THE INDEPENDENT INSTITUTE OF EDUCATION

This is to certify that

AIDAN KEITH NAIDOO

was awarded the

BACHELOR OF COMPUTER AND INFORMATION SCIENCES IN APPLICATION DEVELOPMENT

With Distinction

having satisfied the academic requirements for the programme on

31 DECEMBER 2024

Director of The IIE

Registrar

THE INDEPENDENT INSTITUTE OF EDUCATION IIE

Transcript Supplement Report by Student

Qualification Code: BCAD0701 Qualification Name: Bachelor of Computer and Information Sciences in Application Development

Qualification Faculty: Faculty of Information and Communications Technology

NQF Level: NQF 7

SAQA Code: 97600

Qualification Credits: 360

Module Code	Module Name	Module Purpose	Module NQF Level	Module Credit
ADDB7311	Advanced Databases	The purpose of this module is to advance and develop your applied skills in database design and implementation within a commercial database management system.	NQF Level 7	15
APDS7311	Application Development Security	This module provides students with a solid grounding in web application security. It covers authentication and authorization and session management as well as database and file security. Vulnerability detection and secure development are an important focus in this module.	NQF Level 7	15
CLDV6211	Cloud Development A	The purpose of this module is to extend the students programming expertise to the cloud. Students will learn how to create scalable applications for the cloud.	NQF Level 6	15
CLDV6212	Cloud Development B	The purpose of this module is to build on the introduction of cloud computing by focusing on systems architectural programming.	NQF Level 6	15
DBAS6211	Databases	The purpose of this module is to provide students with the knowledge and applied skills necessary for the design, implementation and management of database systems.	NQF Level 6	15
INRS7321	Introduction to Research	The purpose of this module is to introduce students to the process of research and to develop in them an ability to assess the validity of research findings by defining a research question and to develop an understanding of the processes and techniques of gathering, analysing, interpreting and evaluating data. Emphasis is placed on theoretical principles and procedures as well as ethical considerations. Skills are developed through controlled application of techniques as well as in interpretation and critical analysis of research in a relevant field of study.	NQF Level 7	15
IPMA6212	IT Project Management	The purpose of this module is to provide the student with the knowledge and skills required to effectively apply the Project Management Body of Knowledge elements in planning, organising, controlling and leading Information Technology projects integrated solutions in an organisation	NQF Level 6	15
ITPP5112	IT Professional Practice	This module provides a practical and theoretical foundation in developing the skills required as a Professional IT graduate in the workplace.	NQF Level 5	15
MAPC5112	Mathematical Principles for Computer Science	The purpose of this module is to provide students with a foundational knowledge of the basic mathematical principles and logical skills to solve Application Development and Networking problems.	NQF Level 5	15
NWEG5111	Network Engineering 1A	The purpose of this module is to develop students' understanding of the basic theoretical concepts of network architecture which include topologies, protocols, media and network standards and models. Students gain practical experience in configuration and troubleshooting local area networks.	NQF Level 5	15

NWEG5122	Network Engineering 1B	The purpose of this module is to provide students with the theoretical knowledge and practical application of the architecture of network systems . The module combines the design principles and technologies of computer architecture, embedded systems, algorithms, and networking. Students will gain the necessary skills to solve a broad range of problems in network system design, including issues related to performance, scalability, security, and power efficiency.	NQF Level 5	15
OPSC7311	Open Source Coding (Introduction)	The purpose of this module is to introduce students to open source software development for mobile devices.	NQF Level 7	15
OPSC7312	Open Source Coding (Intermediate)	The purpose of this module is to provide students further knowledge in well-designed; well coded; and business oriented open source software development for mobile devices.	NQF Level 7	15
PRLD5121	Programming Logic and Design	The purpose of this module is to provide students with foundational and practical knowledge required for effective programming. Students learn the various programming concepts and approaches and then proceed to study more complex concepts and elements critical to a good understanding of programming methodology.	NQF Level 5	15
PROG5121	Programming 1A	The purpose of this module is to provide foundational knowledge that is applied in an object-oriented programming language.	NQF Level 5	15
PROG6112	Programming 1B	The purpose of this module is to augment the skills acquired in Programming 1A by providing students with knowledge of applets, object inheritance and class manipulation and with the skills needed to apply this knowledge to finding programming solutions.	NQF Level 6	15
PROG6212	Programming 2B	The purpose of this modules is to build on the skills and knowledge gained in Programming 2A and further develop applications through the addition of advanced OOP, GUI and database concepts. These skills aim to provide students with the ability to develop complete software solutions for given business requirements.	NQF Level 6	15
PROG6221	Programming 2A	The purpose of this module is to provide the students with an introduction to a multi-purpose object-oriented programming (OOP) computer programming language. Students are taught the language fundamentals as well as the more advanced OOP development features, An in-depth understanding of predefined structures, objects and classes as well as object oriented programming techniques are covered.	NQF Level 6	15
PROG7311	Programming 3A	The purpose of this module is to build on the object-oriented concepts learnt in Programming 2B to an advanced level, developing large integrated systems.	NQF Level 7	15
PROG7312	Programming 3B	The purpose of this module is to cover advanced Object-oriented programming topics such as data structures, pointers, overloading of operators, templates and recursion to create advanced programming solutions.	NQF Level 7	15
PRSE6212	Principles of Security	The purpose of this module is to provide students with a theoretical grounding in network security principles as well as the skills needed to protect a network, network resources and network communications against security breaches. Appropriate responses to security breaches are also investigated in this module. Further, this module will introduce students to the use of disaster recovery policies to ensure business continuity.	NQF Level 6	15
SAND6221	System Analysis and Design	The purpose of this module is to focus on the analysis of systems in business, with the objective to improve or enhance or evaluate such systems. The Systems Development Life Cycle (SDLC) and Object-Oriented principles form the basis of this module and students are taught to consider various important aspects of systems design in terms of requirements, static and dynamic modules, and user interfaces.	NQF Level 6	15
SOEN6222	Software Engineering	The purpose of this module is to teach students the fundamental concepts of software engineering, using various design strategies and testing methods to plan and implement a software engineering process.	NQF Level 6	15
XBCAD7319	Work Integrated Learning 3	This module requires the students to integrate their knowledge and skills to develop software applications that meet specific given business requirements.	NQF Level 7	15