



**MINDWORX**  
Academy.

## Mainframe Certification Training Programme

### Programme overview

The mainframe programme provides practical foundation-level training that enables immediate and effective participation in mainframe operations and digital roles. The programme comprises of a blend of theoretical training, real life scenario practical workshops and special projects culminating in web-based certification examinations. This unique learning structure ensures the most effective method of training and provides a higher standard of training.

### Programme outcomes

After completion of the programme, the learner will be able to design, maintain and develop programs in System Z, Assembler Language, master the TSO/ISPF commands on Mainframe to Excel in your work and project. The learners will also be able to create basic COBOL program and JCL, perform all TSO/ISPF operations in them and create small programs to be used as scripts or applications.

### Key benefits

#### Clients

- Tax rebates
- B-BBEE benefits - Skills Development, Preferential Procurement, Enterprise Development
- Skilled entry-level graduates
- Analytical and process-oriented graduates

#### Graduates

- National Certificate qualification
- Behaviour shift
- Work-readiness
- Mentoring and coaching sessions (12 months)



## Content overview

### Mainframe introduction

- Business performance of mainframes
- Batch jobs and online transaction processing
- Application developer responsibilities
- Production control analyst responsibilities
- System programmer responsibilities
- System administrator responsibilities
- Business and enterprise class mainframes
- Batch, TSO and starter tasks
- Job entry subsystem
- Interactive applications panels

### Mainframe fundamentals

- To introduce delegates to the z/OS operating system and the IBM mainframes on which it runs
- It introduces z/OS terminology and explains the main concepts employed by z/OS in performing its functions

### Introduction to the IBM System Z Architecture

- Design, maintain and develop programs in System Z Assembler Language

### TSO/ISPF fundamentals

- Master the TSO/ISPF commands on Mainframe to excel in your work and project
- Students will be able to create basic COBOL program and JCL and perform all TSO/ISPF operations in them
- Perform all the major TSO/ISPF operations and line commands on COBOL program
- Reduce daily work by 20% by applying these TSO/ISPF commands
- Write all TSO/ISPF commands on your mainframe server and use it in your project
- Manipulate keys to display your own custom keys
- Relation between TSO and ISPF and create PS and PDS file
- Apply the principles of designing computer system inputs and outputs

### System Z Architecture

- Identify and understand the operation of the primary components that are incorporated in a typical general purpose mainframe computer
- List the functions of the system components that comprise the IBM zSeries architecture
- Understand the principles of operation of the system components in an IBM zSeries environment



## Content overview

### zOS REXX Workshop

- Replace existing JCL procedures with equivalent REXX shells
- Create small programs to be used as scripts or applications

### zOS JCL Workshop

- Better understand job flow and improve system throughput
- Diagnose and resolve JCL problems
- Optimise equipment use through proper use of resources
- Improve programmer efficiency and reduce test time

### Programme delivery structure

12 month training

- 2-3 months classroom training
- 10 months work-based experience
- Contact sessions
- Peer learning and research
- Practical activities
- Action learning projects
- Workplace exposure
- Key skills in Agile, Data Analytics etc

### Some happy clients



### Parallel Sysplex & Virtualisation

- Identify the major hard/software components of a Base and Parallel SYSPLEX
- Identify the z/OS environments which support a parallel SYSPLEX, including the S/390 microprocessor cluster
- Define groups, members and communication links between participating systems
- Understand the role of the z/OS Coupling Facility in providing shared data access using parallel processor architecture
- Understand and use the system commands to support a Parallel SYSPLEX

### zOS File Systems

- Describe the zOS file systems and understand the usage requirements for each of the file systems
- Create and maintain any of the described file organisations