MODULES
2020/21

25 years
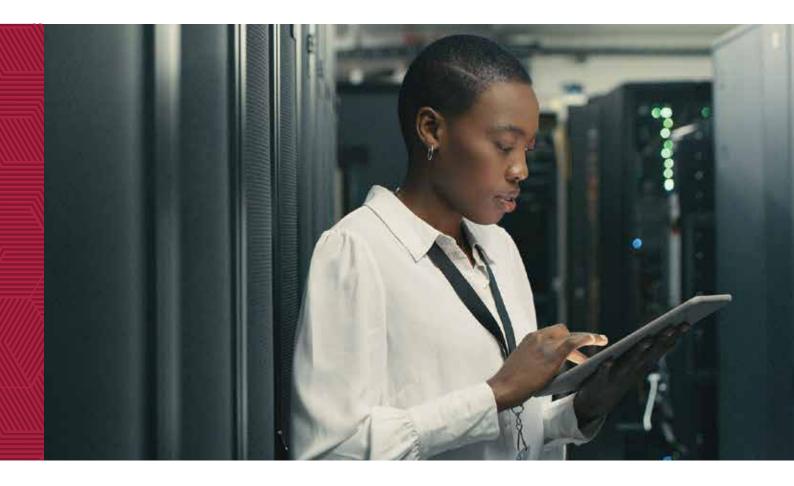BOTHO UNIVERSITY
1997 - 2022

FACULTY OF ENGINEERING & TECHNOLOGY

BACHELOR OF SCIENCE COMPUTER NETWORKING

https://botswana.bothouniversity.com/

BACHELOR OF SCIENCE COMPUTER NETWORKING

Programme details

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-CE1-20 Computer and its Essentials 1 (10)	C6-PUC-20 Programming using C++ (20)
C5-PLD-20 Programming Logic and Design (10)	C6-NSE-20 Network Security (10)
C5-MAT-20 Mathematics (10)	C6-RSW-20 Routing and Switching (10)
C6-PIE-20 Professional Issues and Ethics (10)	C6-RSL-20 Routing and Switching Lab (10)
C5-OSH-11 Operating Systems and Hardware (20)	C6-WDD-20 Web Design and Development (10)
C6-NEF-20 Networking Fundamentals (20)	C6-WDP-20 Web Design Practice Lab (10)
C6-DBC-20 Database Concepts (10)	C6-EOL-20 Essentials of Linux (10)
D6-AWS-20 Academic Writing for STEM (10)	C6-DSA-20 Data Structures and Algorithms (10)
C6-CE2-20 Computer and its Essentials 2 (10)	C6-SCN-20 Scaling Networks (20)
C6-CSA-20 Computer System Architecture (10)	C7-LWD-20 LAN and WAN design (10)

BACHELOR OF SCIENCE COMPUTER NETWORKING

Core Modules (Continued)

C7-LWL-20 LAN and WAN design Lab (10)

C7-WNS-20 Wireless Networks (10)

C7-ITM-20 IT Infrastructure Management (10)

C7-PNA-20 Principles of Network Administration (20)

C7-RMS-20 Research Methods for STEM (10)

C7-IPR-20 Implementing IP Routing (10)

C7-ISM-20 IT Service Management (10)

C7-DAS-20 Database Administration and Security (20)

B8-ENI-20 Entrepreneurship and Innovation (20)

C7-ISN-20 IP Switched Networks (10)

C7-RP1-20 Research Project 1 : Proposal Writing (10)

C7-SDN-20 Software Defined Network Engineering (10)

C7-PPC-20 Professional Practice in Computing (40)

C8-RP2-20 Research Project 2 : Dissertation (20)

Elective modules:

Select one from the following:

- C7-EIN-20 Enterprise and ISP Network Solutions (10)
- C7-CCS-20 Cloud Computing and Security (10)
- C7-SDE-20 Security by Design (10)

Select one from the following:

- C8-MAS-20 Media and Storage (10)
- C8-CYO-20 Cybersecurity Operations (10)
- C8-TRS-20 Troubleshooting Routing and Switching (10)

Recommended full-time study path (4½ years)

Semester 1
- C5-CE1-20 Computer and its Essentials 1 (10)
- C5-PLD-20 Programming Logic and Design (10)
- C5-MAT-20 Mathematics (10)
- C6-PIE-20 Professional Issues and Ethics (10)
- C5-OSH-11 Operating Systems and Hardware (20)

Semester 2
- C6-NEF-20 Networking Fundamentals (20)
- C6-DBC-20 Database Concepts (10)
- D6-AWS-20 Academic Writing for STEM (10)
- C6-CE2-20 Computer and its Essentials 2 (10)
- C6-CSA-20 Computer System Architecture (10)

Semester 3
- Managing Business Desktops using Windows (10)
- C6-PUC-20 Programming using C++ (20)
- C6-NSE-20 Network Security (10)

- C6-RSW-20 Routing and Switching (10)
- C6-RSL-20 Routing and Switching Lab (20)

Semester 4
- C6-WDD-20 Web Design and Development (10)
- C6-WDP-20 Web Design Practice Lab (10)
- C6-EOL-20 Essentials of Linux (10)
- C6-DSA-20 Data Structures and Algorithms (10)
- C6-SCN-20 Scaling Networks (20)

Semester 5
- C7-LWD-20 LAN and WAN design (10)
- C7-LWL-20 LAN and WAN design Lab (10)
- C7-WNS-20 Wireless Networks (10)
- C7-ITM-20 IT Infrastructure Management (10)
- C7-PNA-20 Principles of Network Administration (20)

BACHELOR OF SCIENCE COMPUTER NETWORKING

Recommended full-time study path (Continued)

Semester 6
- C7-RMS-20 Research Methods for STEM (10)
- C7-IPR-20 Implementing IP Routing (10)
- C7-ISM-20 IT Service Management (10)
- C7-DAS-20 Database Administration and Security (20)

Elective – (Select one module from below)
- C7-EIN-20 Enterprise and ISP Network Solutions (10)
- C7-CCS-20 Cloud Computing and Security (10)
- C7-SDE-20 Security by Design (10)

Semester 7
- B8-ENI-20 Entrepreneurship and Innovation (20)

- C7-ISN-20 IP Switched Networks (10)
- C7-RP1-20 Research Project 1 : Proposal Writing (10)
- C7-SDN-20 Software Defined Network Engineering (10)

Elective – (Select one module from below)
- C8-MAS-20 Media and Storage (10)
- C8-CYO-20 Cybersecurity Operations (10)
- C8-TRS-20 Troubleshooting Routing and Switching (10)

Semester 8
- C7-PPC-20 Professional Practice in Computing (40)
- C8-RP2-20 Research Project 2 : Dissertation (20)

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. BGCSE or IGCSE (in Botswana), LGCSE (in Lesotho) candidates are required to achieve a minimum grade of 'D' in five subjects.

2) The applicant should have passed in a minimum of five BGCSE or equivalent subjects including English, Mathematics and either one of Physics, Double Sciences, or PC (Physics and Chemistry).

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

4) For enquiries and more information please visit our General Admissions Information page