FACULTY OF INFORMATION TECHNOLOGY AND AGRICULTURE

NATIONAL CERTIFICATE (VOCATIONAL)

Information Technology and Computer Science LEVEL 2-4

ENTRY REQUIREMENTS
Grade 11 with a pass in Mathematics

DURATION
3 Years

WHAT IS THIS PROGRAMME ABOUT?
The Information Technology and Computer Science programme covers the interpretation of software applications, the installation of network cables, information technology principles and also data processing. This programme integrates academic knowledge and theory with practical skills and values.

WHAT VOCATIONAL ACTIVITIES WILL I BE ABLE TO PERFORM?
- Test programs and software applications
- Write computer programs
- Install network cables for computer systems
- Process computer data
- Develop, research and document computer user requirements

WHAT CAREER OPPORTUNITIES ARE OUT THERE?
- Computer Programming
- Information Technology Management
- Computer Systems Engineering
- Data Processing

WHAT SUBJECTS WILL I BE TAKING?

VOCATIONAL SUBJECTS

Level 2
- Introduction to Information Systems
- Electronics
- Introduction to Systems Development
- Office Data Processing

Level 3
- Systems Analysis and Design
- Computer Hardware and Software
- Principles of Computer Programming
- Office Data Processing

Level 4
- Systems Analysis and Design
- Data Communication and Networking
- Computer Programming
- Office Data Processing

WHAT DO THESE SUBJECTS ENTAIL?

OFFICE DATA PROCESSING

Office Data Processing is the effective processing and correct display of data in an office environment. You will learn to collect, analyse and edit data and to manipulate, process and present data in a readable form for society.

DATA COMMUNICATION AND NETWORKING

Data Communication and Networking is the scientific and engineering discipline concerned with communication between computer systems. In this subject you will be provided with basic and complex concepts related to computer networking, as well as skills for the designing and installation of local area computer networks.

INTRODUCTION TO SYSTEMS DEVELOPMENT

Introduction to Systems Development provides you with an introduction to and creates an awareness of the concepts relating to systems development while it also introduces the principles of problem solving application using a computer programming language.

SYSTEMS ANALYSIS AND DESIGN

L3: Systems Analysis and Design introduces you to the first important steps to the analysis of organisational systems.
L4: Systems Analysis and Design provides you with an understanding of how to conduct a systems analysis, and based on the findings, how to design and implement systems.

PRINCIPLES OF COMPUTER PROGRAMMING

L3: Principles of Computer Programming underpins the development of computer solutions to problems.
L4: Computer Programming involves the designing and programming of well-tested and user-friendly computer-based solutions to meet specific requirements.

COMPUTER HARDWARE AND SOFTWARE

Computer Hardware and Software provides you with competency skills for giving technical assistance in both hardware and software of the computer. This is a more practical subject, which will require you to build, install and fix hardware and software errors as well as do troubleshooting.

INTRODUCTION TO INFORMATION SYSTEMS

Introduction to Information Systems will give you an understanding of the information needs of an organisation and the information systems, tools and technologies used to support management and add value to the organisation.

ELECTRONICS

Electronics is a field of engineering and applied physics dealing with the design and application of devices, usually electronic circuits. You'll be introduced to different electronic parts and their functions and how to care for, handle and assemble the parts to form electronic systems, while building actual circuits and measuring the effects that the different components have on the electrical circuits. As many electronic systems use decision-making, you'll be introduced to basic programmable logic controllers. Electronics empowers you to learn about the sophistication of advanced technology in telecommunications and information technology.

WORCESTER
t: 023 348 6920
e: wor@bolandcollege.com

STRAND
t: 021 853 7611
e: strand@bolandcollege.com

STELLENBOSCH
t: 021 887 3027
e: stel@bolandcollege.com

PAARL
t: 021 872 3323
e: paarl@bolandcollege.com

CALEDON
t: 028 212 3270
e: cal@bolandcollege.com

HEAD OFFICE
t: 021 886 7111
e: hq@bolandcollege.com
www.bolandcollege.com

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