

Bachelor of Science in Computer Networking

Programme details:

This programme consists of core modules (required) which are combination of 10 credit and 20 credit modules, Elective modules and 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 core requisite (i.e. such modules are required to be taken together). 1 credit is equal to 10 hours of learning (guided, in-class and independent combined); therefore a 10-credit module requires on average 50 hours of learning from the student.

Core modules:

- 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)
- 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)
- C6-MDW-20: 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 (10)
- 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 Algorithm (10)
- C6-SCN-20: Scaling Networks (20)
- C7-LWD-20: LAN and WAN design (10)
- C7-LWL-20: LAN and WAN design Lab– 1 (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:

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

Semester 1:

- C5-CE1-20, C5-PLD-20, C5-MAT-20, C6-PIE-20, C5-OSH-11

Semester 2:

- C6-NEF-20, C6-DBC-20, D6-AWS-20, C6-CE2-20, C6-CSA-20

Semester 3:

- C6-MDW-20, C6-PUC-20, C6-NSE-20, C6-RSW-20, C6-SCN-20

Semester 4:

- C6-WDD-20, C6-WDP-20, C6-EOL-20, C6-DSA-20, C6-SCN-20

Semester 5:

- C7-LVWD-20, C7-LWL-20, C7-WNS-20, C7-ITM-20, C7-PNA-20

Semester 6:

- C7-RMS- 20, C7-IPR-20, C7-ISM-20, C7-DAS-20, Select one from (C7-EIN-20, C7-CCS-20, C7-SDE-20)

Semester 7:

- B8-ENI-20, C7-ISN-20, C7-RP1-20, C7-SDN-20, Select one from(C8-MAS-20, C8-CYO-20, C8-TRS-20),

Semester 8:

- C7-PPC-20, C8-RP2-20

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.

*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)



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

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Program Version Course List



14-07-2022

<u>Course Code</u>	<u>Course Description</u>	<u>Credits</u>	<u>Elective List</u>	<u>Pre-Requisite List</u>	<u>Co-Requisite List</u>	<u>PreElect</u>	<u>ResourceList</u>
CON-8BO-20	Bachelor of Science in Computer Networking						
				Weeks:208.00 Credits: 480.00			
Core							
B8-ENI-20	Entrepreneurship and Innovation	20.00					
C5-CE1-20	Computer and its Essentials 1	10.00					
C5-MAT-20	Mathematics	10.00					
C5-OSH-11	Operating Systems and Hardware	20.00					STDOS - Standard OS
C5-PLD-20	Programming Logic and Design	10.00					
C6-CSA-20	Computer System Architecture	10.00					
C6-DBC-20	Database Concepts	10.00					
C6-NSE-20	Network Security	10.00					
C6-PIE-20	Professional Issues and Ethics	10.00					
C6-RSL-20	Routing and Switching Lab	10.00					
C7-ISM-20	IT Service Management	10.00					
C7-ITM-20	IT Infrastructure Management	10.00					
C7-PNA-20	Principles of Network Administration	20.00					
C7-PPC-20	Professional Practice in Computing	40.00					
C7-SDN-20	Software Defined Network Engineering	10.00					
D6-AWS-20	Academic Writing for STEM	10.00					
C6-CE2-20	Computer and its Essentials 2	10.00		C5-CE1-20 - Computer and its Essentials 1			
C7-RMS-20	Research Methods for STEM	10.00		C5-MAT-20 - Mathematics			
C6-EOL-20	Essentials of Linux	10.00		C5-OSH-11 - Operating Systems and Hardware			
C6-MDW-20	Managing Business Desktops using Windows	10.00		C5-OSH-11 - Operating Systems and Hardware			
C6-NEF-20	Networking Fundamentals	20.00		C5-OSH-11 - Operating Systems and Hardware			

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C6-PUC-20	Programming using C++	20.00		C5-PLD-20 - Programming Logic and Design			
C7-DAS-20	Database Administration and Security	20.00		C6-DBC-20 - Database Concepts			
C6-RSW-20	Routing and Switching	10.00		C6-NEF-20 - Networking Fundamentals			
C7-WNS-20	Wireless Networks	10.00		C6-NEF-20 - Networking Fundamentals			
C6-DSA-20	Data Structures and Algorithms	10.00		C6-PUC-20 - Programming using C++			
C6-WDD-20	Web Design and Development	10.00		C6-PUC-20 - Programming using C+ +C5-PLD-20 - Programming Logic and Design			
C6-WDP-20	Web Design Practice Lab	10.00		C6-PUC-20 - Programming using C+ +C5-PLD-20 - Programming Logic and Design			
C6-SCN-20	Scaling Networks	20.00		C6-RSW-20 - Routing and SwitchingC6-RSL-20 - Routing and Switching Lab			
C7-LWD-20	LAN and WAN design	20.00		C6-SCN-20 - Scaling Networks			
C7-LWL-20	LAN and WAN Design Lab	10.00		C6-SCN-20 - Scaling Networks			
C7-ISN-20	IP Switched Networks	10.00		C7-IPR-20 - Implementing IP Routing			
C7-IPR-20	Implementing IP Routing	10.00		C7-LWD-20 - LAN and WAN designC7-LWL-20 - LAN and WAN Design Lab			
C7-RP1-20	Research Project 1 : Proposal Writing	10.00		C7-RMS-20 - Research Methods for STEM			
C8-RP2-20	Research Project 2 : Dissertation	20.00		C7-RP1-20 - Research Project 1 : Proposal Writing			
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35		470.00					

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Elective							
ELEC	Elective 1	10.00	C7-EIN-20 - Enterprise and ISP Network Solutions, C7-CCS-20 - Cloud Computing and Security, C7-SDE-20 - Security by Design				
ELEC	Elective 2	10.00	C8-MAS-20 - Media and Storage, C8-CYO-20 - Cybersecurity Operations, C8-TRS-20 - Troubleshooting Routing and Switching			C7-LWD-20 - LAN and WAN design C7-LWL-20 - LAN and WAN Design Lab, C7-IPR-20 - Implementing IP Routing	
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2		20.00					
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37		490.00					
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