



Junior Programmer

(FET Certificate:
IT Systems Developer NQF4)

Overview

Systems Development is the writing of computer programs to counteract problems experienced by the computer user. This programme will suit individuals who have strong analytical and logical abilities and **problem-solving skills**.

This programme will develop your **coding language skills** and provide you with a solid foundation in Information Technology. The qualification includes a national certificate and multiple local- and internationally recognised certifications to maximise employability. On completion of this programme, you will possess an IT Qualification, coupled with interpersonal and business skills in preparation for specialisation in Systems Development fields.

Features & Benefits

- All learning is delivered via our **myWay Hybrid Learning** methodology. This technology-driven learning method allows for a flexible class schedule with access to classes anywhere, anytime.



- Get a free **Office 365 Education A1 license**, valid for the duration of your studies.



- Job placement assistance through our industry network and online recruitment portal, exclusively available to **AIE graduates**. Visit www.recruitgraduates.co.za for more.



- Get a free **Adobe Photoshop license** to use while completing the relevant subjects



Articulation Options

- Direct access to National Certificate: IT Systems Support, SAQA ID 48573, NQF Level 5 (Server/Network Technician)
- Direct access to National Certificate: IT Systems Development, SAQA ID 48872, NQF Level 5 (Computer Programmer)

Curriculum

Term 1

Digital Literacy A

- Microsoft Office Word
- Microsoft Office Excel
- Microsoft Office Outlook

Introduction to Communication

- Written and verbal communication
- Effective verbal and written communication
- Language usage
- Writing in different contexts

Business Communication

- Compose texts required in the business environment
- Oral and written communication
- Read analyse and respond to a variety of texts

Duration

Full-Time, Hybrid Learning

- 12 Months, 163 credits**
- Full-time students are engaged throughout the week in a variety of mentored activities presented in hybrid format to allow students the flexibility to attend on campus or from home.
- Credits are completed via on-campus studies or at-home learning.
- This blended learning approach combines online Virtual Classrooms, at home exercises, project-based assignments, and fully developed video lectures.

Part Time, Hybrid Learning

- 12 Months, 147 credits**
- 2 Hours per week - live online class on selected weekday evenings from 18:00 to 20:00. Additional sessions via Hybrid learning on selected Saturdays providing students with the flexibility to attend on campus or study at-home.
- Credits are completed via on-campus studies or at-home learning.
- This blended learning approach combines online Virtual Classrooms, at home exercises, project-based assignments, and fully developed video lectures.

Online, Virtual Classes

- 12 Months, 147 credits**
- 2 Hours per week - live online class on selected weekday evenings from 18:00 to 20:00.
- Credits are completed via on-campus studies or at-home learning.
- This blended learning approach combines online Virtual Classrooms, at home exercises, project-based assignments, and fully developed video lectures.

**Sessions are grouped together to decrease travel costs where possible. Please note that schedules are subject to change.*

Mode of Delivery

- Full Time
- Part Time
- Online

Introduction to Computer Systems

- Principles of computer networks
- Computer architecture concepts
- Computer data storage techniques
- IT system testing
- Computer systems and hardware configurations

Computers in Organisations

- Information systems analysis and requirements
- Computer usage in organisations
- Information system departments in organisations

Term 2

Oracle Java Foundations

- Introduction to Java
- Java Data Types, Operators, and Strings
- Using the Random and Math Classes
- Decision and Looping Statements
- Debugging and Exception Handling
- Arrays and ArrayLists
- Classes and Constructors
- Java Methods

Term 3

Mathematics Literacy

- Mathematics fundamentals
- Calculations and analysis
- Applying mathematics in various contexts

IT Service Delivery

- IT Service Support functions and service levels
- Resolving IT user complaints

Oracle DB Foundations

- Database Concepts
- The Language of Database and Data Modeling
- Data Modeling – Creating the Physical Model
- Mapping the Physical Model
- Introduction to SQL

Term 4

Communication Skills

- Apply comprehension skills to engage oral texts in a business environment
- Participate in groups and/or teams to recommend solutions to problems
- Apply problem solving strategies

MS Azure Fundamentals

- Cloud concepts
- Azure services, solutions, and tools
- Security, identity, governance, privacy, and compliance features
- Azure cost management and Service Level Agreements

MS Azure Data Fundamentals

- Core data concepts
- Working with relational and non-relational data on Azure
- Analytics workloads on Azure

Career Options

- Junior programmer
- Code testing and maintenance
- Coding analyst
- Database developer

Study Kit

Your study kit is included in your fees and will contain:



- **Free WIFI** (Unlimited, On Campus only).
- Electronic study guides.
- **Stationery kit that includes:**
 - AIE Notepad
 - AIE Pen, Ruler & Pencil Case
- Orientation kit including: Student Card, Welcome Letter and Getting Started Guide.
- Access to our **myAIE** student portal and student support team via phone, email and tickets.

What you get

This qualification has been designed to provide the student with a nationally recognised certificate that will allow them to enter the job market as a junior IT staff member, or to progress to further studies in IT. On completion the student will earn the following:

National Qualification:

- FET Certificate: IT Systems Development
SAQA ID: 24294, NQF Level 04

Salaries & Skills

SALARIES (ANNUAL)



* All statistics are derived from www.payscale.com