	10%
n	y	n	Independent self-study of standard texts and references (study guides, books, journal articles)	10%
n	y	n	Independent self-study of specially prepared materials (case studies, multi-media, etc.	20%

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.