



NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Office of the Registrar

Yearbook - Part 4 Faculty of Computing and Informatics

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2019



PAMIBIA
UNIVERSITY
OF SCIENCE
AND TECHNOLOGY

YEARBOOK 2019

PART 4

FACULTY OF
COMPUTING
AND INFORMATICS

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

NOTE

The *Yearbook for the Faculty of Computing and Informatics* is valid for 2019 only. Curricula and syllabi may be amended for 2020.

It is obtainable free of charge from:

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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 Yearbook. 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 Yearbook does not necessarily mean that such a programme, field of study, subject, or course will be offered in the academic year 2019.

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CONTENTS

FACULTY OF COMPUTING AND INFORMATICS

FACULTY CODE 1

Page

Noteii
 Contact Details.....iii
 Contents.....iv
 Staff 1

UNDERGRADUATE PROGRAMMES3

Department of Computer Science 4
 Bachelor of Computer Science (Systems Administration, Communication Networks or Software Development) 4
 Bachelor of Computer Science in Cyber Security..... 7
Department of Informatics 10
 Bachelor of Informatics 10

POSTGRADUATE PROGRAMMES12

Department of Computer Science..... 12
 Bachelor of Computer Science Honours (with specialisation in Communication Networks, Software Development, Mobile Development, Information Security or Digital Forensics) 12
 Master of Computer Science (with specialisations in Communication Networks, Software Development, Mobile Development, Information Security or Digital Forensics) 14
 Doctor of Philosophy (PhD) in Computer Science..... 16

Department of Informatics 18
 Postgraduate Certificate in Information & Communication Technology Policy and Regulations (Phased in 2018) 18
 Postgraduate Certificate in Informatics (Information Systems Audit) 20
 Bachelor of Informatics Honours (with specialisation in Web Informatics or Business Informatics) 23
 Master of Informatics 26
 Doctor of Philosophy (PhD) in Informatics 27

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UNDERGRADUATE PROGRAMMES**QUALIFICATIONS OFFERED**

	CODES
Bachelor of Computer Science (Systems Administration, Communication Networks or Software Development) (Phased in since 2014)	07BACS
Bachelor of Computer Science in Cyber Security (Phased in since 2016)	07BCCS
Bachelor of Informatics (Phased in since 2014)	07BAIF

Description

Computer Science and Informatics refers 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.

Bachelor of Information Technology: for those who successfully completed all requirements for the three-year degree of the phasing out programmes.

Bachelor of Computer Science or Bachelor of Informatics: for those who successfully completed all requirements for the three-year degree of the phasing in (2014) programme.

Special Faculty Assessment Regulations

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

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

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

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).

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 year 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.

Course Evaluation for all courses offered by the Faculty using Continuous Evaluation only

- The semester mark is determined by continuous evaluation made up of tests and assignments during the year.
- 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.

NB: For all assessments the Faculty plagiarism policy applies.

BACHELOR OF COMPUTER SCIENCE (SYSTEMS ADMINISTRATION, COMMUNICATION NETWORKS OR SOFTWARE DEVELOPMENT)

07BACS

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 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 at:

- Providing students with a sound foundation in the fundamental concepts, theories, frameworks and problem-solving techniques of CIT;
- 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 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 would 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 (GI2.1 in Part 1 of the Yearbook). In addition, students must have a minimum D-symbol in NSSC Mathematics at Ordinary Level, or equivalent.

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

Semester 2

OOP521S	Object Oriented Programming	Programming 1	5	10
ICT521S	Information Competence	None	5	10
MIT122S	Mathematics for IT 1B	Mathematics for IT 1A	5	10
WDF521S	Web Development Fundamentals	None		
EPR511S	English in Practice	Principles of English Language Use/ Language in Practice, or Language in Practice A, or Module 2, or Exemption	5	NCB
OSN521S	Intro. to Operating Systems & Networks	Computer Organisation and Architecture	5	10

Year 2**Semester 3**

EAP511S	English for Academic Purposes	English in Practice, or Language in Practice B, or Module 3, or Exemption	5	14
ISS610S	IT Systems Security	Introduction to Operating Systems and Networks	6	12
DSA610S	Data Structures and Algorithms	None	6	12
DBF510S	Database Fundamentals	None	5	10
ICN511S	Introduction to Computer Networking	Introduction to Operating Systems and Networks	5	10
ASP610S	Applied Statistics & Probability for IT	Mathematics for IT 1B	9	14

Semester 4**ONE of the following Strands depending on specialisation:****SYSTEMS ADMINISTRATION STRAND**

OPS621S	Operating Systems	Introduction to Operating Systems and Networks	6	12
WTN620S	Web Technologies	Introduction to Operating Systems and Networks	6	12
SAD622S	Systems Administration	Introduction to Operating Systems and Networks	6	12
DTS620S	Distributed Systems	Introduction to Computer Networking	6	12
SAU620S	Systems Audit	IT Systems Security		

COMMUNICATION NETWORKS STRAND

OPS621S	Operating Systems	Introduction to Operating Systems and Networks	6	12
CMN620S	Communication Networks	Introduction to Computer Networking	6	12
SAD622S	Systems Administration	Introduction to Operating Systems and Networks	6	12
NWS620S	Network Security	IT Systems Security; and Introduction to Computer Networking	6	12
WLT620S	Wireless Technologies	Introduction to Computer Networking	6	12

SOFTWARE DEVELOPMENT STRAND

OPS621S	Operating Systems	Introduction to Operating Systems and Networks	6	12
DSP620S	Distributed Systems Programming	Object Oriented Programming	6	12
PRG620S	Programming 2	Programming 1	6	12
SEH620S	Software Engineering 1 and HCI	Web Development Fundamentals	6	12
DPT621S	Database Programming and Techniques	Database Fundamentals	6	12

Year 3**Semester 5**

CIS610S	Contemporary Issues	None	6	12
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Plus ONE of the following Strands depending on specialisation, and based on choice made in Semester 4:**SYSTEMS ADMINISTRATION STRAND**

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

COMMUNICATION NETWORKS STRAND

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

SOFTWARE DEVELOPMENT STRAND

ICE712S	Innovation, Creativity & Entrepreneurship	None	7	12
AIG710S	Artificial Intelligence and Computer	Applied Statistics & Graphics Probability for IT; and Data Structures and Algorithms	7	12

DWM710S	Data and Web Mining	Database Programming and Techniques	7	12
APG710S	Advanced Programming	Data Structures and Algorithms	7	12

Year 3

Semester 6

WIL710S	Work Integrated Learning (WIL)	All semester 4 courses; and a maximum of 2 outstanding semester 5 courses	7	48
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Plus ONE of the following Strands depending on specialisation, and based on choice made in previous Semesters:

SYSTEMS ADMINISTRATION AND COMMUNICATION NETWORKS STRANDS

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

SOFTWARE DEVELOPMENT STRAND

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

BACHELOR OF COMPUTER SCIENCE IN CYBER SECURITY**07BCCS****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 (GI2.1 in Part 1 of the NUST Yearbook). In addition, students 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 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 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 Part 1 of the NUST Yearbook.

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

CURRICULUM

Course Code	Course Title	Prerequisites	NQF Level	NQF Credits
Year 1				
Semester 1				
BSC410S	Basic Science	None	4	8
MIT112S	Mathematics for IT 1A	None	5	10
PRG510S	Programming 1	None	5	10
PLU411S	Principles of English Language Use	None	4	NCB
IIS511S	Introduction to Information Security	None	5	10
COA511S	Computer Organisation and Architecture	None	5	10
Semester 2				
OOP521S	Object Oriented Programming	Programming 1	5	10
ICT521S	Information Competence	None	5	10
MIT122S	Mathematics for IT 1B	Mathematics for IT 1A	5	10
WDF521S	Web Development Fundamentals	None	5	10
EPR 511S	English in Practice	Principles of English Language Use/ Language in Practice, or Language in Practice A, or Module 2, or Exemption	5	NCB
OSN521S	Introduction to Operating Systems and Networks	Computer Organisation and Architecture	5	10
Year 2				
Semester 3				
EAP511S	English for Academic Purposes	English in Practice, or Language in Practice B or Module 3, or Exemption	5	14
ISS610S	IT Systems Security	Introduction to Operating Systems and Networks	6	12
DSA610S	Data Structures and Algorithms	None	6	12
DBF510S	Database Fundamentals	None	5	10
ICN511S	Intro. to Computer Networking	Introduction to Operating Systems and Networks	5	10
ASP610S	Applied Statistics & Probability for IT	Mathematics for IT 1B	6	14
Semester 4				
WTN620S	Web Technologies	Intro. to Operating Systems and Networks	6	12
SAD622S	Systems Administration	Intro. to Operating Systems and Networks	6	12
CMN620S	Communication Networks	Intro. to Computer Networking	6	12
ITC621S	Introduction to Cryptography	None	6	12
WLT620S	Wireless Technologies	Introduction to Computer Networking	6	12
DSP620S	Distributed Systems Programming	Object Oriented Programming	6	12

Year 3**Semester 5**

NWS620S	Network Security	IT Systems Security; and Introduction to Computer Networking	6	12
DFC711S	Digital Forensics 1 – Forensics Computing	Introduction to Cryptography	7	12
CIS610S	Contemporary Issues	None	6	12
IWT711S	Internet and WAN Telecommunication	Communication Networks	7	12
OPS621S	Operating Systems	Introduction to Operating Systems	6	12

Semester 6

WCS721S	Work Integrated Learning (WIL)	All semester 4 courses; and a maximum of 2 outstanding Semester 5 courses	7	36
CIP721S	Critical Infrastructure Protection and Control Systems Security	Systems Administration	7	12
DFC721S	Digital Forensics 2 – Internet Forensics and Steganography	Digital Forensics 1 – Forensics Computing	7	10
IAR721S	Intrusion Analysis and Response	Network Security	7	12

DEPARTMENT OF INFORMATICS

Code 23

QUALIFICATIONS OFFERED

Bachelor of Informatics

07BAIF

BACHELOR OF INFORMATICS (Phased in 2014)

07BAIF

NQF Level: 7

NQF Credits: 375

NQF Qualification ID: Q0512

Description

The Bachelor of Informatics aims at providing educational opportunities for students who are interested in and motivated to work as Informatics Specialists in Business Computing, Information Systems or related practices. 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 (GI2.1 in Part 1 of the Yearbook). In addition, students must have a minimum D-symbol in NSSC Mathematics at Ordinary Level, or equivalent.

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.

CURRICULUM

Year 1

Semester 1

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

Semester 2

OOP521S	Object Oriented Programming	Programming 1	5	10
ICT521S	Information Competence	None	5	10
MIT122S	Mathematics for IT 1B	Mathematics for IT 1A	5	10
WDF521S	Web Development Fundamentals	None	5	10

EPR511S	English in Practice	Principles of English Language Use/ Language in Practice, or Language in Practice A, or Module 2, or Exemption	5	NCB
OSN521S	Introduction to Operating Systems and Networks	Computer Organisation and Architecture	5	10

Year 2**Semester 3**

EAP511S	English for Academic Purposes	English in Practice, or Language in Practice B, or Module 3, or Exemption	5	14
ISS610S	IT Systems Security	Intro. to Operating Systems and Networks	6	12
DSA610S	Data Structures and Algorithms	None	6	12
DBF510S	Database Fundamentals	None	5	10
ICN511S	Introduction to Computer Networking	Intro. to Operating Systems and Networks	5	10
ASP610S	Applied Statistics & Probability for IT	Mathematics for IT 1B	6	14

Semester 4

SEH620S	Software Engineering 1 and HCI	Web Dev. Fundamentals	6	12
DPT621S	Database Programming and Techniques	Database Fundamentals	6	12
HIT620S	Health Information Systems & Technology	None	6	12
BAP620S	Business Analysis & Process Management	Management Information Systems	6	12
BAI620S	Business Accounting for Informatics	None	6	12
EWD621S	Enterprise Web Application Development	Object Oriented Programming	7	12

Year 3**Semester 5**

IME511S	Introduction to Marketing and its Environment	None	5	10
MMA710S	Multimedia Applications	None	7	12
CSH710S	Computer Systems for Healthcare Services	Business Analysis & Process Mgmt.	7	12
CIS610S	Contemporary Issues	None	6	12
ICE712S	Innovation, Creativity & Entrepreneurship	None	7	15

Semester 6

WIL710S	Work Integrated Learning (WIL)	All courses up to semester 4 and a maximum of 2 outstanding semester 5 courses.	7	48
ERP720S	Enterprise Resource Planning Systems	Management Information Systems	7	12
PTM721S	Project Management	None	7	12

Transition Arrangements

The Bachelor of Information Technology in Business Computing (old curriculum) will be phased out systematically until 2018 with minimal disruption to existing students' learning progression. The last intake of 1st year students for the Bachelor of Information Technology in Business Computing (old curriculum) was in January 2013.

Students who were registered in 2013 for the 1st year of the Bachelor of Information Technology in Business Computing (old curriculum), and who failed more than 50 % of the courses at the end of 2013, will be required to change their registration to the Bachelor of Informatics (new curriculum) and will be granted credits on a course-by-course basis in accordance with the information in Table 1 below.

The Bachelor of Informatics (new curriculum), took effect from January 2014 and will be completely phased in by 2016. Courses will only be offered based on the syllabi of new/revised courses in 2014 (1st year), 2015 (2nd year) and 2016 (3rd year). Students who fail any of the courses on the Bachelor of Information Technology in Business Computing (old curriculum) will be required to repeat such failed courses based on the syllabi of new/revised corresponding courses. Please refer to Table 2, 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 Information Technology in Business Computing (old curriculum) is 2018 after which students must automatically switch to the Bachelor of Informatics (new curriculum).

POSTGRADUATE PROGRAMMES

QUALIFICATIONS OFFERED

	CODES
Bachelor of Informatics Honours (Web Informatics)	08BIFH
Bachelor of Informatics Honours (Business Informatics)	08BIHB
Bachelor of Computer Science Honours (Communication Networks)	08BCHC
Bachelor of Computer Science Honours (Software Development)	08BCSH
Bachelor of Computer Science Honours (Mobile Development)	08BCHM
Bachelor of Computer Science Honours (Information Security)	08BHIS
Bachelor of Computer Science Honours (Digital Forensics)	08BHDF
Post Graduate Certificate in Informatics (Information Systems Audit)	08PGCI
Post Graduate Certificate in ICT Policy and Regulations	22PCIT
Master of Informatics	09MINF
Master of Computer Science	09MCSC
Doctor of Philosophy (PhD) in Informatics	10PDIN
Doctor of Philosophy (PhD) in Computer Science	10PDCS

DEPARTMENT OF COMPUTER SCIENCE

Code 22

BACHELOR OF COMPUTER SCIENCE HONOURS (COMMUNICATION NETWORKS)	08BCHC
BACHELOR OF COMPUTER SCIENCE HONOURS (SOFTWARE DEVELOPMENT)	08BCSH
BACHELOR OF COMPUTER SCIENCE HONOURS (MOBILE DEVELOPMENT)	08BCHM
BACHELOR OF COMPUTER SCIENCE HONOURS (INFORMATION SECURITY)	08BHIS
BACHELOR OF COMPUTER SCIENCE HONOURS (DIGITAL FORENSICS)	08BHDF

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. The programme is purposefully designed to expose students to advanced concepts, theories, tools, and methods of Computer Science. 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, Software Development, and Mobile Development.

Admission Requirements

Applicants may be considered for admission to this programme if they have a Bachelor's degree in Computer Science, or a Bachelor of Information Technology from the Namibia University of Science and Technology, or an equivalent qualification at NQF Level 7 from a recognised institution, worth at least 360 credits. Additional admission criteria may apply as set at the discretion of the Department.

Applicants are required to submit the following documents with their applications:

- A professional resume, highlighting practical and professional Computing and IT experience, if applicable;
- A written proposal/motivation for undertaking further studies;
- A transcript of the undergraduate study.

Articulation Requirements

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

CURRICULUM**Year 1****Semester 1**

Course Code	Course Title	Prerequisites
RIT812S	Research Methodology	None

PLUS one of the following Strands depending on Specialisation:**COMMUNICATION NETWORKS STRAND: (Register ALL courses from the strand selected)**

BBN810S	Broadband Networks	None
ECN811S	Emerging and Open Issues in Communication Networks	None
MNA810S	Mobile Networks and Architectures	None

SOFTWARE DEVELOPMENT STRAND: (Register All the courses from the strand elected)

ASD810S	Advanced Software Development	None
ESD811S	Emerging and Open Issues in Software Development	None
FMM810S	Formal Methods	None

MOBILE DEVELOPMENT STRAND: (Register All the courses from the strand elected)

MAD811S	Mobile Applications Development	None
EMD811S	Emerging and Open Issues in Mobile Development	None
MNA810S	Mobile Networks and Architectures	None

INFORMATION SECURITY STRAND: (Register All the courses from the strand elected)

PTS811S	Practical Network Security	None
APC811S	Applied Cryptography	None
ISM811S	Information Security Management and Assurance	None

DIGITAL FORENSICS STRAND: (Register All the courses from the strand elected)

PTS811S	Practical Network Security	None
DFM811S	Digital Forensics Management	None
APC811S	Applied Cryptography	None

Semester 2

MTH820S	Mini-thesis	Research Methodology
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PLUS one of the following Strand Elective courses for Specialisation in Communication Networks (Choose only one course from the selected strand)

WDS820S	Wireless Data Networks and System	None
SON820S	Simulation of Networks	None

PLUS one of the following Strand Elective courses for Specialisation in Software Development (Choose only one course from the selected strand)

MAD811S	Mobile Applications Development	None
PLC820S	Programming Languages and Compilers	None

PLUS one of the following Strand Elective courses for Specialisation in Mobile Development (Choose only one course from the selected strand)

IDE820S	Interaction Design & Evaluation	None
MPD820S	Mobile Platforms and Development Environments	None

PLUS one of the following Strand Elective courses for Specialisation in Information Security (Choose only one course from the selected strand)

CIT821S	Critical Infrastructure Protection	None
DSD821S	Database Security and Data Protection	None

PLUS one of the following Strand Elective Courses for Specialisation in Digital Forensics (Choose only one course from the selected strand)

CMF821S	Computer and Multimedia Forensics	None
MBF821S	Mobile Forensics	None

(with specialisation in Communication Networks, Software Development, Mobile Development, Information Security, Forensic Computing)

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q0504

Description

The Master of Computer Science programme is of interdisciplinary nature and aims at students interested in, and adequately qualified and motivated, for graduate education to become scientific researchers in various fields of study related to Computer Science. In this regard, the Computing Sciences Accreditation Board (CSAB) defines Computer Science as focusing on the 'theory of computation, algorithms and data structures, programming methodology and languages, and computer elements and architecture'. In addition to these four areas, CSAB also identifies fields such as software engineering, artificial intelligence, computer networking and communication, database systems, parallel computation, distributed computation, computer-human interaction, computer graphics, operating systems, and numerical and symbolic computation as being important areas of computer science.

The programme will enable students to deepen their knowledge of a particular Computer Science speciality for application, research and/or management purposes. Possible fields of specialisation include Communication Networks, Software Development, Mobile Development, Information Security and Forensic Computing. The precise focus of the research will be determined through dialogue between the candidate and supervising staff, and will fall within the scope of the approved research clusters of the Faculty of Computing and Informatics.

Students will develop a thorough understanding of relevant methodological approaches, and develop competence in the application of qualitative, design, mixed-mode and quantitative research methods through participation in research projects under supervision of experienced staff members. The development of research competence has prime priority in the context of this programme. Students are required to design, undertake and report on research where Computer Science is the research focus and apply techniques and/or deal with a specific application problem connected with the field of interest.

Admission Requirements

Applicants who hold qualifications from recognised institutions at NQF level 8, or equivalent, in disciplines related to Computer Science may be considered for admission to 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 Faculty Postgraduate Committee. In addition, applicants may be required to attend a pre-selection interview and/or test at the discretion of the Department.

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 Higher Degrees Committee. These procedures will be fully explained to each prospective student during his or her personal interview.

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 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 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 correction of the thesis.

Articulation Arrangements

The Master in Computer Science is a terminal qualification; hence articulation arrangements are not applicable.

Mode of Delivery

By Research Only.

Teaching and Learning

By Research Only

Requirements for Qualification Award

240 NQF Credits

Quality Assurance Arrangements

The final assessment of the thesis will be done by qualified academics and practitioners with Doctoral Degrees. The examiners must be knowledgeable and respected individuals in the field with experience in assessment of postgraduate scientific reports or theses and will be appointed by the Higher Degrees Committee upon the recommendation of the Faculty Postgraduate Committee

DOCTOR OF PHILOSOPHY IN COMPUTER SCIENCE

10PDCS

(with specialisation in Communication Networks, Software Development, Mobile Development, Information Security, Forensic Computing)

NQF Level: 10

NQF Credits: 360

NQF Qualification ID: Q0505

Description

The PhD in Computer Science was conceptualized against the back-drop of the above imperatives in order to train scientific researchers in various fields of study related to Computer Science (e.g. Communication Networks, Software Development, Mobile Development, Information Security and Forensic Computing). Students will develop a thorough understanding of relevant methodological approaches, and develop competence in the application of qualitative, design, mixed-mode and quantitative research methodologies through participation in research projects under supervision of experienced staff members. The precise focus of the research will be determined through dialogue between the candidate and supervising staff, and will fall within the scope of the approved research clusters of the Faculty of Computing and Informatics.

The development of research competence has prime priority in the context of this PhD programme. Students are required to investigate, design, and conduct independent research, where Computer Science is the research focus, apply advanced methods and techniques and/or deal with a sophisticated application problem connected with the topic of interest. The research output, in the form of a thesis, must contribute meaningfully and substantially to the existing body of knowledge in the field/area of specialisation through comprehension, application, analysis, synthesis and evaluation of existing knowledge.

Admission Requirements

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 this level. In addition, applicants may be required to attend a pre-selection interview at the discretion of the department. The final selection and admission of candidates will be approved by the Higher Degrees 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 Higher Degrees Committee. 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.

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 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 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 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.

Mode of Delivery

By Research Only

Requirements for Qualification Award

360 NQF Credits

Teaching and Learning

By Research Only

Transition Arrangements

This is a new programme and transition arrangements are, therefore, not applicable.

Quality Assurance Arrangements

The final assessment of the thesis will be done by qualified academics and practitioners with Doctoral Degrees. The examiners must be knowledgeable and respected individuals in the field with experience in assessment of postgraduate scientific reports or theses and will be appointed by the Higher Degrees Committee upon the recommendation of the Faculty Postgraduate Committee.

Transition Arrangements

This is a new programme and transition arrangements are, therefore, not applicable.

DEPARTMENT OF INFORMATICS

Code 23

Postgraduate Certificate in Information and Communication Technology Policy and Regulation (Revised) (Phasing in 2019)	08PCIT
Postgraduate Certificate in Informatics (Information Systems Audit) (Phased in 2014)	08PGCI
Bachelor of Informatics Honours (Web Informatics)	08BIFH
Bachelor of Informatics Honours (Business Informatics)	08BIHB
Master of Informatics	09MINF
Doctor of Philosophy In Informatics	10PDIN

POSTGRADUATE CERTIFICATE IN INFORMATION AND COMMUNICATION TECHNOLOGY POLICY and REGULATION (Revised Programme) (Phasing in 2019)

08PCIT

NQF Level: 8

NQF Credits: 60

NQF Qualification ID: Q1104

Description

The Postgraduate Certificate in Information and Communications Technology Policy and Regulation Level 8 (PGC-ICTPR) aims to equip students with skills, techniques and understanding required for successful careers in technology management, ICT regulation and policy enactment in the public and private sectors of the economy. The revised

- Postgraduate Certificate in Information and Communication Technology Policy and Regulation (Level 8) specifically aim at:
- Providing students with a strong foundation in ICT Policy and Regulation enactment;
- Developing students’ abilities to analyse the relevant theories applicable to ICT policy and regulatory environment for the digital communications and ICT sector;
- Providing students with a critical understanding about the role of ICTs for social, economic and political development;
- Providing analytic skills that allow students to understand and critically engage with the complex and often conflicting policy debates about ICTs.

This programme is designed for middle- to senior-level managers and practitioners working in the broad electronic communications and ICT sector. Key sectors targeted include the telecommunications and electronic communications operators; the ICT industry; the broadcasting and digital audio-visual content services sector; regulatory agencies; government policy departments, including communications, trade and industry, science and technology; science councils; university teaching and research departments; consumer advocates, and development sector entities.

Admission requirements

Applicants must have a Bachelor degree in Information and Communications Technology (ICT) or an equivalent qualification at NQF level 7 worth at least 360 credits from a recognised institution. Applicants with a pre-NQF qualification of three years Bachelor degrees in other domain areas such as, Media studies, Public policy, Law, Medicine, Engineering, Economics, Regulation, may also apply into the programme. Applicants should also have at least two (2) years relevant work experience in Information and Communication Technology or policy and regulation.

Mode of Delivery

This qualification will be offered via the part-time flexible block-release sessions in accordance with NUST rules and regulations.

Assessment strategies

Continuous Assessment with Feedback (CAF) will be used for all the courses. CAF 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. Learning shall be facilitated both in and outside the classroom, by assigning specific tasks to be carried out by the student. In accordance with NUST policy on diversified Continuous Assessment, each course will have a minimum of six assessments. Flexible and valid instruments shall be used. These include among others:

- Observation of performance;
- Written individual and group assignment;
- Presentations;
- Case studies;
- Report writing;
- Practical projects.

To be awarded a Postgraduate Certificate in ICT Policy and Regulation (Level 8) the student must undertake an ICT Policy and Regulation Project. In terms of the Project, the student shall be required to work under the guidance of an ICT academic, as well as a supervisor preferably within the ICT Policy and Regulation industry. The success of such an arrangement would require a clearly

defined programme stipulating specific targets. It is the responsibility of the student to manage the collaboration between the supervisor (staff within the academic department) and the industry-expert (quite often the student's Supervisor or Senior Manager) throughout the ICT Policy and Regulation project development process.

The project should involve at least 150 hours of student effort and should represent a substantive exercise in specialisation. The deliverable shall include: project proposal, final report, and an oral presentation (please refer to the course syllabus for details). Students must achieve a minimum of at least 50% in each course to pass.

CURRICULUM

Year 1

Semester 1

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
TMA811S	ICT Technologies and Market Analysis	None	8	15
POE811S	ICT Policy, Operating Environment, Law and Regulation	None	8	15

Semester 2

TDG821S	ICT Trends, Developments and Governance	None	8	15
PRP821S	ICT Policy and Regulation Project	Students must have passed at least two courses.	8	15

**POSTGRADUATE CERTIFICATE IN INFORMATICS (INFORMATION SYSTEMS AUDIT)
(Phased in 2014)**

08PGCI

NQF Level: 8

NQF Credits: 60

NQF Qualification ID: Q0583

Description

The Postgraduate Certificate in Informatics (Information Systems Audit) 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 will further expose 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 Postgraduate 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.

Admission Requirements

Applicants must have a three-year Diploma or a Bachelor degree or an equivalent qualification on NQF Level 7 with an Information Systems emphasis from an accredited institution. Applicants should also have at least two years relevant work experience.

Articulation Arrangements

Transfer of credits will be dealt with in accordance with 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.

Students who commenced a Bachelor of Informatics Honours, but discontinued their studies, may utilise academic courses passed for credit recognition in the Postgraduate 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.

In addition, students who passed certain courses in the old Bachelor of Technology in Business Computing programme may be granted credit for such courses as follows:

B. Tech.: Business Computing (Old)		PGC: Informatics (Information Systems Audit) [New/Revised Equivalent Courses]	
Old Courses		New Courses	
Code	Course Name	Code	Course Name
AIS410S	Accounting Information Systems	AIS822S	Accounting Information Systems
ISA410S	Information Systems Audit	ISA822S	Information Systems Audit

CURRICULUM**Year 1**

Course Code	Course Title	Prerequisite	NQF Level	NQF Credits
AIS822S	Accounting Information Systems	None	8	15
ISA822S	Information Systems Audit	None	8	15
PGP811S	Industry Project	Students must have passed at least one course	8	15
ISM811S	Information Security Management and Assurance	None	8	15

Transition Arrangements

The Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum) will be phased out systematically until 2015 with minimal disruption to existing students' learning progression. The last intake of students for the Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum) was in January 2014.

Students who are registered on the Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum) will be allowed to transition to the Postgraduate Certificate in Informatics (Information Systems Audit) (new curriculum).

Students who are registered in 2014 for the Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum), and who fail more than 50 % of the courses at the end of 2014, will be required to change their registration to the Postgraduate Certificate in Informatics (Information Systems Audit) (new curriculum) and will be granted credits on a course-by-course basis in accordance with the information in Table 1 below.

The Postgraduate Certificate in Informatics (Information Systems Audit) (new curriculum), will take effect from January 2015. Courses will only be offered based on the syllabi of new/revised courses in 2015. 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 2 below, for detailed information on the new/revised corresponding courses to be done if courses on the Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum) are failed.

The deadline for complete phasing out of the Postgraduate Certificate in Business Computing (Information Systems Audit) (old curriculum) is 2016 after which students must automatically switch to the Postgraduate Certificate in Informatics (Information Systems Audit) (new curriculum).

Table 1: Courses to be credited

Postgraduate Certificate in Business Computing (Information Systems Audit) (Old Courses)		Postgraduate Certificate in Informatics (Information Systems Audit) (New/Revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
AIS811S	Accounting Information Systems	AIS822S	Accounting Information Systems
ISA811S	Information Systems Audit and Control	ISA822S	Information Systems Audit
PIP810S	Industry Project	PGP811S	Industry Project
PIC810S	Industry Certification	ISM811S	Information Security Management and Assurance

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

Postgraduate Certificate in Business Computing (Information Systems Audit) (Old Courses)		Postgraduate Certificate in Informatics (Information Systems Audit) (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Name	Course Code	Course Name
AIS811S	Accounting Information Systems	AIS822S	Accounting Information Systems
ISA811S	Information Systems Audit and Control	ISA822S	Information Systems Audit
PIP810S	Industry Project	PGP811S	Industry Project
PIC810S	Industry Certification	ISM811S	Information Security Management and Assurance

Please Note:

Table 2 above only highlights new/revised core courses in Informatics that should be done if courses on the old curriculum are failed.

Qualification Outcomes

Upon completing the Postgraduate Certificate in Business Computing (Information Systems Audit), students will be able to:

- Investigate the information system(s) risks or aspects thereof at organisations, with special reference to the business implications;
- Assess and implement appropriate internal controls and other security measures in an Information System;
- Plan and implement efficient information systems architecture, technology and business processes to support business objectives in the most cost-effective way;
- Recommend and motivate systems acquisition to senior management and staff in organisations and act as information systems auditors in the implementation of new systems;
- Evaluate and integrate information systems and business requirements in order to maximise the performance of an organisation;
- Analyse the efficiency and performance of the system(s), and propose improvements where appropriate and possible;
- Apply appropriate IT governance and control frameworks, and best practices in an organisation;
- Communicate solutions and recommendations to management by means of professional presentations and reports.

**BACHELOR OF INFORMATICS HONOURS (WEB INFORMATICS)
BACHELOR OF INFORMATICS HONOURS (BUSINESS INFORMATICS)****08BIFH
08BIHB****NQF Level: 8****NQF Credits: 120****NQF Qualification ID: Q0508****Description**

The Bachelor of Informatics 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. The programme is purposefully designed to expose students to 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.

The curriculum is structured to facilitate specialisation in the areas of Web Informatics and Business Informatics.

Admission Requirements

Applicants may be considered for admission to this programme if they have a Bachelor's degree in Informatics, or a Bachelor of Information Technology in Business Computing from the Namibia University of Science and Technology, 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;
- 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 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 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.

CURRICULUM**Year 1****Semester 1**

Course Code	Course Title	Prerequisite
RIT812S	Research Methodology	None
EAT810S	Enterprise Architecture	None

**PLUS one of the following Strands depending on Specialisation:
(Register ALL courses from the strand selected)****WEB INFORMATICS STRAND**

GDM810S	Graphics Design and Digital Media	None
BWM810S	Business Web and Marketing	None

BUSINESS INFORMATICS STRAND

BIN811S	Business Intelligence	None
ILM812S	IT in Logistics Management	None

Semester 2

MTH820S	Mini-thesis	Research Methodology
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**PLUS one of the following Strand Elective courses for Specialisation in Web Informatics
(Choose only one course from the selected strand)**

AMM820S	Advanced Multimedia	None
MAI821S	Mobile Applications in Informatics	None

**PLUS one of the following Strand Elective courses for Specialisation in Business Informatics
(Choose only one course from the selected strand)**

ISA822S	Information Systems Audit	None
AIS822S	Accounting Information Systems	None

Transition Arrangements

The Bachelor of Information Technology Honours in Business Computing (old curriculum) will be phased out systematically until 2016 with minimal disruption to existing students’ learning progression. The last intake of students for the Bachelor of Information Technology Honours in Business Computing (old curriculum) was in January 2013.

Students who are registered on the Bachelor of Information Technology Honours in Business Computing (old curriculum) will be allowed to transition to the Bachelor of Informatics Honours (new curriculum) but may lose credits.

Students who were registered in 2013 for the Bachelor of Information Technology Honours in Business Computing (old curriculum), and who failed more than 50 % of the courses at the end of 2013, will be required to change their registration to the Bachelor of Informatics Honours (new curriculum) and will be granted credits on a course-by-course basis in accordance with the information in Table 1 below.

The Bachelor of Informatics Honours (new curriculum), took effect from January 2014. Courses will only be offered based on the syllabi of new/revised courses in 2014. 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 2, below, for detailed information on the new/revised corresponding courses to be done if courses on the Bachelor of Information Technology Honours in Business Computing (old curriculum) are failed.

The deadline for complete phasing out of the Bachelor of Information Technology Honours in Business Computing (old curriculum) is 2016 after which students must automatically switch to the Bachelor of Informatics Honours (new curriculum).

Table1: Courses to be credited

Bachelor of Information Technology Honours in Business Computing (Old Courses)		Bachelor of Informatics Honours (New/Revised Equivalent Courses)	
Course Code	Course Name	Course Code	Course Name
AMS811S	Advanced Management Information Systems		None
DNS810S	Data and Network Security		None
RIT811S	Research Methodology (IT)	RIT812S	Research Methodology
TOC811S	Theory of Computation		None
HRP810S	Honours Research Project	MTH820S	Mini-thesis
SM811S	Soft Skills for IT Management		None
PMS811S	Practical Management Information Systems		None
SAM810S	Simulation and Modeling		Simulation of Networks
BIN810S	Business Intelligence	BIN811S	Business Intelligence
ILM811S	IT in Logistics Management	ILM812S	IT in Logistics Management
AIA811S	Artificial Intelligence Applications		None
APM810S	Advanced Process Management		None
AIS811S	Accounting Information Systems	AIS822S	Accounting Information Systems
MAD810S	Mobile Application Development	MAI821S	Mobile Applications in Informatics
ISA811S	Information Systems audit & Control	ISA822S	Information Systems Audit

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

Bachelor of Information Technology Honours in Business Computing (Old Courses)		Bachelor of Informatics Honours (Corresponding New/Revised Courses to be done, if failed)	
Course Code	Course Name	Course Code	Course Name
RIT811S	Research Methodology (IT)	RIT812S	Research Methodology
HRP810S	Honours Research Project	MTH820S	Mini-thesis
SAM810S	Simulation and Modelling	SON820S	Simulation of Networks
BIN810S	Business Intelligence	BIN811S	Business Intelligence
ILM811S	IT in Logistics Management	ILM812S	IT in Logistics Management
AIS811S	Accounting Information Systems	AIS822S	Accounting Information Systems
MAD810S	Mobile Application Development	MAI821S	Mobile Applications in Informatics
ISA811S	Information Systems audit & Control	ISA822S	Information Systems Audit

MASTER OF INFORMATICS

09MINF

NQF Level: 9

NQF Credits: 240

NQF Registration ID: Q0506

Description

The Master of Informatics programme is of interdisciplinary nature and aims at students interested in, and adequately qualified and motivated, for graduate education to become scientific researchers in various fields of study related to Informatics. In this context, Informatics is defined as the study of the structure and behaviour of natural and artificial systems that generate, process, store, and communicate information. Informatics also includes the study of the cognitive, social, legal, and economic impact of such information systems.

The programme will enable students to deepen their knowledge of a particular Informatics discipline for application, research and/or management purposes. Possible fields of specialisation include Web Informatics and Business Informatics. The precise focus of the research will be determined through dialogue between the candidate and supervising staff, and will fall within the scope of the approved research clusters of the Faculty of Computing and Informatics.

Students will develop a thorough understanding of relevant methodological approaches, and develop competence in the application of qualitative and quantitative research methods through participation in research projects under supervision of experienced staff members. The development of research competence has prime priority in the context of this programme. Students are required to design, undertake and report on research where Informatics is the research focus and apply techniques and/or deal with a specific application problem connected with the field of interest.

Admission Requirements

Applicants who hold qualifications from recognised institutions at NQF level 8, or equivalent, in disciplines related to Informatics may be considered for admission to 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 test at the discretion of the Department.

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.

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

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 until successful defense and approval of the research proposal. Students are required to present a 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 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 correction of the thesis.

Transition Arrangements

The structured/taught Master of Information Technology (MIT) programme will be phased out systematically until 2016 with no disruption to existing students' learning progression. The last intake for the MIT (09MIFT) was in 2013. The Master of Informatics will take effect from January 2014.

DOCTOR OF PHILOSOPHY IN INFORMATICS**10PDIN****NQF Level: 10****NQF Credits: 360****NQF Registration ID: Q0507****Description**

The PhD in Informatics was conceptualised against the back-drop of the above imperatives in order to train scientific researchers in various fields of study related to Informatics (e.g. Business Informatics and Web Informatics). Students will develop a thorough understanding of relevant methodological approaches, and develop competence in the application of qualitative, design, mixed-mode and quantitative research methodologies through participation in research projects under the supervision of experienced staff members. The precise focus of the research will be determined through dialogue between the candidate and supervising staff and will fall within the scope of the approved research clusters of the Faculty of Computing and Informatics.

The development of research competence has prime priority in the context of this PhD programme. Students are required to investigate, design, and conduct independent research, where Informatics is the research focus, apply advanced methods and techniques and/or deal with a sophisticated application problem connected with the topic of interest. The research output, in the form of a thesis, must contribute meaningfully and substantially to the existing body of knowledge in the field/area of specialisation through comprehension, application, analysis, synthesis and evaluation of existing knowledge.

Admission Requirements

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. The final selection and admission of candidates will be approved by the Higher Degrees 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 Higher Degrees Committee. 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 articulation arrangements are not applicable.

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 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 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 of Science and Technology. The thesis will be returned to students for correction 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, namely PhD studies.

Quality Assurance Arrangements

The final assessment of the thesis will be done by qualified academics and practitioners with Doctoral Degrees. The examiners must be knowledgeable and respected individuals in the field with experience in assessment of postgraduate scientific reports or theses and will be appointed by Senate upon the recommendation of the Higher Degrees Committee.

Transition Arrangements

This is a new programme and transition arrangements are, therefore, not applicable.