NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of the Registrar

FACULTY OF COMPUTING AND INFORMATICS

PROSPECTUS 2025

NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS

PROSPECTUS 2025

*(Note: The final interpretation of all regulations in this Prospectus for the **Faculty of Computing and Informatics** shall be vested in Council)*

NOTE

The Prospectus for the *Faculty of Computing and Informatics* is valid for 2025 only. Curricula and Syllabi may be amended for 2026. It is obtainable free of charge from:

The Registrar
Namibia University of Science and Technology (NUST)
Private Bag 13388, Windhoek, NAMIBIA

Location:	13 Jackson Kaujeua Street, Windhoek
Telephone:	(+264-61) 207 2008 / 2118
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Although the information contained in this Prospectus has been compiled as accurately as possible, Council and Senate accept no responsibility for any errors and omissions, which may occur. The University retains the right to amend regulations or conditions without prior notice.

Due to the rapidly changing external environment that many programmes operate in, and the University's desire to remain constantly relevant in its offerings, some programmes may be significantly amended after publication of this Prospectus. Please consult our website for the latest versions of our curricula, syllabi and academic regulations.

The fact that particulars of a specific programme, field of study, subject, or course have been included in this Prospectus does not necessarily mean that such a programme, field of study, subject, or course will be offered in the academic year 2025.

CONTACT DETAILS

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		207 2004/5
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	Acting Deputy Vice Chancellor: Research, Innovation and Partnerships	207 2181
Office of the Registrar:	Registrar	207 2008/2118
	Assistant Registrar: Academic Administration	207 2351/2667
	Examinations Office	207 2027/2412
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Information & Communications Technology:	Director	207 2275
Library & Information Services:	Library, Enquiries and Loan Counter	207 2022/2621
Department of Student Services:	Director	207 2165
	Students Councillor	207 2270
	Cultural Department	207 2070
	Sports Department	207 2298
Students Representative Council:		207 2457
Hostels:		
Men: Shangri-La	Superintendent	207 2132
House Committee		207 2375
Call Office		229413/233130
Ladies: Mon Resa	Superintendent	207 2131
House Committee		207 2127
Call Office		229405/234193/ 233100
Ladies: Höpker	Superintendent	207 2131
House Committee		207 2130

NB: The international code in all numbers is +264-61

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SCHOOL OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

FACULTY OF COMPUTING AND INFORMATICS   CODE: 1

OFFICE OF THE EXECUTIVE DEAN

Acting Executive Dean	: **Prof Fungai Bhunu Shava,** PhD: IT (NMU), M.Sc: Comp Sci (UZ), B.Sc.: Comp Sci & Maths, (UZ PGCHE (NUST)

Secretary	: **Rauna Matheus,** Bachelor of Communication Honours (NUST), Bachelor of Communication (NUST), Diploma in Media Arts (College of the Arts)
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INDIA NAMIBIA CENTRE FOR EXCELLENCE INFORMATION AND TECHNOLOGY (INCEIT)   CODE: 18

Head of Centre	: **Dr Arpit Jain,** PhD Comp. Science (NUST), M. Tech in Information Technology (IETDAVV), B.Tech: Information Technology (RGPV), Certification: DB2, Lotus Domino, IBM TGMC Mentor
Secretary	: **Vacant**

Academic Staff	: **Frans Luciano Haingura,** M.Sc.: Comp Sci (NUST), B.IT Software Dev. (NUST), ND: Information Technology (PoN), Cert.: Big Data Tech. (NUST)
	: **Ndeshihafela Kakwambi,** M.Sc.: Comp Sci (NUST), B. Comp. Sci.Hons.: Comm. Networks (NUST) Bachelor of Computer Science in Systems Administration and Networks (PoN), ND: Information Technology (PoN), Cert.: Ethical Hacking & Info. Security (NUST)

SCHOOL OF COMPUTING

Associate Dean	: **Prof Guy-Alain Zodi Lusilao,** PhD. Elec. Eng (UCT), M.Sc.: Comp. Science (US), PG Dip: Math.Sc. (AIMS-SA), B.Sc Hons.: Computing & Maths, Cum Laude (Univ. Kinshasa)

Secretary	: **Rachel Amundaba,** Master of Logistics and Supply Chain Management (NUST), B. Logistics Hons (NUST), B.Tech Business Admin (PoN), Dip.: Com
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DEPARTMENT OF COMPUTER SCIENCE   CODE: 22

Head of Department	: **Edward Nepolo,** M.Sc.: Comp Sci (NUST), B. Comp.Sci.Hons.: Comm. Network (NUST), B.IT Systems Admin & Netw (PoN)

Academic Staff	: **Prof Dharm Singh Jat,** PhD: Comp. Sci & Eng (MLSU, India), ME: Comp.Sci & Eng: (India)
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	: **Albertina Shilongo,** M. Informatics (NUST), PGD: Big Data Analytics, CDAC, India, B.IT Hons.: Comp. Netw (PoN)
	: **Jovita N. Mateus,** M.Sc.: Comp. Sci (NUST), B. Comp. Sci. Hons.: Comm. Netw (NUST, B.IT: Syst. Admin & Netw (PoN)
	: **Peter Gallert,** M.A. Logic, Media Sci (Leipzig), CCAI
	: **Teresia Ankome,** M. Sc.: Comp. Sci (NUST), B. Comp. Sci. Hons.: Comm. Networks (NUST), B.IT: Syst. Admin & Netw (PoN)
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DEPARTMENT OF CYBER SECURITY   CODE: 19

Head of Department   : **Prof Mercy Bere-Chitauro,** PhD. Comp. Sci (NUST), MIT (Comp. Net.), (Polytechnic of Namibia), B.Sc.: Comp Sci & Math (UZ), PGCHE (NUST)

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DEPARTMENT OF SOFTWARE ENGINEERING   CODE: 29

Head of Department   : **Dr Simon Muchinenyika,** PhD in Comp. Sci (NUST), MBA (UNIC), PGCHE (NUST), MIT (PoN), B.Sc Hons.: Comp. Sci (MSU)

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: **Prof Jose Quenum,** PhD: Comp. Sci (UPMC), M.Sc.: Comp. Sci (UPD, Paris), Maitrise Hons. (UPD, Paris), B.Sc.: Comp. Sci (UND, Benin)
: **Prof Ambrose Azeta,** PhD: Comp. Sci (CU, Nigeria), M.Sc.: Comp. Sci (UNILAG, Lagos), B.Sc.: Comp. Sci (UNIBEN, Benin), Dip.: Data Processing (UNIBEN, Benin)
: **Dr Gereon Koch Kapuire,** PhD: Comp. Sci (QUT), M.Sc.: Comp. Sci (UCT), B.Tech.: Bus. Comp (PoN), ND: Bus. Comp. (PoN)
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: **Josephina Mikka-Muntuumo**, M.Sc.: Comp. Sci (NUST), B.Sc Hons.: Comp. Sci & IT (UNAM), Oracle Database SQL Certified Associate

SCHOOL OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

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DEPARTMENT OF INFORMATICS   CODE: 37

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: **Prof Jude Osakwe,** PhD: Informatics (NUST, M.Sc.: IT (Nigeria), PGD Science Education (UAM), B.Sc Hons.: Stat (UNIZIK)
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: **Prof Gloria Iyawa,** PhD Info Syst (UNISA), M.Sc Comp (UNISA), B.Sc Hons.: Comp. Sci & IT. (UNAM)
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: **Nkululeko Mthembo,** M. Informatics (NUST), BBA Comp & Man IS (Solusi). PGCHE (NUST)

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	: **Andreas Kalimbo,** B Sys Admin & Networks (PoN), Dipl: IT (PoN), PGCHE (NUST)

DEPARTMENT OF JOURNALISM AND MEDIA TECHNOLOGY   CODE: 38

Head of Department:	: **Dr Phillip Santos,** PhD Jlsm & Media Studies (Rhodes Uni.), M.A Jlsm & Media Studies (Rhodes Uni.), BSc Hons Jlsm & Media Studies (NUST), ND Mass Comm/Broadcast Jlsm (Harare Poly), PGCHE (NUST)
Academic Staff	: **Dr Hugh Ellis,** PhD (Media Studies, Wits), MA (Journalism and Media Studies, Rhodes), B. Journalism (Rhodes)
	: **Dr Wanja Njuguna,** PhD Media Studies (UNAM), M.A Print Comm (Daystar Univ. Kenya) M. Pub Admin (Harvard Univ. USA), Post Graduate Certificate in Research Methodology (PGCRM) (Robert Goron Univ, Scotland), BA Comm (Messiah College USA)

DEPARTMENT OF DIGITAL ARTS AND ANIMATION   CODE: xx

Head of Department	: **Jordaania Andima,** MA Multimedia Journalism (Print & Online) University of Westminster, London; BA. Mass Media (Jlsm/Photography) University of the District of Columbia, United States); Post Graduate Certificate in Higher Education, NUST.
Studio Technician	: **Francois Andreas,** Apple Cert: Help Dest (Apple Online Course), Ass A+ Cert: CompTIA Online Course and Language (UNAM)

UNDERGRADUATE PROGRAMMES

QUALIFICATIONS OFFERED	CODES
Certificate in Advanced Web Technologies	07CAWT
Certificate in Big Data Technologies	07CBDT
Certificate in Ethical Hacking and Information Security	07CEHI
Bachelor of Computer Science (Systems Administration, Communication Networks or Software Development	07BACS
Bachelor of Computer Science (Systems Administration or Communication Networks)	07BCMS
Bachelor of Computer Science (Software Development)	07BCMS
Bachelor of Computer Science (Systems Administration or Communication Networks)	07BCSS
Bachelor of Computer Science (Software Development)	07BCSS
Bachelor of Computer Science in Cyber Security	07BCCS
Bachelor of Computer Science in Cyber Security	07BCCY
Bachelor of Informatics	07BAIF
Bachelor of Informatics	07BAIT
Bachelor of Journalism and Media Technology	07BJOU

Description

Computer Science and Informatics refer to the skills and knowledge needed to design applications and operate computer systems. Computer Science and Informatics Studies at the Namibia University of Science and Technology offer different areas of specialisations as well as different exit levels. Journalism and Media Technology equips students with theoretical knowledge and practical skills to produce news for a variety of media and responsibly report a wide range of social issues, as well as to represent organisations as public relations practitioners.

Bachelor of Computer Science in Cyber-Security: for those who successfully completed all requirements for the three-year degree of the phasing in (2021) programme.

Bachelor of Computer Science (Systems Administration, Communication Networks or Software Development) or Bachelor of Informatics: for those who successfully completed all requirements for the three-year of the phasing in (2020) programme.

Certificate in Advanced Web Technologies, Certificate in Big Data Technologies and Certificate in Ethical Hacking and Information Security: for those who successfully complete all requirements for the one semester certificate of the three CEIT programmes.

Bachelor of Journalism and Media Technology: For those who successfully completed all requirements for the three-year degree of the phasing in (2021) programme.

Special Faculty Assessment Regulations There are situations where assessment of an individual course provided by other Faculties will supersede assessment regulations. This reflected in the course documentation.

Final Examination consists of two papers: Theory and Practical

A sub-minimum of 40% must be obtained in each paper. The combined examination mark must be at least 50% overall. In-course mark and examination mark shall be used jointly to determine the final mark in the ratio of 50% (semester mark) to 50% (examination mark) or 60% (semester mark) to 40% (examination mark) or as specified in the course outline.

Course Evaluation for all courses offered by the Faculty utilising in-course assessment and a Theory Paper

An in-course mark is determined by continuous evaluation made up of tests and assignments during the semester. Students must have satisfactorily completed to the minimum standard (40% overall) all assignments and tests during the semester to be admitted to the final examination.

Final examination consists of one Theory Paper

A sub-minimum of 40% must be obtained in the examination. In-course mark and examination mark shall be used jointly to determine the final mark in the ratio of 50% semester mark to 50% examination mark.

In-course mark and examination mark shall be used jointly to determine the final mark in the ratio of 50% (semester mark) to 50% (examination mark) or 60% (semester mark) to 40% (examination mark) or as specified in the course outline.

Course Evaluation for all courses offered by the Faculty using Continuous Evaluation only
The semester mark is determined by continuous evaluation made up of a minimum of four assessments during the semester. The course mark is the final mark. Students must obtain a 50% mark to pass the course. Supplementary tests and extensions will be defined within the individual course outline.

Remote Teaching, Learning and Assessment (RTLA)
The semester mark is determined by continuous evaluation made up of a minimum of four assessments during the semester. The number of assessments for both existing continuous assessment courses and converted exam-based courses to continuous assessment courses are reduced from a minimum of four (4) assessment as per current regulation to three (3) assessments to ensure a consistent and equal number of assessments for all students;
50% of the weight of the assessments should be conducted under controlled conditions.
50% can be different assessments for example: two tests, but it should be conducted under controlled conditions similar to those under which the institutional examinations are conducted.

Controlled conditions include the following
* Timed tests on the MODDLE Platform;
* Structured questions that students answer on paper using a cam scanner and upload it after the test within 15 Minutes; and/or
* Using software (Safe Exam Browser) that block-restrict the use of any applications on a student's device.

NB: For all assessments, the NUST plagiarism policy applies

CENTRE FOR EXCELLENCE INFORMATION AND TECHNOLOGY (INCEIT) | **CODE: 18**

CERTIFICATE IN ADVANCED WEB TECHNOLOGIES | **07CAWT**

NQF Level: 7 | **NQF Credits: 60** | **NQF Qualification ID: Q2016**

Description

The Certificate in Advanced Web Technologies provides students with an understanding of the emerging approaches in Web technologies. It seeks to equip students with the practical skills required to design and implement Web applications. The programme will further expose students to advanced concepts, tools and methods used to build internet-based applications. The programme further aims to develop student's ability to communicate these insights to stakeholders within their respective organisations.

Graduates of this programme will be able to find employment in both the public and private sectors, in roles that include, but are not limited to lead developers in Software Development teams or designers. They can also team-up with other graduates and participate in a joint venture.

Admission Requirements

Applicants must have completed a Diploma programme at NQF Level 6 in Computer Science, Information Systems, Information Technology or Informatics or an equivalent qualification form an accredited institution. Applicants with one year experience in the afore-mentioned fields will be given priority.

Applicants from other science and engineering disciplines or with prior leaning experience may be admitted into this programme at the discretion of the Centre. Such applicants may be required to write a test or an interview to guide the selection.

Articulation Arrangements

Transfer of credits will be dealt with according to NUST regulations on Recognition of Prior Learning. This provides for course-by- course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50% of the total credits for the qualification.

The Certificate is a programme with a single exit route, referred to as the professional route and as such, articulation arrangements are only acceptable between programmes offered by the CEIT. The Certificate in Advanced Web Technologies will not lead to further academic study.

Mode of Delivery

The programme will be delivered on full-time (day and/or evening) in accordance with NUST rules. The e-learning platform, provided all requirements for such delivery mode are met, will be part and parcel of the delivery mode to enhance course content reachability and administration of assessments and student engagement.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Computer Programming Concepts	CPC711S	None	5	10
Web Programming 1	WPG711S	None	7	8
Database Concepts	DCS711S	None	7	8
Web Programming 2	WPG721S	None	7	12
JavaScript-based Web Technologies	JWT711S	None	7	10
Project	PRJ711S	None	7	12

CERTIFICATE IN BIG DATA TECHNOLOGIES   **07CBDT**

NQF Level: 7   **NQF Credits: 60**   **NQF Qualification ID: Q2015**

Description
The Certificate in Big Data Technologies (CBDT) provides students with an understanding of the emerging technologies that facilitate the storage, processing and analysis of bit data. It seeks to equip student with the practical skills required to turn large volumes of data into actionable insights. The programme exposes students to the design and building of platforms and systems that can handle the gigantic amount of data available today. The programme further aims to develop students' ability to communicate these insights to stakeholders within their respective organisations.

Graduates of this programme will be able to find employment in both the public and private sectors in roles that include but are not limited to software development, data analysis, Dev-ops (a new job description at the frontier of software development and infrastructure operations) and systems administration.

Admission Requirements
Applicants must have completed a Diploma programme at NQF level 6 in Computer Science, Information Systems, Information Technology or Informatics or an equivalent qualification from an accredited institution. Applicants with one-year experience in the afore-mentioned fields will be given priority.

Applicants from other science and engineering disciplines or with prior learning experience may be admitted into this programme at the discretion of the Centre. Such applicants may be required to write a test or an interview to guide the selection.

Articulation Arrangements
Transfer of credits will be dealt with according to NUST regulations on Recognition of Prior Learning. This provides for course-by- course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50% of the total credits for the qualification.

The Certificate is a programme with a single exit route, referred to as the professional rout and as such articulation arrangements are only acceptable between programmes offered by the Centre. The Certificate in Big Data Technologies will not lead to further academic study. E.G. Honours or Masters. The Certificate in Big Data Technologies will not lead to further academic study.

Mode of Delivery
The programme will be delivered on full-time (day and/or evening) in accordance with NUST rules. The e-learning platform, provided all requirements for such delivery mode are met will be part and parcel of the delivery mode to enhance course content reachability and administration of assessments and student engagements.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Fundamentals of Linux Programming	FLB711S	None	7	10
Java Programming	JVP711S	None	7	10
Database Concepts & Data Collection	DCD711S	None	7	10
Big Data Technologies	BDT711S	None	7	20
Project	PRB711S	None	7	12

CERTIFICATE IN ETHICAL HACKING AND INFORMATION SECURITY **07CEHI**

NQF Level: 7 **NQF Credits: 60** **NQF Qualification ID: Q2019**

Description

The Certificate in Ethical Hacking and Information Security aims to provide students with deeper insight, intellectual and cognitive skills related to the Information Technology (IT) security domain as well as prepare students to keep abreast with the ever evolving demands of the IT Industry. It seeks to equip students with the practical skills required to design and implement security measures in Computer Networks and Systems.

The programme will further expose students to advanced concepts, tools and methods used to protect internet-based systems and applications. Students will be able to take-up a certification course in the field of Information Security and may become members of professional/association bodies such as Certified Information Systems Security (CISSP), Certified Intrusion Analyst (CIA) and System Security Certified Practitioner (SSCP). The programme further aims to develop students' ability to communicate these insights to stakeholders within their respective organisations.

Graduates of this programme will be able to find employment in both the public and private sectors in middle level positions that include but are not limited to Penetration Testers, IT Security Engineers and Security Analysis.

Admission Requirements

Applicants must have completed a Diploma programme at NQF Level 6 in Computer Science, Information Systems, Information Technology or Informatics or an equivalent qualification from an accredited institution. Applicants with one-year experience in the afore-mentioned fields will be given priority.

Applicants from other science and engineering disciplines or with prior learning experience may be admitted into this programme at the discretion of the Centre. Such applicants may be required to write a test or an interview to guide the selection.

Articulation Arrangements

Transfer of credits will be dealt with according to NUST regulations on Recognition of Prior Learning. This provides for course-by- course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50% of the total credits for the qualification.

The Certificate is a programme with a single exit route, referred to as the professional route and as such, articulation arrangements are only acceptable between programmes offered by the Centre. The Certificate in Ethical Hacking and Information Security will not lead to further academic study. E.g Honour or Masters.

Mode of Delivery

The programme will be delivered on full-time (day and/or evening) in accordance with NUST rules. The e-learning platform provided all requirements for such delivery mode are met will be part and parcel of the delivery mode to enhance course content reachability and administration of assessments and student engagement.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Fundamentals of Linux Programming	FLP711S	None	7	10
Java Programming with Crypto API	JVC711S	None	7	12
Secured Python Programming	SPP711S	None	7	7
Information and Application Security	IAS711S	None	7	10
Ethical Hacking	ETH711S	None	7	12
Project	PRJ711S	None	7	12

UNDERGRADUATE PROGRAMMES

SCHOOL OF COMPUTING

DEPARTMENT OF COMPUTER SCIENCE   **CODE: 22**
QUALIFICATIONS OFFERED
Bachelor of Computer Science (Systems Administration, Communication Networks or Software Development)   07BACS
Bachelor of Computer Science (Systems Administration or Communication Networks)   07BCMS
Bachelor of Computer Science (Systems Administration or Communication Networks)   07BCSS

BACHELOR OF COMPUTER SCIENCE   **07BACS**
(Systems Administration, Communication Networks or Software Development)
(Phasing out 2020-2024)

NQF Level: 7   **NQF Credits: 365**   **NQF Qualification ID: Q0513**

Description
The Bachelor of Computer Science aims at providing educational opportunities for students who are interested in and motivated to work as Computer Scientists. Software Developers, Systems Administrators or Communication Networks Specialists.

This programme is purposefully designed to provide skillful competent and motivated graduates for the increasing and numerous challenging tasks of Computing and Information Technology (CIT) in the country and the Khomas region at large. Students will have the opportunity to develop the required cognitive/intellectual skills, practical as well as key transferable skills and apply these to address/solve CIT related problems/challenges in the context of an organisation, or the community.

Overall, this degree specifically aims to:
*   Provide students with a sound foundation in the fundamental concepts, theories, frameworks and problem-solving techniques of CIT;
*   Develop the ability of students to analyse information from a wide range of sources;
*   Equip students with the requisite skills to work effectively as individuals and as members of a team;
*   Enable students to communicate effectively in the workplace.

The programme intends to provide a diverse range of skills and competencies that are both discipline-specific and job-related. The curriculum is structured to facilitate specialisation in the areas of Systems Administration, Communication Networks and Software Development. The programme also intends to facilitate the development of highly generic cognitive and intellectual skills that will enable graduates to apply their knowledge and learnt competencies to the practices of CIT taking into consideration international generally accepted practices.

Admission Requirements
Candidates may be considered for admission to the Bachelor of Computer Science if they meet the University's General Admission Requirements. In addition, students must have a minimum "D" Symbol in NSSC Mathematics at Ordinary Level or equivalent. The Faculty reserves the right to consider candidates who have a D-symbol in NSSC Mathematics at Ordinary Level or equivalent through other relevant criteria.

Articulation Arrangements
Transfer of credits will be dealt with according to the University's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science, students will ordinarily be able to pursue further studies in the same or a related cognate area of learning at NQF Level 8.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Mathematics for IT 1A	MIT112S	None	5	10
Programming 1	PRG510S	None	5	10
Management Information Systems	MNS511S	None	5	10
Computer Organisation and Architecture	COA511S	None	5	10

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Object Oriented Programming	OOP521S	Programming 1	5	10
Mathematics for IT 1B	MIT112S	Mathematics for IT 1A	5	10
Web Development Fundamentals	WDF521S	None	5	10
Introduction to Operating Systems & Networks	OSN521S	Computer Organisation and Architecture	5	10

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
IT Systems Security	ISS610S	Introduction to Operating Systems & Networks	6	12
Data Structures and Algorithms	DSA610S	None	6	12
Database Fundamentals	DBF510S	None	5	10
Introduction to Computer Networking	ICN511S	Introduction to Operating Systems & Networks	5	10
Applied Statistics & Probability for IT	ASP610S	Mathematics for IT 1B	9	14

Semester 4

ONE of the following Strands depending on specialisation

SYSTEMS ADMINISTRATION STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Operating Systems	OPS621S	Introduction to Operating Systems & Networks	6	12
Web Technologies	WTN620S	Introduction to Operating Systems & Networks	6	12
Systems Administration	SAD622S	Introduction to Operating Systems & Networks	6	12
Distributed Systems	DTS620S	Introduction to Computer Networking	6	12
Systems Audit	SAU620S	IT Systems Security	6	12

COMMUNICATION NETWORKS STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Operating Systems	OPS621S	Introduction to Operating Systems & Networks	6	12
Communication Networks	CMN620S	Introduction to Computer Networking	6	12
Systems Administration	SAD622S	Introduction to Operating Systems & Networks	6	12
Network Security	NWS620S	Introduction to Computer Networking IT Systems Security	6	12
Wireless Technologies	WLT620S	Introduction to Computer Networking	6	12

SOFTWARE DEVELOPMENT STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Operating Systems	OPS621S	Introduction to Operating Systems & Networks	6	12
Distributed Systems Programming	DSP620S	Object Oriented Programming	6	12
Programming 2	PRG620S	Programming 1	6	12
Software Engineering 1 and HCI	SHE620S	Web Development Fundamentals	6	12
Database Programming and Techniques	DPT621S	Database Fundamentals	6	12

YEAR 3
Semester 5

Sustainability and Development	SYD611S	None	6	12

Plus ONE of the following Strands depending on Specialisation and based on choice made in Semester 4

SYSTEMS ADMINISTRATION STRAND

Innovation, Creativity and Entrepreneurship	ICE712S	None	7	12
Internet and Intranet Systems Administration	IIS711S	None	7	12
Computer Forensics	CFR712S	Systems Audit	7	12
Systems Virtualisation	SVT710S	Operating Systems	7	12

COMMUNICATION NETWORKS STRAND

Innovation, Creativity and Entrepreneurship	ICE712S	None	7	12
Internet and WAN Telecommunication	IWT711S	Communication Networks	7	12
Network Design and Performance	NDP710S	Communication Networks	7	12
Systems Virtualisation	SVT710S	Operating Systems	7	12

SOFTWARE DEVELOPMENT STRAND

Innovation, Creativity and Entrepreneurship	ICE712S	None	7	12
Artificial Intelligence and Computer	AIG710S	Applied Statistics & Probability for IT Data Structures and Algorithms	7	12
Data and Web Mining	DWM710S	Database Programming and Techniques	7	12
Advanced Programming	APG710S	Data Structures and Algorithms	7	12

Semester 6

Work Integrated Learning (WIL)	WIL710S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	48

Plus ONE of the following Strands depending on Specialisation and based on choice made in previous Semesters

SYSTEMS ADMINISTRATION AND COMMUNICATION NETWORKS STRAND

Project Management	PTM721S	None	7	12
Database Administration	DBA721S	Database Fundamentals and Systems Admin	7	12

SOFTWARE DEVELOPMENT STRAND

Project Management	PTM721S	None	7	12
Software Engineering 2	SEN721S	Software Engineering 1 and HCI	7	12

BACHELOR OF COMPUTER SCIENCE   **07BCMS**
(Systems Administration or Communication Networks)
(Phasing out 2025)

NQF Level: 7   **NQF Credits: 395**   **NQF Qualification ID: Q2250**

Description
The Bachelor of Computer Science aims at providing an educational opportunity for students who wish to be trained in computer science with a specialisation in Software Development, Systems Administration and Communication Networks. The programme will give students an opportunity to apply principles of computing and develop the cognitive and practical skills to address the growing demand in Software Development, Systems Administration and Communication Networks in the country, the region and worldwide. Additionally, the programme aims to equip students with the technical and soft skills required to build software that appeals to their users and addresses real problems.

Overall, the programme aims to:
*   Provide students with a sound foundation in the fundamental concepts, theories and frameworks of Computing and Information Technology body of knowledge;

*   Equip students with a sound foundation in core concepts of computer science and soft-ware development, system administration, and communication networks;

*   Enable students to evaluate current technologies in computing and create high-quality software to address the challenges facing the knowledge economy that the world has embarked on.

*   Enable students to work effectively as individuals and as members of a team;

*   Enable students to communicate effectively in the workplace.

Graduates of this programme will be able to find employment in public and private sectors in various roles of Software Development specialists, Systems Administrators, and Network specialists. Furthermore, they will have the ability to exercise their creativity and create start-ups and companies with innovative solutions.

Criteria for Admission
Candidates may be considered for admission to the Bachelor of Computer Science if they meet the NUST General Admission Requirements (Part 1 of the Yearbook). In addition, applicants must have a minimum D-symbol in Grade 12/NSSC Mathematics at Ordinary Level, or equivalent.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Degree, graduates will be able to pursue their further studies in the same, or a related cognate area of learning at NQF Level 8.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science degree will be awarded to students credited with a minimum of 395NQF credits, and who have met the detailed requirements as set out below.

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the Namibia University of Science and Technology Yearbook. Students can specialise in Software Development, Systems Administration and Communication Networks.

Transition Arrangements
The Bachelor of Computer Science with specialisations in Software Development, Systems Ad-ministration and Communication Networks (old curricula) will be phased out systematically until 2024 with minimal disruption to existing students' learning progression.

The last intake of 1st year students for the Bachelor of Computer Science degree in Software Development, Systems Administration and Communication Networks (old curricula) was in January 2019. Students who were registered in 2019 for the 1st year of the Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (old curricula), and who failed more than 50 % of the courses at the end of 2019, will be required to change their registration to the Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (new revised curriculum) and will be granted credits on a course by course basis in accordance with the information in the Table below.

The Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (new/revised curriculum), will take effect from January 2020 and will be completely phased in by 2022.

Courses will only be offered based on the syllabi of new/revised courses in 2020, 2021 and 2022 (1st year), (2nd year), (3rd year). The new/revised curriculum will be offered from 2020.

Students who fail any of the courses in the old curricula will be required to repeat failed courses based on the syllabi of new/revised corresponding courses. Please refer to the Table below, for detailed information on the new/updated corresponding courses.

The deadline for the complete phasing out of the Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (old curricula) is 2024 after which students must automatically switch to the (revised curriculum).

Table 1 Courses to be credited

Bachelor of Computer Science (Systems Administration, Communication Networks and Software Development Strand) (Old Courses) (2014-2019)		Bachelor of Computer Science (Systems Administration, Communication Networks and Software Development Strand) (New/revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
BSC410S	Basic Science	BSC410S	Basic Science
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
MNS511S	Management Information Systems	BMC511S	Business Management Information Systems
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object Oriented Programming	PRG620S	Programming 2
ICT521S	Information Competence		None
MIT122S	Mathematics for IT 1B	MIC521S	Mathematics for Computing and Informatics 1B
WDF521S	Web Development Fundamentals	WAD621S	Web Applications Development
EPR511S	English in Practice	EPR511S	English in Practice
OSN521S	Introduction to Operating Systems & Networks	OPS611S	Operating Systems

(Students who fail the following old courses must register for the new/revised courses in the Bachelor of Computer Science as listed in this Table).

Table 2 Corresponding Courses to be done (if failed) - This is not a credit table

Bachelor of Computer Science (Systems Administration, Communication Networks and Software Development Strand) (Old Courses)		Bachelor of Computer Science (Systems Administration, Communication Networks and Soft-ware Development Strand) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
MNS511S	Management Information Systems	BMC511S	Business Management Information Systems
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object-Oriented Programming	PRG620S	Programming 2
MIT122S	Mathematics for IT 1B	MCI521S	Mathematics for Computing and Informatics 1B
WDF521S	Web Development Fundamentals	WAD621S	Web Application Development
OSN521S	Introduction to Operating Systems & Networks	OPS611S	Operating Systems

ISS610S	IT Systems Security	ISS611S	Information Systems Security Essentials
DSA610S	Data Structures and Algorithms	DSA521S	Data Structures and Algorithms 1
DBF510S	Database Fundamentals	DBF510S	Database Fundamentals
ICN511S	Introduction to Computer Networks	DTN611S	Data Networks
ASP610S	Applied Statistics & Probability for IT	ASP611S	Applied Statistics and Probability for Computing and Informatics
OPS621S	Operating Systems	OPS621S	Operating Systems
WTN620S	Web Technologies	WAS621S	Web Application Development
SAD622S	Systems Administration	SAD622S	Systems Administration
DTS620S	Distributed Systems	DSA612S	Distributed Systems and Applications
SAU620S	Systems Audit		None
CMN620S	Communication Networks	CMN620S	Communication Networks
NWS620S	Network Security	ADS711S	Advanced Network Security
WLT620S	Wireless Technologies	WLT620S	Wireless Technologies
IWT711S	Internet and WAN Telecommunication		
DSP620S	Distributed Systems Programming	DSA612S	Distributed Systems and Applications
PRG620S	Programming 2	WAD621S	Web Application Development
SEH721S	Software Engineering 1 and HCI	SDN621S	Software Design
DPT621S	Database Programming and Techniques	DPG621S	Database Programming
IIS711S	Internet and Intranet Systems Administration	ITA711S	IT Infrastructure Administration and Services
CFR712S	Computer Forensics		None
SVT710S	Systems Virtualisation	SVT710S	Systems Virtualisation
NDP710S	Network Design and Performance	NDM711S	Network Design and Management
AIG710S	Artificial Intelligence and Computer Graphics	ARI711S	Artificial Intelligence
DWM710S	Data and Web Mining	DTA621S	Data Analytics
APG710S	Advanced Programming	MAP711S	Mobile Application Development
WIL710S	Work Integrated Learning	WSD721S	Work Integrated Learning for Computer Science
PTM721S	Project Management	PTM721S	Project Management
DBA720S	Database Administration	DBA720S	Database Administration
SEN721S	Software Engineering 2	SPS611S	Software Processes

The Table above only highlights new/revised core courses in Computer Science that should be done if courses in the old curricula are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.

The following old courses do not have corresponding courses in the Bachelor of Computer Science (new curriculum) and will be offered until the Bachelor of Computer Science (old curricula) will be phased out completely in 2024:

* Systems Audit (SAU620S)
* Computer Forensics (CFR712S)

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CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Introduction to Computing	ICG511S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	10
Business Management Information Systems	BMC511S	None	5	10
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Computer Organisation and Architecture	COA511S	Mathematics for Computing and Informatics 1A	5	12
Programming 1	PRG510S	Introduction to Computing	5	10
Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Data Structures and Algorithm 1	DSA521S	Introduction to Computing	5	10
Systems Administration (System Adm. and Communication Networks	SAD622S	None	6	12

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming 2	PRG621S	Programming 1	6	10
Information Systems Security Essentials	ISS611S	None	6	10
Data Networks	DTN611S	None	6	12
Applied Statistics and Probability for Computing and Informatics	ASP611S	Mathematics for Computing and Informatics 1B	6	12

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Ethics for Computing	EFC621S	None	6	10
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15

ONE of the following Strands depending on specialisation

SYSTEMS ADMINISTRATION STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Wireless Technologies	WLT620S	Data Networks	6	12
Communication Networks	CMN620S	Data Networks	6	12
Core Networks Engineering	CNE621S	Data Networks	6	12
Linux Systems Administration	LSA721S	Operating Systems	7	12

COMMUNICATION NETWORKS STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Wireless Technologies	WLT620S	Data Networks	6	12
Communication Networks	CMN620S	Data Networks	6	12
Distributed Systems and Applications	DSA612S	Programming 2, Data Structures & Algorithms	6	12
Core Networks Engineering	CNE621S	Data Networks	6	12

YEAR 3
Semester 5

Plus ONE of the following Strands depending on Specialisation and based on choice made in Semester 4

SYSTEMS ADMINISTRATION STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Network Security	ADS711S	Communication Networks	7	12
Systems Virtualisation	SVT710S	Operating Systems	7	12

IT Infrastructure Administration and Services	ITA711S	Systems Administration	7	12
Database Administration	DBA721S	Database Fundamentals	7	12
High Performance Computing	HPC711S	Linux Systems Administration	7	12
Data Centre Infrastructure Management	DTM611S	Computer Organisation and Architecture	6	12

COMMUNICATION NETWORKS STRAND

Cloud Networking	CNT711S	None	7	12
Advanced Network Security	ADS711S	Communication Networks	7	12
Internet Computing	ITC711S	Communication Networks	7	12
Network Design and Management	NDM711S	Communication Networks	7	12
Data Structures and Algorithms 2	DSA711S	Data Structures and Algorithm 1	7	12
Network Programming	NPG611S	Data Networks	6	12

Semester 6

Project Management	PTM721S	None	7	12
Sustainability and Management	SYD611S	None	6	12

Work Integrated Learning (Communication Networks) Work Integrated Learning (Systems Administration)
Plus ONE of the following depending on Specialisation

WCN721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 Courses
WSA721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 Courses

BACHELOR OF COMPUTER SCIENCE **07BCSS**
(Systems Administration or Communication Networks) (Revised -Phasing in 2025)

NQF Level: 7 **NQF Credits: 405**

Description
The Bachelor of Computer Science aims at providing an educational opportunity for students who wish to be trained in computer science with a specialisation in Systems Administration or Communication Networks. The programme will give students an opportunity to apply principles of computing and develop the cognitive and practical skills to address the growing demand in Software Development, Systems Administration and Communication Networks in the country, the region and worldwide. Additionally, the programme aims to equip students with the technical and soft skills required to build software that appeals to their users and addresses real problems.

Overall, the programme aims to:
* Provide students with a sound foundation in the fundamental concepts, theories and frameworks of Computing and Information Technology body of knowledge;

* Equip students with a sound foundation in core concepts of computer science and soft-ware development, system administration, and communication networks;

* Enable students to evaluate current technologies in computing and create high-quality software to address the challenges facing the knowledge economy that the world has embarked on.

* Enable students to work effectively as individuals and as members of a team;

* Enable students to communicate effectively in the workplace.

Graduates of this programme will be able to find employment in public and private sectors in various roles of Software Development specialists, Systems Administrators, and Network specialists. Furthermore, they will have the ability to exercise their creativity and create start-ups and companies with innovative solutions.

Criteria for Admission
Candidates may be considered for admission to the Bachelor of Computer Science if they meet the NUST General Admission Requirements (Part 1 of the Yearbook). In addition, applicants must have a minimum D-symbol in Grade 12/NSSC Mathematics at Ordinary Level, or equivalent.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Degree, graduates will be able to pursue their further studies in the same, or a related cognate area of learning at NQF Level 8.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science degree will be awarded to students credited with a minimum of 405 NQF credits, and who have met the detailed requirements as set out below.

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the Namibia University of Science and Technology Yearbook. Students can specialise in Software Development, Systems Administration and Communication Networks.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Business Management Information Systems	BMC511S	None	5	10
Computer Organisation and Architecture	COA511S	Mathematics for Computing and Informatics 1A	5	12
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8
Introduction to Programming	IPM510S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	10
Principles of English Language Use	PLU411S	None	4	10

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Data Networks	DTN611S	None	6	12
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming in Practice	PAP521S	Introduction to Programming	5	10
Systems Administration	SAD622S	None		

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Applied Statistics and Probability for Computing and Informatics	ASP611S	Mathematics for Computing and Informatics 1B	6	12
Communication Networks	CMN620S	Data Networks	6	12
Database Programming	DPG621S	Database Fundamentals; Introduction to Programming	6	12
English for Academic Purposes	EAP511S	English in Practice	5	14
Information Systems Security Essentials	ISS611S	None	6	10
Object Oriented Programming	OOP611S	Programming in Practice	6	10

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Ethics for Computing	EFC621S	None	6	10
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15

Plus FOUR courses from the following strands compulsory depending on Specialisation:

SYSTEMS ADMINISTRATION STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Communication Networks	ACN621S	Communication Networks	6	12
Core Networks Engineering	CNE621S	Communication Networks	6	12
Linux Systems Administration	LSA721S	Operating Systems		
Wireless Technologies	WLT620S	Operating Systems	7	12

COMMUNICATION NETWORKS STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Communication Networks	ACN621S	Communication Networks	6	12
Core Networks Engineering	CNE621S	Communication Networks	6	12
Distributed Systems and Applications	DSA612S	Object Oriented Programming; Data Structure and Algorithm 1	6	12
Wireless Technologies	WLT620S	Operating systems	6	12

YEAR 3
Semester 5
SYSTEMS ADMINISTRATION STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Network Security	ADS711S	Communication Networks	7	12
Database Administration	DBA721S	Database Fundamentals	7	12
Data Centre Infrastructure Management	DTM611S	None	6	12
High Performance Computing	HPC711S	Linux Systems Administration	7	12

IT Infrastructure Administration and Services	ITA711S	Systems Administration	7	12
Systems Virtualisation	SVT710S	Operating Systems	7	12

COMMUNICATION NETWORKS STRAND

Advanced Network Security	ADS711S	Communication Networks	7	12
Cloud Networking	CNT711S	None	7	12
Data Structures and Algorithms 2	DSA711S	Data Structure and Algorithms 1	7	12
Internet Computing	ITC711S	Communication Networks	7	12
Network Design and Management	NDM711S	None	7	12
Network Programming	NPG611S	Data Networks; Object Oriented Programming	6	12

Semester 6
SYSTEMS ADMINISTRATION STRAND

Project Management	PTM721S	None	7	12
Sustainability and Development	SYD611S	None	6	12
Work Integrated Learning (Systems Administration)	WSA721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	48
Work Integrated Learning (Communication Network)	WCN721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	48

Transition Arrangements:

The Bachelor of Computer Science 07BCMS (old curricula) with specialisations in Communication Networks, Software Development, and Systems Administration will be phased out systematically until 2029 with minimal disruption to existing students' learning progression.

The last intake of 1st-year students for the Bachelor of Computer Science degree 07BCMS (old curricula) was in January 2024. Students who were registered in 2024 for the 1st year of the Bachelor of Computer Science 07BCMS (old curricula) in Communication Networks, Software Development, and Systems Administration and who failed more than 50 % of the courses at the end of 2024 will be required to change their registration to the Bachelor of Computer Science (newly revised curriculum) in Communication Networks, Software Development, and Systems Administration and will be granted credits on a course by course basis following the information in Table 3 below.

The Bachelor of Computer Science (revised curriculum) in Communication Networks, Software Development, and Systems Administration will take effect from January 2025 and be completely phased in by the end of 2027. Courses will only be offered based on the syllabi of the revised courses in 2025 (1st year), 2026 (2nd year) and 2027 (3rd year).

The revised curriculum will be offered at the beginning of 2025. Students who fail any courses in the old curricula will be required to repeat failed courses based on the syllabi of the revised corresponding courses.

Please refer to Table 3 below for detailed information on the updated corresponding courses.

The deadline for the complete phasing out of the Bachelor of Computer Science 07BCMS (old curricula) in Communication Networks, Software Development, and Systems Administration is 2029 after which students must automatically switch to the (revised curriculum).

Table 3: 1st Year Courses to be credited

Bachelor of Computer Science (Communication Networks, Software Development, and Systems Administration Strand) (Old Courses) (2020-2024)		Bachelor of Computer Science (Communication Networks, Software Development, and Systems Administration Strand) (New/revised Equivalent Courses)	
Course Code	**Course Name**	**Course Code**	**Course Name**

ICG511S	Introduction to Computing	IPM510S	Introduction to Programming
PRG510S	Programming 1	PAP521S	Programming in Practice
PRG621S	Programming 2	OOP611S	Object Oriented Programming
SDN621S	Software Design	ITD621S	Interaction Design

Table 4: Corresponding Courses to be done (if failed) - This is not a credit table!

Students who fail the following old courses must register for the new/revised courses in the Bachelor of Computer Science as listed in Table15. 2.

Bachelor of Computer Science (Systems Administration, Communication Networks Strand) (Old Courses)		Bachelor of Computer Science (Systems Administration, Communication Networks Strand) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	**Course Title**	**Course Code**	**Course Title**
BMC511S	Business Management Information System	BMC511S	Business Management Information System
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
DBF510S	Database Fundamentals	DBF510S	Database Fundamentals
DST511S	Design Thinking	DST511S	Design Thinking
ICG511S	Introduction to Computing	IPM510S	Introduction to Programming
MCI511S	Mathematics for Computing and Informatics 1A	MCI511S	Mathematics for Computing and Informatics 1A
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
DTN611S	Data Networks	DTN611S	Data Networks
EPR511S	English in Practice	EPR511S	English in Practice

MCI521S	Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1B
OPS611S	Operating Systems	OPS611S	Operating Systems
PRG510S	Programming 1	PAP521S	Programming in Practice
SAD622S	Systems Administration	SAD622S	Systems Administration
ASP611S	Applied Statistics and Probability for Computing and Informatics	ASP611S	Applied Statistics and Probability for Computing and Informatics
EAP511S	English for Academic Purpose	EAP511S	English for Academic Purpose
ISS611S	Information Systems Security Essentials	ISS611S	Information Systems Security Essentials
DPG621S	Database Programming	DPG621S	Database Programming
PRG621S	Programming 2	OOP611S	Object Oriented Programming
DSA521S	Data Structures and Algorithms 1	DSA521S	Data Structures and Algorithms 1
CMN620S	Communication Networks	CMN620S	Communication Networks
EFC621S	Ethics for Computing	EFC621S	Ethics for Computing
ICE712S	Innovation, Creativity, and Entrepreneurship	ICE712S	Innovation, Creativity, and Entrepreneurship
DTA621S	Data Analytics	DTA621S	Data Analytics
DTS620S	Distributed Systems and Applications	DTS620S	Distributed Systems and Applications
SDN621S	Software Design	ITD621S	Interaction Design
WAD621S	Web Application Development	WAD621S	Web Application Development
CNE621S	Core Network Engineering	CNE621S	Core Network Engineering

WLT620S	Wireless Technologies	WLT620S	Wireless Technologies
LSA721S	Linux Systems Administration	LSA721S	Linux Systems Administration
ARI711S	Artificial Intelligence	ARI711S	Artificial Intelligence
CTE711S	Compiler Techniques	CTE711S	Compiler Techniques
DSA711S	Data Structures and Algorithms 2	DSA711S	Data Structures and Algorithms 2
MAP711S	Mobile Application Development	MAP711S	Mobile Application Development
SPS611S	Software Processes	SPS611S	Software Processes
SVV711S	Software Verification and Validation	SVV711S	Software Verification and Validation
ADS711S	Advanced Network Security	ADS711S	Advanced Network Security
CNT711S	Cloud Networking	CNT711S	Cloud Networking
ITC711S	Internet Computing	ITC711S	Internet Computing
NDM711S	Network Design and Management	NDM711S	Network Design and Management
NPG611S	Network Programming	NPG611S	Network Programming
DBA720S	Database Administration	DBA720S	Database Administration
DTM611S	Data Centre Infrastructure Management	DTM611S	Data Centre Infrastructure Management
HPC711S	High Performance Computing	HPC711S	High Performance Computing
ITA711S	IT Infrastructure Administration and Services	ITA711S	IT Infrastructure Administration and Services
SVT710S	Systems Virtualisation	SVT710S	Systems Virtualisation
PTM721S	Project Management	PTM721S	Project Management

SYD611S	Sustainability and Development	SYD611S	Sustainability and Development
WSD721S	Work Integrated Learning for Computer Science – Software Development	WSD721S	Work Integrated Learning for Computer Science – Software Development
WCN721S	Work Integrated Learning for Computer Science – Communication Networks	WCN721S	Work Integrated Learning for Computer Science – Communication Networks
WSA721S	Work Integrated Learning for Computer Science – Systems Administration	WSA721S	Work Integrated Learning for Computer Science – Systems Administration

Table 4 only highlights new/revised core courses in Computer Science that should be done if courses in the old curricula are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.

The following old courses do not have corresponding courses in the Bachelor of Computer Science (new curriculum) and will be offered until the Bachelor of Computer Science (old curricula) will be phased out completely in 2027:

- Basic Science (BSC410S): Student who fail Basic Science in the old curriculum must still register for the course as it is a service course. A

DEPARTMENT OF CYBER SECURITY   **CODE: 19**
QUALIFICATIONS OFFERED
Bachelor of Computer Science in Cyber Security (Phasing out 2021-2025)   07BCCS
Bachelor of Computer Science in Cyber Security (Revised - Phased in 2021)   07BCCY

BACHELOR OF COMPUTER SCIENCE IN CYBER SECURITY   **07BCCS**
(Phasing out 2021-2025)

NQF Level: 7   **NQF Credits: 372**   **NQF Qualification ID: Q0656**

Description
The Bachelor of Computer Science in Cyber Security aims at providing educational opportunities for students who are interested in and motivated to work as Cyber Security Professionals. Cyber Security is a computing discipline that deals with digital information assurance and its security.

This programme is purposefully designed to provide skilled, competent and motivated graduates for the increasing and numerous challenging tasks of Computing and Information Assurance and Security (IAS) in the country and the region at large. Students will have the opportunity to develop the required cognitive/intellectual skills, practical as well as key transferable skills, and apply these to address/solve Information Assurance and Security related problems/challenges in the context of an organisation, a country or individual end-user.

Admission Requirements
Candidates may be considered for admission to the Bachelor of Computer Science in Cyber Security if they meet the University's General Admission Requirements.

In addition, students must have a minimum "C" symbol in Grade 12/NSSC Mathematics at Ordinary Level, or equivalent. The Faculty reserves the right to consider candidates who have a "D" symbol in NSSC Mathematics at Ordinary level, or equivalent through other relevant criteria.

Articulation Arrangements
Transfer of credits will be dealt with according to the University's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science in Cyber Security, students will ordinarily be able to pursue further studies in the same or a related cognate area of learning at NQF Level 8.

Mode of Delivery
The programme will be delivered on the full-time and/or part-time modes in accordance with the University's rules. The e-learning mode will only be considered after the programme is deemed to have reached a certain level of maturity.

Requirements for Qualification Award
The Bachelor of Computer Science in Cyber Security degree will be awarded to students credited with a minimum of 372 NQF credits, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST Prospectus.

Teaching and Learning Strategies
Teaching and Learning strategies are described in the syllabus outlines for the different courses. The requirements of the NQF underline the acquisition of cognitive skills and competencies exceeding the knowledge and understanding of subject-specific knowledge items and professional/technical competencies.

Thus, the qualification focuses on the engagement of students in an interactive learning process in order to provide for the development of generic cognitive and intellectual skills, key transferable skills, and, as the case may be, subject specific and/or professional/technical practical skills.

This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student, including the following:

* Formal weekly face-to-face (interactive) contact and presentation using PowerPoint slides, smart boards, whiteboards and handouts
* Formal weekly laboratory exercises and practice
* Student portfolios
* Formal tutorial and supervised self-study sessions
* Self-learning through online links
* Promotion of team learning through group projects
* Individual and home assignments
* Use of e-learning platform (Including emails and blog/-forum)
* Discussion and student presentations (assignment results and other activities)
* Guest lecturers with open discussion, when appropriate
* Webinar/Online conferencing/excursion
* Computer/Web-based simulation
* Seminars

Work Integrated Learning (WIL)

This programme also includes a component of Work Integrated Learning (WIL), which integrates work experiences with learning in a way traditional education cannot do. It provides students with opportunities to:

* Execute tasks related to Cyber Security at the workplace
* Network with professionals and build relationships that can help students in their future endeavours
* Have access to companies for full-time positions after graduation once good rapport has been established between the students and the companies.
* Interact with people from diverse backgrounds and develop interpersonal skills that are not possible in a classroom environment.

The three courses that are done in the same semester as WIL will be taught before the students go for WIL and will be done through an accelerated teaching approach and assessed using "Diversified Continuous Assessment" mode, some of the assessments will be carried out while the students are busy with their WIL.

Transition Arrangements

This programme does not replace any existing programme(s). Transition arrangements are therefore not applicable.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Mathematics for IT 1A	MIT112S	None	5	10
Programming 1	PRG510S	None	5	10
Introduction to Information Security	IIS511S	None	5	10
Computer Organisation and Architecture	COA511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Object Oriented Programming	OOP521S	Programming 1	5	10
Mathematics for IT 1B	MIT122S	Mathematics for IT 1A	5	10
Web Development Fundamentals	WDF521S	None	5	10
Introduction to Operating Systems & Networks	OSN521S	Computer Organisation and Architecture	5	10

YEAR 2
Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
IT Systems Security Networks	ISS610S	Introduction to Operating Systems	6	12
Data Structures and Algorithms	DSA610S	None	6	12
Data Fundamentals	DBF510S	None	5	10
Introduction to Computer Networking	ICN511S	Introduction to Operating Systems & Networks	5	10
Applied Statistics & Probability for IT	ASP610S	Mathematics for IT 1B	6	14

Semester 4

Web Technologies	WTN620S	Introduction to Operating Systems & Networks	6	12
Systems Administration	SAD622S	Introduction to Operating Systems & Networks	6	12
Communication Networks	CMN620S	Introduction to Computer Networking	6	12
Introduction to Cryptography	ITC621S	None	6	12
Wireless Technologies	WLT620S	Introduction to Computer Networking	6	12
Distributed Systems Programming	DSP620S	Object Oriented Programming	6	12

YEAR 3
Semester 5

Network Security	NWS620S	IT Systems Security Networks Introduction to Computer Networking	6	12
Digital Forensics 1 – Forensics Computing	DFC711S	Introduction to Cryptography	7	12
Sustainability and Development	SYD611S	None	6	12
Internet and WAN Telecommunication	IWT711S	Communication Networks	7	12
Operating Systems	OPS621S	Introduction to Operating Systems & Networks	6	12

Semester 6

Work Integrated Learning	WCS721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	36
Critical Infrastructure Protection Control System Security	CIP721S	None	7	12
Digital Forensics 2 – Internet Forensics and Steganography	DFC721S	Digital Forensics 1 – Forensics Computing	7	10
Intrusion Analysis and Response	IAR721S	Network Security	7	12

BACHELOR OF COMPUTER SCIENCE IN CYBER SECURITY   **07BCCY**
(Revised – Phased in 2021)

NQF Level: 7   **NQF Credits: 383**   **NQF Qualification ID: Q2253**

Description
The Bachelor of Computer Science in Cyber Security is designed to provide skillful, competent and motivated graduates for the increasing and numerous challenging tasks of Computing and Information Assurance and Security (IAS) in the country, the region and the world at large. Students will have the opportunity to develop the required cognitive, practical as well as key transferable skills, and apply these to address IAS related problems and challenges.

Criteria for Admission
Candidates may be considered for admission to the Bachelor of Computer Science in Cyber Security if they meet the NUST General Admission Requirements (Part 1 of the Yearbook). In addition, applicants must have a minimum C-symbol in Mathematics at NSSCO Ordinary Level, or equivalent and have two subjects from Natural Sciences and Technology, all at NSSC Ordinary Level, or equivalent. The Faculty reserves the right to filter candidates who have a D-symbol in NSS Mathematics at Ordinary Level, or equivalent through other relevant criteria.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science in Cyber Security, graduates will be able to pursue further studies in the same, or a related cognate area of learning at NQF Level 8.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor a student access on the E-learning platform (or its extension) the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science in Cyber Security degree will be awarded to students credited with a minimum of 383 NQF credits, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the Namibia University of Science and Technology Prospectus.

Transition Arrangements
The Bachelor of Computer Science in Cyber Security (old curricula) will be phased out systematically until 2025 with minimal disruption to existing students' learning progression.

The last intake of 1st year students for the Bachelor of Computer Science degree in Cyber Security (old curricula) was in January 2020.

Students who were registered in 2020 for the 1st year of the Bachelor of Computer Science in Cyber Security (old curricula), and who failed more than 50% of the courses at the end of 2020, will be required to change their registration to the Bachelor of Computer Science in Cyber Security (revised curriculum) and will be granted credits on a course by course basis in accordance with the information in the Table below.

The Bachelor of Computer Science in Cyber Security (revised curriculum), will take effect from January 2021 and will be completely phased in by 2023. Courses will only be offered based on the syllabi of new/revised courses in 2021 (1st year), 2022 (2nd year) and 2023 (3rd year). The new/revised curriculum will be offered from 2021. Students who fail any of the courses in the old curricula will be required to repeat failed courses based on the syllabi of new/revised corresponding courses.

Please refer to the Table below, for detailed information on the new/updated corresponding courses. The deadline for the complete phasing out of the Bachelor of Computer Science in Cyber Security (old curricula) is 2025 after which students must automatically switch to the (revised curriculum).

Table 5: Courses to be credited

Bachelor of Computer Science in Cyber Security(Old Courses) (2015-2020)		Bachelor of Computer Science in Cyber Security (New/revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name

BSC410S	Basic Science	BSC410S	Basic Science
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
MIT122S	Mathematics for IT 1B	MCI521S	Mathematics for Computing and Informatics 1B
EPR511S	English in Practice	EPR511S	English in Practice

Taable 6: Corresponding Courses to be done (if failed) - This is not a credit table

Bachelor of Computer Science in Cyber Security (Old Courses)		Bachelor of Computer Science in Cyber Security (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object-Oriented Programming	PRG620S	Programming 2
MIT122S	Mathematics for IT 1B	MCI521S	Mathematics for Computing and Informatics 1B
OSN521S	Introduction to Operating Systems & Networks	OPS611S	Operating Systems
ISS610S	IT Systems Security Networks	IIS611S	Information Systems Security Essentials
DSA610S	Data Structures and Algorithms	DSA521S	Data Structures and Algorithms 1
DBF510S	Database Fundamentals	DBF511S	Database Fundamentals
ICN511S	Introduction to Computer Networking	DTN611S	Data Networks
ASP610S	Applied Statistics & Probability for IT	ASP611S	Applied Statistics and Probability for Computing and Informatics
OPS621S	Operating Systems	OPS611S	Operating Systems
WTN620S	Web Technologies	WAS621S	Web Application Security
SAD622S	Systems Administration	SAD622S	Systems Administration
CMN620S	Communication Networks	CMN620S	Communication Networks
ITC621S	Introduction to Cryptography	CGF622S	Cryptography Fundamentals
NWS620S	Network Security	ADS711S	Advanced Network Security
DFC711S	Digital Forensics 1- Forensics computing	DFC622S	Digital Forensics
CIP721S	Critical Infrastructure Protection and Control System Security	OSS711S	Operating Systems Security
DFC721S	Digital Forensics 2- Internet Forensics and Steganography	MBF712S	Mobile Forensics
IAR721s	Intrusion Analysis and Response	IAR721S	Intrusion Analysis and Response
	None	BMC511S	Business Management Information Systems
	None	DST511S	Design Thinking
	None	EFG621S	Ethics for Computing
	None	ICG511S	Introduction to Computing
	None	HCI711S	Human Computer Interaction Security
	None	PTM721S	Project Management
WCS721S	Work Integrated Learning	WCS721S	Work Integrated Learning
IIS511S	Introduction to Information Security		None
WDF521S	Web Development Fundamentals		None
WLT620S	Wireless Technologies		None
DSP620S	Distributed Systems Programming		None
IWT711S	Internet and WAN Telecommunications		None

The following old courses do not have corresponding courses in the Bachelor of Computer Science in Cyber Security (revised curriculum) and will be offered until the Bachelor of Computer Science in Cyber Security (old curricula) will be phased out completely in 2025:

● Introduction to Information Security (IIS511S)
● Information Competence (ICT521S)
● Web Development Fundamentals (WDF521S)
● Wireless Technologies (WLT620S)
● Distributed Systems Programming (DSP620S)
● Internet and WAN Telecommunications (IWT711S)

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Business Management Information Systems	BMC511S	None	5	10
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8
Introduction to Computing	ICG511S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	8

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Computer Organisation and Architecture	COA511S	Mathematics for Computing and Informatics 1A	5	10
Data Structures and Algorithm 1	DSA521S	Introduction to Computing	5	10
Mathematics for Computing and Informatics	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Programming 1	PRG510S	Introduction to Computing	5	10
Systems Administration	SAD622S	None	6	12

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
Applied Statistics and Probability	ASP611S	Mathematics for Computing and Informatics 1A	6	12
Data Networks	DTN611S	None	6	12
Information Systems Security Essentials	ISS611S	None	6	10
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming 2	PRG621S	Programming 1	6	10

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Communication Networks	CMN620S	Data Networks	6	12
Cryptography Fundamentals	CGF622S	None	6	12
Digital Forensics	DFC622S	Operating Systems	7	12
Ethics for Computing	EFC621S	None	6	10
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15
Web Application Security	WAS621S	Information Systems Security Essentials	6	12

YEAR 3
Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Network Security	ADS711S	Communication Networks	7	12
Human Computer Interaction Security	HCI711S	None	7	12
Intrusion Analysis and Response	IAR721S	Information Systems Security Essentials	7	12
Mobile Forensics	MBF712S	Digital Forensics	7	12
Operating Systems Security	OSS711S	Operating Systems	7	12

Semester 6

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Work Integrated Learning	WCS721S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	48
Project Management	PTM721S	None	7	12
Sustainability and Development	SYD611S	None	6	12

DEPARTMENT OF SOFTWARE ENGINEERING   **CODE: 29**
QUALIFICATIONS OFFERED
Bachelor of Computer Science (Software Development) (Phasing out from 2024)   07BCMS
Bachelor of Computer Science (Software Development) (Phasing in 2025)   07BCSS

BACHELOR OF COMPUTER SCIENCE   **07BCMS**
(Software Development) (Phasing out from 2024)

NQF Level: 7   **NQF Credits: 395**   **NQF Qualification ID: Q2250**

Description
The Bachelor of Computer Science aims at providing an educational opportunity for students who wish to be trained in computer science with a specialisation in Software Development, Systems Administration and Communication Networks. The programme will give students an opportunity to apply principles of computing and develop the cognitive and practical skills to ad-dress the growing demand in Software Development, Systems Administration and Communication Networks in the country, the region and worldwide. Additionally, the programme aims to equip students with the technical and soft skills required to build software that appeals to their users and addresses real problems.   Through this programme, students will also be able to design, implement and evaluation a computing-based solution to meet a given set of computing requirements in the context of the programme's discipline.

Graduates of this programme will be able to find employment in public and private sectors in various roles of Software Development specialists, Systems Administrators, and Network specialists. Furthermore, they will have the ability to exercise their creativity and create start-ups and companies with innovative solutions.

Criteria for Admission
Candidates may be considered for admission to the Bachelor of Computer Science if they meet the NUST General Admission Requirements. In addition, applicants must have a minimum D-symbol in Grade 12/NSSC Mathematics at Ordinary Level, or equivalent.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Degree, graduates will be able to pursue their further studies in the same, or a related cognate area of learning at NQF Level 8.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science degree will be awarded to students credited with a minimum of 395NQF credits, and who have met the detailed requirements as set out below.

In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the Namibia University of Science and Technology Yearbook. Students can specialise in Software Development, Systems Administration and Communication Networks.

Transition Arrangements
The Bachelor of Computer Science with specialisations in Software Development, Systems Ad-ministration and Communication Networks (old curricula) will be phased out systematically until 2024 with minimal disruption to existing students' learning progression.

The last intake of 1st year students for the Bachelor of Computer Science degree in Software Development, Systems Administration and Communication Networks (old curricula) was in January 2019. Students who were registered in 2019 for the 1st year of the Bachelor of Computer Science in Software Development, Systems Administration and Communication Net-works (old curricula), and who failed more than 50 % of the courses at the end of 2019, will be required to change their registration to the Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (new revised curriculum) and will be granted credits on a course by course basis in accordance with the information in the Table below.

The Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (new/revised curriculum), will take effect from January 2020 and will be completely phased in by 2022.

Courses will only be offered based on the syllabi of new/revised courses in 2020 (1st year), 2021 (2nd year) and 2022 (3rd year). The new/revised curriculum will be offered from 2020.

Students who fail any of the courses in the old curricula will be required to repeat failed courses based on the syllabi of new/revised corresponding courses. Please refer to the Table below, for detailed information on the new/updated corresponding courses.

The deadline for the complete phasing out of the Bachelor of Computer Science in Software Development, Systems Administration and Communication Networks (old curricula) is 2024 after which students must automatically switch to the (revised curriculum).

Corresponding Courses to be done (if failed) - This is not a credit table

Bachelor of Computer Science (Systems Administration, Communication Networks and Software Development Strand) (Old Courses)		Bachelor of Computer Science (Systems Administration, Communication Networks and Soft-ware Development Strand) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	**Course Title**	**Course Code**	**Course Title**
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
MNS511S	Management Information Systems	BMC511S	Business Management Information Systems
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object-Oriented Programming	PRG620S	Programming 2
MIT122S	Mathematics for IT 1B	MCI521S	Mathematics for Computing and Informatics 1B
WDF521S	Web Development Fundamentals	WAD621S	Web Application Development
OSN521S	Introduction to Operating Systems & Networks	OPS611S	Operating Systems
ISS610S	IT Systems Security	ISS611S	Information Systems Security Essentials
DSA610S	Data Structures and Algorithms	DSA521S	Data Structures and Algorithms 1
DBF510S	Database Fundamentals	DBF510S	Database Fundamentals
ICN511S	Introduction to Computer Networks	DTN611S	Data Networks
ASP610S	Applied Statistics & Probability for IT	ASP611S	Applied Statistics and Probability for Computing and Informatics
OPS621S	Operating Systems	OPS621S	Operating Systems
WTN620S	Web Technologies	WAS621S	Web Application Development
SAD622S	Systems Administration	SAD622S	Systems Administration
DTS620S	Distributed Systems	DSA612S	Distributed Systems and Applications
DSP620S	Distributed Systems Programming	DSA612S	Distributed Systems and Applications
SEH721S	Software Engineering 1 and HCI	SDN621S	Software Design
DPT621S	Database Programming and Techniques	DPG621S	Database Programming
AIG710S	Artificial Intelligence and Computer Graphics	ARI711S	Artificial Intelligence
DWM710S	Data and Web Mining	DTA621S	Data Analytics
APG710S	Advanced Programming	MAP711S	Mobile Application Development
WIL710S	Work Integrated Learning	WSD721S	Work Integrated Learning for Computer Science
PTM721S	Project Management	PTM721S	Project Management
DBA720S	Database Administration	DBA720S	Database Administration
SEN721S	Software Engineering 2	SPS611S	Software Processes

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Introduction to Computing	ICG511S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	10
Business Management Information Systems	BMC511S	None	5	10
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Computer Organisation and Architecture	COA511S	Mathematics for Computing and Informatics 1A	5	12
Programming 1	PRG510S	Introduction to Computing	5	10
Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Data Structures and Algorithms 1	DSA521S	Introduction to Computing	5	10
Database Programming (Software Development)	DPG621S	Database Fundamentals	6	12

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming 2	PRG621S	Programming 1	6	10
Information Systems Security Essentials	ISS611S	None	6	10
Data Networks	DTN611S	None	6	12
Applied Statistics & Probability for Computing and Informatics	ASP611S	Mathematics for Computing and Informatics 1B	6	12

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Ethics for Computing	EFC621S	None	6	10
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15
Distributed Systems and Applications	DSA612S	Programming 2, Data Structures and Algorithms 1	6	12
Data Analytics	DTA621S	Applied Statistics & Probability for Computing and Informatics	6	12
Software Design	SDN621S	Design Thinking	6	12
Web Application Development	WAD621S	Programming 2	7	12

YEAR 3
Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Artificial Intelligence	ARI711S	Programming 2, Applied Statistics & Probability for Computing and Informatics	7	12
Compiler Techniques	CTE711S	Programming 2	7	12
Data Structures and Algorithms 2	DSA711S	Data Structures and Algorithms 1	7	12
Mobile Application Development	MAP711S	Programming 2	7	12
Software Processes	SPS611S	None	7	12
Software Verification and Validation	SVV711S	Software Design	7	12

Semester 6

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Project Management	PTM721S	None	7	12
Sustainability and Development	SYD611S	None	6	10

BACHELOR OF COMPUTER SCIENCE (SOFTWARE DEVELOPMENT)   **07BCSS**
(Revised - Phase in 2025)

NQF Level: 7   **NQF Credits: 405**

Description
The Bachelor of Computer Science aims at providing an educational opportunity for students who wish to be trained in computer science with a specialisation in Software Development. The programme will give students an opportunity to apply principles of computing and develop the cognitive and practical skills to address the growing demand in Software Development in the country, the region and worldwide. Additionally, the programme aims to equip students with the technical and soft skills required to build software that appeals to their users and addresses real problems.

Overall, the programme aims to:
*   Provide students with a sound foundation in the fundamental concepts, theories and frameworks of Computing and Information Technology body of knowledge;

*   Equip students with a sound foundation in core concepts of computer science and software development, system administration, and communication networks;

*   Enable students to evaluate current technologies in computing and create high-quality software to address the challenges facing the knowledge economy that the world has embarked on.

*   Enable students to work effectively as individuals and as members of a team;

*   Enable students to communicate effectively in the workplace.

Graduates of this programme will be able to find employment in public and private sectors in various roles of Software Development specialists. Furthermore, they will have the ability to exercise their creativity and create start-ups and companies with innovative solutions.

Criteria for Admission:
Candidates may be considered for admission to the Bachelor of Computer Science if they meet the NUST General Admission Requirements (Part 1 of the Yearbook). In addition, applicants must have a minimum D-symbol in Grade 12/NSSC Mathematics at Ordinary Level or equivalent.

Articulation Arrangements:
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits and credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50 % of the credits for a qualification.
Upon completing of the Bachelor of Computer Science Degree, graduates can pursue further studies in the same or a related cognate area of learning at NQF Level 8.

Offering Type:

The programme will be offered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor a students' access to the E-learning platform (or its extension), the online modes of studies will also be considered.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Business Management Information Systems	BMC511S	None	5	10
Computer Organisation and Architecture	COA511S	None	5	12
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8
Introduction to Programming	IPM510S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	10

Principles of English Language Use	PLU411S	None	4	NCB

Semester 2

Data Networks	DTN611S	None	6	12
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming in Practice	PAP521S	Introduction to Programming	5	10
Systems Administration	SAD622S	None	6	12

YEAR 2
Semester 3

Applied Statistics and Probability for Computing and Informatics	ASP611S	Mathematics for Computing and Informatics 1B	6	12
English for Academic Purposes	EAP511S	English in Practice, or Language in Practice B, or Module 3, or Exemption	5	14
Database Programming	DPG621S	Database Fundamentals	6	12
Object Oriented Programming	OOP611S	Programming in Practice	6	12
Information Systems Security Essentials	ISS611S	None	6	10
Data Structures and Algorithms 1	DSA521S	Introduction to Programming	6	12

Semester 4

Ethics for Computing	EFC621S	None	6	10
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15
Data Analytics	DTA621S	Applied Statistics for Computing and Informatics	6	12
Distributed Systems and Applications	DSA612S	Object Oriented Programming; Data Structures and Algorithm 1	6	12
			6	12
Interaction Design	ITD621S	Design Thinking	6	12
Web Application Development	WAD621S	Object Oriented Programming	6	12

YEAR 3
Semester 5

Artificial Intelligence	ARI711S	Programming in Practice; and Applied Statistics for Computing and Informatics	7	12
Compiler Techniques	CTE711S	Object Oriented Programming	7	12
Data Structures and Algorithms 2	DSA711S	Object Oriented Programming; Data Structures and Algorithms 1	7	12
Mobile Application Development	MAP711S	Object Oriented Programming	7	12
Software Processes	SPS611S	None	7	12
Software Verification and Validation	SVV711S	Interaction Design	6	12

Semester 6

Project Management	PTM721S	None	7	12
Sustainability and Development	SYD611S	None	6	12
Work Integrated Learning (Software Development)	WSD721S	All Semester 4 courses and a maximum of 2 Outstanding Semester 5 courses	7	48

Transition Arrangements:

The Bachelor of Computer Science 07BCMS (old curricula) with specialisations in Software Development, and Systems Administration will be phased out systematically until 2029 with minimal disruption to existing students' learning progression.

The last intake of 1st-year students for the Bachelor of Computer Science degree 07BCMS (old curricula) was in January 2024. Students who were registered in 2024 for the 1st year of the Bachelor of Computer Science 07BCMS (old curricula) in Software Development and who failed more than 50 % of the courses at the end of 2024 will be required to change their registration to the Bachelor of Computer Science (newly revised curriculum) in Software Development, and Systems Administration and will be granted credits on a course by course basis following the information in Table 15.1 below.

The Bachelor of Computer Science (revised curriculum) in Software Development will take effect from January 2025 and be completely phased in by the end of 2027. Courses will only be offered based on the syllabi of the revised courses in 2025 (1st year), 2026 (2nd year) and 2027 (3rd year).

The revised curriculum will be offered at the beginning of 2025. Students who fail any courses in the old curricula will be required to repeat failed courses based on the syllabi of the revised corresponding courses.

Please refer to Table 7 below for detailed information on the updated corresponding courses.

The deadline for the complete phasing out of the Bachelor of Computer Science 07BCMS (old curricula) in Software Development is 2029 after which students must automatically switch to the (revised curriculum).

Table 7: 1st Year Courses to be credited

Bachelor of Computer Science (Communication Networks, Software Development, and Systems Administration Strand) (Old Courses) (2020-2024)		Bachelor of Computer Science (Communication Networks, Software Development, and Systems Administration Strand) (New/revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
ICG511S	Introduction to Computing	TBC	Introduction to Programming
PRG510S	Programming 1	TBC	Programming in Practice
PRG621S	Programming 2	TBC	Object Oriented Programming
SDN621S	Software Design	TBC	Interaction Design

Table 8: Corresponding Courses to be done (if failed) - This is not a credit table!

Students who fail the following old courses must register for the new/revised courses in the Bachelor of Computer Science as listed in Table 8

Bachelor of Computer Science (Systems Administration, Communication Networks Strand) (Old Courses)	Bachelor of Computer Science (Systems Administration, Communication Networks Strand) (Corresponding New/Revised Courses to be done, if failed)

Course Code	Course Title	Course Code	Course Title
BMC511S	Business Management Information System	BMC511S	Business Management Information System
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
DBF510S	Database Fundamentals	DBF510S	Database Fundamentals
DST511S	Design Thinking	DST511S	Design Thinking
ICG511S	Introduction to Computing	IPM510S	Introduction to Programming
MCI511S	Mathematics for Computing and Informatics 1A	MCI511S	Mathematics for Computing and Informatics 1A
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
DTN611S	Data Networks	DTN611S	Data Networks
EPR511S	English in Practice	EPR511S	English in Practice
MCI521S	Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1B
OPS611S	Operating Systems	OPS611S	Operating Systems
PRG510S	Programming 1	PAP521S	Programming in Practice
SAD622S	Systems Administration	SAD622S	Systems Administration
ASP611S	Applied Statistics and Probability for Computing and Informatics	ASP611S	Applied Statistics and Probability for Computing and Informatics
EAP511S	English for Academic Purpose	EAP511S	English for Academic Purpose
ISS611S	Information Systems Security Essentials	ISS611S	Information Systems Security Essentials

DPG621S	Database Programming	DPG621S	Database Programming
PRG621S	Programming 2	OOP611S	Object Oriented Programming
DSA521S	Data Structures and Algorithms 1	DSA521S	Data Structures and Algorithms 1
EFC621S	Ethics for Computing	EFC621S	Ethics for Computing
ICE712S	Innovation, Creativity, and Entrepreneurship	ICE712S	Innovation, Creativity, and Entrepreneurship
DTA621S	Data Analytics	DTA621S	Data Analytics
DTS620S	Distributed Systems and Applications	DTS620S	Distributed Systems and Applications
SDN621S	Software Design	ITD621S	Interaction Design
WAD621S	Web Application Development	WAD621S	Web Application Development
ARI711S	Artificial Intelligence	ARI711S	Artificial Intelligence
CTE711S	Compiler Techniques	CTE711S	Compiler Techniques
DSA711S	Data Structures and Algorithms 2	DSA711S	Data Structures and Algorithms 2
MAP711S	Mobile Application Development	MAP711S	Mobile Application Development
SPS611S	Software Processes	SPS611S	Software Processes
SVV711S	Software Verification and Validation	SVV711S	Software Verification and Validation
PTM721S	Project Management	PTM721S	Project Management
SYD611S	Sustainability and Development	SYD611S	Sustainability and Development
WSD721S	Work Integrated Learning for Computer Science – Software Development	WSD721S	Work Integrated Learning for Computer Science – Software Development

Table 8 only highlights new/revised core courses in Computer Science that should be done if courses in the old curricula are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.

The following old courses do not have corresponding courses in the Bachelor of Computer Science (new curriculum) and will be offered until the Bachelor of Computer Science (old curricula) will be phased out completely in 2027:

- Basic Science (BSC410S): Student who fail Basic Science in the old curriculum must still register for the course as it is a service course.

SCHOOL OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

DEPARTMENT OF INFORMATICS **CODE: 37**
QUALIFICATIONS OFFERED
Bachelor of Informatics (Phasing out 2020-2024) 07BAIF
Bachelor of Informatics (Revised – Phased in 2020) 07BAIT

BACHELOR OF INFORMATICS **07BAIF**
(Phasing out 2020-2024)

NQF Level: 7 **NQF Credits: 375** **NQF Qualification ID: Q0512**

Description
The Bachelor of Informatics aims to provide educational opportunities for students who are interested in and motivated to work as Informatics Specialists in Business Computing, Information Systems or related practices. Informatics harnesses the power and possibility of digital technology to transform data and information into knowledge that people use every day. This programme is purposefully designed to provide skillful, competent and motivated graduates for the increasing and numerous challenging tasks of Business Computing and Informatics in the country and the region at large. Students will have the opportunity to develop the required cognitive/intellectual skills, practical as well as key transferable skills, and apply these in order to address/solve Computing and Informatics (CI) problems/challenges in the context of an organisation.

Overall, this programme aims at:
* Providing students with a sound foundation in the fundamental concepts, theories and frameworks of Business Computing and Informatics;
* Developing the ability of students to analyse information from a wide range of sources;
* Equipping students with the requisite skills to work effectively as individuals and as members of a team;
* Enabling students to communicate effectively in the workplace.

The programme intends to provide a diverse range of skills and competencies that are both discipline-specific and job-related. The programme also intends to facilitate the development of highly generic cognitive and intellectual skills that would enable graduates to apply their knowledge and learnt competencies to the practices of Business Computing and Informatics, taking into consideration international generally accepted practices.

Admission Requirements
Candidates may be considered for admission to the Bachelor of Informatics if they meet the University's General Admission Requirements (G12.1 of the NUST Prospectus). In addition, students must have a minimum "D" symbol in Grade 12/NSSC Mathematics at Ordinary level, or equivalent. The Faculty reserves the right to consider candidates who have a "D" symbol in NSS Mathematics at Ordinary Level, or equivalent through other relevant criteria.

Articulation Arrangements
Transfer of credits will be dealt with according to the University's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credit for a qualification.

Upon successful completion of the Bachelor of Informatics, students will ordinarily be able to pursue further studies in Informatics, or a related cognate area of learning, at NQF Level 8.

Transition Arrangements
The Bachelor of Informatics (New Curriculum), took effect from January 2014 and will be completely phased out by 2024. Students who fail any of the courses on the Bachelor of Information (07BAIF) (old curriculum) will be required to repeat such failed courses based on the syllabi of the new/revised corresponding courses.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Mathematics for IT 1A	MIT112S	None	5	10
Programming 1	PRG510S	None	5	10
Management Information Systems	MNS511S	None	5	10
Computer Organisation and Architecture	COA511S	None	5	10

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Object Oriented Programming	OOP521S	Programming 1	5	10
Information Competence	ICT521S	None	5	10
Mathematics for IT 1B	MIT122S	Mathematics for IT 1A	5	10
Web Development Fundamentals	WDF521S	None	5	10
Introduction to Operating Systems & Networks	OSN521S	Computer Organisation and Architecture	5	10

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
IT Systems Security	ISS610S	Introduction to Operating Systems & Networks	6	12
Data Structures and Algorithms	DSA610S	None	6	12
Database Fundamentals	DBF510S	None	5	10
Introduction to Computer Networking & Networks	ICN511S	Introduction to Operating Systems & Networks	5	10
Applied Statistics & Probability for IT	ASP610S	Mathematics for IT 1B	6	14

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Software Engineering 1 and HCI	SEH620S	Web Development Fundamentals	6	12
Database Programming and Techniques	DPT621S	Database Fundamentals	6	12
Health Information Systems & Technology	HIT620S	None	6	12
Business Analysis & Process Management	BAP620S	Management Information Systems	6	12
Business Accounting for Informatics	BAI620S	None	6	12
Enterprise Web Application Development	EWD621S	Object Oriented Programming	7	12

YEAR 3
Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Introduction to Marketing and It's Environment	IME511S	None	5	10
Multimedia Applications	MMA710S	None	7	12
Computer Systems for Healthcare Services	CSH710S	Business Analysis & Process Management	7	12
Sustainability and Development	SYD611S	None	6	12
Innovation, Creativity & Entrepreneurship	ICE712S	None	7	15

Semester 6

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Work Integrated Learning (WIL)	WIL710S	All courses up to Semester 4 and a maximum of 2 outstanding Semester 5 courses	7	48
Enterprise Resource Planning Systems	ERP720S	Management Information Systems	7	12
Project Management	PTM721S	None	7	12

BACHELOR OF INFORMATICS   07BAIT
(Revised - Phased in 2020)

NQF Level: 7   **NQF Credits: 395**   **NQF Qualification ID: Q2251**

Description
The Bachelor of Informatics aims at providing educational opportunities for students who are interested and motivated to work as Informatics Specialists or in related practices. This programme is purposefully designed to prepare skilful, competent and motivated graduates for the ever-increasing and numerous challenging tasks of Informatics in the country and the region at large. Students will have the opportunity to develop the required cognitive/intellectual skills, practical as well as key transferable skills, and apply these to address/solve Computing and Informatics (CI) problems/challenges in the context of an organisation.

Criteria for Admission
Candidates may be considered for admission to the Bachelor of Informatics if they meet the NUST General Admission Requirements. In addition, applicants must have a minimum D-symbol in Grade 12/NSSC Mathematics at Ordinary Level, or equivalent.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credit for a qualification. Upon successful completion of the Bachelor of Informatics, students will ordinarily be able to pursue further studies in Informatics, or a related cognate area of learning, at NQF Level 8.

Mode of Delivery
The programme will be delivered on both full-time and part-time modes in accordance with NUST rules.

Requirements for Qualification Award
The Bachelor of Informatics will be awarded to students credited with a minimum of 395 NQF credits. In addition, students must meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

Transition Arrangements
The Bachelor of Informatics (old curriculum) will be phased-out systematically until 2024 with minimal disruption to existing students' learning progression. The last intake of 1st year students for the Bachelor of Informatics (old curriculum) was in January 2019.

Students who are registered in 2019 for the 1st year of the Bachelor of Informatics (old curriculum) and who fail more than 50% of the courses at the end of 2019, will be required to change their registration to the Bachelor of Informatics (revised curriculum) and will be granted credits on a course-by-course basis in accordance with the information in the Table below.

The Bachelor of Informatics (revised curriculum), will take effect from January 2020 and will be completely phased-in by 2022. Courses will only be offered based on the syllabi of new/revised courses in 2020 (1st year), 2021 (2nd year) and 2022 (3rdyear). Students who fail any of the courses on the Bachelor of Informatics (old curriculum) will be required to repeat such failed courses based on the syllabi of new/revised corresponding courses. Please refer to the Table below, for detailed information on the new/revised corresponding courses to be done if courses in the old curriculum are failed.

The deadline for complete phasing out of the Bachelor of Informatics (old curriculum) is 2024, after which students must automatically switch to the Bachelor of Informatics (revised curriculum).

Table 9: 1st Year Courses to be credited

Bachelor of Computer Science (2014-2019)		Bachelor of Computer Science (New/revised Equivalent Courses)	
Course Code	**Course Name**	**Course Code**	**Course Name**
BSC410S	Basic Science	BSC410S	Basic Science
MIT112S	Mathematics for IT 1 A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
MNS511S	Management Information Systems	BMC511S	Business Management Information Systems
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object-Oriented Programming	PRG620S	Programming 2

MIT122S	Mathematics for IT 1 B	MCI521S	Mathematics for Computing and Informatics 1 B
WDF521S	Web Development Fundamentals	WAD621S	Web Applications Development
EPR511S	English in Practice	EPR511S	English in Practice
OSN521S	Introduction to Operating Systems and Networks	OPS611S	Operating Systems

Table 10: Corresponding courses (if failed). This is not a credit table

Bachelor of Informatics (Old Courses)		Bachelor of Informatics (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
MIT112S	Mathematics for IT 1A	MCI511S	Mathematics for Computing and Informatics 1A
PRG510S	Programming 1	PRG510S	Programming 1
MNS511S	Management of Information Systems	BMC511S	Business Management Information Systems
COA511S	Computer Organisation and Architecture	COA511S	Computer Organisation and Architecture
OOP521S	Object Oriented Programming	PRG620S	Programming 2
MIT122S	Mathematics for IT 1B	MCI521S	Mathematics for Computing and Informatics 1B
WDF521S	Web Development Fundamentals	WAD621S	Web Application Development
OSN521S	Introduction to Operating Systems and Networks	OPS611S	Operating Systems
ISS610S	IT Systems Security	ISS611S	Information Systems Security Essentials
DSA610S	Data Structures and Algorithms	DSA610S	Data Structure and Algorithms 1
DBF510S	Database Fundamentals	DBF510S	Database Fundamentals
ICN511S	Introduction to Computer Networking	DTN611S	Data Networks
ASP610S	Applied Statistics & Probability for IT	ASP611S	Applied Statistics & Probability for Computing and Informatics
SEH620S	Software Engineering and HCI	SAD621S	Systems Analysis and Design
DPT621S	Database Programming and Techniques	DPG621S	Database Programming
HIT620S	Health Information Systems and Technology		None
BAP620S	Business Analysis and Process Management		None
BAI620S	Business Accounting for Informatics		None
EWD621S	Enterprise Web Application Development	WPM711S	Web Programming
IME511S	Introduction to Marketing and its Environment		None
MMA710S	Multimedia Applications	MMA710S	Multimedia Applications
CHS710S	Computer Systems for Healthcare Services		None
ERP720S	Enterprise Resource Planning Systems	ERP720S	Enterprise Resource Planning Systems
PTM721S	Project Management	PTM721S	Project Management
WIL710S	Work Integrated Learning	WIL710S	Work Integrated Learning

NB: Exemption may not be granted for part of a course. Hence, in cases where more than one course in the old curriculum is replaced by one course in the revised curriculum, students who have failed any of the corresponding courses in the old curriculum will have to do the entire new course in the revised curriculum.

Please note:
The Table above only highlights new/revised core courses in Bachelor of Informatics that should be done if courses on the old curriculum are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.

The following old courses do not have corresponding courses in the Bachelor of Informatics (new curriculum) and will be offered until the Bachelor of Informatics (old curricula) will be phased out completely in 2024:

* BAP620S: Business Analysis & Process Management   * HIT620S: Health Information Systems and Technology
* BAI620S: Business Accounting for Informatics   * CSH710S: Computer Systems for Healthcare Services

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Basic Science	BSC410S	None	4	8
Introduction to Computing	ICG511S	None	5	8
Mathematics for Computing and Informatics 1A	MCI511S	None	5	10
Business Management Information Systems	BMC511S	None	5	10
Database Fundamentals	DBF510S	None	5	10
Design Thinking	DST511S	None	5	8

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English in Practice	EPR511S	Principles of English Language Use	5	NCB
Computer Organisation and Architecture	COA511S	Mathematics for Computing and Informatics 1A	5	12
Programming 1	PRG510S	Introduction to Computing	5	10
Mathematics for Computing and Informatics 1B	MCI521S	Mathematics for Computing and Informatics 1A	5	10
Data Structures and Algorithm 1	DSA521S	Introduction to Computing	5	10
Database Programming	DPG621S	Database Fundamentals	6	12

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
English for Academic Purposes	EAP511S	English in Practice	5	14
Operating Systems	OPS611S	Computer Organisation and Architecture	6	12
Programming 2	PRG620S	Programming 1	6	10
Information Systems Security Essentials	ISS611S	None	6	10
Data Networks	DTN611S	None	6	12
Applied Statistics and Probability for Computing and Informatics	ASP611S	Mathematics for Computing and Informatics 1B	6	12

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Ethics for Computing	EFC621S	None	6	10
Systems Analysis and Design	SAD621S	None	6	12
Principles and Applications of Informatics	PAI621S	None	6	12
Data Analytics	DTA621S	Applied Statistics and Probability for Computing and Informatics	6	12
Web Application Development	WAD621S	Programming 2	6	12
Innovation, Creativity and Entrepreneurship	ICE712S	None	7	15

YEAR 3
Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Enterprise Resource Planning Systems	ERP720S	None	7	12
Multimedia Application	MMA710S	None	7	12
Information systems Strategy and Governance	ISG711S	Systems Analysis and Design	7	12
Business Intelligence and Analytics	BIA711S	Data Analytics	7	12
Web Programming	WPM711S	Web Application Development	7	12
Advanced Applications and Informatics	AAI711S	None	7	12

Semester 6

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Sustainability and Development	SYD611S	None	6	12
Project Management	PTM721S	None	7	12
Work Integrated Learning for Informatics	WOL720S	All Semester 4 courses and a maximum of 2 outstanding Semester 5 courses	7	48

DEPARTMENT OF JOURNALISM AND MEDIA TECHNOLOGY   **CODE: 38**
QUALIFICATIONS OFFERED
Bachelor of Journalism and Media Technology   07BJOU

BACHELOR OF JOURNALISM AND MEDIA TECHNOLOGY   **07BJOU**

NQF Level: 7   **NQF Credits: 417**   **NQF Qualification ID: Q0677**

Description The Bachelor of Journalism and Media Technology is designed to provide a systematic and coherent introduction to the main theories, broad principles, concepts, data, and problem-solving techniques in Journalism and Media Technology. Students will be equipped with both theoretical knowledge and practical skills that are greatly needed in journalism, multimedia technology and public relations disciplines. The programme further introduces students to the news production process as it occurs in a range of media, with an emphasis on media in Southern Africa. In that context, this programme will enable students to acquire cognitive skills, practical problem-solving skills, and key transferable skills that are necessary for addressing pressing challenges facing the journalism and media industries in Southern Africa.

Graduates of this programme should be able to find employment in the public and/or private sectors as journalists, public relations practitioners, media liaison officers, graphic designers, journalists for Internet-based platforms, communication officers at developmental organisations, and as community media managers, among others. Graduates will also be equipped to pursue entrepreneurial ventures and freelance in the field of Journalism and Media Technology industries.

Criteria for Admission Candidates may be admitted to this Programme if they meet the General Admission Requirements of the Namibia University of Science and Technology (NUST).

Candidates who meet the minimum admission requirements will be required to write a special Final Selection English Test (not a placement test), as well as a journalism-related General Knowledge test. The final stage of the selection process will be a face-to-face interview.

Candidates who meet the Mature Age Entry requirements of NUST may be considered for admission.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Graduates of the Bachelor of Journalism and Media Technology will ordinarily be able to pursue further studies in Journalism and Media Studies, or a related cognate area of learning, at NQF level 8.

Mode of Delivery
This programme will be offered *via* the part-time mode of study, in accordance with NUST rules. However, it may be offered via both full-time and part-time modes at a future date if required.

Requirements for Qualification Award
This qualification will be awarded to students credited with a minimum of 361 NQF credits, and who have met the detailed requirements below. Furthermore, students should comply with the administrative and financial requirements as indicated in the NUST General Rules and Regulations.

Transition Arrangements:
There is no significant difference between the old curriculum and the revised Bachelor of Journalism and Media Technology. In this light, the transition arrangement will be as follows: The Bachelor of Journalism and Media Technology (old curriculum) will phased out completely by end of the year 2020. The last intake of 1st year of the phased out programme (old curriculum) was in January 2020.

Students who are registered in 2020 for the 1st year of the phased-out programme (old curriculum) and who fail more than 50% of courses at the end of 2020, will be required to change their registration to the revised programme in 2021.

Similarly, Students who are registered in 2020 for the 1st year of the out-phasing programme (old curriculum) and who meet all requirements to progress to 2nd year will be required to transition to the revised curriculum in 2021. Students in this category will be required to pick up credits for the newly introduced first year course *Introduction to Media, Technology and Society*. All students will be granted credits on a course-by-course basis in accordance with information in the Table below.

The revised Bachelor of Journalism and Media Technology programme will be implemented at all levels in 2021 with concurrent implementation of 1st; 2nd and 3rd year. Courses will only be offered based on the new/revised syllabi in 2021. Students who fail any of the courses on the old curriculum will be required to repeat such courses based on the syllabi of new/revised corresponding courses (please refer to the Table below.

The deadline for completely phasing out the Bachelor of Journalism and Media Technology (old curriculum) is the end of the 2020 academic year, after which students must switch to the revised programme and fulfil all requirements based on the revised curriculum.

Table 11: Courses to be credited

Course Code	Bachelor of Journalism and Media Technology (old courses)	Course Code	Bachelor of Journalism and Media Technology (equivalent new/revised courses)
MTS611S	Media, Technology and Society	MTS511S	Introduction to Media, Technology and Society
IGW511S	Information Gathering	IGA511S	Information Gathering and Writing
IBJ521S	Introduction to Broadcast Journalism	BJ0521S	Broadcast Journalism
CDA721S	Critical Discourse Analysis	MTA721S	Media Textual Analysis
AUP721S	Audio Production	RPR721S	Radio Production

Table 12: Corresponding courses (if failed). This is not a credit table

Course Code	Bachelor's Degree: Journalism and Media Technology (old courses)	Course Code	Bachelor's Degree: Journalism and Media Technology (Corresponding new/ revised courses)
IGW511S	Information Gathering	IGA511S	Information Gathering and Writing
IPG511S	Introduction to Photography	IPG511S	Introduction to Photography
IBJ521S	Introduction to Broadcast Journalism	BJ0521S	Broadcast Journalism
JNW521S	Journalistic Writing I	JNW521S	Journalistic Writing I
MTH521S	Media Theory	MTH521S	Media Theory
MDL611S	Media Law	MDL611S	Media Law
MDP611S	Multimedia Design and Production	MDP611S	Multimedia Design and Production
DEP611S	Print Design, Editing and Production	DEP611S	Print Design, Editing and Production
AVM611S	Audio-Visual Media	AVM611S	Audio-Visual Media
MTS611S	Media, Technology and Society	MTS511S	Introduction to Media, Technology and Society
NRW621S	News Reporting and Writing	NRW721S	News Reporting and Writing
MDE621S	Media Ethics	MDE621S	Media Ethics
JNW621S	Journalistic Writing II	JNW621S	Journalistic Writing II
DAD721S	Digital Art and Design	DAD721S	Digital Art and Design
WMC711S	Work Integrated Learning (WIL)	WMC711S	Work Integrated Learning (WIL)
PRT721S	Public Relations Theory and Practice	PRT721S	Public Relations: Theory and Practice
AWD721S	Advanced Web Design and Production	AWD721S	Advanced Web Design
WIN721S	Writing and Imaging for Multimedia	WIN721S	Writing and Imaging for Multimedia
MEN721S	Media Entrepreneurship	MEN721S	Media Entrepreneurship
CDA721S	Critical Discourse Analysis	MTA721S	Media Textual Analysis
AUP721S	Audio Production	RPR721S	Radio Production
TVP721S	Television Production	TVP721S	Television Production
RCS721S	Public Relations Campaigns and Special Events	RCS721S	Public Relations Campaigns and Special Events
MAS721S	Media Advertising Strategies	MAS721S	Media Advertising Strategies

Please Note: The Table above, only highlights new/revised core courses in Journalism and Media Technology that should be done if courses on the old curriculum are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Introduction to Media, Technology and Society	MTS511S	None	5	13
Computer User Skills	CUS411S	None	4	10
Information Gathering and Writing	IGA511S	None	5	12
Introduction to Photography	IPG511S	None	5	12

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Information Competence	ICT521S	None	5	10
Basic Mathematics	BMS411S	None	4	12
Broadcast Journalism	BJO521S	None	5	12
Journalistic Writing 1	JNW521S	None	5	12
Media Theory	MTH521S	None	5	15

YEAR 2
Semester 3

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Media Law	MDL611S	None	6	13
Multimedia Design and Production	MDP611S	None	6	13
Journalistic Writing II	JNW611S	Journalistic Writing 1	6	13
Audio-Visual Media	AVM611S	Broadcast Journalism	6	13
Basic Science	BSC410S	None	4	8

Semester 4

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
News Reporting and Writing	NRW611S	Information Gathering and Writing	6	13
Media Ethics	MDE621S	Media Law	6	13
Print Design, Editing and Production	DEP612S	Information Gathering and Writing	6	13
Digital Art and Design	DAD721S	Multimedia Design and Production	7	14
Public Relations: Theory and Practice	PRT721S	None	7	14

YEAR 3
Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Work Integrated Learning (WIL)	WMC711S	All cognate-area courses up to Semester 4	7	60

Semester 6

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Sustainability and Development	SYD611S	None	6	12
Media Entrepreneurship	MEN721S	None	7	14
Media Textual Analysis	MTA721S	Media Theory	7	15

Plus ONE of the following Strand Electives depending on Specialisation

MULTI-MEDIA STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Web Design	AWD721S	Digital Art and Design	7	14
Writing and Imaging for Multimedia	WIM721S	Digital Art and Design	7	14

PUBLIC RELATIONS STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Public Relations Campaign and Special Events	RCS721S	Public Relations Theory and Practice	7	14
Media Advertising Strategies	MAS721S	Public Relations Theory and Practice	7	14

JOURNALISM STRAND

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Television Production	TVP721S	News Reporting and Writing	7	14
Radio Production	RPR721S	News Reporting and Writing	7	14

POSTGRADUATE PROGRAMMES

SCHOOL OF COMPUTING

DEPARTMENT OF COMPUTER SCIENCE   **CODE: 22**
QUALIFICATIONS OFFERED
Bachelor of Computer Science Honours (Communication Networks) Phasing out 2024   08BCCH
Bachelor of Computer Science Honours (Communication Networks) Phasing in 2025   08BCNH
Master of Computer Science   09MACS
Doctor of Philosophy in Computer Science   10DPCS

BACHELOR OF COMPUTER SCIENCE HONOURS   **08BCNH**
(Communication Networks) Phasing in 2025

NQF Level: 8   **NQF Credits: 120**

Description
The Bachelor of Computer Science Honours is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and skills of students in the main cognate area of learning, as well as developing their capacity to conduct supervised research of an applied nature in disciplines related to software engineering.

The programme is purposefully designed to expose students to advanced concepts, theories, tools, and methods of Computer Science and their applications. In this context, specific emphasis is placed on internationally accepted general standards and practices, as well as key attributes that would enable graduates to assume supervisory/middle management and applied research positions in the Computing industry, academia, and in the public sector in general.

The curriculum is structured to facilitate specialisation in the areas of Communication Networks.

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, preferably in Communication Networks or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
  • A professional resume, highlighting practical and professional Computing experience, if applicable;
  • A written proposal/motivation for undertaking further studies
  • A transcript of the undergraduate study

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course- by- course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Honours, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science Honours degree will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Broadband Networks	BBN810S	None	8	15
Emerging and Open Issues in Communication Networks	ECN811S	None	8	15
Mobile Networks and Architectures	MNA810S	None	8	15

Semester 2

Mini-Thesis	MTH820S	Research Methodology	8	45

Plus ONE of the Following Elective Courses

Multimedia Communications	IOT821S	None	8	15
Software Defined Networking	SDN821S	None	8	15
Network Vulnerabilities and Security	NVS821S	None	8	15
Internet of Things	DCM821S	None	8	15

Transition Arrangements:

The Bachelor of Computer Science Honours in Communication Networks will be phased out in 2024 without disrupting the existing students' learning progression. The last intake of students for the Bachelor of Computer Science Honours degrees in Software Development and Communication Networks was in January 2024.

Students who failed a course from the phasing out programmes will do the corresponding courses shown in Table below. Students who fail Data Centre Management will be credited Internet of Things in the revised programme. Table 14 and 15 shows a summary of the courses that will be credited.

Table 14: Course to be Credited.

Phasing Out Bachelor of Computer Science Honours (Communication Networks) – *Old Course*		*Revised* Bachelor of Computer Science Honours (Communication Networks) – *New and Equivalent Course*	
DCM821S	Datacentre Management	TBC	Internet of Things

Table 15: Corresponding Courses to be done (if failed) – This is not a credit table!

Bachelor of Computer Science Honours (Communication Networks) (Old Courses)		Bachelor of Computer Science Honours (Communication Networks) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
RIT812S	Research Methodology	RIT812S	Research Methodology
BBN810S	Broadband Networks	BBN810S	Broadband Networks
ECN811S	Emerging and Open Issues in Communication Networks	ECN811S	Emerging and Open Issues in Communication Networks
MNA810S	Mobile Networks and Architectures	MNA810S	Mobile Networks and Architectures
MTH820S	Mini-thesis	MTH820S	Mini-thesis
TBC	Internet of Things	TBC	Internet of Things
MMC821S	Multimedia Communications	MMC821S	Multimedia Communications
NVS821S	Network Vulnerabilities and Security	NVS821S	Network Vulnerabilities and Security
SDN821S	Software Defined Networks	SDN821S	Software Defined Networks

MASTER OF COMPUTER SCIENCE   **09MACS**
(Phased in 2021)

NQF Level: 9   **NQF Credits: 240**   **NQF Qualification ID: Q0504**

Description

The Master of Computer Science is a research-based programme, aims at providing continued scholarly development for students at an advanced level. The revised Master's degree is designed to develop student's scientific research skills in various areas of Computer Science for sustainable development.

The programme further aims to develop expertise and enable students to evaluate and apply Computer Science theories, techniques and models to solve complex problems in the specialised areas of Computer Science such as Communication Networks; Software Development; Mobile Development; Cyber Security; Digital Forensics, Data Analytics, Artificial Intelligence and other related disciplines. The programme will enable students to deepen their knowledge and skills to work independently, synthesise knowledge at the forefront of Computer Science, and conduct research using scientific methods.

Graduates of this programme will be prepared to pursue higher academic goals, including the Doctor of Philosophy (PhD) degree. Students will obtain skills and experience in up-to- date approaches to analysis, design, implementation, validation, and documentation of research related to specialised areas of Computer Science. With these skills, they will be well qualified for technical, professional, or managerial positions in government, business, industry, and education.

Criteria   for
Admission

Applicants, who hold qualifications from recognised institutions at NQF Level 8, or equivalent, in Computer Science or related cognate areas, may be considered for admission to this programme. Applicants need to provide evidence of having conducted supervised research at that level and may be required to make-up specific deficiencies in coursework (if deem fit to address the critical gaps in core competencies) at the discretion of the Faculty Postgraduate Committee.

In addition, applicants may be required to attend a pre-selection interview at the discretion of the department. The Higher Degree Committee (HDC) will approve the final selection and admission of the candidates in accordance with the regulations as specified by the Rules for Postgraduate Studies of NUST. Registration prior to the approval of a research proposal is provisional and will be made official only when the Higher Degrees Committee approves the proposal. These procedures will be fully explained to each prospective student during his or her personal interview.

Applicants from other institutions must submit detailed information on all courses in their previous qualifications, as well as contact details of three referees. The latter also applies to applicants who have been working in the field subsequent to obtaining their previous qualifications. Exceptions may be approved by the Faculty Postgraduate Committee, and all admissions are at the discretion of the Faculty Postgraduate Committee.

Registration prior to the approval of a research proposal is provisional and will be made official only when the proposal is approved by the Faculty Postgraduate Committee. These procedures will be fully explained to each prospective student during his or her personal interview.

Articulation Arrangements

The Master of Computer Science will ordinarily provide access to further studies in the same, or a related cognate area, at Doctoral degree level, i.e. NQF Level 10.

Mode   of
Delivery

The programme will be offered by research on full-time and part-time delivery modes of study through flexible delivery system. However, the duration of studies for full-time and part-time modes of study shall be fulfilled as contained in the NUST Rules and Regulation for Postgraduate Studies.

Requirements for Qualification Award

This qualification will be awarded to candidates credited with a minimum of 240 credits (at NQF Level 09) and who have complied with all the requirements laid down in the University's rules and procedures for postgraduate studies leading to the award of research degrees. The thesis will represent the entire body of work to be assessed and must meet the university's requirements as detailed in the rules for postgraduate studies.

Transition arrangements

The Master of Computer Science (old curriculum) will be completely phased out by the end of 2020 with minimal disruption to existing students' learning progression, and after which students must automatically switch to the revised programme (revised curriculum) and fulfil all requirements based on the new curriculum. The revised Master of Computer Science (revised curriculum) will phased-in 2021.

Assessment Strategies

Students are required to submit a research proposal after six months for approval by the Higher Degrees Committee. It is compulsory that students attend regular research methodology seminars by attending face to face or by a virtual class/online class (Remote Teaching and Learning) until the approval of the research proposal.

Students are required to present work-in-progress every six months during research seminars for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of six months for re-approval. In compliance with the general requirements of the Senate, students are required to submit a thesis for evaluation, which should comply with international academic standards.

The thesis requires students to work independently and to investigate their own individual research topic. Students are required to cultivate a professional work ethic to deliver the combination of research, analysis, communication and presentation demanded by their thesis. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their thesis before an appropriately constituted committee in accordance with the rules for postgraduate studies at the university. The thesis will be returned to students for correction before final binding and archiving. Final marks will only be released after submission of the corrected thesis.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			**Semester 1**		
MTC911S	Thesis	None	MTC911P	Thesis	None
Semester 2			**Semester 2**		
MTC912S	Thesis	MTC911S	MTC912P	Thesis	MTC911P
YEAR 2					
Semester 3			**Semester 3**		
MTC913S	Thesis	MTC912S	MTC913P	Thesis	MTC912P
Semester 4			**Semester 4**		
MTC914S	Thesis	MTC913S	MTC914P	Thesis	MTC913P
YEAR 3					
Semester 5			**Semester 5**		
MTC915X	Thesis Extension	MTC914S	MTC915P	Thesis	MTC914P
			Semester 6		
			MTC916P	Thesis	MTC915P
			Semester 7		
			MTC917X	Thesis Extension	MTC916P

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE   **10DPCS**
(Revised – Phased in 2021)

NQF Level: **NQF Credits: 360**   **NQF Qualification ID: Q0505**

Description
The Doctor of Philosophy (PhD) in Computer Science programme is a research-based (by thesis only) programme designed to enhance and expand students' knowledge and expertise in the field of Computer Science and Computing-related fields. It aims at developing skilled and competent individuals with the ability to conceptualise, develop and conduct applied research in the field of Computer Science (e.g. Communication Networks; Software Development; Mobile Development; Cyber Security; Digital Forensics, Data Analytics, Artificial Intelligence and other related Computer Science body of knowledge).

The programme builds on previously acquired theoretical and practical knowledge at NQF level 9 and other scientific and industrial experience of the students to investigate and develop novel innovative ideas and products to solve problems in the field of Computer Science. The degree is designed for the candidates with Computer Sciences background who seek to deepen and enhance competencies in their specialised areas. The programme will create a critical mass of skilled individuals in the field of Computer Science that are of great need in the country and the world.

The end product of a PhD in Computer Science study is the thesis, an independent research project completed under the guidance of the supervisor that adds new knowledge to the field and prepares the graduate to embark on a scientific career. The PhD degree programme in Computer Science will provide guidance, training and mentorship for students from various Computer Science-related fields, with the aim of preparing the next generation of Computer Science experts and researchers.

Criteria for Admission
Applicants, who hold qualifications from recognised institutions at NQF level 9, or equivalent, in Computer Science or related cognate areas, may be considered for admission to this programme. Applicants need to provide evidence of having conducted supervised research at that level. In addition, applicants may be required to attend a pre-selection interview at the discretion of the department.

The Higher Degree Committee (HDC) will approve the final selection and admission of the candidates in accordance with the regulations as specified by the Rules for Postgraduate Studies of NUST. Registration prior to the approval of a research proposal is provisional and will be made official only when the HDC approves the proposal. These procedures will be fully explained to each prospective student during his or her personal interview.

Articulation Arrangements
The PhD in Computer Science is a terminal qualification; hence, articulation arrangements are not applicable.

Mode of Delivery
The programme will be offered on full-time and part-time delivery modes of study through flexible delivery system in accordance with NUST's Rules for Postgraduate Studies.

Requirements for Qualification Award
The Doctoral degree shall be awarded to candidates credited with a minimum of 360 credits at NQF Level 10 and who have complied with all the requirements laid down in the University's rules and procedures for postgraduate studies leading to the award of research degrees. The thesis will represent the entire body of work to be assessed and must meet the University's requirements as detailed in the rules for postgraduate studies.

Transition arrangements
The Doctor of Philosophy in Computer Science (revised curriculum) will be phased-in 2021 with minimal disruption to existing students' learning progression. The current programme (old curriculum) will be completely phased out by the end of 2020 after which students must automatically switch to the revised programme and fulfil all requirements based on the revised curriculum.

Assessment Strategies
Students are required to submit a research proposal six months after registration for approval by the Higher Degrees Committee. It is compulsory that students attend regular research methodology seminars by attending face to face or by a virtual class/online class (Remote Teaching and Learning) until the approval of the research proposal. Students are required to present a work-in-progress report every six months during research seminars for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of six months for re-approval. In compliance with the general requirements of the Senate, students are required to submit a thesis for evaluation, which should comply with international academic standards.

The thesis requires students to work independently and to investigate their own individual research topic and supervisor(s) can assist with the area depending on the needs at national level and the expertise. Students are required to cultivate a professional work ethic to deliver the combination of research, analysis, communication and presentation demanded by their thesis. The thesis will represent the entire body of work to be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their thesis before an appropriately constituted committee in accordance with the rules for postgraduate studies at the University. The thesis will be returned to students for correction before final binding and archiving. The result of the Thesis will only be announced after correction and submission of the thesis as per university rules. Any other special arrangements on assessments will be done in accordance with the University's rules and procedures for postgraduate studies.

Quality Assurance Arrangements

Qualified academics and relevant professionals with Doctoral Degrees will carry out the final assessment of the thesis. The appointment of Examiners and the composition of the Panel for the Oral Examination of thesis are specified in the Rules for Postgraduate Studies.

In addition to the doctoral degree the examiners should be knowledgeable in the area/field/discipline of the topic of the thesis to be examined (i.e. the examiner should have the necessary background to be able to make an informed judgement about the thesis); and should be research active in the discipline. This will be done in accordance with the regulations specified in the Rules for Postgraduate Studies and the NUST Guidelines for the Supervision and Examination of Masters and Doctoral Programmes, outlined in the NUST General Rules and Regulations.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
PTC101S	Thesis	None	PTC101P	Thesis	None
Semester 2			Semester 2		
PTC102S	Thesis	None	PTC102P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
PTC103S	Thesis	None	PTC103P	Thesis	None
Semester 4			Semester 4		
PTC104S	Thesis	None	PTC104P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
PTC105S	Thesis	None	PTC105P	Thesis	None
Semester 6			Semester 6		
PTC106S	Thesis		PTC106P	Thesis	None
YEAR 4					
Semester 7			Semester 7		
PTC107X	Thesis Extension	None	PTC107P	Thesis	None
			Semester 8		
			PTC108P	Thesis	None
YEAR 5					
			Semester 9		
			PTC109P	Thesis	None
			Semester 10		
			PTC110P	Thesis	None
YEAR 6					
			Semester 11		
			PTC111P	Thesis	None
			Semester 12		
			PTC112P	Thesis	None
YEAR 7					
			Semester 13		
			PTC113X	Thesis Extension	None

DEPARTMENT OF CYBER SECURITY   **CODE: 19**
QUALIFICATIONS OFFERED
Bachelor of Computer Science Honours in Digital Forensics   08BHDS
Bachelor of Computer Science Honours in Information Security   08BHIF

BACHELOR OF COMPUTER SCIENCE HONOURS IN DIGITAL FORENSICS   **08BHDS**
(Revised - Phased in 2021)

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q02260**

Description
The Bachelor of Computer Science Honours in Digital Forensics aims at providing educational opportunities for students who are interested in and motivated to work as Digital Forensic Professionals. Students will gain the requisite knowledge required to enable them to deal with identification, presentation, analysis, documentation and preservation of digital evidence using scientifically proven and accepted processes.

This programme is designed to provide skillful, competent and motivated Digital Forensics graduates who can successfully identify attacks and breaches, understand the source, and recover any compromised data whenever a breach or an attack occurs using appropriate tools. As a branch of Computing and Information Assurance and Security, Digital Forensics will enable students to develop critical skills used in the presentation of evidence whenever a digital investigation is called for.

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, preferably in Cyber Security, Systems Administration, and Communication Networks or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
- A professional resume, highlighting practical and professional Computing experience, if applicable;
- A written proposal/motivation for undertaking further studies

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. The maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Honours in Digital Forensics, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on the part-time mode in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science Honours degree in Digital Forensics will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. Students are required to do four compulsory courses (worth 60 credits), an elective course (worth 15 credits) and a Mini-thesis (worth 45 credits). In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

Transition Arrangements
The Bachelor of Computer Science Honours in Digital Forensics (old curricula) (08BHDF) will phased out systematically until 2021 with minimal disruption to existing students' learning progression. The last intake of students for the Bachelor of Computer Science Honours degree in Digital Forensics (old curricula) was in January 2020.

Students registered in 2020 on the old curriculum may opt to transition to the revised curriculum of Bachelor of Computer Science Honours in Digital Forensics (revised curricula) in 2021 and will be granted credit on a course-by-course basis as described in the Table below. Such students, however, stand to lose credits.

The Bachelor of Computer Science Honours in Digital Forensics (revised curriculum), will take effect from January 2021. Courses will only be offered based on the syllabi of revised courses in 2021. Students who fail any of the courses in the old curriculum will be required to repeat such courses based on the corresponding courses in the revised curriculum. Please refer to the Table below for detailed information on the new or revised corresponding courses to be done if students fail courses in the old curriculum.

The deadline for complete phasing out of the Bachelor of Computer Science Honours in Digital Forensics (old curricula) is 2021. Students registered in 2020 on the out-phasing strand will be required to complete their studies based on the requirements of the old curriculum. These students will have until 2021 to complete their studies, after which all students must automatically switch to the Bachelor of Computer Science Honours in Digital Forensics (revised curriculum).

Students who fail the following old courses must register for the new/revised courses in the Bachelor of Computer Science Honours in Digital Forensics as listed in the Table below.

Corresponding Courses to be done (if failed) - This is not a credit table

Bachelor of Computer Science Honours in Digital Forensics Strand (Old Courses)		Bachelor of Computer Science Honours in Digital Forensics Strand (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
RIT812S	Research Methodology	RIT812S	Research Methodology
PTS811S	Practical Network Security	AIL811S	Advanced Intrusions and Log Analysis
APC811S	Applied Cryptography	MCF811S	Mobile and Cloud Forensics
DFM811S	Digital Forensics Management	DFM811S	Digital Forensics Management
MTH820S	Mini Thesis	MTH820S	Mini Thesis
CMF821S	Computer and Multimedia Forensics	MMF821S	Multimedia Forensics
MBF821S	Mobile Forensics	SAU821S	Systems Audit
		CPS821S	Criminal Procedures
		SAS821S	Security Analytics

NB: For Mobile Forensics, students are required to take only one elective from Systems Audit, Criminal Procedures and Secure Analytics

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Advanced Intrusion and Log Analysis	AIL811S	None	8	15
Digital Forensics Management	DFM811S	None	8	15
Mobile and Cloud Forensics	MCF811S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Mini-Thesis	MTH820S	Research Methodology	8	45
Criminal Procedures	CPS821S	None	8	15
Multimedia Forensics	MMF821S	None	8	15
Security Analytics	SAS821S	None	8	15
Systems Audit	SAU821S	None	8	15

BACHELOR OF COMPUTER SCIENCE HONOURS IN INFORMATION SECURITY   **08BHIF**
(Revised - Phased in 2021)

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q02261**

Description
The Bachelor of Computer Science Honours in Information Security aims at providing an educational opportunity for students who are interested in and motivated to work as Information Security Professionals. The programme places an emphasis on advanced knowledge and skills on protection of cyber systems and information through ensuring confidentiality, integrity and availability of those systems. Additionally, the programme is designed to expose students to advanced information security concepts, theories, tools, and methods in computer science.

Students will have the opportunity to develop the required 21st Century skills, practical as well as key transferable skills, and apply these to current Information Assurance and Security challenges in the context of organisations, countries and or individual use.

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, preferably in Cyber Security, Systems Administration, and Communication Networks or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
- A professional resume, highlighting practical and professional Computing experience, if applicable;
- A written proposal/motivation for undertaking further studies

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification. Upon successful completion of the Bachelor of Computer Science Honours in Information Security, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on part-time mode in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension) the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science Honours degree in Information Security will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. Students are required to do four compulsory courses (worth 60 credits), an elective course (worth 15 credits) and a Mini thesis (worth 45 credits). In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

Transition Arrangements
The Bachelor of Computer Science Honours in Information Security (old curricula) will be phased out systematically until 2021 with minimal disruption to existing students' learning progression. The last intake of students for the Bachelor of Computer Science Honours degree in Information Security (old curricula) was in January 2020.

Students registered in 2020 on the old curriculum may opt to transition to the revised curriculum of Bachelor of Computer Science Honours in Information Security (revised curricula) in 2021 and will be granted credit on a course-by-course basis as described in the Table below. Such students, however, stand to lose credits.

The Bachelor of Computer Science Honours Information Security (revised curriculum), will take effect from January 2021. Courses will only be offered based on the syllabi of revised courses in 2021. Students who fail any of the courses in the old curriculum will be required to repeat such courses based on the corresponding courses in the revised curriculum. Please refer to the Table below for detailed information on the new or revised corresponding courses to be done if students fail courses in the old curriculum.

The deadline for complete phasing out of the Bachelor of Computer Science Honours in Information Security (old curricula) is 2021. Students registered in 2020 on the out-phasing strand will be required to complete their studies based on the requirements of the old curriculum. These students will have until 2021 to complete their studies, after which all students must automatically switch to the Bachelor of Computer Science Honours in Information Security (revised curriculum).

Courses to be credited

Bachelor of Computer Science Honours in Information Security (Old Courses) (2015-2020)		Bachelor of Computer Science Honours in Information Security (New/revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
RIT812S	Research Methodology	RIT812S	Research Methodology
MTH820S	Mini Thesis	MTH820S	Mini Thesis
PTS811S	Practical Network Security	ENH811S	Ethical Network Hacking
APC811S	Applied Cryptography	APC811S	Applied Cryptography
ISM811S	Information Security Management and Assurance	ISM811S	Information Security Management and Assurance
CIT821S	Critical Infrastructure Protection	CIP822S	Critical Information Infrastructure Protection and Control System Security
DSD821S	Database Security and Data Protection	DSD821S	Database Security and Data Protection

Corresponding Courses to be done (if failed) - This is not a credit table

Bachelor of Computer Science Honours in Information Security (Old Courses)		Bachelor of Computer Science Honours in Information Security (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
RIT812S	Research Methodology	RIT812S	Research Methodology
PTS811S	Practical Network Security	ENH811S	Ethical Network Hacking
APC811S	Applied Cryptography	APC811S	Applied Cryptography
ISM811S	Information Security Management and Assurance	ISM811S	Information Security Management and Assurance
MTH820S	Mini Thesis	MTH820S	Mini Thesis
CIT821S	Critical Infrastructure Protection	CIP8221S	Critical Information Infrastructure Protection and Control System Security
		DSD821S	Database Security and Data Protection
		SSS811S	Secure Systems
		SAS821S	Security Analytics
DSD821S	Database Security and Data Protection	DSD821S	Database Security and Data Protection
		CIP822S	Critical Information Infrastructure Protection and Control System Security
		SSS811S	Secure Systems
		SAS821S	Security Analytics

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Applied Cryptography	APC811S	None	8	15
Ethical Network Hacking	ENH811S	None	8	15
Information Security Management and Assurance	ISM811S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Mini-Thesis	MTH820S	Research Methodology	8	45
Critical Information Infrastructure Protection and Control Systems Security	CPS821S	None	8	15
Database Security and Data Protection	DSD821S	None	8	15
Security Analytics	SAS821S	None	8	15
Secure Systems	SSS811S	None	8	15

DEPARTMENT OF SOFTWARE ENGINEERING   **CODE: 29**
Bachelor of Computer Science Honours (Software Development) Phasing out 2025   08BCHS
Bachelor of Computer Science Honours (Software Development) Revised (Phasing in 2025)   08HBCS

BACHELOR OF COMPUTER SCIENCE HONOURS   **08BCHS**
(Software Development) – Phasing out 2025

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q0509**

Description
The Bachelor of Computer Science Honours is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and skills of students in the main cognate area of learning, as well as developing their capacity to conduct supervised research of an applied nature in disciplines related to software engineering.

The programme is purposefully designed to expose students to advanced concepts, theories, tools, and methods of Computer Science and their applications. In this context, specific emphasis is placed on internationally accepted general standards and practices, as well as key attributes that would enable graduates to assume supervisory/middle management and applied research positions in the Computing industry, academia, and in the public sector in general.

The curriculum is structured to facilitate specialisation in the areas of Software Development and Communication Networks.

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, preferably in Software Development and Communication Networks or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
   • A professional resume, highlighting practical and professional Computing experience, if applicable;
   • A written proposal/motivation for undertaking further studies
   • A transcript of the undergraduate study

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Honours, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science Honours degree will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

Transition Arrangements
The Bachelor of Computer Science Honours in Software Development, Mobile Development, Information Security, Digital Forensics and Communication Networks (old curricula) will be phased out systematically until 2021 with minimal disruption to existing students' learning progression. The last intake of students for the Bachelor of Computer Science Honours degrees in Software Development, Mobile Development, Information Security, Digital Forensics and Communication Networks (old curricula) was in January 2019.

Students registered in 2019 on the old curriculum may opt to transition to the revised curriculum of Bachelor of Computer Science Honours in Software Development, and Communication Networks (revised curricula) in 2020 and will be granted credit on a course-by-course basis as described in the Table below. Such students, however, stand to lose credits.

The Bachelor of Computer Science Honours in Software Development, and Communication Networks (revised curriculum) will take effect from January 2020. Courses will only be offered based on the syllabi of revised courses in 2020. Students who fail any of the courses in the old curriculum will be required to repeat such courses based on the corresponding courses in the revised curriculum.

Please refer to the Table below for detailed information on the new or revised corresponding courses to be done if students fail courses in the old curriculum.

The deadline for complete phasing out of the Bachelor of Computer Science Honours in Software Development, Mobile Development and Communication Networks (old curricula) is 2021. Students registered in 2019 on the out-phasing strand namely Mobile Development will be required to complete their studies based on the requirements of the old curriculum. These students will have until 2021 to complete their studies, after which all students must automatically switch to the Bachelor of Computer Science Honours in Software Development, and Communication Networks (revised curriculum).

Table 16: Corresponding Courses to be done (if failed) – This is not a credit table

Bachelor of Computer Science Honours (Software Development; Mobile Development; Information Security, Digital Forensics and Communication Networks) (Old Courses)		Bachelor of Computer Science Honours (Software Development, Communication Networks) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Title	Course Code	Course Title
RIT812S	Research Methodology	RIT812S	Research Methodology
ASD810S	Advanced Software Development	ASD810S	Advanced Software Development
ESD811S	Emerging and Open Issues in Software Development	ESD811S	Emerging and Open Issues in Software Development
FMM810S	Formal Methods	FMM810S	Formal Methods
MTH820S	Mini-Thesis	MTH820S	Mini-Thesis
MAD811S	Mobile Applications Development	MPD820S	Mobile Platforms and Development Environments
PLC820S	Programming Languages and Compiler		None

Note: Students who failed the following old courses must register for the new/revised courses in the Bachelor of Computer Science Honours in Communication Networks as listed in the Table above.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Advanced Software Development	ASD810S	None	8	15
Emerging and Open Issues in Software Development	ESD811S	None	8	15
Secure Systems	SSS811S	None	8	15

Semester 2

Mini-Thesis	MTH820S	Research Methodology	8	45

Plus ONE of the following Strand Elective courses

Interaction Design	IDN821S	None	8	15
Mobile Platforms and Development Environments	MPD820S	None	8	15
Formal Methods	FMM820S	None	8	15
Programming Security	PRS821S	None	8	15

Bachelor of Computer Science Honours (Software Development)   **Programme Code: 08HBCS**
(Revised - Phase in 2025)

NQF Level: 8   **NQF Credits: 120**

Description
The Bachelor of Computer Science Honours is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and skills of students in the main cognate area of learning, as well as developing their capacity to conduct supervised research of an applied nature in disciplines related to software engineering.

The programme is purposefully designed to expose students to advanced concepts, theories, tools, and methods of Computer Science and their applications. In this context, specific emphasis is placed on internationally accepted general standards and practices, as well as key attributes that would enable graduates to assume supervisory/middle management and applied research positions in the Computing industry, academia, and in the public sector in general.

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, preferably in Software Development or a related equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
• A professional resume, highlighting practical and professional Computing experience, if applicable;
• A written proposal/motivation for undertaking further studies
• A transcript of the undergraduate study

Articulation
Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

Upon successful completion of the Bachelor of Computer Science Honours, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on full-time and part-time modes in accordance with NUST rules. With the provision that there is a reliable mechanism to monitor student access on the E-learning platform (or its extension), the online mode will also be considered.

Requirements for Qualification Award
The Bachelor of Computer Science Honours degree will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

CURRICULUM
Year 1
Semester 1

Course Title	Course Code	Pre-requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Advanced Software Development	ASD810S	None	8	15
Emerging and Open Issues in Software Development	ESD811S	None	8	15
Programming for Security Professionals	PRS821S	None	8	15

Semester 2

Course Title	Course Code	Pre-requisite	NQF Level	NQF Credit
Mini-Thesis	MTH820S	Research Methodology	8	45
Plus ONE of the following Strand Elective courses				
Human-Centred Artificial Intelligence	HAI820S	None	8	15
Mobile Platforms and Development Environments	MPD820S	None	8	15
Formal Methods	FMM820S	None	8	15

Secure Systems	SSS811S	None	8	15

Transition Arrangements:

The Bachelor of Computer Science Honours in Software Development will be phased out in 2024 without disrupting the existing students' learning progression. The last intake of students for the Bachelor of Computer Science Honours degrees in Software Development was in January 2024.

Students who failed a course from the phasing out programme will do the corresponding courses shown in Table 17 for the Bachelor of Computer Science Honours in Software Development, students who passed Interaction Design, will be credited Human-Centred Artificial Intelligence in the revised curriculum.

Table 17: Course to be Credited.

Phasing Out Bachelor of Computer Science Honours (Software Development) – *Old Course*		*Revised* Bachelor of Computer Science Honours (Software Development) – *New and Equivalent Course*	
IDN821S	Interaction Design	HAI820S	Human-Centred Artificial Intelligence

Table 18: Corresponding Courses to be done (if failed) – This is not a credit table!

Bachelor of Computer Science Honours (Software Development (Old Courses)		Bachelor of Computer Science Honours (Software Development) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	**Course Title**	**Course Code**	**Course Title**
RIT812S	Research Methodology	RIT812S	Research Methodology
ASD810S	Advanced Software Development	ASD810S	Advanced Software Development
ESD811S	Emerging and Open Issues in Software Development	ESD811S	Emerging and Open Issues in Software Development
PRS821S	Programming for Security Professionals	PRS821S	Programming for Security Professionals
MTH820S	Mini-thesis	MTH820S	Mini-thesis
FMM810S	Formal Methods	FMM810S	Formal Methods
IDN821S	Interaction Design	HAI820S	Human Centered Artificial Intelligence
MPD820S	Mobile Platforms and Development Environments	MPD820S	Mobile Platforms and Development Environments
SSS811S	Secure Systems	SSS811S	Secure Systems

SCHOOL OF INFORMATICS, JOURNALISM AND MEDIA TECHNOLOGY

DEPARTMENT OF INFORMATICS   **CODE: 37**
QUALIFICATIONS OFFERED
Postgraduate Certificate in Informatics (Information Systems Audit)   08PGIN
Bachelor of Informatics Honours (Web Informatics)   08BIHW
Bachelor of Informatics Honours (Business Informatics)   08BIFB
Master of Data Science (Phased in 2022)   09MADS
Master of Informatics (Revised –Phased in 2021)   09MAIN
Doctor of Philosophy in Informatics (Revised-Phased in 2021)   10DPIN

POSTGRADUATE CERTIFICATE IN INFORMATICS (INFORMATION SYSTEMS AUDIT)   **08PGIN**

NQF Level: 8   **NQF Credits: 60**   **NQF Qualification ID: Q0583**

Description
The programme is primarily designed to provide students with deeper insight, intellectual and cognitive skills related to their professional field and area of employment and help them to advance their career of choice. This programme further, exposes students to advanced concepts, theories, tools, and methods of Information Systems Audit.

The overarching aim of this programme is to prepare students for a career in the Information Technology (IT) audit field and for certification as an information systems auditor or information security specialist. Students will be able to take-up a certification course in this field and may become members of professional/association bodies such as the Information Systems Audit and Control Association (ISACA).

The Post Graduate Certificate in Informatics (Information Systems Audit) will not lead to further academic study, but graduates would gain credit for relevant courses should they opt to register for the Bachelor of Informatics Honours.

Criteria for Admission
Applicants must have a three-year Diploma or a Bachelor's degree or an equivalent qualification at NQF Level 7 with an Information Systems emphasis from a recognised institution. Applicants should also have at least two years' relevant work experience. Applicants are required to submit a professional resume, highlighting practical and professional experience, if applicable.

Articulation Arrangements
Transfer of credits will be dealt with in accordance with the NUST's regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Students who commenced a Bachelor of Informatics Honours (New), but discontinued their studies, may utilise academic courses passed for credit recognition in the Post Graduate Certificate in Informatics (Information Systems Audit).

Conversely, students who passed academic courses as part of this programme may utilise these for credit, if wishing ultimately to undertake the Bachelor of Informatics Honours (New).

Mode of Delivery
The programme will be delivered on part-time mode in accordance with NUST rules.

Requirements for Qualification Award
This qualification will be awarded to candidates credited with a minimum of 60 NQF credits at NQF Level 8, and who have met the detailed qualification requirements as outlined below. In addition, students must meet the administrative and financial requirements as spelt out in the Postgraduate Prospectus of NUST.

Transition Arrangements
The Post Graduate Certificate in Informatics (Information Systems Audit) (old curriculum) will phased-out completely end of 2020. The last intake of students for the Post Graduate Certificate in Informatics (Information Systems Audit) (old curriculum) was in January 2020.

Students who are registered in 2020 for the Post Graduate Certificate in Informatics (Information Systems Audit (old curriculum), and who fail more than 50% of the courses at the end of 2020, will be required to change their registration to the Post Graduate Certificate in Informatics (Information Systems Audit) (revised curriculum) and will be granted credits on a course-by-course basis in accordance with the information in the Table below.

The Post Graduate Certificate in Informatics (Information Systems Audit) (revised curriculum) will take effect from January 2021. Courses will only be offered based on the syllabi of new/revised courses in 2021. Students who fail any of the courses on the old curricula will be required to repeat such failed courses based on the syllabi of the new/revised corresponding courses. Please refer to Table 15.2 below, for detailed information on the new/revised corresponding courses to be done if courses on the Post Graduate Certificate in Informatics (Information Systems Audit) (old curriculum) are failed.

The deadline for complete phasing out of the Post Graduate Certificate in Informatics (Information Systems Audit) old curriculum) is 2020 after which students must automatically switch to the Post Graduate Certificate in Informatics (Information Systems Audit) (revised curriculum).

Table 19: Courses to be credited

Post Graduate Certificate in Informatics (Information Systems Audit) (Old Courses)		Post Graduate Certificate in Informatics (Information Systems Audit) (New/Revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
AIS822S	Accounting Information Systems	AIS822S	Accounting Information Systems
ISA822S	Information Systems Audit	ISA822S	Information Systems Audit
PGP811S	Industry Project	PGP811S	Industry Project
ISM811S	Information Security Management and Assurance	ISM811S	Information Security Management and Assurance

Table 20: Corresponding Courses to be done (if failed) - this is not a credit table

Post Graduate Certificate in Informatics (Information Systems Audit) (Old Courses)		Post Graduate Certificate in Informatics (Information Systems Audit) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Name	Course Code	Course Name
AIS822S	Accounting Information Systems	AIS822S	Accounting Information Systems
ISA822S	Information Systems Audit	ISA822S	Information Systems Audit
PGP811S	Industry Project	PGP811S	Industry Project
ISM811S	Information Security Management and Assurance	ISM811S	Information Security Management and Assurance

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Information Security Management and Assurance	ISM811S	None	8	15
Information Systems Audit	ISA822S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Industry Project	PGP811S	Students must have passed at least one course	8	15

Plus ONE of the following Electives

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Accounting Information Systems	AIS822S	None	8	15
Finance for Non-Financial Professionals	NFP821S	None	8	15

BACHELOR OF INFORMATICS HONOURS   **08BIHW**
(Web Informatics)

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q2252**

Description
The Bachelor of Informatics Honours is a postgraduate specialisation degree that aims at providing educational opportunities for students who are interested in and motivated to work as Web and Business Informatics Specialists or related practices. This programme is purposefully designed to develop students' ability to conduct supervised research by applying advanced concepts, theories, tools, and methods of Informatics. In this context, specific emphasis is placed on internationally accepted general standards and practices, as well as key attributes that would enable graduates to assume supervisory/middle management and applied research positions in the Computing industry, academia, and in the public sector in general.

Graduates of this programme will be able to find employment or entrepreneurship in the public and private sectors as Informatics specialists (e.g. Research Assistants, Web and Data Analyst etc.).

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Informatics from NUST, or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
- A professional resume, highlighting practical and professional Computing and IT experience, if applicable.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's rules and regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Upon successful completion of the Bachelor of Informatics Honours, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on the full-time and part-time modes of study in accordance with NUST rules. The E-learning mode will only be considered after the programme has reached a certain level of maturity.

Requirements for Qualification Award
The Bachelor of Informatics Honours degree will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations. Students can specialise in Web Informatics or Business and must complete one-core compulsory (CC) courses (worth 15 credits); four strand compulsory courses (SC) (worth 45 credits); one strand elective (SE) course (worth 15 credits); and a Mini-thesis (worth 45 credits).

Transition Arrangements
The Bachelor of Informatics Honours (old curriculum) will be phased out systematically until 2021 with minimal disruption to existing students' learning progression. The last intake of students for the Bachelor of Informatics Honours (old curriculum) was in January 2019.

Students who are registered on the Bachelor of Informatics Honours (old curriculum) will be allowed to transition to the Bachelor of Informatics Honours (revised curriculum) but may lose credits. Students who are registered in 2019 for Bachelor of Informatics Honours (old curriculum), and who fail more than 50% of the courses at the end of 2019, will be required to change their registration to the Bachelor of Informatics Honours (revised curriculum) and will be granted credits on a course-by-course basis in accordance with the information in the Table below.

The Bachelor of Informatics Honours (revised curriculum), will take effect from January 2020. Students who fail any of the courses on the old curricula will be required to repeat such failed courses based on the syllabi of the new/revised corresponding courses in the Table below.

The deadline for complete phasing out of the Bachelor of Informatics Honours (old curriculum) is 2021, after which, students must automatically switch to the Bachelor of Informatics Honours (revised curriculum).

Table 21: Courses to be Credited

Bachelor of Informatics Honours (Old Courses)		Bachelor of Informatics Honours (New/Revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
RIT812S	Research Methodology	RIT812S	Research Methodology
EAT810S	Enterprise Architecture	EAT810S	Enterprise Architecture
MTH820S	Mini-thesis	MTH820S	Mini-thesis
WEB INFORMATICS STRAND			
GDM810S	Graphics Design and Digital Media	AMG811S	Advance Multimedia and Graphics Design
AMM820S	Advanced Multimedia		
BWM810S	Business Web and Marketing	DMG811S	Digital Marketing
MAI821S	Mobile Applications in Informatics	MDE821S	Mobile Platforms and Development Environments

Table 22: Corresponding Courses to be done (if failed) – this is not a credit table

Bachelor of Informatics Honours (Old Courses)		Bachelor of Informatics Honours (Corresponding New/Revised Courses to be done, if failed))	
Course Code	Course Name	Course Code	Course Name
RIT812S	Research Methodology	RIT812S	Research Methodology
EAT810S	Enterprise Architecture	EAT810S	Enterprise Architecture
MTH820S	Mini-thesis	MTH820S	Mini-thesis
GDM810S	Graphics Design and Digital Media	AMG811S	Advanced Multimedia and Graphics Design
AMM820S	Advanced Multimedia		
BWM810S	Business Web and Marketing	DMG811S	Digital Marketing
BIN810S	Business Intelligence	DSA821S	Data Science and Analytics
ILM811S	IT in Logistics Management		None
MAI821S	Mobile Applications in Informatics	MDE821S	Mobile Platforms and Development Environments
ISA822S	Information Systems Audit	ISA822S	Information Systems Audit
AIS822S	Accounting Information Systems		None

NB: *Exemption may not be granted for part of a course. Hence, in cases where more than one course in the old curriculum is replaced by one course in the revised curriculum, students who have failed any of the corresponding courses in the old curriculum will have to do the entire new course in the revised curriculum.*

Please note:
The following old courses do not have new/revised corresponding courses in the Bachelor of Informatics Honours (new curriculum), and will be offered until the Bachelor of Information Technology Honours in Business Computing (old curriculum) is phased out completely in 2021:

      * IT in Logistics Management (ILM812S)   * Accounting Information Systems (AIS822S)

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Web Application Development and Testing	WED8114S	None	8	15
Digital Marketing	DMG811S	None	8	15
Advanced Multimedia and Graphics Design	AMG811S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Mini-Thesis	MTH820S	Research Methodology	8	45
Choose only ONE course				
Mobile Platforms and Development Environments	MDE821S	None	8	15
Data Science and Analytics	DSA821S	None	8	15
Technology Entrepreneurship	TEE821S	None	8	15

BACHELOR OF INFORMATICS HONOURS   **08BIFB**
(Business Informatics)

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q2252**

Description
The Bachelor of Informatics Honours is a postgraduate specialisation degree that aims at providing educational opportunities for students who are interested in and motivated to work as Web and Business Informatics Specialists or related practices. This programme is purposefully designed to develop students' ability to conduct supervised research by applying advanced concepts, theories, tools, and methods of Informatics. In this context, specific emphasis is placed on internationally accepted general standards and practices, as well as key attributes that would enable graduates to assume supervisory/middle management and applied research positions in the Computing industry, academia, and in the public sector in general.

Graduates of this programme will be able to find employment or entrepreneurship in the public and private sectors as Informatics specialists (e.g. Research Assistants, Web and Data Analyst etc.).

Criteria for Admission
Applicants may be considered for admission to this programme if they have a Bachelor's degree in Informatics from NUST, or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits.

Applicants are required to submit the following documents with their applications:
- A professional resume, highlighting practical and professional Computing and IT experience, if applicable.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's rules and regulations on Recognition of Prior Learning. These provide for course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50 % of the credits for a qualification.

Upon successful completion of the Bachelor of Informatics Honours, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery
The programme will be delivered on the full-time and part-time modes of study in accordance with NUST rules. The E-learning mode will only be considered after the programme has reached a certain level of maturity.

Requirements for Qualification Award
The Bachelor of Informatics Honours degree will be awarded to students credited with a minimum of 120 NQF credits at NQF Level 8, and who have met the detailed requirements as set out below. In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations. Students can specialise in Web Informatics or Business and must complete one-core compulsory (CC) courses (worth 15 credits); four strand compulsory courses (SC) (worth 45 credits); one strand elective (SE) course (worth 15 credits); and a Mini-thesis (worth 45 credits).

Transition Arrangements
The Bachelor of Informatics Honours (old curriculum) will be phased out systematically until 2021 with minimal disruption to existing students' learning progression. The last intake of students for the Bachelor of Informatics Honours (old curriculum) was in January 2019.

Students who are registered on the Bachelor of Informatics Honours (old curriculum) will be allowed to transition to the Bachelor of Informatics Honours (revised curriculum) but may lose credits. Students who are registered in 2019 for Bachelor of Informatics Honours (old curriculum), and who fail more than 50% of the courses at the end of 2019, will be required to change their registration to the Bachelor of Informatics Honours (revised curriculum) and will be granted credits on a course-by-course basis in accordance with the information in the Table below.

The Bachelor of Informatics Honours (revised curriculum), will take effect from January 2020. Students who fail any of the courses on the old curricula will be required to repeat such failed courses based on the syllabi of the new/revised corresponding courses in the Table below.

The deadline for complete phasing out of the Bachelor of Informatics Honours (old curriculum) is 2021, after which, students must automatically switch to the Bachelor of Informatics Honours (revised curriculum).

Table 23: Courses to be Credited

Bachelor of Informatics Honours (Old Courses)		Bachelor of Informatics Honours (New/Revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
RIT812S	Research Methodology	RIT812S	Research Methodology
EAT810S	Enterprise Architecture	EAT810S	Enterprise Architecture
MTH820S	Mini-thesis	MTH820S	Mini-thesis
BUSINESS INFORMATICS STRAND			
BIN810S	Business Intelligence	DSA821S	Data Science and Analytics
ILM811S	IT in Logistics Management		None
ISA822S	Information Systems Audit	ISA822S	Information Systems Audit

Table 24: Corresponding Courses to be done (if failed) – this is not a credit table

Bachelor of Informatics Honours (Old Courses)		Bachelor of Informatics Honours (Corresponding New/Revised Courses to be done, if failed))	
Course Code	Course Name	Course Code	Course Name
RIT812S	Research Methodology	RIT812S	Research Methodology
EAT810S	Enterprise Architecture	EAT810S	Enterprise Architecture
MTH820S	Mini-thesis	MTH820S	Mini-thesis
GDM810S	Graphics Design and Digital Media	AMG811S	Advanced Multimedia and Graphics Design
AMM820S	Advanced Multimedia		
BWM810S	Business Web and Marketing	DMG811S	Digital Marketing
BIN810S	Business Intelligence	DSA821S	Data Science and Analytics
ILM811S	IT in Logistics Management		None
MAI821S	Mobile Applications in Informatics	MDE821S	Mobile Platforms and Development Environments
ISA822S	Information Systems Audit	ISA822S	Information Systems Audit
AIS822S	Accounting Information Systems		None

NB: Exemption may not be granted for part of a course. Hence, in cases where more than one course in the old curriculum is replaced by one course in the revised curriculum, students who have failed any of the corresponding courses in the old curriculum will have to do the entire new course in the revised curriculum.

Please note:

The following old courses do not have new/revised corresponding courses in the Bachelor of Informatics Honours (new curriculum), and will be offered until the Bachelor of Information Technology Honours in Business Computing (old curriculum) is phased out completely in 2021:

- IT in Logistics Management (ILM812S)   * Accounting Information Systems (AIS822S)

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RIT812S	None	8	15
Information and Knowledge Management Systems	IKM811S	None	8	15
Information Systems Audit	ISA822S	None	8	15
Enterprise Architecture	EAT810S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Mini-Thesis	MTH820S	Research Methodology	8	45
Choose only ONE course				
Data Science and Analytics	DSA821S	None	8	15
Finance for Non-Financial Professionals	NFP821S	None	8	15
Technology Entrepreneurship	TEE821S	None	8	15

MASTER OF DATA SCIENCE   **09MADS**
(Phased in 2022)

NQF Level: **NQF Credits: 240**   **NQF Qualification ID: Q2265**

Description
The Master of Data Science is designed to provide students with sound theoretical, research and professional skills in data science. The programme will further, equip students with skills relevant to create, validate and transform data and derive insight from data. Students will gain deepened knowledge of contemporary data management and analysis technologies, including those for data collection, processing and storage, visualisation, cloud-based infrastructure, and software project management. More crucially, students will learn how to properly present and communicate results and data-driven insights to maximise their impact on business and industry. Finally, students will learn to observe ethics and governance rules appropriate for the dataset.

Graduates, will be capacitated to respond to the need in the industry for advanced data analytics skills, focused on various fields or application domains, including customer intelligence, bioinformatics and healthcare, agriculture, engineering, physics and its related sciences, computer vision, natural language processing and text analytics.

With this programme, students will also be able to work with vast amounts of (local and international) data in the industry, business, and government, using appropriate techniques and analytical tools and software to conduct data analytics and solve complex data-driven problems. They will be independent, with a strong personal and work ethic, and a desire to contribute towards, and effect change in the community and broader work environment. The programme is further, designed with an applied research component to enable students to contribute to research in Data Science. This is achieved through designing and executing a research study and effectively communicating the findings of their research output in the disciplines and fields related to data science, including artificial intelligence, machine learning, advanced data management, visualisation, and summarisation.

Criteria for Admission
Applicants may be considered for admission to this programme if they hold a Bachelor's Honours degree in any of the following fields: Computer Science, Informatics, Information Systems, Statistics, Engineering, Mathematics or Physics at NQF Level 8, or an equivalent qualification in a related discipline from a recognised institution with evidence of supervised research.

All applicants' proficiency in Mathematics for Data Science will be assessed. Applicants with a deficiency in mathematics (for data science) may be required to enrol for the relevant course to address the gap at the discretion of the Department.

Applicants are required to submit the following documents with their applications:
- A curriculum vitae, highlighting practical experience in Computing, Engineering, or data modelling. Applicants from other fields with professional experience in related fields may apply and will need to provide a resume highlighting the scope of experience and its relevance to data science.
- A written proposal or motivation for undertaking further studies.

Articulation Arrangements
Transfer of credits will be dealt with according to the NUST's regulations on Recognition of Prior Learning. These provide course-by-course credits as well as credit transfer by volume under certain academic conditions. Maximum credit that can be granted is 50% of the credits for a qualification.

The Master of Data Science would ordinarily provide access to further studies in the same, or a related cognate area of learning, at NQF Level 10.

Mode of Delivery
The programme will be delivered on full-time and/or part-time mode in accordance with NUST rules and at the discretion of the department and based on the yearly intake.

Requirements for Qualification Award
The Master of Data Science degree will be awarded to students credited with a minimum of 240 NQF credits at NQF Level 9, and who have met the detailed requirements as set out below. Students are required to do compulsory courses (worth 140 credits), and a Thesis (worth 100 credits). In addition, students should meet the administrative and financial requirements as spelt out in the NUST General Rules and Regulations.

Transition Arrangements
This is a new programme which does not replace any existing programme(s). Transition arrangements are, therefore, not applicable.

Assessment strategies

Courses will be assessed through diversified continuous assessment. For each of the courses, there will be a minimum of four (4) assessment activities. Continuous Assessments with Feedback will focus on the use of progressive, sufficient assessment events and evidence as a feedback tool to promote and improve learning and teaching approaches, and attaining the competencies required to demonstrate exit level outcomes rather than an accumulation of final pass marks through a series of assessment events. Intra- semester assessments will require prompt and constructive feedback.

Flexible and valid instruments will be used. Assessment methods will take the form of problem-solving exercises, and include, depending on the core skills expected to be demonstrated in relation to exit level outcomes, a combination of written questioning, observation of performance through written assignments, written tests, and individual or group assignment and presentations, case studies, report writing, and practical projects. The thesis will be assessed following the NUST's rules for studies at a postgraduate level. All courses require a final mark of at least 50% to pass.

Quality Assurance Requirements

Moderation of assessments will be done in accordance with the NUST's general rules and guidelines on moderation. Each course (please refer to the detailed Qualification Requirements) will have one or more examiners and one or more moderators. Moderators will be identified from outside the Namibia University of Science and Technology and approved by the Senate. The required minimum qualification of the moderator should be a Doctoral degree, preferably in a field related to data science, including computer science and statistics, or the person must be a recognised expert in the field. Lecturing staff will set and grade assessments and/or examinations in accordance with set memoranda. Assessment instruments and memoranda will, together with relevant study material for that course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purposes.

The thesis will be moderated in accordance with the Namibia University of Science and Technology's rules for studies at a postgraduate level. Stakeholders will be invited to attend and comment on seminars and other presentations. This will ensure the quality of the assessment and the qualifications.

The following additional quality assurance arrangements will apply:
- Every course will be evaluated by the students immediately after its closure using an appropriate evaluation survey form which will include student evaluation of lecturers,
- Course contents/syllabi will be updated each semester before the course is offered,
- The curriculum review cycle will be Five years, regardless of changes, and
- Wide and in-depth consultation and benchmarking of the Programme will be done nationally and internationally.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advanced Statistics and Probability	ASP911S	None	9	20
Data Management, Ethics and Security	DME911S	None	9	20
Trends in Artificial Intelligence and Machine Learning	TAI911S	None	9	20

Semester 2

Knowledge Discovery and Data Mining	KDM912S	Advanced Statistics and Probability	9	20
Software Tools for Data Science	STD912S	None	9	20
Research Methodology	RIT912S	None	9	20

YEAR 2
Semester 3

Data Analytics Optimisation	DAO923S	Knowledge Discovery and Data Mining	9	20

Semester 3 and 4 (Year Course)

Thesis	TDS901Y	Research Methodology	9	100

MASTER OF INFORMATICS   **09MAIN**
(Phased in 2021)

NQF Level: 9   **NQF Credits: 240**   **NQF Qualification ID: Q0506**

Description
The revised Master of Informatics programme is applied research-based (thesis) programme, designed to expand students' knowledge and expertise in Business Informatics, Web Informatics and other fields related to Informatics. Students will develop a thorough understanding of relevant methodological approaches, and develop competence in the application of theory, concepts, constructs and appropriate models for applied research including descriptive, explicative and simulation through participation in research activities and tasks to acquire understanding under the supervision of experienced supervisor.

The programme builds on previously acquired theoretical and practical knowledge at NQF level 8 and other scientific and industrial experience of the students to investigate and develop novel innovative ideas and products to solve problems in the field of Informatics.

The degree is designed for the candidates with Informatics background who seek to deepen and enhance competencies in their specialised areas. The programme will create a critical mass of skilled individuals in the field of Informatics that are of great need in the country and the world.

The end product of a Master of informatics study is the thesis, a research task completed under the guidance of supervisor that improves student's understanding to the field and prepares the graduate to embrace scientific approach in solving problem. The Master's degree programme in Informatics will provide guidance, training and mentorship for students from various Informatics- related fields, with the aim of preparing the next generation of Informatics experts and researchers.

Criteria for Admission
Applicants who hold a Bachelor Honours, NQF level 8 from recognised institutions, or equivalent qualifications, in disciplines related to Informatics may be considered for admission into this programme. Applicants need to provide evidence of having conducted supervised research and may be required to make-up specific deficiencies in coursework at the discretion of the Higher Degrees Committee.

In addition, applicants may be required to attend a pre-selection interview and or a test at the discretion of the department, particularly when applicant's coursework are considered to be at variance to the admission requirement of the programme. The Higher Degree Committee (HDC) will approve the final selection and admission of the candidates in accordance with the regulations as specified by the Rules for Postgraduate Studies of NUST. Registration prior to the approval of a research proposal is provisional and will be made official only when the Higher Degrees Committee approves the proposal. These procedures will be fully explained to each prospective student during his or her personal interview.

Applicants from other institutions must submit detailed information on all courses in their previous qualifications, as well as contact details of three referees. The latter also applies to applicants who have been working in the field after obtaining their previous qualifications. Exceptions may be approved by the Higher Degrees Committee, and all admissions are at the discretion of the Faculty Postgraduate Committee.

Articulation Arrangements
The Master of Informatics will ordinarily provide access to further studies in Informatics, or a related cognate area, at Doctoral degree level, i.e. NQF Level 10.

Mode of Delivery
This programme will be offered by research on a full-time and part-time delivery modes of study and in accordance with NUST General Rules and Regulations.

Requirements for Qualification Award
This qualification will be awarded to candidates credited with a minimum of 240 credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet the Namibia University of Science and Technology's requirements as detailed in the rules for postgraduate studies.

Students are *encouraged* to *submit* at least one manuscript for publication in refereed journal or book chapter or peer-reviewed proceedings of conference, symposium, and workshop and provide a proof of the submitted manuscript. The submitted work in peer reviewed sources should be in the area of the student thesis. In addition, students should meet the administrative and financial requirements spelt out in the NUST General Rules.

The minimum study period for the degree of Master shall be as determined by the notional learning hours required for each degree and the learning path provided by the different departments to provide for the attainment of the curricular requirements. The minimum period of registration for a master's degree for full-time studies shall be two years and a maximum three years and for part-time studies shall be a minimum of four years and a maximum of six years.

The maximum study period for the degree of Master shall not exceed twice the recommended study period for such degree and may only be extended at the discretion of Senate. Students who fail to complete the degree within the maximum study period must reapply for admission to the degree.

Assessment Strategies
Students are expected to submit and present a research proposal and research plan for approval after six months for full-time and (by the end of the first year in case of part-time students) to the Higher Degrees Committee. It is compulsory that students attend regular research methodology seminars until successful defense and approval of their research proposal. In addition, students are required to present work-in-progress every six months during research seminars for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of six months for re-approval.

In compliance with the general requirements of HDC, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work independently and to investigate their own individual research topic. Students are required to cultivate a professional work ethic to deliver the combination of research, analysis, communication and presentation demanded by their thesis. The thesis will be assessed in accordance with the rules for studies at postgraduate level. Students will present and defend their thesis before an appropriate constituted committee in accordance with the rules for postgraduate studies at the Namibia University of Science and Technology. The thesis will be returned to students for correction, similarity checks and language editing before final binding and archiving. Final marks will only be released after correction of the thesis. Any other special arrangements on assessments will be done in accordance with the university's rules and procedures for postgraduate studies.

Transition arrangements
The revised Master of Informatics (revised curriculum) will be phased-in 2021 with minimal disruption to existing students' learning progression. The current programme (old curriculum) will be completely phased out by the end of 2020 after which students must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
MTI911S	Thesis	None	MTI911P	Thesis	None
Semester 2			Semester 2		
MTI912S	Thesis	MTI911S	MTI912P	Thesis	MTI911P
YEAR 2					
Semester 3			Semester 3		
MTI913S	Thesis	MTI912S	MTI913P	Thesis	MTI912P
Semester 4			Semester 4		
MTI914S	Thesis	MTI913S	MTI914P	Thesis	MTI913P
YEAR 3					
Semester 5			Semester 5		
MTI915X	Thesis Extension	MTI914S	MTI915P	Thesis	MTI914P
			Semester 6		
			MTI916P	Thesis	MTI915P
YEAR 4					
			Semester 7		
			MTI917X	Thesis Extension	MTI917X

DOCTOR OF PHILOSOPHY IN INFORMATICS   **10DPIN**
(Phased in 2021)

NQF Level: 10   **NQF Credits: 360**   **NQF Qualification ID: Q0507**

Description
The Doctor of Philosophy (PhD) in Informatics is an applied research-based (by thesis only) programme, designed to expand and enhance students' knowledge and expertise in the field of Informatics. The PhD in Informatics programme is of interdisciplinary nature and aims at enabling students to become scientific researchers in various fields of study related to Informatics. The programme exposes students to conduct emerging research and develop innovative ideas and products required to solve problems in key areas of technology affecting businesses, communities and society at large. This programme further, provides students research and conceptual analysis skills to delve into subjects ranging from all emerging technology focus areas to Informatics related specialisations.

Further, the programme enables the students to analyse technology and sophisticated systems with the intent of design and development for informatics methodology. The programme provides a platform for the students to conduct Informatics research that assist Namibia, the African continent and contribute to the World. The precise focus of the research will be determined through dialogue between the student and supervising staff and will fall within the scope of the approved research clusters of the Faculty of Computing and Informatics (FCI).

The revised PhD in Informatics programme aims to produce a graduate who possesses an in-depth and Informatics wide knowledge of a specialised area of the discipline with clear understanding on the scientific methods and capability to conduct independent and guided research. The optimal goal is then to have a student who can apply the scientific methods and techniques to deal with sophisticated problems connected to the topic of interest, to make an original contribution to the discipline.

Criteria for Admission
Applicants who hold qualifications from recognised institutions at NQF level 9, or equivalent, in Informatics or related cognate areas, may be considered for admission to this programme. Applicants need to provide evidence of having conducted supervised research at this level.

In addition, applicants may be required to attend a pre-selection interview at the discretion of the department, particularly when applicant's coursework are at variance to the admission requirement of the programme.

The Higher Degree Committee (HDC) will approve the final selection and admission of the candidates in accordance with the regulations as specified by the Rules for Postgraduate Studies at NUST.

Registration prior to the approval of a research proposal is provisional and will be made official only when the proposal is approved by HDC. These procedures will be fully explained to each prospective student during his or her personal interview.

Articulation Arrangements
The PhD in Informatics is a terminal qualification hence no articulation arrangements are proposed.

Mode of Delivery
The programme will be offered on a full-time or part-time basis in accordance with NUST's General Rules and Regulations.

Requirements for Qualification Award
This qualification will be awarded to candidates credited with a minimum of 360 credits at NQF Level 10. The thesis will represent the entire body of work to be assessed and must meet the Namibia University of Science and Technology's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements as spelt out in Part 1 of the Namibia University of Science and Technology General Rules.

Students will be required to satisfy the following conditions: at least two manuscripts published/accepted for publication in refereed journals and/or book chapters and/or peer-reviewed proceedings of conferences, symposiums, workshops, etc. A full bibliographical detail must be provided for each publication. For each publication indicated as being "accepted for publication" (not published yet), a copy of the letter of acceptance from the relative authority must be submitted. The submitted work in peer-reviewed sources should be in the area of the student thesis.

A minimum of three (3) years and a maximum period of five (5) years are required to complete the programme, if registered on the full-time mode. A minimum of six (6) years and a maximum of eight (8) years are required if registered on a part-time mode. The study period may be extended with the express approval of Senate.

Assessment Strategies
Students are expected to submit and present a research proposal and research plan for approval after 9 months for full-time and (by the end of the 18 months in case of part-time students) to the Higher Degrees Committee. It is compulsory that students attend regular research methodology seminars until successful defense and approval of the research proposal. Students are required to present a work-in-progress report every six months during research seminars for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of six months for re-approval.

In compliance with the general requirements of the Senate, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work independently and to investigate their own individual research topic. Students are required to cultivate a professional work ethic to deliver the combination of research, analysis, communication and presentation demanded by their thesis. The thesis will represent the entire body of work to be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their thesis before an appropriately constituted committee in accordance with the rules for postgraduate studies at the University. The thesis will be returned to students for correction before final binding and archiving. Final marks will only be released after correction and submission of the thesis. Any other special arrangements on assessments will be done in accordance with the University's rules and procedures for postgraduate studies.

Transition arrangements
The revised Doctor of Philosophy in Informatics (new curriculum) will be phased-in 2021 with minimal disruption to existing students' learning progression. The current programme (old curriculum) will be completely phased out by the end of 2020 after which students must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
PTI101S	Thesis	None	PTI101P	Thesis	None
Semester 2			Semester 2		
PTI102S	Thesis	PTI101S	PTI102P	Thesis	PTI101P
YEAR 2					
Semester 3			Semester 3		
PTI103S	Thesis	PTI102S	PTI103P	Thesis	PTI102P
Semester 4			Semester 4		
PTI104S	Thesis	PTI103S	PTI104P	Thesis	PTI103P
YEAR 3					
Semester 5			Semester 5		
PTI105S	Thesis	PTI104S	PTI105P	Thesis	PTI104P
Semester 6			Semester 6		
PTI106S	Thesis	PTI105S	PTI106P	Thesis	PTI105P
YEAR 4					
Semester 7			Semester 7		
PTI107X	Thesis Extension	PTI106S	PTI107P	Thesis	PTI106P
			Semester 8		
			PTI108P	Thesis	PTI107P
YEAR 5					
			Semester 9		
			PTI109P	Thesis	
			Semester 10		
			PTI110P	Thesis	
Year 6					
			Semester 11		
			PTI111X	Thesis Extension	PTI110P

DEPARTMENT OF JOURNALISM AND MEDIA TECHNOLOGY   **CODE: 38**

QUALIFICATIONS OFFERED

Bachelor of Journalism and Media Technology Honours (Phased in 2021)   08BJOH

Master of Journalism and Media Technology   09MJMT

BACHELOR OF JOURNALISM AND MEDIA TECHNOLOGY HONOURS   **08BJOH**

NQF Level: 8   **NQF Credits: 120**   **NQF Qualification ID: Q0678**

Description

The Bachelor of Journalism and Media Technology Honours is an initial postgraduate Degree, registerable at National Qualifications Framework (NQF) level 8. This programme builds on the outcomes of the Bachelor of Journalism and Media Technology, and aims to consolidate and deepen the knowledge and skills of students in the main cognate area of learning, as well as developing their capacity to conduct supervised research of an applied nature. Through this programme, students will be enabled to analyse theoretical material and demonstrate independent and critical analytical skills.

The programme requires an advanced level of conceptual and analytical ability as well as intellectual autonomy. The Bachelor of Journalism and Media Technology Honours is structured to enable students to practice in the field of Journalism and Media Technology, as well as Public Relations while interacting with people and organisations through the media.

Criteria for Admission

Candidates will be considered for admission into the Bachelor of Journalism and Media Technology Honours Degree if they have a Bachelor of Journalism and Communication Technology or a Bachelor of Journalism and Media Technology Degree from NUST. Alternatively, applicants with an equivalent qualification at NQF level 7 or a relevant three-year Bachelor Degree (pre-NQF) from a recognised institution, of at least 360 credits, may be considered for admission into this Programme. Such applicants, however, may be required to make up specific shortcomings as deemed necessary, on a case-by-case basis by the departmental selection panel.

Applicants who are holders of a National Diploma in Journalism and Communication Technology (pre-NQF) shall be considered for admission on a case-by-case basis.

In keeping with departmental requirements, all applicants who qualify shall be required to write a General Knowledge Test and be interviewed.

Articulation Arrangements

Transfer of credits will be dealt with according to the NUST regulations. These provide for course-by-course credits as well as credit transfer by volume, under certain academic conditions. Maximum credit that can be granted is 50 % of the credits per qualification.

Upon successful completion of the Bachelor of Journalism and Media Technology Honours programme, students will ordinarily be able to pursue further studies in the same, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

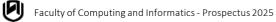This programme will be offered *via* the part-time mode of study in accordance with NUST General Rules and Regulations.

Requirements for Qualification Award

This revised qualification will be awarded to students credited with a minimum of 120 NQF credits (all at Level 8), and who have met the requirements of the compulsory and core elective sections. Students are required to complete compulsory courses amounting to 90 credits, and a mini-thesis or a Media Research Production of 30 credits. Furthermore, students should comply with the administrative and financial requirements as indicated in the General Rules and Regulations of NUST.

Transition Arrangements

The Bachelor of Journalism and Media Technology Honours (old curriculum) will be phased out completely by the end of 2020. The Bachelor of Journalism and Media Technology Honours (revised curriculum) will be offered in January 2021. There are no significant changes made to the revised curriculum, therefore, courses will only be offered based on the revised syllabi in 2021. Students however, will be granted credits on a course- by -course basis in accordance with the Table below.

Students who fail any of the courses in the old curriculum will be required to repeat such courses based on the syllabi of new/revised corresponding courses. Please refer to the Table below, for detailed information on the new/revised corresponding courses.

The deadline for complete phasing out of the Bachelor of Journalism and Media Technology Honours (old curriculum) is end of 2020, after which students must automatically switch to the revised/new programme and fulfil the requirements based on the revised/new curriculum.

Table 25: Courses to be credited

Course Code	Bachelor of Journalism and Media Technology Honours (Old Courses)	Course Code	Bachelor of Journalism and Media Technology Honours (Equivalent New/Revised Courses)
SEMESTER 1			
MRD811S	Media Research Methodologies	REM811S	Research Methods
MAG811S	Media and Globalisation	MAG811S	Media and Globalisation
DJM811S	Development Journalism and Media	DJM811S	Development Journalism and Media
AAW811S	Advanced Academic Writing	AAW811S	Advanced Academic Writing
SEMESTER 2			
ICJ821S	Intercultural Journalism	ICJ821S	Intercultural Journalism
SPR821S	Strategic Public Relations	SPR821S	Strategic Public Relations
MJM821S	Mini-Thesis	MJM821S	Mini-Thesis
MRP821S	Media Research Production	MRP821S	Media Research Production

Table 26: Corresponding courses (if failed) (This is not a credit table)

Course Code	Bachelor of Journalism and Media Technology Honours (Old Courses)	Course Code	Bachelor of Journalism and Media Technology Honours (Corresponding New/Revised Courses)
SEMESTER 1			
MRD811S	Media Research Methodologies	REM811S	Research Methods
MAG811S	Media and Globalisation	MAG811S	Media and Globalisation
DJM811S	Development Journalism and Media	DJM811S	Development Journalism and Media
AAW811S	Advanced Academic Writing	AAW811S	Advanced Academic Writing
SEMESTER 2			
ICJ821S	Intercultural Journalism	ICJ821S	Intercultural Journalism
SPR821S	Strategic Public Relations	SPR821S	Strategic Public Relations
MJM821S	Mini-Thesis	MJM821S	Mini-Thesis
MRP821S	Media Research Production	MRP821S	Media Research Production

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methods	REM811S	None	8	15
Media and Globalisation	MAG811S	None	8	15
Development Journalism and Media	DJM811S	None	8	15
Advanced Academic Writing	AAW811S	None	8	15

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Intercultural Journalism	ICJ821S	None	8	15
Strategic Public Relations	SPR821S	None	8	15

Plus ONE of the following Elective courses

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Mini-Thesis	MJM821S	Research Methods	8	30
Media Research Production	MRP821S	Research Methods	8	30

MASTER OF JOURNALISM AND MEDIA TECHNOLOGY   **09MJMT**

NQF Level: 9   **NQF Credits: 240**   **NQF Qualification ID: Q1111**

Description
The Master of Journalism and Media Technology is aimed at equipping students with highly specialised knowledge, skills and competencies in journalism practice, media technology and problem solving. This programme further provides students with an opportunity to conduct in-depth research, independently, using the scientific method and synthesis knowledge at the forefront of journalism and media technology, while adhering to the applied nature of the journalism profession. The degree allows students to interrogate and implement approaches that serve to influence the media house as entity that interacts with academic institutions.

Admission Criteria Candidates will be considered for admission into the Master of Journalism and Media Technology if they have a minimum of a Bachelor of Journalism and Media Technology Honours at NQF Level 8, or a 4-year pre-NQF qualification with a research component in the aforesaid fields, or equivalent qualification in a related discipline from any other recognised institutions. In either case, candidates should have proven evidence of having conducted supervised research.

Candidates may be required to attend a pre-selection interview and/or test at the discretion of the Postgraduate Studies Committee to ascertain their competencies in respect of research.

Applicants from other universities should submit detailed information regarding courses successfully completed in previous qualifications, especially the research project or thesis. It is the responsibility of the student to ensure that they have at their disposal detailed information about the courses in qualifications conferred on them previously. The contact details of three referred should also be provided. This applies to applicants who had been working in the journalism or media profession since obtaining the aforesaid qualifications. Admissions are done at the discretion of the Postgraduate Committee, who would also decide on exemptions to be approved.

Articulation Arrangements
The transfer of credits would be done in accordance with NUST's regulations regarding the Recognition of Prior Learning (RPL). Such an approach considers course-by-course credits, as well as credit transfer by volume, under certain conditions. The maximum credit that can be granted is 50% of credits per qualification. No articulation is provided for the research component of this degree.

The Master of Journalism and Media Technology would ordinarily provide access to further studies at NQF Level 10 in the same or similar cognate area of learning.

Mode of Delivery
This qualification will be offered via the full-time block-release sessions in accordance with NUST General Rules and Regulations.

Requirements for Award Qualification
The Master of Journalism and Media Technology will be awarded to candidates credited with a minimum of 240 NQF credits (all at Level 9). Students are require to complete four compulsory courses amounting to 80 credits, three elective courses amounting to 160 credits, which includes 120 credits in respect of either the Thesis or the Research Production. In addition, students must meet the administrative and financial requirements of NUST as set out in General Rules and Regulations.

Transition Arrangements
This is a new programme it does not replace any existing programme(s). Therefore, transition arrangements are not applicable.

Assessment Strategies
The courses will be assessed by means of diversified continuous assessment. For the purpose of ensuring authenticity of assessment evidence, at least 50% of the assessment events that make up the final mark will be conducted under controlled conditions similar to those under which institutional examinations are conducted. In the event of the assessment conditions not being appropriate for the nature of the assessment, the lecturer and the department must take appropriate and rigorous steps to ensure such authenticity. In accordance with NUST's policy on diversified continuous assessment, each course will have a minimum of six assessments.

The Thesis and Media Research Production Project will be assessed in accordance with the University's rules concerning post-graduate studies.

Quality Assurance Arrangements

Each course (please refer to the Detailed Qualification Requirements) offered in this programme will have one or more examiner(s) and one moderator. Only external moderators will be identified and contracted and their minimum qualification would be a Master's Degree with relevant industry experience. The Moderators shall be respected experts in the field of journalism, media technology and Public Relations, appointed by Senate.

The academic staff will set and mark tests, assignments and/or examinations. Thereafter, the graded assessments, memoranda and course material, together with the course outlines stipulating the desired learning outcomes, are to be forwarded to the Moderator. The system of moderation is in place to heighten the quality of assessment and the qualification as a whole.

As for the Thesis/Media Research Production Project, this will be moderated in accordance with NUST Rules and Regulations for post-graduate studies.

In the programme will be offered in a flexible mode. However, the courses will be listed per semester in order to fit the regular curriculum structure.

CURRICULUM

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Media Ethics in the Digital Age	MED911S	None	9	20
Corporate Public Relations	CPR911S	None	9	20
Plus ONE of the following Elective courses				
Journalism for Development	JFD911S	None	9	20
Business and Economics Reporting	BER911S	None	9	20

Semester 2

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Advocacy Journalism	ACJ921S	None	9	20
Critical Research Paradigms	CRP921S	None	9	20
Plus ONE of the following Elective courses				
Science Journalism and Bioethics	SJB921S	None	8	20
Digital Media Production	DMP921S	None	8	20

YEAR 1
Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Thesis	JMT911S	Critical Research Paradigms	9	120
Media Research Production	MRP912S	Critical Research Paradigms	9	120