

Bachelor of Science (Hons) in Network Security and **Computer Forensics**

The Bachelor of Science (Honours) in Network Security and Computer Forensics is targeted at those wishing to enter the Information Technology (IT) sector as Computer Forensic Analysts, Vulnerability Security Research Engineers, Digital Forensic Examiners, Malware Media Forensic Analysts, Forensic Auditors, Network Security Specialists, Computer Crime Investigators or Security Analysts, among other things.

Programme details:

The programme consists of core (required) and elective modules as detailed below. Some modules may have pre-requisites (i.e. may require the student to pass another module or set of modules first). Some modules may be co-requisite (i.e. such modules are required to be taken together). The number at the end of the module in parenthesis indicates the credit load of the module. 1 credit is equal to 10 hours of learning (guided, in-class and independent combined); therefore a 10-credit module requires on average 100 hours of learning from the student.

Core modules:

- C5 ICO 11:Introduction to Computers (20)
- C5 MAT 11: Mathematics for Computing (20)
- D5 CSS 14: Communication & Study Skills (20)
- C5 CSA 11: Computer Systems Architecture (20)
- C5 OSH 11: Operating Systems & Hardware (20)
- C6 IPC 11: Introduction to programming using C++ (20)
- C6 QMD 11: Querying & Managing Database (40)
- C6 FNS 13: Fundamentals of Network Security (20)

- C6 LIE 19: Linux Essentials (20)
- C7 IDS 13: Information and Data Security (20)
- C6 CFD 13: Computer Forensics and Data Recovery (20)
- C7 JAV 11: Programming using Java (20)
- C7 PCS 19 Principles of Cyber Security (20)
- C7 BIF 13: Biometric Fundamentals (20)
- C7 NH1 11: Managing Network Hardware 1 (20)
- C7 EHK 13: Ethical Hacking (20)
- C7 CYL 17: Cyber Law (20)
- C7 PPR 11: Professional Practice (60)
- C8 NH2 11: Managing Network Hardware 2 (20)
- C8 MAN 13: Malware Analysis (20)
- C8 PRO 11: Project (40)

Electives

- C8 CCI 13 Cyber Crime Investigation (20) or C8 - WNA - 13 Windows Network Administration (20)
- B8 ENT 20 : Essentials of Entreprenuership
- C8 APD 20 : Analytical Product Design
- F8-ISD-18: Innovation for Sustainable Development

Semester 1:

- C5 ICO 11, C5 MAT 11, D5 CSS 14 Semester 2: • C5 - CSA - 11,C5 - OSH - 11, C6 - IPC - 11
- Semester 3:
- C6 QMD 11, C7 NH1 11
- Semester 4:
- C6 CFD 13, C6 LIE 19, C6 FNS 13
- Semester 5: • C7 - JAV - 11, C7 - PCS - 19, C7 - BIF - 13
- Semester 6:
- C7 EHK 13, C7 CYL 13, C7 IDS -19 Semester 7:
- C7 PPR 11,
- Semester 8:
- C8 NH2 11, C8 MAN 13
- Elective (one of C8 WNA 13, C8 CCI 13) Semester 9:
- C8 PRO 11, Elective (E8 ISD 18, B8 -ENT - 13.C8 - APD 20)

*The programmes offered in this document are accredited by BQA and offered at

Botho University at the time of print. Please refer to your offer letter from the admissions department for any changes in programme name or duration that may occur due to regulatory requirements.

FACULTY OF ENGINEERING AND TECHNOLOGY (Continued)

Admissions Criteria

1) Applicants are expected to have successfully completed secondary schooling. The typical entry requirement is BGCSE or IGCSE (in Botswana), LGCSE (in Lesotho) or other equivalent secondary school qualification.

2) BGCSE/equivalent with minimum Pass (D) in 5 subjects including English and Mathematics.

3) Applicants in possession of a Diploma or Higher Diploma in related field may be given exemptions based on the credit point equivalency.

4) For enquiries and more information please visit our website: **www.bothouniversity.com**

Bachelor of Science (Hons) in Computing

Programme details:

The programme consists of core (required) and elective modules as follow. Some modules may have pre-requisites (i.e. may require the student to pass another module or set of modules first). The number at the end of the module in parenthesis indicates the credit load of the module. 1 credit is equal to 10 hours of learning (guided, in-class and independent combined); therefore a 10-credit module requires on average 100 hours of learning from the student. B.Sc. (Hons) in Computing has three specialisation areas including: Software Engineering (SE), Network & Infrastructure Management (NW&IM) and General.

Core modules:

- C6-DMA-19: Discrete Mathematics (20)
- D5-CSS-14: Communication and Study Skills (20)
- C5 ICO 11: Introduction to Computers (20)
- C5 MAT 11: Mathematics for Computing (20)
- C5 CSA 11: Computer System Architecture (20)
- C5 OSH 11: Operating Systems & Hardware (20)
- C6 QMD 11: Querying and Managing Databases (40)
- C6 IPC 11: Introduction to Programming using C++ (20)

- C6 DMO 11: Database Management using Oracle (20)
- C6 LIE 19: Linux Essentials (20)
- C6 WDD 11: Web Design and Development (20)
- C7 JAV 11: Programming using Java (20)
- C7 MD2 11: Managing Business Desktops 2 (20)
- C7 ITP 11: IT Project Management (20)
- C7 DSA 11: Data Structures and Algorithms (20)
- C7 ADJ 11: Advanced Java (20)
- C7 NH1 11: Managing Network Hardware 1 (20)
- C7 WN1 11: Windows Network Administration 1 (20)
- C7-PPR-11: Professional Practice (60)
- C7 SEN 11: Software Engineering
- C8 IDE 11: Interaction Design (20)
- C8 LNA 11: Linux Network Administration (20)
- C8 NH2 11: Managing Network Hardware 2 (20)
- C8 WN2 11: Windows Network Administration 2 (20)
- C8 PRO 11: Project (40)

Elective modules:

- C7 PN1 11: Programming using .Net 1 (20)
- C7 CP1 11: Designing Creative
- Publications 1(20)
- C7 MD2 11: Managing Business Desktops(20)
- C8 MAD 11: Mobile
- ApplicationDevelopment (20)
- C8 3DA 14: 3D Design and Animation (20)
- C8 AIN 19 : Artificial Intelligence (20)
- C8 CP2 11: Designing Creative
- Publications 2 (20)
- C8 PN2 11: Programming using .Net 2 (20)
- C8 CLC 19: Cloud Computing (20)
- B8 ENT -13: Essentials of Entrepreneurship (20)

• E8 - ISD - 18: Innovation for Sustainable Development (20)

• C8 - APD -20 : Analytical Product Design

Recommended full-time study path for Software Engineering specialisation ($4\frac{1}{2}$ years):