

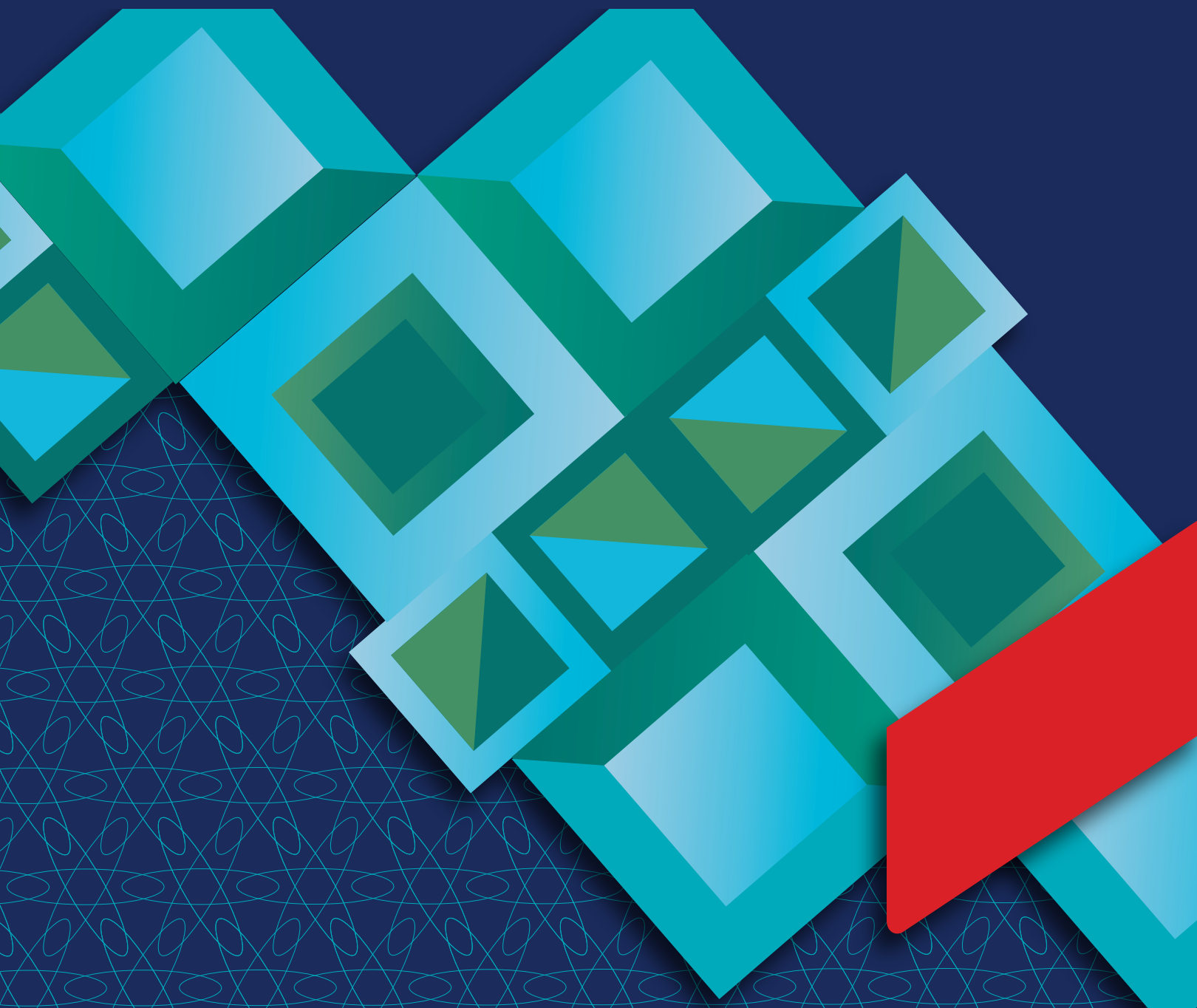


**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

Office of the Registrar

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

PROSPECTUS 2024





ΠΑΜΙΒΙΑ
UNIVERSITY
OF SCIENCE
AND TECHNOLOGY

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

Prospectus 2024

*(Note: The final interpretation of all regulations in this Prospectus for the **Faculty of Health, Natural Resources and Applied Sciences** shall be vested in Council)*

NOTE

The Prospectus for the **Faculty of Health, Natural Resources and Applied Sciences** is valid for 2024 only. Curricula and Syllabi may be amended for 2025. It is obtainable free of charge from:

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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 2024.

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

CONTENTS

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

CODE: 7

	Page
Note.....	2
Contact Details.....	3
Staff.....	6

UNDERGRADUATE PROGRAMMES

SCHOOL OF HEALTH SCIENCES

Department of Clinical Health Sciences.....	11
Bachelor of Medical Laboratory Science (Revised) (Phased in 2017).....	11
Bachelor of Emergency Medical Care.....	15
Department of Preventative Health Sciences.....	18
Bachelor of Environmental Health Sciences.....	18
Bachelor of Science in Health Information Systems Management (Revised – Phasing in 2022).....	21
Bachelor of Science in Health Information Systems Management (Old Curriculum)	25
Bachelor of Human Nutrition.....	28

SCHOOL OF NATURAL AND APPLIED SCIENCES

Department of Biology, Chemistry and Physics.....	31
Bachelor of Science (Revised Curriculum – Phasing in 2024).....	33
Bachelor of Science (Old Curriculum – Phasing out 2026).....	36
Department of Mathematics, Statistics and Actuarial Sciences.....	39
Bachelor of Science in Applied Mathematics and Statistics (Revised – Phased in 2022).....	39

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

Department of Agricultural Sciences and Agribusiness.....	43
Bachelor of Science in Agriculture.....	43
Bachelor of Agriculture (Old Programme Phasing out 2024).....	47
Bachelor of Science in Horticulture.....	50
Department of Natural Resource Sciences.....	54
Bachelor of Natural Resource Management (Revised Programme).....	54
Bachelor of Natural Resource Management in Nature Conservation (Old Curriculum – Phasing out until 2024).....	58

POSTGRADUATE PROGRAMMES

SCHOOL OF HEALTH SCIENCES

Department of Clinical Health Sciences.....	60
Bachelor of Emergency Medical Care Honours.....	60
Master of Health Sciences (Revised Curriculum – Phasing in 2024)	61
Master of Health Sciences (old Curriculum)	64
Doctor of Philosophy in Health Sciences (Phased in 2021).....	66
Department of Preventative Health Sciences.....	71
Bachelor of Science Honours in Health Information Systems Management.....	71

SCHOOL OF NATURAL AND APPLIED SCIENCES

Department of Biology, Chemistry and Physics.....	73
Bachelor of Science Honours (Revised – Phasing in 2024)	73
Bachelor of Science Honours (Old Curriculum).....	75
Master of Science in Natural and Applied Sciences (Phased in 2021).....	78

Department of Mathematics, Statistics and Actuarial Sciences.....	80
Bachelor of Science Honours in Applied Mathematics (Revised – Phased in 2022).....	80
Master of Science in Applied Mathematics (Revised - Phasing in 2024)	82
Master of Science in Applied Mathematics (Old Curriculum)	84
Doctor of Philosophy in Applied Mathematics (Phased in 2022)	86
Bachelor of Science Honours in Applied Statistics (Revised – Phased in 2022).....	88
Master of Science in Applied Statistics (Revised Curriculum - Phasing in 2024).....	90
Master of Science in Applied Statistics (Old Curriculum).....	92
Doctor of Philosophy in Applied Statistics (Phased in 2022).....	93

SCHOOL OF AGRICULTURE AND NATURAL RESOURCES SCIENCES

Department of Agricultural Sciences and Agribusiness.....	96
Bachelor of Science Honours in Agriculture	96
Master of Agribusiness Management (Revised Programme).....	98
Department of Natural Resource Sciences.....	100
Bachelor of Natural Resource Management Honours (Phasing in 2021).....	100
Master of Natural Resources Management.....	102
Doctor of Philosophy in Natural Resource Sciences.....	104

FACULTY OF HEALTH, NATURAL RESOURCES AND APPLIED SCIENCES

CODE: 7

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SCHOOL OF HEALTH SCIENCES

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CODE: 85

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CODE: 86

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SCHOOL OF NATURAL AND APPLIED SCIENCES

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CODE: 9

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SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES

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CODE: 87

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DEPARTMENT OF NATURAL RESOURCE SCIENCES

CODE: 88

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 - : **Jeremiah Amutenya**, M.Sc Natural Resources Mgt (NUST), B. Hons Natural Resource mgt (NUST), Dip. (Nat. Cons) (NUST)

UNDERGRADUATE PROGRAMMES



UNDERGRADUATE PROGRAMMES

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF CLINICAL HEALTH SCIENCES

CODE: 85

QUALIFICATIONS OFFERED

Bachelor of Medical Laboratory Sciences (Revised Programme) (Phased in 2017)

08BMLS

Bachelor of Emergency Medical Care

07BOMC

BACHELOR OF MEDICAL LABORATORY SCIENCES

08BMLS

NQF Level: 8

NQF Credits: 511

NQF Qualification ID: Q0991

Description

The Bachelor of Medical Laboratory Sciences is a professional degree, designed for registration at level 8 on the National Qualifications Framework (NQF). The programme demands a high level of theoretical and practical engagement, as well as intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Medical Laboratory Science. The Programme further equips students with cognitive and intellectual skills key transferable skills and professional, technical and practical skills that would enable them to apply principles and techniques in the routine and specialised analysis of biological specimens and other substances. Students will also be capacitated to organise laboratory operations in clinical diagnostic laboratories in accordance with Good Laboratory Practice (GLP). Students will be able to integrate laboratory tests and results with pathophysiological conditions and conduct supervised research based on sound scientific principles. Overall, the programme aims to produce highly flexible and well-trained graduates who are able to adapt to a changing environment and comply with statutory requirements in relation to quality, ethics and safety.

Successful completion of the Bachelor of Medical Laboratory Sciences and the industry examination will enable graduates to register with the Health Professions Council of Namibia (HPCNA).

Admission Criteria

In addition to meeting the University's minimum admission requirements as outlined in the general rules, candidates must have a total of 18 points on the evaluation scale for Physical Science, Mathematics and Biology, in a combination of symbols on NSSC Higher or Ordinary Level or both. No symbol for any one or more of the subjects may be lower than a "C" on Ordinary level or a 4 on Higher Level. Candidates must further have obtained at least a "D" on Ordinary Level for English.

For candidates seeking admission with NSSO/NSSCAS results, requirements are as follows: in addition to meeting the University's minimum admission requirements as spelt out in the general rules, candidates must have a minimum of 24 points in Mathematics, Chemistry, Biology and Physics on Ordinary Level or Advanced Subsidiary level (NSSCO/AS), provided that no symbol must be below a "B" on Ordinary Level or a "d" on Advanced Subsidiary Level. Candidates must further have obtained at least an "E" on Ordinary Level in English.

Students who meet the above admission requirements will be subjected to a selection process, using ranking of results for Biology, Physical Science or Physics and Chemistry and Mathematics.

Articulation Arrangements

The transfer of credits will be dealt with according to NUST 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 credits that can be granted is 50% of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Medical Laboratory Science, or a related cognate area of learning at NQF Level 9.

Mode of Delivery

This programme will be offered on a full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Medical Laboratory Sciences is designed for registration at NQF level 8 and will be awarded to a student credited with a minimum of 511 NQF credits, this total includes the courses making up the 465 cognitive credits and then the core institutional courses which is 46 credits. In addition, students must meet the administrative and financial requirements.

Teaching and Learning Strategies

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 and/or technical competencies. Thus, the programme 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.

The learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed. Learning activities outside the classroom will include three components of Work Integrated Learning (WIL). Students will rotate within the semester through clinical laboratories (e.g. Namibian Institute of Pathology and Namibian Blood Transfusion Services) and will be incorporated into the routine of the diagnostic laboratory and will learn by doing.

Assessment Strategies

Students will be assessed through continuous and summative assessments. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments.

In this programme, all courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60% (continuous assessment) and 40% (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between WIL clinical instructors and NUST academics by means of a work manual in which students to report on their activities in the simulation laboratory and/or workplace and signed-off by the instructors. The mini-thesis will be assessed in accordance with NUST rules for studies at honours level.

Transition Arrangements

The Bachelor of Biomedical Sciences (old curriculum) will be phased out systematically until 2022 with minimum disruption to existing students' learning progression. The last intake of 1st year students for the out-phasing programme (old curriculum) was in January 2016.

Students who registered in 2016 for the 1st year of the old curriculum, and who do not meet the rules for progression to the 2nd year at the end of 2016, will be required to change their registration to the revised programme (revised curriculum), and will be granted credits on a course-by-course basis in accordance with information in Table 1, below. Similarly, students who are registered in 2016 for the 1st year of the old curriculum, and who meet the minimum requirements for progression to the 2nd year at the end of 2016, will also be required to transition to the revised programme (revised curriculum), but will be required to do Cell and Molecular Biology. Such students, will be exempted from the newly introduced English communication courses and information Competence but will have to meet all other requirements of the revised programme (revised curriculum). Such arrangements will be done in consultation with the office of the Registrar to ensure that students do not lose credits.

Students who were registered in 2016 for the 2nd, 3rd or 4th year of the old curriculum will be required to complete their studies, based on the requirements of the old curriculum.

The revised Bachelor of Medical Laboratory Sciences (revised curriculum) has taken effect from January 2017 with the implementation of the 1st and 2nd years. The revised programme will be fully implemented by 2019. Courses will only be offered based on the new/revised syllabi in 2017 (1st and 2nd year), 2018 (3rd year), and 2019 (4th year). Students who fail any of the courses on the old curriculum will be required to repeat such courses based on the syllabi of the new/revised corresponding courses (please refer to the Table below for information on the new/revised corresponding courses to be done, if courses on the old curriculum are failed).

The deadline for complete phasing out of the Bachelor of Biomedical Sciences (old curriculum) is 2022 after which students must automatically change registration to the revised programme (new curriculum) and fulfil all requirements of the new curriculum.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Human Anatomy and Physiology 1A	HPY511S	None	5	12
Introduction to Medical Laboratory Science	IML511S	None	5	12
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Computer User Skills	CUS411S	None	4	10
Principles of English Language Use	PLU411S	None	4	NCB

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Human Anatomy and Physiology 1B	HPY521S	Human Anatomy and Physiology 1A	5	12
Immunology	IMY521S	Human Anatomy and Physiology 1A	5	12
Biochemistry	BIO521S	Health Science Chemistry	5	10
Cell and Molecular Biology	CMB521S	Human Anatomy and Physiology 1A	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Medical Microbiology 2A	MMB611S	Human Anatomy and Physiology 1B Introduction to Medical Laboratory Science	6	13
Haematology 2A	HAM611S	Human Anatomy and Physiology 1B Immunology	6	10
Clinical Chemistry 2A	CLC611S	Biochemistry Introduction to Medical Laboratory Science	6	12
Anatomical Pathology 2A	ANP611S	Human Anatomy and Physiology 1A Human Anatomy and Physiology 1B Cell and Molecular Biology	6	14

Semester 4

Medical Microbiology 2B	MMB621S	Medical Microbiology 2A	6	12
Haematology 2B	HAM621S	Haematology 2A	6	12
Clinical Chemistry 2B	CLC621S	Clinical Chemistry 2A	6	12
Anatomical Pathology 2B	ANP621S	Anatomical Pathology 2A	6	12
Immunohaematology	IMH621S	Human Anatomy and Physiology 1A Human Anatomy and Physiology 1B	6	10
Molecular Diagnostics	MOD621S	Biochemistry Cell and Molecular Biology	6	10

YEAR 3

Semester 5

Sustainability and Development	SYD611S	None	7	13
Medical Microbiology 3	MMB711S	Medical Microbiology 2B	7	12
Haematology 3	HAM711S	Haematology 2B	7	12
Clinical Chemistry 3	CLCL711S	Clinical Chemistry 2B	7	12
Medical Laboratory Management	MLM711S	Introduction to Medical Laboratory Science	7	14

Semester 6

Research Methodology	RMA821S	Health Science Statistics	8	12
Work Integrated Learning 3 (WIL 3)	WLB721S	Medical Microbiology 3 Clinical Chemistry 3 Haematology 3 Molecular Diagnostics Anatomical Pathology 2B	7	50

YEAR 4

Semester 7

Integrated Clinical Pathology	ICP811S	Work Integrated Learning 3 (WIL 3)	8	14
Work Integrated Learning 4A (WIL 4A)	WLB811S	Work Integrated Learning 3 (WIL 3)	7	50

Semester 8

Mini-Thesis	MTB811S	Research Methodology	8	30
Work Integrated Learning 4B (WIL 4B)	WLB821S	Work Integrated Learning 4A (WIL 4A)	8	40

Description

The Bachelor of Emergency Medical Care is a three-year, full-time programme that is registered at NQF Level 7. Designed to provide students with a systematic and coherent introduction to the broad knowledge, principles, concepts and problem-solving techniques of emergency medical care. The programme will enable students to acquire cognitive/intellectual skills, practice/clinical skills and key transferable skills for a career in the profession of emergency medical care. Graduates of this programme will be able to competently integrate and apply theoretical principles and practical clinical procedures and techniques to independently provide emergency medical care to injured and/or ill patients in urban, per-urban and rural areas within the scope of practice stipulated by the Health Professions Council of Namibia (HPCNA).

The programme allows for an early exit with a Diploma in Emergency Medical Care after successful completion of the second year of study. Students who exit with a Diploma will be able to find employment in industry as mid-level emergency care practitioners and will be eligible to register with the HPCNA as Emergency Care Technicians (ECTs). Successful completion of the Bachelor Emergency Medical Care degree will enable registration with the HPCNA as an Advanced Life Support (ALS) Practitioner, while graduates will be able to find employment in more senior positions, typically as ALS practitioners (Paramedics).

Admission Requirements

Candidates may be considered for admission to this programme, if they meet the General Admission Requirements of the Namibia University of Science and Technology general rules and regulations and comply with the additional requirements below:

- * A minimum "E" symbol in English as a second Language at NSSC Ordinary Level or a 4 on Higher Level;
- * A minimum "D" symbol in Mathematics and Biology or Physical science at NSSC Ordinary Level or 4 on Higher Level.

For candidates seeking admission with NSSCO/NSSCAS results requirements are as follows: in addition to meeting the University's minimum admission requirements as spelt out in the general rules, candidates must have a minimum of 18 points in Mathematics, Biology AND EITHER Physics OR Chemistry on NSSC Ordinary Level or Advanced Subsidiary level (NSSCO/AS), provided that no symbol must be below "B" on Ordinary Level or a "D" on Advanced Subsidiary Level. Candidates must further have obtained at least "E" on Ordinary level in English. Candidates will also be required to go through a 3-day selection process involving a written test, medical and physical fitness tests.

Mature Age candidates will be considered provided they meet the requirements and pass the mature age entrance examinations of the Namibia University of Science and Technology general rules and regulations. Students are required to obtain a minimum final score of at least **60%** in the **language proficiency** test and **50%** in the **mathematics proficiency** test.

Programme Specific Selection Process

The final selection of candidates to this programme shall follow a three-step process as indicated below:

- Step 1:** Applicants, who meet or surpass the minimum admission requirements as stated above will be shortlisted based on a academic merit. Such candidates shall receive an invitation and information package for the selection assessment of the second step of the selection process.
- Step 2:** Candidates are to be assessed in terms of their physical, medical fitness/abilities and phobias and will be required to do a short-written placement test. Based on the outcome of these assessments a shortlist shall be compiled and successful candidates will be invited to participate in a selection interview (Step Three).
- Step 3:** Candidates shall undergo an interview by the programme staff after which the final selection for admission shall be made. The results of the Selection Committee are final, and no discussion or correspondence will be entered into.

If the final Grade 12 results of candidates who were selected provisionally, do not meet the minimum requirements, then admission to the programme will be withheld.

Admission with Advance Standing

Holders of the **National Higher Certificate in Emergency Medical Care** may be considered for admission to this programme provided they are registered with the Health Professions Council of Namibia as Emergency Care Technicians. These candidates, if admitted will be granted credits for the following courses:

- * Principles of English Language Use
- * Computer User Skills
- * Basic Science
- * Pre-Hospital Emergency Medical Care I
- * Human Anatomy and Physiology

- * Clinical Practice I and Clinical Practice II
- * Basic Medical Rescue / Medical Rescue 1A and 1B
- * Primary Health Care and HIV/AIDS

Holders of the National Higher Certificate in Emergency Medical Care will not be awarded with the new Diploma in Emergency Care. Emergency Care Technicians (National Higher Certificate) and Critical Care Assistants (CCA's) are eligible to apply for Recognition of Prior Learning (RPL) as established by the programme.

Mode of Delivery

This programme will be delivered on the full-time mode of study in accordance with NUST rules.

Requirements for Qualification Award

The Bachelor of Emergency Medical Care will be awarded to candidates credited with a minimum of 388 NQF credits while the Diploma in Emergency Medical Care (Level 6) will be awarded to candidates credited with a minimum of 283 NQF credits. In addition, students should meet the administrative and financial requirements as set out in the General Rules of the Namibia University of Science and Technology.

Progression Rules

Students will only have **THREE** opportunities to pass the following courses:
Emergency Medical Care I, Emergency Medical Care II and Emergency Medical Care III
Clinical Practice I, Clinical Practice II and Clinical Practice III

Due to the limited number of available sites for clinical placement (Work Integrated Learning), and due to advice in placement of students by the HPCNA, particularly pertaining to the ratio of students to lecturer in all practical classes. This will ensure that students are awarded a fair opportunity to complete the programme successfully whilst adhering to the HPCNA requirements in terms of students to lecturer ratios in theoretical and practical classes.

Teaching and Learning Strategies

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. This facilitation will make use of, inter alia, online lecturers practical projects, tutorials, case studies, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed. In addition, courses will be facilitated and can be assessed through the MyNUST e-learning, platform, where relevant course materials will also be made available to students. The teaching and learning strategies for this programme are designed not only to equip students with the necessary knowledge and expertise in emergency medical care, but also to enable them to present and communicate academic and professional work effectively, conduct research, retrieve information efficiently and effectively, plan effectively and independently evaluate processes and results.

Assessment Strategies

Learning and assessment will be integrated throughout the programme. All the courses in the main cognate area of learning will be assessed by means of continuous assessment only. Assessments will focus on the achievement of course and qualification outcomes and may take the form of problem solving exercises, individual/group assignments and presentations, case studies policy briefs, practicum workbooks, objectively structured clinical evaluations (OSCE), clinical skills, simulated patient scenarios, tutorials and questioning through tests.

Lecturing staff shall discuss assessments of the various courses at regular programme meetings and together with this, course content and any assessments shall be passed through the course moderator in order to ensure quality and fairness of assessments whilst ensuring students are not over-assessed or under-assessed. Assessment of both cognitive and psychometric capabilities shall be performed through the various assessment methods, as discussed above. In accordance with NUST policy on continuous assessment, each course will have a minimum of four assessment events. Clinical Practice shall be assessed using the practicum workbook and a portfolio of evidence. In order for a student to be considered for a pass they must obtain the minimum notional hours for the relevant course. The practicum workbook and the portfolio of evidence shall carry a mark weight that, together, shall total 100% of the course mark.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Basic Science	BSC410S	None	4	8

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Basic Mathematics	BMS411S	None	4	12

YEAR COURSES

Emergency Medical Care I	EMC501Y	None	5	30
Human Anatomy and Physiology	HAP501Y	None	5	20
Primary Health Care and HIV/AIDS	PHC501Y	None	5	15
Clinical Practice I	CPR501Y	None	5	20

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Medical Rescue 1A	MRS511S	None	5	10
Pathophysiology	PPH611S	Human Anatomy and Physiology	6	20

Semester 4

Medical Law and Ethics	MLE512S	None	5	10
Medical Rescue 1B	MRS521S	Medical Rescue 1A	5	10

YEAR COURSES

Emergency Medical Care II	EMC601Y	Emergency Medical Care I Human Anatomy and Physiology Clinical Practice I	6	30
Pharmacology	PHA601Y	Emergency Medical Care I Human Anatomy and Physiology	6	20
Clinical Practice II	CPR601Y	Emergency Medical Care I Clinical Practice I	6	25

YEAR 3

Semester 5

Sustainability and Development	SYD611S	None	7	13
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Semester 6

Emergency Medical Service Administration	EMS612S	Emergency Medical Care II	6	12
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YEAR COURSES

Emergency Medical Care III	EMC701Y	Emergency Medical Care II Clinical Practice II Pharmacology	7	40
Clinical Practice III	CPR701Y	Emergency Medical Care II Clinical Practice II Pharmacology	7	40
ICU and Critical Care Transport	ICU701Y	Emergency Medical Care II Clinical Practice II Pharmacology	7	25

DEPARTMENT OF PREVENTATIVE HEALTH SCIENCES

CODE: 86

QUALIFICATIONS OFFERED

Bachelor of Environmental Health Sciences (Revised –Phased in 2019)	08BOHS
Bachelor of Science in Health Information Systems Management (Revised – Phased in 2022)	07BSHM
Bachelor of Science in Health Information Systems Management (Old Programme)	07BHIS
Bachelor of Human Nutrition	08BOHN

BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES

08BOHS

NQF Level: 8

NQF Credits: 517

NQF Qualification ID: Q0310

Description

The Bachelor of Environmental Health Sciences is a professional degree, designed for registration at level 8 on the National Qualifications Framework (NQF). The programme demands a high level of theoretical, practice and field work engagement. It also requires intellectual independence, which aims at deepened, comprehensive and systematic expertise in the major cognate area of learning i.e. Environmental Health.

The current Bachelor of Environmental Health Sciences programme was reviewed in order to ensure full compliance with the NUST Curriculum Framework and requirements of the NQF. The curriculum review is needed to ensure that students attain all the core competencies to practice in different industries, and are equipped to deal with public health needs in a dynamic health system.

Admission Criteria

Candidates may be admitted to this programme if they meet the General Admission Requirements of the University. In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below “C” on Ordinary level.

For the candidates seeking admission with NSSCO/NSSCAS results, requirements are as follows: In addition to meeting the University’s minimum admission requirements as outlined in the general rules, candidates must have a minimum of 20 points in Mathematics, Chemistry, Biology and Physics on NSSC Ordinary Level or Advanced Subsidiary level (NSSCO/AS), provided that no symbol must be below “C” on Ordinary Level or a “D” on Advanced Subsidiary Level. Candidates must further have obtained at least an “E” on Ordinary level in English. Candidates might also be required to go through a selection process involving a written test.

Articulation Arrangements:

The transfer of credits will be dealt with according to 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 credits that can be granted are 50% of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Environmental Health Sciences, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery:

The Bachelor of Environmental Health Sciences will be offered on the full-time mode in accordance with NUST rules and procedures.

Requirements for Qualification Award:

The Bachelor of Environmental Health Sciences, designed for registration at NQF level 8, will be awarded to students credited with a minimum of 517 NQF credits. All the courses are compulsory and in addition, students must meet the administrative and financial requirements of the University.

Teaching, learning strategies

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 programme 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. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem

based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include two semesters of Work Integrated Learning at various institutions such as the Ministry of Health, Municipalities, Abattoirs, Namport, Namwater, food processing industries, food storage industries, mining companies, etc, to enable students to apply learnt competencies and conduct research of an applied nature (to be published in a Mini-thesis). The department will identify industry supervisors who will work hand in hand with the department in training and supervising the students' learning activities during Work Integrated Learning.

The Work Integrated Learning experiences should be documented throughout the placement period, reports on the students' performance will be provided outlining activities covered during WIL. At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators will moderate the portfolios for both semesters. Work Integrated Learning (Part 1) includes Meat Hygiene practical's and Environmental Health Services. Work Integrated Learning (Part 2) includes Environmental Health Services while students are required at the same time to carry out their research activities.

Assessment strategies

Students will be assessed through continuous and summative assessments. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development.

Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with the NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments. All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60% (continuous assessment) and 40% (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to report on their activities in the workplace and signed off by the assessors. The mini-thesis will be assessed in accordance with the NUST's rules for studies at postgraduate level.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Anatomy and Physiology	AAP511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Water and Sanitation	WAS512S	None	5	12
Microbiology and Parasitology	MAP512S	None	5	12
Community Health Promotion	CHP521S	None	5	12
Housing and Health	HAH521S	None	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Waste Management	WSM611S	Water and Sanitation	6	12
Occupational Health and Safety 2A	OHS611S	Health Science Physics Anatomy and Physiology	6	12
Food and Meat Hygiene 2A	FMH611S	Microbiology and Parasitology Health Science Chemistry	6	12
Epidemiology 2A	EPD611S	Health Science Statistics Anatomy and Physiology	6	12
Public Health Legislation 2A	PHL611S	Community Health Promotion	6	12

Semester 4

Occupational Health and Safety 2B	OHS612S	Occupational Health and Safety 2A	6	12
Food and Meat Hygiene 2B	FMH612S	Food and Meat Hygiene 2A	6	12
Epidemiology 2B	EPD612S	Epidemiology 2A	6	12
Public Health Legislation 2B	PHL612S	Public Health Legislation 2A	6	12
Air Pollution and Noise	APN612S	Waste Management	6	12

Year 3

Semester 5

Sustainability and Development	SYD611S	None	7	13
Occupational Health and Safety 3	OHS711S	Occupational Health and Safety 2B	7	13
Food and Meat Hygiene 3	FMH711S	Food and Meat Hygiene 2B	7	13
Epidemiology 3	EPD711S	Epidemiology 2B	7	13
Health Management Practice 3	HMP711S	Public Health Legislation 2B	7	13
Environmental Pollution and Safety	EPS711S	Air Pollution and Noise	7	13

Semester 6

Work Integrated Learning (Part 1)	EWL712S	All courses up to Semester 5	7	60
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Year 4

Semester 7

Occupational Health and Safety 4	OHS811S	Occupational Health and Safety 3	8	14
Food and Meat Hygiene 4	FMH811S	Food and Meat Hygiene 3	8	14
Research Methodology	RMA811S	Epidemiology 3	8	14
Health Management Practice 4	HMP811S	Health Management Practice 3	8	14
Environmental Quality Management	EQM811S	Environmental Pollution and Safety	8	14

Semester 8

Work Integrated Learning (Part 2)	EWL812S	All courses up to Semester 7	8	36
Mini-Thesis	EMT812S	Research Methodology	8	30

**BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT
(Revised – Phased in 2022)**

07BSHM

NQF Level: 7

NQF Credits: 374

NQF Qualification ID: Q2333

Description

The Bachelor of Science in Health Information Systems Management is designed for registration at Level 7 on the NQF. The programme demands a high level of theoretical and practical engagement, intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Health Information Systems and Management.

Admission Requirements

Candidates may be admitted to this programme if they meet the General Admission Requirements of the University. In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below “D” on Ordinary Level.

For candidates seeking admission with NSSCO/NSSCAS results requirements are as follows: in addition to meeting the University’s minimum admission requirements as spelt out in the general rules, candidates must have a minimum of 20 points in Mathematics, Chemistry, Biology and Physics on NSSC Ordinary Level or Advanced Subsidiary level (NSSCO/AS), provided that no symbol must be below “C” on Ordinary Level or a “D” on Advanced Subsidiary Level. Candidates must further have obtained at least an “E” on Ordinary level in English.

Articulation Arrangements

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

Graduates of this programme will be able to pursue further studies in Health Information Systems Management or a related cognate area of learning, at NQF Level 8.

Mode of Delivery

The Bachelor of Science in Health Information Systems Management will be offered on a full-time mode of study through flexible modes such as Block release and E-learning in accordance with NUST rules and procedures should the need arise.

Teaching, learning strategies

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. The learning process will be rooted in a socio-constructivist approach to learning in which learning is viewed as an active, constructive process rather than a passive, reproductive process. Thus, the programme 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 that requires specific tasks to be carried out by the student. This facilitation will make use of, inter alia, face-to-face lecture, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include one semester of Work Integrated Learning (WIL) at various institutions such as the Ministry of Health, Hospitals, Clinics, Health insurance companies, Health care settings in private sector, Telecom Namibia, HIS consulting companies, etc. The Work Integrated Learning activity will enable students to apply learnt competencies in the world of work (workplace). Students will be required to sign an agreement form provided by the WIL coordinator in collaboration with the organisation offering the placement. The placement institution will identify and appoint an industry supervisor who will work hand in hand with the WIL coordinator. The agreement will cover all the units/sub-specialties that the student should cover. The Work Integrated Learning experiences should be documented throughout the placement period, reports on the students’ performance will be provided outlining activities covered during WIL.

At the end of the WIL placement, students need to provide a detailed written report and development a Portfolio of Evidence that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators will moderate the submitted WIL portfolios.

Assessment strategies

Students will be assessed through formative continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). In accordance with NUST's policy all courses assessed using a combination of continuous assessment and an end-of semester examination will contribute to the final mark in the ratio 60% (continuous assessment) and 40% (examination).

Courses that are assessed using a combination of continuous assessment and final end of term examination must have at least two continuous assessment activities prior to the examination. In accordance with the university's policy on diversified continuous assessment, each course will have a minimum of four (4) assessment event.

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to engage in specific tasks and report on their activities in the work place, which is signed off by the industry supervisors.

Transition Arrangements

The Bachelor of Science in Health Information Systems Management will be (old curriculum) will be phased out systematically by 2026, with minimal disruption to existing students' learning progression. The last intake of 1st year students for the out-phasing programme (old curriculum) was in January 2021.

Students who are registered in 2021 for the first year of the phased-out programme (old curriculum) and who fail more than 50% of courses at the end of 2021 will be required to change their registration to the revised programme in 2022 and will be granted credits on a course-by-course basis following information in the Table below.

Students who are registered in 2021 for the first year of the phased-out programme (old curriculum) and who meet the requirements to progress to 2nd year at the end of 2021, will be required to continue and complete their studies based on the requirements of the old curriculum. More so, students who are registered in 2nd and 3rd year of the out-phasing programme (old curriculum) in 2021 will also be required to continue and complete their studies based on the requirements of the old curriculum and will be granted credits on a course-by-course basis following information in the Table below.

The revised Bachelor of Science in Health Information Systems Management will take effect in 2022. Courses will only be offered based on the new/revised curriculum as follows: **(1st year), 2023 (2nd year) and 2024 (3rd year)**. Thus, the revised programme will be phased in completely in 2023. Students, who fail any of the courses on the old curriculum will therefore, 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 to be done if courses on the old curriculum are failed.

The deadline for complete phasing out of the Bachelor of Science in Health Information Systems Management (old curriculum) is 2026, after which students in this category must automatically switch to the revised programme (new/revised curriculum) and fulfil all requirements based on the new curriculum.

Courses to be credited

Course Code	Bachelor of Science in Health Information Systems Management (Old Courses)	Course Code	Bachelor of Science in Health Information Systems Management (New/Revised Courses)
PLU411S	Principles of English Language Use	PLU411S	Principles of English Language Use
CUS411S	Computer User Skills	CUS411S	Computer User Skills
HSP511S	Health Science Physics	HSP511S	Health Science Physics
HSC511S	Health Science Chemistry	HSC511S	Health Science Chemistry
HSS511S	Health Science Statistics	HSS511S	Health Science Statistics
EPR511S	English in Practice	EPR511S	English in Practice
ICT521S	Information Competence	ICT521S	Information Competence
BME521S	Biomedical Ethics	LET521S	Legislation and Ethics in Health Information Management
PHS611S	Policy in Health Information Systems		
LHM721S	Legislations of Health Information Management		
IHI521S	Introduction to Health Informatics	FOH521S	Foundations of Health Information Management
HIM611S	Health Information Management		
HIT611S	Health Information Technology	HIN611S	Health Informatics and Technologies
MTD611S	Medical Terminologies and Disease Nomenclature	MTH611S	Medical Terminologies for Health Information Management

EHR621S	Electronic Health Records	HDM621S	Health Database Management
ICD612S	International Classification of Disease Nomenclature	ICD611S	International Classification of Disease 1A
		ICD621S	International Classification of Disease 1B
PHM711S	Principles of Health Management	PPH611S	Principles and Practices of Health Management
WIH711S	Work Integrated Learning (Part 1)	WIH711S	Work Integrated Learning
WIH721S	Work Integrated Learning (Part 2)		

Corresponding Courses (if failed). This is not a credit table

Course Code	Bachelor of Science in Health Information Systems Management (Old Courses)	Course Code	Bachelor of Science in Health Information Systems Management (New/Revised Courses)
HSP511S	Health Science Physics	HSP511S	Health Science Physics
HSC511S	Health Science Chemistry	HSC511S	Health Science Chemistry
HSS511S	Health Science Statistics	HSS511S	Health Science Statistics
AAP511S	Anatomy and Physiology	AAP511S	Anatomy and Physiology
CHP511S	Community Health Promotion	CHP511S	Community Health Promotion
BPP521S	Basic Pathophysiology	BPP521S	Basic Pathophysiology
BME521S	Biomedical Ethics	LET521S	Legislation and Ethics in Health Information Management
PHS611S	Policy in Health Information Systems		
LHM721S	Legislations of Health Information Management		
IHI521S	Introduction to Health Informatics		
HIM611S	Health Information Management	FOH521S	Foundations of Health Information Management
HIT611S	Health Information Technology	HIN611S	Health Informatics and Technologies
MTD611S	Medical Terminologies and Disease Nomenclature	MTH611S	Medical Terminologies for Health Information Management
EHR621S	Electronic Health Records	HDM621S	Health Database Management
ICD612S	International Classification of Disease Nomenclature	HDS621S	Healthcare Delivery Systems
		ICD611S	International Classification of Disease 1A
	None	ICD621S	International Classification of Disease 1B
PHM711S	Principles of Health Management	ISP711S	Information Security and Privacy in Health Care
WIH711S	Work Integrated Learning (Part 1)	PPH611S	Principles and Practices of Health Management
WIH721S	Work Integrated Learning (Part 2)	WIH711S	Work Integrated Learning
BSD721S	Biostatistics and Demography	BSD721S	Biostatistics and Demography
	None	PHM721S	Project Management for Health Care
FMS721S	Financial Management in Health Services		None
PHP711S	Public Health in Practice		None

Please Note:

In cases where more than one course in the old curriculum is replaced by one course in the new programme, students who have failed any one of the old courses must do the whole new course. Exemption cannot be granted for less than a whole course.

The Table above only highlights new/revised core courses in Bachelor of Science in Health Information Systems Management 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. Such course will have to be offered until the programme completely phases out in 2026:

- Financial Management in Health Services (FMS721S); and
- Public Health in Practice (PHP711S)

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Anatomy and Physiology	AAP511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Community Health Promotion	CHP521S	None	5	12
Basic Pathophysiology	BPP521S	None	5	12
Legislation and Ethics in Health Information Management	LET521S	None	5	12
Foundations of Health Information Management	FOH521S	None	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Health Informatics and Technologies	HIN611S	Foundations of Health Information Management	6	12
Epidemiology 2A	EPD611S	Health Science Statistics Anatomy and Physiology	6	12
Principles and Practices of Health Management	PHM611S		6	12
Medical Terminologies for Health Information Management	MTH611S	Basic Pathophysiology	6	12

Semester 4

International Classification of Disease 1A	ICD611S	Medical Terminologies for Health Information Management	6	12
Healthcare Delivery Systems	HDS621S		6	12
Epidemiology 2B	EPD612S	Epidemiology 2A	6	12
Health Database Management	HDM621S	Health Informatics and Technologies	6	12
Sustainability and Development	SYD611S	None	7	13

Year 3

Semester 5

Epidemiology 3	EPD711S	Epidemiology 2B		
International Classification of Disease 1B	ICD622S	International Classification of Disease 1A	7	13
Quality Management and Improvement in Health Care	QMI711S	None	7	13
Information Security and Privacy in Healthcare	ISP711S	None	7	13

Plus TWO of the Following Electives

Biostatistics and Demography	BSD721S	None	7	13
Financial Management in Health Services	FMS721S	None	7	13

Semester 6

Work Integrated Learning	WHL721S	All courses up to Semester 4	7	60
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**BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT
(Old Programme - Phasing out 2026)**

07BHIS

NQF Level: 7

NQF Credits: 374

NQF Qualification ID: Q0891

Description

The Bachelor of Science in Health Information Systems Management is designed for registration at Level 7 on the NQF. The programme demands a high level of theoretical and practical engagement, intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Health Information Systems and Management.

Admission Requirements

Candidates may be admitted to the is programme if they meet the General Admission Requirements of the University. In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below “D” on Ordinary Level.

For candidates seeking admission with NSSCO/NSSCAS results requirements are as follows: in addition to meeting the University’s minimum admission requirements as spelt out in the general rules, candidates must have a minimum of 20 points in Mathematics, Chemistry, Biology and Physics on NSSC Ordinary Level or Advanced Subsidiary level (NSSCO/AS), provided that no symbol must be below “C” on Ordinary Level or a “D” on Advanced Subsidiary Level. Candidates must further have obtained at least an “E” on Ordinary level in English.

Articulation Arrangements:

The transfer of credits will be dealt with according to the Polytechnic of Namibia’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 credits that can be granted are 50% of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in health information management, health informatics, public health or a related cognate area of learning, at NQF Level 8.

Mode of Delivery:

The Bachelor of Sciences in Health Information Systems and Management will be offered on a full-time mode of study. Permission will be sought in the future subject to the approval of the Executive Committee, to deliver the programme on flexible modes such as Block release, distance learning, and E-learning in accordance with NUST rules and procedures.

Teaching and learning strategies

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 programme 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. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include two semesters of Work Integrated Learning at various institutions such as the Ministry of Health, Hospitals, Clinics, Health insurance companies, Health care settings in private sector, Telecom Namibia, HIS consulting companies, etc to enable students to apply learnt competencies. Students will be required to sign an agreement form provided by the department in collaboration with the organisation offering the placement. The department will identify and appoint an industry supervisor who will work hand in hand with the department. The agreement will cover all the departments that the student should cover. The Work Integrated Learning experiences should be documented throughout the placement period, reports on the students’ performance will be provided outlining activities covered during WIL.

At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators are moderating the portfolios for both semesters. Work Integrated Learning (Part 1) includes Health Information Management in health care delivery and Database Management & Analytics for HISM professionals’ lab. Work Integrated Learning (Part 2) includes Health Information Management Services while students are required at the same time to carry out their research activities.

Assessment strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). The use of validating end of term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests and/or examinations will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with Polytechnic of Namibia's policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments. All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60% (continuous assessment) and 40% (examination).

Assessment of the Work Integrated Learning components will be dealt with by means of close cooperation between industry assessors and PoN academics by means of a work manual in which students have to report on their activities in the workplace and signed off by the assessors.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Anatomy and Physiology	AAP511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Community Health Promotion	CHP521S	None	5	12
Basic Pathophysiology	BPP521S	None	5	12
Biomedical Ethics	BME521S	None	5	12
Introduction to Health Informatics	IHI521S	None	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Health Information Technology	HIT611S	Introduction to Health Informatics	6	12
Epidemiology 2A	EPD611S	Health Science Statistics Anatomy and Physiology	6	12
Policy in Health Information Systems	PHS611S	Biomedical Ethics	6	12
Medical Terminologies and Disease Nomenclature	MTD611S	Basic Pathophysiology	6	12

Semester 4

Electronic Health Records	EHR621S	Introduction to Health Informatics	6	12
International Classification of Disease Nomenclature	ICD621S	Medical Terminologies and Disease Nomenclature	6	12
Epidemiology 2B	EPD612S	Epidemiology 2A	6	12
Health Information Management	HIM621S	Health Information Technology	6	12

Year 3

Semester 5

Sustainability and Development	SYD611S	None	7	13
Epidemiology 3	EPD711S	Epidemiology 2B	7	13
Principles of Health Management	PHM711S	None	7	13
Public Health Practice	PHP721S	Epidemiology 3	7	13

Plus TWO of the Following Electives

Biostatistics and Demography	BSD721S	None	7	13
Legislations of Health Information Management	LHM721S	None		
Financial Management in Health Services	FMS721S	None		

Semester 6

Work Integrated Learning (Part 1)	WIH711S		7	60
Work Integrated Learning (Part 2)	WIH721S			

BACHELOR OF HUMAN NUTRITION

08BOHN

NQF Level: 8

NQF Credits: 482

NQF Qualification ID: Q1097

Description

The Bachelor of Human Nutrition is designed to provide students with a comprehensive knowledge of human nutrition, the related biosciences and their application to the maintenance of human health in public health domains as well as the prevention and management of disease. The programme enables students to apply their knowledge of nutrition and holistic approaches to contribute to the alleviation of malnutrition and nutrition-related morbidity and mortality in Namibia. Students will be capacitated with relevant knowledge and skills in foundational cognate areas including food chemistry, human anatomy and physiology, microbiology, biochemistry, food security, etc, and be able to apply this knowledge in understanding the role of diet in health maintenance and illness prevention. The programme further aims to produce graduates who can deliver quality nutritional services within a wide range of settings including public health, health education or health promotion, the food industry, and other areas of nutrition.

On completion, graduates who intend to practice as Nutritionists will be eligible to register with the Health Professions Council (HPCNA) of Namibia. After registration with HPCNA, they may be able to find employment in both public and private sector, municipalities, research institutions, other health related institutions, as well as teaching/training institutions.

Criteria for Admission

Candidates may be admitted to this programme if they meet the General Admission Requirements of NUST. In addition, candidates must have a minimum of 15 points in Physical Science, Mathematics and Biology at NSSC (H or O), provided that no symbol must be below C on Ordinary Level.

For candidates seeking admission with NSSCO/NSSCAS results requirements are as follows: in addition to meeting the University's minimum admission requirements as spelt out in the general rules, candidates must have a minimum of 20 points in Mathematics, Chemistry, Biology and Physics on NSSC Ordinary Level or Advanced Subsidiary level (NSSCO/AS) provided that no symbol must be below "C" on Ordinary Level or a "D" on Advanced Subsidiary Level. Candidates must further have obtained at least an "E" on Ordinary Level in English.

Mature age candidates will be considered provided they meet the requirements and pass the mature age entrance examinations of NUST with a minimum of 50% in both English and Mathematics.

Articulation Arrangements

The transfer of credits will be dealt with according to 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 credits that can be granted are 50% of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in Human Nutrition, or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

The Bachelor of Human Nutrition will be offered on a full-time mode of study. Flexible modes such as Block release, Distance learning and E-learning could be used to deliver the programme in the future in accordance with NUST rules and procedures.

Requirements for Qualification Award

The Bachelor of Human Nutrition will be awarded to students credited with a minimum of 482 NQF credits, and who meet the detailed requirements below. In addition, students must meet the administrative and financial requirements of the University.

Teaching and learning strategies

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 programme 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, using a blended mode with e-learning and other technologies, requiring specific tasks to be carried out by the student. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Learning activities outside the classroom will include one semester of WIL at various institutions such as the Ministry of Health, Hospitals, Clinics, Health care settings in private sector, Nutrition consulting companies, etc. to enable students to apply learnt competencies. Students will be required to sign an agreement form provided by the department in collaboration with the organisation offering the placement. The department will identify an industry supervisor who will work hand in hand with the department. The WIL experiences should be documented throughout the placement period, reports on the students' performance will be provided outlining activities covered during WIL.

At the end of the attachment, students need to provide a detailed written report that will be presented to a panel of evaluators who will determine the mark to be awarded to the student. This mark contributes towards the final semester mark for the course. External moderators will moderate the submitted WIL portfolios. WIL includes Clinical nutrition, Food service management and Community nutrition.

Assessment strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations). Assessment by means of tests and/or examinations will be used in situations where it is necessary to establish that a previous specific performance can be repeated or a specific skill can be transferred. In accordance with NUST's policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-term examination must have at least three assessments.

All courses will be assessed using a combination of continuous assessment and an end-of-semester examination in the ratio 60% (continuous assessment) and 40% (examination).

Assessment of the WIL components will be dealt with by means of close cooperation between industry assessors and NUST academics by means of a work manual in which students have to report on their activities in the workplace and signed off by the assessors.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Health Science Chemistry	HSC511S	None	5	10
Health Science Physics	HSP511S	None	5	10
Health Science Statistics	HSS511S	None	5	10
Anatomy and Physiology	AAP511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Community Health Promotion	CHP521S	None	5	12
Introduction to Biochemistry	IBC521S	Health Science Chemistry	5	10
Introduction to Foods, Nutrition and Health	IFN521S	None	5	10
Gastro-intestinal and Endocrine Physiology	GEP521S	None	5	10

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Microbiology	MIB611S	None	6	12
Food Security and Nutrition	FSN611S	None	6	12
Epidemiology 2A		Health Science Statistics Anatomy and Physiology	6	12
Nutrition through the Life Cycle	NTL611S	Introduction to Foods, Nutrition and Health	6	12

Semester 4

Food Chemistry	FCH621S	Introduction to Biochemistry	6	12
Epidemiology 2B	EPD612S	Epidemiology 2A	6	12
Maternal and Early Childhood Nutrition	MCN621S	Nutrition through the Life Cycle	6	12
Food Composition and Analysis	FCA621S	Introduction to Biochemistry	6	12
Food Service Systems	FSS621S	None	6	12

YEAR 3

Semester 5

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Sustainability and Development	SYD611S	None	7	13
Epidemiology 3	EPD711S	Epidemiology 2B	7	13
Principles of Health Management	PHM711S	None	7	13
Human Nutrition 1	HNT711S	None	7	13
Principles of Primary Health Care Nutrition	PHC711S	None	7	13

Semester 6

Food Processing and Preservation	FPC721S	None	7	14
Human Nutrition 2	HTN721S	Human Nutrition 1	7	14
Nutrition Anthropology	NNA721S	None	7	14
Research Methodology	RMD821S	Epidemiology 3	7	14

YEAR 4

Semester 7

Computer Applications in Nutrition	CAN811S	None	8	14
Nutrition in Emergencies	NIE811S	None	8	14
Community Nutrition	CNN811S	None	8	14
Primary Care Nutrition for HIV/AIDS and Communicable Diseases	PCN811S	None	8	14
Nutraceuticals and Alternative Nutritional Remedies	NCA811S	Food Chemistry	8	14

Semester 8

Mini-Thesis	MTN821S	Research Methodology	8	30
Work Integrated Learning	WLN821S	All courses up to Semester 7	8	36

SCHOOL OF NATURAL AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGY, CHEMISTRY AND PHYSICS

CODE: 9

QUALIFICATIONS OFFERED

Bachelor of Science (Revised Curriculum – Phasing in 2024)

07BASC

Bachelor of Science (Old Curriculum - Phasing out 2026)

07BOSC

BACHELOR OF SCIENCE

07BASC

(Revised Curriculum – Phasing in 2024)

NQF Credits: 360

Description

The Bachelor of Science is a major and minor degree programme aims at providing students with a coherent and systematic introduction to the broad knowledge, theories, principles, concepts and problem-solving techniques in the sub-field of natural sciences. The programme will enable students to acquire cognitive, problem-solving and key transferable skills necessary for addressing a wide range of pressing challenges in relation to Science, Technology and Mathematics in the current Namibian market and economy.

This major and minor science degree provides a platform for developing scientific literacy and for building-up essential scientific knowledge and skills for lifelong learning inSTEM. Additionally, the programme is designed to enable students to apply knowledge of the natural sciences to real life situations and appreciate the relationship between science and other disciplines. The programme structure facilitates exposure of students to a variety of disciplines, at least initially, but ultimately requiring specialisation in the final year in one major complemented by a component of Work Integrated Learning (WIL).

Criteria for Admission

In addition to meeting the NUST General Admission Requirements, candidates must have EITHER:

(a) a total of 15 points on the evaluation scale for Physical Science, Mathematics and Biology, in a combination of symbols on NSSC Higher or Ordinary Level or both. No symbol for any one of these subjects three should be lower than a C on Ordinary Level or a 4 on Higher Level.

OR

(b) a total of 20 points on the Namibia Senior Secondary Certificate Ordinary (NSSCO) evaluation scale for Biology, Chemistry, Physics and Mathematics provided no symbol for any one of these subjects is lower than a C.

OR

(c) Namibia Secondary School Certificate Advanced Subsidiary (NSSCAS) Certificate which incorporates three or more of the following subjects: Mathematics, Biology, Chemistry and Physics. Provided no symbol for any one of these subjects is lower than a D. Minimum of 20 points.

OR

(d) Students who successfully completed and pass the INSTEM Programme at NUST Candidates may be required to participate in a final selection test and/or interview at the discretion of the Department.

Articulation Arrangements

Transfer of credits will be dealt with according to 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 complete the Bachelor of Science successfully will be able to pursue further studies in the Natural Sciences, or related cognate areas of learning, at NQF level 8.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Science (major and minor) will be awarded to students credited with a minimum of 360 NQF credits. In addition, students must meet the administrative and financial requirements of NUST.

Transition Arrangements

The revised Bachelor of Science (new curriculum) will be implemented at all levels (1st, 2nd and 3rd year) in 2024, thus the current (2023) first, second- and third-year cohorts will all transition to the revised programme (new curriculum).

Courses will only be offered based on the new/revised syllabi from 2024 onwards. Students who are admitted into the examination in 2023 for courses on the old curriculum will be granted two opportunities to pass such courses (no retention of semester mark).

Students who fail any of the courses on the old curriculum will be required to repeat such courses based on 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 on the old curriculum are failed). These will be done in consultation with the Registrar.

Students who are currently (2023) registered in the final (3rd) year of the programme will be allowed to continue with the existing (old) curriculum until 2026.

The current programme (old curriculum) will be completely phased out by the end of 2026 after which students in this category must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum.

Courses to be credited

Course Code	Bachelor of Science (Old Courses)	Course Code	Bachelor of Science (New/Revised Equivalent Courses)
GNB501S	General Biology 1A	GNB501S	General Biology 1A
GNC501S	General Chemistry 1A	GNC501S	General Chemistry 1A
GNP501S	General Physics 1A	GNP501S	General Physics 1A
IAS501S	Introduction to Applied Statistics	AAS501S	Introduction to Statistics
GNB502S	General Biology 1B	GNB502S	General Biology 1B
GNC502S	General Chemistry 1B	GNC502S	General Chemistry 1B
GNP502S	General Physics 1B	GNP502S	General Physics 1B
CEB601S	Cell Biology	CEB601S	Cell Biology
EBD601S	Evolution of Biological Diversity	EBD601S	Evolution of Biological Diversity
GEN602S	Genetics	GEN602S	Genetics
APP601S	Analytical Principles and Practice	APP601S	Analytical Principles and Practice
ORC601S	Organic Chemistry 1	ORC601S	Organic Chemistry 1
PCH602S	Physical Chemistry	PCH602S	Physical Chemistry
EAM601S	Electricity and Magnetism	EAM601S	Electricity and Magnetism
TPH601S	Thermal Physics	TPH601S	Thermal Physics
PBT501S	Probability Theory 1	PBT501S	Probability Theory 1
PSF602S	Plant Structure and Function	PSF602S	Plant Structure and Function
ICH602S	Inorganic Chemistry	ICH602S	Inorganic Chemistry
MPH602S	Modern Physics	MPH602S	Modern Physics
MIB701S	Microbiology	MIB701S	Microbiology
BIO702S	Biotechnology	BIO702S	Biotechnology
ORC701S	Organic Chemistry 2	ORC701S	Organic Chemistry 2
MSC701S	Molecular Spectroscopy and Chemical Separation Methods	CIA711S	Chemical Instrumental Analysis
ENC702S	Environmental Chemistry	ENC702S	Environmental Chemistry
QCM701S	Quantum Chemistry and Molecular Spectroscopy	QCM701S	Quantum Chemistry and Molecular Spectroscopy
SSP701S	Solid State Physics	SSP701S	Solid State Physics
QPH702S	Quantum Physics	QPH702S	Quantum Physics

Corresponding Courses (only highlights new/revised core courses in 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).

Course Code	Bachelor of Science (Old Courses)	Course Code	Bachelor of Science (New/Revised Equivalent Courses)
GNB501S	General Biology 1A	GNB501S	General Biology 1A
GNC501S	General Chemistry 1A	GNC501S	General Chemistry 1A
GNP501S	General Physics 1A	GNP501S	General Physics 1A
IAS501S	Introduction to Applied Statistics	AAS501S	Introduction to Statistics
GNB502S	General Biology 1B	GNB502S	General Biology 1B
GNC502S	General Chemistry 1B	GNC502S	General Chemistry 1B
GNP502S	General Physics 1B	GNP502S	General Physics 1B
CEB601S	Cell Biology	CEB601S	Cell Biology
EBD601S	Evolution of Biological Diversity	EBD601S	Evolution of Biological Diversity
GEN602S	Genetics	GEN602S	Genetics
APP601S	Analytical Principles and Practice	APP601S	Analytical Principles and Practice
ORC601S	Organic Chemistry 1	ORC601S	Organic Chemistry 1
PCH602S	Physical Chemistry	PCH602S	Physical Chemistry
BPP712S	Biochemistry: Biochemical Principles and Practice	BPP612S	Biochemistry Principles and Practice
ACS701S	Applied Colloid and Surface Chemistry	PCC612S	Physical Chemistry of Colloids and Polymers
MSC701S	Molecular Spectroscopy and Chemical Separation Methods	CIA711S	Chemical Instrumental Analysis
EAM601S	Electricity and Magnetism	EAM601S	Electricity and Magnetism
TPH601S	Thermal Physics	TPH601S	Thermal Physics
PSF602S	Plant Structure and Function	PSF602S	Plant Structure and Function
ICH602S	Inorganic Chemistry	ICH602S	Inorganic Chemistry
MPH602S	Modern Physics	MPH602S	Modern Physics
ASF701S	Animal Structure and Function	AAP512S	Animal Anatomy and Physiology
MIB701S	Microbiology	MIB701S	Microbiology
BIO702S	Biotechnology	BIO702S	Biotechnology
MAB701S	Marine Biology 3A	OCE711S	Oceanography
MAB702S	Marine Biology 3B	AFM711S	Aquaculture and Fisheries Management
ORC701S	Organic Chemistry 2	ORC701S	Organic Chemistry 2
MSC701S	Molecular Spectroscopy and Chemical Separation Methods	CIA711S	Chemical Instrumental Analysis
ENC702S	Environmental Chemistry	ENC702S	Environmental Chemistry
QCM701S	Quantum Chemistry and Molecular Spectroscopy	QCM701S	Quantum Chemistry and Molecular Spectroscopy
ECE602S	Electrical Circuits and Electronics	EAE712S	Electrodynamics and Electronics
MMP701S	Mathematical Methods in Physics	MMP701S	Mathematical Methods in Physics
SSP701S	Solid State Physics	SSP701S	Solid State Physics
QPH702S	Quantum Physics	QPH702S	Quantum Physics

The following courses do not have corresponding courses in the Revised Bachelor of Science curriculum and will be offered until the Bachelor of Science (Old Curriculum) will be phased out completely in 2026.

Biology, Chemistry, Physics and Mathematics Strands

SAT501S – Algebra and Trigonometry

Physics Strand

EEN701S - Energy and Environment

GPH701S – Geophysics

BPH702S – Biomedical Physics

Mathematics Strand

LIA502S – Linear Algebra

MAS501S – Mathematical Structures

ODE602S – Ordinary Differential Equations

LIA601S – Linear Algebra 2

MAP602S – Mathematical Programming

RAN701S – Real Analysis

NUM701S – Numerical Analysis 1

MMO701S – Mathematical Modelling 1

MMO702S – Mathematical Modelling 2

NUM702S – Numerical Methods 2

Rules of Combination

In the context of this degree, permitted choices of major and minor will be in Biology, Chemistry and Physics and hence the following six (6) combinations (indicated with a tick (✓)):

		MAJORS		
		Biology	Chemistry	Physics
MINORS	Biology	X	✓	✓
	Chemistry	✓	X	✓
	Physics	✓	✓	X

Students are required to complete a combination of Core Compulsory and Strand Compulsory courses (depending on their chosen majors).

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
General Biology 1A	GNB501S	None	5	12
General Chemistry 1A	GNC501S	None	5	12
General Physics 1A	GNP501S	None	5	12
Mathematics for Natural Sciences	MFN511S	None		
Introduction to Applied Statistics	IAS501S	None		

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
General Biology 1B	GNB502S	General Biology 1A	5	12
General Chemistry 1B	GNC502S	General Chemistry 1A	5	12
General Physics 1B	GNP502S	None	5	12
Calculus for Natural Sciences 1	CNS512S	Mathematics for Natural Sciences	5	12
Current Issues in Sciences	CIS512S	None	5	12

YEAR 2

Semester 3

*Choose TWO Strands depending on intended Major and Minor
(THREE courses for the Major and any TWO courses for the Minor)*

BIOLOGY

Cell Biology	CEB601S	General Biology 1A	6	12
Evolution of Biological Diversity	EBD601S	General Biology 1B	6	12
Genetics	GEN602S	General Biology 1B	6	12

CHEMISTRY

Analytical Principles and Practice	APP601S	General Chemistry 1B	6	12
Organic Chemistry 1	ORC601S	General Chemistry 1B	6	12
Physical Chemistry	PCH602S	General Chemistry 1B	6	12

PHYSICS

Electricity and Magnetism	EAN601S	General Physics 1A	6	12
Thermal Physics	TPH601S	General Physics 1A	6	12
Classical Mechanics	CLM611S	Calculus for Natural Sciences 1 General Physics 1A	6	12

***In addition ONE Compulsory Elective depending on the Major
Biology Major - Probability Theory 1
Chemistry and Physics Majors – Calculus for Natural Sciences 2***

BIOLOGY

Probability Theory 1	PBT501S	None	6	12
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CHEMISTRY AND PHYSICS

Calculus for Natural Sciences 2	CFN611S	Calculus for Natural Sciences 1	6	12
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Semester 4

English for Academic Purposes	EAP511S	English in Practice	5	14
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***Choose ONE Strand - Major
Based on Choices made in the previous Semester***

BIOLOGY

Plant Structure and Function	PSF602S	Cell Biology	6	12
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Ecological Concepts	ECC612S	Evolution of Biological Diversity	6	12
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Animal Anatomy and Physiology	APP612S	Evolution of Biological Diversity	6	12
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CHEMISTRY

Inorganic Chemistry	ICH602S	General Chemistry 1B	6	12
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Biochemistry Principles and Practice	BPP612S	Organic Chemistry 1	6	12
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Physical Chemistry of Colloids and Polymers	PCC612S	General Chemistry 1B	6	12
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PHYSICS

Mathematical Methods in Physics	MMP612S	Calculus for Natural Sciences 2	6	12
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Statistical Mechanics	STM612S	Thermal Physics	6	12
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Modern Physics	MPH602S	General Physics 1B	6	12
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YEAR 3

Semester 5

Sustainability and Development	SYD611S	None	6	12
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Plus ONE Strand Major (based on the rules choices made in the previous semester)

BIOLOGY

Oceanography	OCE711S	Ecological Concepts	7	12
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Microbiology	MIB702S	Evolution of Biological Diversity	7	12
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Biotechnology	BIO701S	Genetics	7	12
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Aquaculture and Fisheries Management	AFM711S	Animal Anatomy and Physiology	7	12
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CHEMISTRY

Organic Chemistry 2	OCH701S	Organic Chemistry 1	7	12
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Chemical Instrumental Analysis	CIA711S	Analytical Principles and Practice	7	12
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Environmental Chemistry	ENC702S	Inorganic Chemistry 1	7	12
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Quantum Spectroscopy and Molecular Spectroscopy	QCM701S	Organic Chemistry 1 Calculus for Natural Sciences 2	7	12
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PHYSICS

Solid State Physics	SSP701S	Thermal Physics and Modern Physics	7	12
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Quantum Mechanics	QUN712S	Mathematical Methods in Physics	7	12
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Electrodynamics and Electronics	EAE712S	Electricity and Magnetism	7	12
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Atomic and Nuclear Physics	ANP712S	Modern Physics	7	12
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Semester 6

Work Integrated Learning	WIL702S	All courses up to Semester 5 Department may decide on any exceptions	7	36
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**BACHELOR OF SCIENCE
(Old Curriculum – Phasing out 2026)**

07BOSC

NQF Level: 7

NQF Credits: 370

NQF Qualification ID: Q0723

Description

The Bachelor of Science is a major and minor degree programme that aims at providing students with a coherent and systematic introduction to the broad knowledge, theories, principles, concepts and problem-solving techniques in the sub-field of natural sciences. The programme will enable students to acquire cognitive, problem-solving and key transferable skills necessary for addressing a wide range of pressing challenges in relation to Science, Technology, Engineering and Mathematics (STEM) in the current Namibian market and economy. This major and minor science degree provides a platform for developing scientific literacy and for building-up essential scientific knowledge and skills for lifelong learning in STEM. Additionally, the programme is designed to enable students to apply knowledge of the natural sciences to real life situations and appreciate the relationship between science and other disciplines. The programme structure facilitates exposure of students to a variety of disciplines, at least initially, but ultimately requiring specialisation in the final year in one major complemented by a component of Work Integrated Learning (WIL).

Admission Requirements

In addition to meeting the Polytechnic's General Admission Requirements, candidates must have a total of 15 points on the evaluation scale for Physical Science, Mathematics and Biology, in a combination of symbols on NSSC Higher or Ordinary Level or both. No symbol for any one or more of the subjects may be lower than a D on Ordinary Level or a 4 on Higher Level. Candidates must further have obtained at least an E on Ordinary Level for English.

The Head of Department or his/her nominee may admit candidates who do not have the required minimum symbol for one of the above subjects, provided that such candidates have very strong symbols for the other two subjects and that the total point score for the three subjects is not lower than 15. Such candidates may be required to enrol for a bridging course at the discretion of the department.

Requirements for Qualification Award

The Bachelor of Science (double major) will be awarded to students credited with a minimum of 370 NQF credits. In addition, students must meet the administrative and financial requirements as spelt out in Part 1 of the Polytechnic of Namibia Yearbook.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Teaching and learning strategies

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. This facilitation will make use of, classroom lectures, guided practicals, group and individual assignments, seminars, practical demonstrations, problem-solving workshops, group projects, class discussions, tutorials, review of on-line resources, and field trips (not all methods will be used in the context of each course). The peculiar teaching and learning strategies of each course can be found in the course specifications/syllabi.

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

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

The two strand compulsory courses that are offered in the same semester as WIL will be facilitated by means of accelerated teaching and will be taught before the students go for WIL. Students are required to take the institutional core course, i.e. Contemporary Issues, on the distance education (DE) mode.

Quality Assurance requirements

Each course (please refer to the Detailed Qualification Requirements) will have one or more examiners and one moderator. Moderators will be identified both internally and externally. The required minimum qualification of the moderator is at least a Bachelor Honours degree or the person must be a well-respected expert in the field. Lecturing staff will set and mark tests and/or examinations in accordance with set memorandums. The examinations, memorandums and course outlines will be forwarded to the identified moderators for moderation. This ensures quality and equity of assessments and the qualification as whole. All exit level courses for this programme, i.e. NQF Level 7, will be externally moderated.

Transition Arrangements

This is a new programme/qualification that does not replace any existing programme/qualification(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
Computer User Skills	CUS411S	None	4	10
General Biology 1A	GNB501S	None	5	12
General Chemistry 1A	GNC501S	None	5	12
General Physics 1A	GNP501S	None	5	12
Algebra and Trigonometry	AAT501S	None	5	12

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
General Biology 1B	GNB502S	General Biology 1A	5	12
General Chemistry 1B	GNC502S	General Chemistry 1A	5	12
General Physics 1B	GNP502S	General Physics 1A	5	12
Introduction to Applied Statistics	IAS501S	None	5	12

YEAR 2

Semester 3

Calculus 1	CLS502S	Algebra and Trigonometry	5	12
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Plus TWO Strands depending on intended Major and Minor

BIOLOGY

Cell Biology	CEB601S	General Biology 1A	6	12
Evolution of Biological Diversity	EBD601S	General Biology 1A	6	12

CHEMISTRY

Analytical Principles and Practice	APP601S	General Chemistry 1B	6	12
Organic Chemistry 1	ORC601S	General Chemistry 1B	6	12

PHYSICS

Electricity and Magnetism	EAM601S	General Physics 1A	6	12
Thermal Physics	TPH601S	General Physics 1A	6	12

MATHEMATICS

Linear Algebra 1	LIA502S	Algebra and Trigonometry	6	12
Mathematical Structure	MAS501S	None	6	12

Semester 4

English for Academic Purposes	EAP511S	English in Practice	5	14
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Plus TWO Strands depending on intended Major and Minor

BIOLOGY

Genetics	GEN602S	Cell Biology	6	12
Plant Structure and Function	PSF602S	Evolution of Biological Diversity	6	12

CHEMISTRY

Physical Chemistry	PCH602S	General Chemistry 1B and Calculus 1	6	12
Inorganic Chemistry	ICH602S	General Chemistry 1B	6	12

PHYSICS

Electrical Circuits & Electronics	ECE602S	Electricity and Magnetism	6	12
Modern Physics	MPH602S	General Physics 1B	6	12

MATHEMATICS

Ordinary Differential Equations	ODE602S	Calculus 1	6	12
Linear Algebra 2	LIA601S	Linear Algebra 1	6	12

Compulsory Elective for BIOLOGY MAJOR

Probability Theory 1	PBT501S	None	5	12
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Compulsory Elective for CHEMISTRY, PHYSICS, MATHEMATICS MAJOR

Calculus 2	CLS601S	Calculus 1	6	12
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YEAR 3

Semester 5

Sustainability and Development	SYD611S	None	6	12
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Plus ONE Strand/Major (based on programme rules and choices made in previous semesters)

BIOLOGY

Ecology	ECO701S	General Chemistry 1B	7	12
Animal Structure and Function	ASF701S	General Chemistry 1B	7	12
Microbiology	MIB701S	Evolution of Biological Diversity and Genetics	7	12
Marine Biology 3A	MAB701S	Evolution of Biological Diversity and Genetics	7	12

CHEMISTRY

Organic Chemistry 2	OCH701S	Organic Chemistry 1	7	12
Molecular Spectroscopy & Chemical Separation Methods	MSC701S	Analytical Principles and Practice	7	12
Applied Colloid and Surface Chemistry	ACS701S	Physical Chemistry	7	12
Quantum Chemistry & Molecular Spectroscopy	QCM701S	Physical Chemistry	7	12

PHYSICS

Mathematical Methods in Physics	MMP701S	None	7	12
Energy and Environment	EEN701S	Thermal Physics Electricity and Magnetism	7	12
Solid State Physics	SSP701S	Modern Physics	7	12
Geophysics	SPH701S	Electricity and Magnetism Modern Physics	7	12

MATHEMATICS

Mathematical Programming	MAP602S	Linear Algebra 1	6	12
Real Analysis	RAN701S	Calculus 2	7	12
Numerical Methods 1	NUM701S	Ordinary Differential Equations	7	12
Mathematical Modelling 1	MMO701S	Ordinary Differential Equations	7	12

Semester 6

Work Integrated Learning	WIL702S	All Courses up to Semester 4	7	36
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Plus ONE Strand/Major (based on programme rules and choices made in previous semesters)

BIOLOGY

Biotechnology	BIO702S	Microbiology	7	12
Marine Biology 3B	MAB702S	Marine Biology 3A	7	12

CHEMISTRY

Biochemistry: Biochemical Principles and Practice	BPP702S	Organic Chemistry 2	7	12
Environmental Chemistry	ENC702S	Molecular Spectroscopy & Chemical Separation Methods	7	12

PHYSICS

Quantum Physics	QPH702S	Modern Physics	7	12
Biomedical Physics	BPH702S	Modern Physics	7	12

MATHEMATICS

Numerical Methods 2	NUM702S	Numerical Methods 1	7	12
Mathematical Modelling 2	MMO702S	Mathematical Modelling 1	7	12

DEPARTMENT OF MATHEMATICS, STATISTICS AND ACTUARIAL SCIENCE

CODE: 8

QUALIFICATIONS OFFERED

Bachelor of Science in Applied Mathematics and Statistics (Revised-Phasing in 2022)

07BSAM

**BACHELOR OF SCIENCE IN APPLIED MATHEMATICS AND STATISTICS
(Revised – Phasing in from 2022)**

07BSAM

NQF Level: 7

NQF Credits: 414

NQF Qualification ID: Q0724

Description

The Bachelor of Science in Applied Mathematics and Statistics provides a systematic and coherent introduction to the knowledge, principles, concepts, data, theories and problem-solving techniques of the applied Mathematics and applied Statistics discipline. The programme will enable students to acquire cognitive/intellectual skills, practical skills and key transferable skills and to apply these skills in solving Applied Mathematical and Statistical problems facing the public and private sectors, as well as the overall economy. It will equip students with skills to use mathematical and statistical tools to evaluate and analyse scientific information, and as such develop awareness and relevance of Mathematics and Statistics in the workplace and in the society.

Admission Requirements

In addition to the general admission requirements of the University a candidate should have obtained a minimum of (i) B symbol in NSSC Ordinary Level Mathematics or (ii) e symbol in NSSC Advanced Subsidiary Level Mathematics. Candidates that obtained a C symbol in the old NSSC Ordinary Level Mathematics will be required to sit for an entrance test in Mathematics.

Mode of Delivery

This programme will be offered on the full time and part-time modes of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Applied Mathematics and Statistics will be awarded to students credited with a minimum of 402 NQF credits. Students are required to complete compulsory courses (worth 390 credits and an elective course worth 12 credits).

Assessment strategies

Students will be assessed through formative continuous and summative assessments with the possibility of eAssessment where applicable. These assessments will focus on the achievement of qualification outcomes and take the form of face-to-face or online Assessment (eAssessment) where applicable. The assessment will be including but not limited to problem-solving exercises, individual/group assignments and presentations, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations).

Assessments will be done in the form of continuous assessment tests (CAT), specific application-oriented assignments (SAOA) and end of semester examination (ESE) per course. A minimum of 2 CATs and a minimum of 2 SAOAs will be conducted subject to a minimum of 4 continuous assessments. The weighting of CATs, SAOAs and ESE will be as follows:

Average of CATs: 40% of the final mark. Average of SAOAs: 20% of the final mark. ESE: 40% of the final mark.

WIL will be assessed on the basis of the following:

- Immediate WIL Industry supervisor's report;
- Academic supervisor /assessor's mark (the academic assessor will interview both the students and the WIL immediate supervisor and give a mark);
- WIL report which is to be written following the guidelines given by the department.
- Pre-WIL workshops attendance
- Portfolio of Evidence

To qualify for end of semester examination, a student will have to obtain a minimum average of 40% in the continuous assessments. A student will have to obtain a minimum average of 50% as final mark to pass a course, subject to a sub- minimum of 40% in the examination mark.

Transition Arrangements

The changes between the current curriculum and this revised curriculum are minimal. The Bachelor of Science in Applied Mathematics and Statistics (old curriculum) will phase out at the end of 2021 with minimal disruption to existing students' learning progression. The last intake of 1st year students for the out-phasing programme (old curriculum) was in January 2021. Students who are registered in 2021 for the 1st and 2nd year of the out-phasing programme (old curriculum), and who fail more than 50% of the courses at the

end of the year 2021, will be required to change their registration to the new programme and will be granted credits on a course-by-course basis in accordance with information in the Table below.

Students who are registered for the 1st and 2nd year of the out-phasing programme (old curriculum) and who meet all requirements to progress to 2nd and 3rd year respectively will also be required to transition to the revised curriculum in 2022. Students who are registered for the 3rd year of the old curriculum in 2021 but could not meet the requirements at the end of 2021 for the award of the degree will be required to transition to the revised curriculum and credits will be granted on a course-by-course basis.

The revised Bachelor of Science in Applied Mathematics and Statistics (New curriculum) will take effect from January 2022 with concurrent implementation of 1st, 2nd and 3rd year. Students who are admitted to the examination but fail any of the courses on the old curriculum will only be granted two opportunities to pass such courses in accordance with the NUST's general rules. Students who fail any of the courses on the old curriculum will be required to repeat the failed courses based on 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 on the old curriculum are failed.

The deadline for complete phasing out of the Bachelor of Science in Applied Mathematics and Statistics (old curriculum) is 2021 after which students must automatically switch to the new programme and fulfil all requirements based on the new curriculum.

Courses to be credited

Course Code	Bachelor of Science in Applied Mathematics and Statistics (Old Courses)	Course Code	Bachelor of Science in Applied Mathematics and Statistics (New/Revised Equivalent Courses)
SAT501S	Sets, Algebra and Trigonometry	TBA	Algebra and Trigonometry
LIA502S	Linear Algebra1	LIA502S	Linear Algebra1
FIM502SS	Financial Mathematics 1	FIM502SS	Financial Mathematics 1
CLS502S	Calculus 1	CLS502S	Calculus 1
SIN502S	Statistical Inference 1	SIN502S	Statistical Inference 1
CUS411S	Computer User Skills	CUS411S	Computer User Skills
EAP511S	English For Academic Purposes	EAP511S	English For Academic Purposes
LIA601S	Linear Algebra 2	LIA601S	Linear Algebra 2
FIM602S	Financial Mathematics 2	FIM602S	Financial Mathematics 2
ODE602S	Ordinary Differential Equations	ODE602S	Ordinary Differential Equations
DEM602S	Demography	DEM602S	Demography
RAN701S	Real Analysis	RAN701S	Real Analysis
NUM701S	Numerical Methods1	NUM701S	Numerical Methods 1
NUM702S	Numerical Methods 2	NUM702S	Numerical Methods 2
CAN702S	Complex Analysis	CAN702S	Complex Analysis
MCS702S	Mechanics	MCS702S	Mechanics
TSA701S	Time Series Analysis	TSA701S	Time Series Analysis
DAE702S	Design and Analysis of Experiments	DAE702S	Design and Analysis of Experiments
AEM702S	Applied Econometric Modelling	AEM702S	Applied Econometric Modelling

Corresponding Courses (to be completed if courses on the old curriculum are failed) (Please note that this is not a credit table)

Course Code	Bachelor of Science in Applied Mathematics and Statistics (Old courses)	Course Code	Bachelor of Science in Applied Mathematics and Statistics (Corresponding new/revised Courses to be done, if failed)
SAT501S	Sets, Algebra and Trigonometry	AAT501S	Algebra and Trigonometry
MAS501S	Mathematical Structures	MAS501S	Mathematical Structures
IAS501S	Introduction to Applied Statistics	IAS501S	Introduction to Applied Statistics
CLS502S	Calculus 1	CLS502S	Calculus 1
LIA 502S	Linear Algebra 1	LIA 502S	Linear Algebra 1
FIM502S	Financial Mathematics 1	FIM502S	Financial Mathematics 1
PBT501S	Probability Theory 1	PBT501S	Probability Theory 1
ODE602S	Ordinary Differential Equations	ODE602S	Ordinary Differential Equations
LIA601S	Linear Algebra 2	LIA601S	Linear Algebra 2
AMS602S	Applied Mathematical & Statistical Computing	AMS602S	Applied Mathematical & Statistical Computing
MAP602S	Mathematical Programming	MAP602S	Mathematical Programming

RAA602S	Regression Analysis and ANOVA	RAA602S	Regression Analysis & ANOVA
SIN502S	Statistical Inference 1	SIN502S	Statistical Inference 1
MMO701S	Mathematical Modelling 1	MMO701S	Mathematical Modelling 1
RAN701S	Real Analysis	RAN701S	Real Analysis
NUM701S	Numerical Methods 1	NUM701S	Numerical Methods 1
CAN702S	Complex Analysis	CAN702S	Complex Analysis
SIN601S	Statistical Inference 2	SIN601S	Statistical Inference 2
MMO702S	Mathematical Modelling 2	MMO702S	Mathematical Modelling 2
DEM602S	Demography	DEM602S	Demography
SMS701S	Survey Methods and Sampling Techniques	SMS701S	Survey Methods and Sampling Techniques
FIM601S	Financial Mathematics 2	FIM601S	Financial Mathematics 2
NUM702S	Numerical Methods 2	NUM702S	Numerical Methods 2
MCS702S	Mechanics	MCS702S	Mechanics
TSA701S	Time Series Analysis	TSA701S	Time Series Analysis
DAE702S	Design and Analysis of Experiments	DAE702S	Design and Analysis of Experiments
AEM702S	Applied Econometric Modelling	AEM702S	Applied Econometric Modelling
CLS601S	Calculus 2	CLS601S	Calculus 2
PBT602S	Probability Theory 2	PBT602S	Probability Theory 2
WIL701S	Work integrated Learning (WIL)	WIL701S	Work Integrated Learning (WIL)

Please note:

The Table above, only highlights new/revised courses in the Bachelor of Science in Applied Mathematics and Statistics that should be done if courses in the old curriculum are failed. Service courses delivered by other Departments and faculties are excluded, but the rules of relevant Departments and faculties 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
Computer User Skills	CUS411S	None	4	10
Algebra and Trigonometry	AAT501S	None	5	12
Mathematical Structures	MAS501S	None	5	12
Introduction to Applied Statistics	IAS501S	None	5	12
Probability Theory 1	PBT501S	None	5	12

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Basic Science	BSC410S	None	4	8
Calculus 1	CLS502S	Algebra and Trigonometry	5	12
Linear Algebra 1	LIA502S	Algebra and Trigonometry	5	12
Financial Mathematics 1	FIM502S	None	5	12
Statistical Inference 1	SIN502S	None	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Information Competence	ICT521S	None	5	10
Probability Theory 2	PBT602S	Probability Theory 1	6	12
Calculus 2	CLS601S	Calculus 1	6	12
Linear Algebra 2	LIA601S	Linear Algebra 1	6	12
Financial Mathematics 2	FIM601S	Financial Mathematics 1	6	12

Semester 4

Mathematical Programming	MAP602S	Linear Algebra 1	6	12
Applied Mathematical and Statistical Computing	AMS602S	Computer User Skills	6	12
Regression Analysis & ANOVA	RAA602S	Statistical Inference 1	6	12
Statistical Inference 2	SIN601S	Statistical Inference 1	6	12
		Probability Theory 2		
Ordinary Differential Equations	ODE602S	Calculus 2	6	12
Demography	DEM602S	None	6	12

Year 3

Semester 5

Real Analysis	RAN701S	Calculus 2	7	12
Numerical Methods 1	NUM701S	Ordinary Differential Equations	7	12
Time Series Analysis	TSA701S	Introduction to Applied Statistics	7	12
Survey Methods and Sampling Techniques	SMS701S	Introduction to Applied Statistics	7	12
Mathematical Modelling 1	MMO701S	Ordinary Differential Equations	7	12
Work Integrated Learning (WIL)	WIL701S	All courses up to Semester 4	7	12

Semester 6

Sustainability and Development	SYD611S	None	7	13
Mathematical Modelling 2	MMO702S	Mathematical Modelling 1	7	12
Design and Analysis of Experiments	DAE702S	Regression Analysis & ANOVA	7	12
Numerical Methods 2	NUM702S	Numerical Methods 1	7	12
Complex Analysis	CAN702S	Real Analysis	7	12

Plus ONE of the following Elective Courses

Mechanics	MCS702S	Ordinary Differential Equations	7	12
Applied Econometric Modelling	AEM702S	Regression Analysis & ANOVA	7	12

SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES AND AGRIBUSINESS

CODE: 87

QUALIFICATIONS OFFERED

Bachelor of Science in Agriculture	07BAGA
Bachelor of Agriculture (Phasing out until 2024)	07BAGR
Bachelor of Science in Horticulture	07BHOR

BACHELOR OF SCIENCE IN AGRICULTURE

07BAGA

NQF Level: 7

NQF Credits: 368

NQF Qualification ID: Q2089

Description

The Bachelor of Science in Agriculture provides a systematic and coherent introduction to the knowledge, principles, concepts, data, theories and problem-solving techniques of the agriculture discipline. The programme will enable students to acquire cognitive/intellectual skills, practical skills and key transferable skills and to apply these skills in solving agricultural related problems that face the Namibian agriculture and commercial/subsistence farming sector. This programme also intends to provide basic managerial competence through teaching, extension and research, thereby sustaining the agricultural industry, creating new employment opportunities, and contributing to Namibia's economic development. This programme enables students to specialise in Agribusiness Management or Sustainable Agriculture.

Overall, the Bachelor of Science in Agriculture aims at:

- * Equipping students with relevant knowledge, skills and attitudes to contribute to agricultural production and sustainable resource management;
- * Providing students with a sound foundation in the fundamental concepts and theories of agriculture; developing the ability of students to analyse agricultural information from a wide range of sources;
- * Providing graduates with basic managerial competencies for effective agricultural management, human resources and finances;
- * Equipping graduates with the requisite skills to work effectively as individuals and as members of a team; and
- * Providing students with opportunities for continued career education.

Criteria for Admission

Candidates may be admitted to the Bachelor of Science in Agriculture if they meet the University's General Admission Requirements. Candidates must also comply with the following additional requirements:

- * A candidate must have done and passed Biology and Mathematics, with a minimum of E-symbol at NSSC/NSSCO or level 4 at NSSCH or and E Symbol at NSSCAS.
- * In addition to Biology and Mathematics, the candidate must have done Natural Resource Science related subjects such as Agriculture, Physical Science, Life Science and Geography.

Candidates who meet the Mature Age Entry requirements of the NUST General Rules will also be considered for admission.

Holders of the NUST's Diploma in Agricultural Management (Level 6) will be admitted to the second year of this programme and will get an exemption for the corresponding courses. They will be exempted from Work Integrated Learning (WIL), but are required to fulfil the requirements of their selected strand in order to qualify for the award of the Bachelor of Science in Agriculture.

Candidates must be medically and physically fit for fieldwork, which forms an integral part of the programme.

Articulation Arrangements

Transfer of credits will be dealt with according to the NUST 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 Science in Agriculture will be able to pursue further studies in Agriculture or a related cognate area of learning at NQF Level 8.

Mode of Delivery

The programme will only be offered on the full-time mode of study in accordance with NUST rules.

Requirements for Qualification Award

The Bachelor of Science in Agriculture will be awarded to students credited with a minimum of 368 NQF credits. In addition students would meet the administrative and financial requirements spelt out in the General Rules of the Namibia University of Science and Technology.

Students specialise in either Agribusiness Management or Sustainable Agriculture, which are developed in increasing complexity across relevant NQF levels in accordance with NQF principles.

Teaching and Learning Strategies

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. The facilitation will make use of inter alia, practical projects quizzes, lectures, oral presentations assignments, excursions, presentation of audio-visual materials, problem-based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Assessment Strategies

In addition to the general requirements of Senate, the assessment of the student's academic performance will be on the basis of employing assessment methodologies and strategies appropriate to the learning outcomes of the different courses. For the Bachelor of Science in Agriculture, all course will be assessed using a combination of Continuous Assessment (CA) and an end-of-semester examination. CA and the examination will contribute in a ratio of 60/40 to the Final Mark. In order to be admitted to the examination, a semester mark of at least 40% is required. To obtain a final pass mark, a student must attain at least 50% in a course, subject to a sub-minimum of 40% in the examination. Some courses may use open-book tests/examinations to allow students access to their study materials at the discretion of the examiner.

Quality Assurance Requirements

Each course (please refer to the Detailed Qualification Requirements) will have one or more examiner and one moderator. Moderators will be identified both internally and externally. The required minimum qualification of the moderator should be a Bachelor Honours degree in a related field of study or the person must be a well-respected expert in the field in more practical areas. Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that particular course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purposes, therefore, ensuring quality of the assessment and the qualification as a whole. All exit level courses for this programme, i.e. courses at NQF Level 7, will be externally moderated.

Transition Arrangements

There are significant changes to this programme, thus the Bachelor of Agriculture (Old curriculum) will be phased out systematically with minimal disruption to existing students' learning progression. The revised Bachelor of Science in Agriculture will be phased in 2020. The last intake of 1st year students for the Bachelor of Agriculture (old curriculum) programme is the 2019 intake.

Students who are registered in 2019 for the 1st year of the out-phasing programme (old curriculum), and who fail more than 50% of the courses at the end of the year will be required to change their registration to the revised Bachelor of Science in Agriculture programme and will be granted credits on a course-by-course basis. Similarly, students who have completed courses on the out-phasing programme will get credits for the corresponding courses in the new revised programme, fulfilling the criteria of the selected strand. Similarly, students who are registered in 2019 for the 1st year of the out-phasing programme (old curriculum) and who meet all requirements to progress to the 2nd year of the out-phasing programme in 2020 will be allowed to transition to the revised programme (revised Bachelor of Science in Agriculture).

Students who are registered in 2019 for the 2nd year of the out-phasing programme (Old curriculum) and who fail more than 50% of the courses at the end of the year, will be required to change their registration to the revised Bachelor of Science Agriculture programme and will be granted credits on a course-by-course basis. Such students, however will lose credits for Agricultural Land Management.

Students who registered in 2019 for the 2nd year of the out-phasing programme (old curriculum) and who meet all requirements to progress to the 3rd year in 2020 will be required to complete their studies based on the requirements of the old curriculum.

The revised Bachelor of Science in Agriculture (revised curriculum) will take effect from January 2020 with concurrent implementation of 1st and 2nd year. Thus, course books will only be offered based on the new/revised syllabi in 2020 (1st and 2nd year), 2021 (3rd year).

Students who fail any of the courses on the old curriculum will be required to repeat such courses based on the syllabi of the new/revised corresponding courses.

The deadline for complete phasing out of the Bachelor of Agriculture (old curriculum) is 2024 after which students must automatically switch to the new programme and fulfil all requirements based on the new curriculum.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Introduction to Mathematics	ITM111S	None	5	10
Introduction to Chemistry	ICA511S	None	5	10
Introduction to General Biology	IBI511S	None	5	10
Agricultural Mechanisation	AMC520S	None	5	12

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Agricultural Economics	AEM520S	Introduction to Mathematics	5	10
Rangeland Ecology	RGE521S	Introduction to General Biology	5	12
Agricultural Statistics	AGS520S	Introduction to Mathematics	5	10
Soil Science	SSA520S	Introduction to Chemistry	5	12
Sustainable Crop Production	SCP621S	Introduction to General Biology	6	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Information Competence	ICT521S	None	5	10

Plus THREE of the following Strand Courses depending on Specialisation

SUSTAINABLE AGRICULTURE STRAND

Sustainable Small Ruminant Husbandry	SRH611S	Introduction to General Biology	6	12
Rangeland Regeneration	RRG611S	Rangeland Ecology	6	12
Sustainable Large Ruminant Husbandry	SLH611S	Introduction to General Biology	6	12

AGRIBUSINESS MANAGEMENT STRAND

Principles of Production Economics	PPE611S	Agricultural Economics	6	12
Mathematics for Agribusiness	MTA611S	Introduction to Mathematics	6	12

Plus ONE of the following Electives for Agribusiness Management Strand

Sustainable Small Ruminant Husbandry	SRH611S	Introduction to General Biology	6	12
Sustainable Large Ruminant Husbandry	SLH611S	Introduction to General Biology	6	12

Semester 4

Basic Research Methodology	RME620S	Agricultural Statistics Computer User Skills	6	10
Agribusiness Management	ABM720S	Agricultural Economics	7	12

Plus FOUR of the following courses depending on Specialisation

SUSTAINABLE AGRICULTURE STRAND

Conservation Agriculture	CVA621S	Soil Science	6	12
GIS and Remote Sensing Applications in Agriculture	GRS621S	None	6	12
Animal Health	ANH620S	Introduction to Chemistry Introduction to General Biology	6	12
Agricultural Extension	AGX620S	English in Practice	6	12

AGRIBUSINESS MANAGEMENT STRAND

Agroprocessing and Technology	APT621S	Introduction to Chemistry Introduction to General Biology	6	12
Principles of Agribusiness Marketing	PAM621S	Agricultural Economics	6	12
Basic Econometrics for Agriculture	BEA621S	Agricultural Statistics	6	12

Plus ONE of the following Electives for Agribusiness Management Strand

Agricultural Extension	AGX620S	English in Practice	6	12
Introduction to Human Resources Management	IHR512S	None	6	12

YEAR 3

Semester 5

Work Integrated Learning (WIL)	WLA710S	All courses up to semester four		
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Semester 6

Sustainability and Development	SYD611S	None	7	13
Agricultural Policy and Rural Development	APD721S	None	7	12
Environmental and Natural Resource Economics	ENR721S	Agricultural Economics	7	12

Plus ONE of the following courses depending on Specialisation

SUSTAINABLE AGRICULTURE STRAND

Sustainable Non-Ruminant Husbandry	SNH611S	Introduction to General Biology	6	12
Agroecology	AGE721S	Rangeland Regeneration	7	12

Plus ONE of the following Electives for Sustainable Agriculture Strand

Sustainable Urban Agriculture	SUA721S	Sustainable Crop Production	7	12
Water Resource Management	WRM721S	Conservation Agriculture	7	12

AGRIBUSINESS MANAGEMENT STRAND

Financial Management (Agriculture)	FMA712S	Agricultural Economics	7	12
Economics of Trade	ECT721S	Principles of Agribusiness Marketing	7	12
Project Management	PJA712S	None	7	12

BACHELOR OF AGRICULTURE (Phasing out 2024)

07BAGR

NQF Level: 7

NQF Credits: 372

NQF Qualification ID: Q0480

Description

The Bachelor of Agriculture provides a systematic and coherent introduction to the knowledge, principles, concepts, data, theories and problem-solving techniques of the agriculture discipline. The programme will enable students to acquire cognitive/intellectual skills, practical skills and key transferable skills and to apply these skills in solving agricultural related problems that face the Namibian agriculture and commercial/subsistence farming sectors. This programme also intends to provide basic managerial competence through teaching, extension and research, thereby sustaining the agricultural industry, creating new employment opportunities and contributing to Namibia's economic development.

Overall the Bachelor of Agriculture aims at:

- * Equipping students with relevant knowledge, skills and attitudes to contribute to agricultural production and sustainable resource management;
- * Providing students with a sound foundation in the fundamental concepts and theories of agriculture;
- * Developing the ability of students to analyse agricultural information from a wide range of sources;
- * Providing graduates with basic managerial competencies for effective agricultural management, human resources and finances;
- * Equipping graduates with the requisite skills to work effectively as individuals and as members of a team;
- * Providing students with opportunities for continued career education

Admission Requirement

Candidates may be admitted to the Bachelor of Agriculture if they meet the University's General Admission Requirements as spelt out in the General Rules. Candidates must also comply with the following additional requirements:

- * A pass with at least an E-symbol in Mathematics at NSSC Ordinary Level or a 4 at NSSC Higher Level or equivalent;
- * Passes with at least an E-symbol in Biology or Science related subjects.

Candidates who meet the Mature Age Entry requirements of the Namibia University of Science and Technology will also be considered for admission.

Holders of the University's Diploma in Agricultural Management (Level 6) will be admitted to the third year of this programme and will be exempted from Work Integrated Learning (WIL) in semester 5, but are required to complete the following courses in order to qualify for the award of the Bachelor of Agriculture:

- * Animal Health
- * Sustainability and Development
- * Non-ruminant Husbandry
- * Agroecology
- * Agricultural Land Management
- * Financial Management (Agriculture)
- * Food Science and Technology
- * Rural Development Sociology

Candidates must be medically and physically fit for field work, which forms an integral part of the programme.

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.

Graduates of the Bachelor of Agriculture will be able to pursue further studies in Agriculture or a related cognate area of learning at NQF Level 8.

Special Arrangements

Teaching and Learning Strategies

This learning process will be facilitated both in and outside the classroom, requiring specific tasks to be carried out by the student. This facilitation will make use of inter alia, practical's projects, quizzes, lectures, oral presentations, assignments, excursions, presentation of audio-visual materials, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored recorded and assessed.

Assessment Strategies

In addition to the general requirements of Senate, the assessment of the student's academic performance will be on the basis of employing assessment methodologies and strategies appropriate to the learning outcomes of the different courses.

For the Bachelor of Agriculture all courses will be assessed using a combination of Continuous Assessment (CA) and an end-of-semester examination. CA and the examination will contribute in a ratio of 60/40 to the final mark. In order to be admitted to the examination, a semester mark of at least 40% is required. To obtain a final pass mark, a student must attain at least 50% in a course, subject to a sub-minimum of 40% in the examination. Some courses may use open book tests/examinations to allow students access to their study materials at the discretion of the examiner.

The Bachelor degree student must also undertake a compulsory component of Work Integrated Learning (WIL) during which they have to record all duties performed, do a basic research project and present their general duties and research findings. The student is also evaluated in terms of work ethics and attitude by his mentor at the duty station, as well as the tutor from the University. A minimum of 50% is required to pass the basic research project. It is recommended that students should have at least a code 8 driver's license before going on WIL.

Transition Arrangement

The Bachelor of Agricultural Management (old curriculum) currently offered over 7 semesters will be phased out systematically until 2020 with minimal disruption to existing students' learning progression. The last intake of the 1st year students for the out-phasing programme was in January 2013. The last intake for the final year of the out-phasing programme will be in 2018. The last cohort of students to be registered for the final year in 2018, would have until 2020 to complete the out-phasing programme (Old curriculum).

Students who were registered in 2013 for the 1st year of the out-phasing programme (old curriculum) and who failed more than 50% of the courses at the end of the year, will be required to change their registration to the new programme and will be granted credits on a course-by-course basis in accordance with information in the Table below. Students who were registered in 2013 for the 1st year of the out-phasing programme and who meet all requirements to progress to the 2nd year in 2014 will be allowed to transition to the revised programme (new curriculum) but will lose the credits for the Basic Accounting 1A.

The revised Bachelor of Agriculture (new curriculum) took effect from January 2014 with the concurrent completion of the 1st and 2nd year (2014) and the implementation of the 3rd year in 2015. Courses will only be offered based on the new/revised syllabi in 2014 (1st and 2nd year) and 2015 (3rd year). Students who are admitted into the examination but fail any of the courses on the old curriculum will only be granted two opportunities to pass such courses. In accordance with the University's general rules. Students who fail any of the courses on the old curriculum will be required to repeat the failed course base on syllabi9 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 on the old curriculum are failed.

The deadline for complete phasing out of the Bachelor of Agricultural Management (old curriculum) is 2020 after which students must automatically switch to the new programme and fulfil all requirements based on the new curriculum.

1st Year Courses to be Credited

Course Code	Bachelor of Agricultural Management (Old courses)	Course Code	Bachelor of Agricultural Management (New revised Equivalent Courses)
ICA511S	Introduction to Chemistry	ICA511S	Introduction to Chemistry
CUS411S	Computer User Skills	CUS411S	Computer User Skills
ITM111S	Introduction to Mathematics	ITM111S	Introduction to Mathematics
LIP411S	Language in Practice	PLU411S	Principles of English Language Use
IBI510S	Introduction to General Biology	IBI510S	Introduction to General Biology
LBT4003S	Agricultural Mechanisation	LBT4003S	Agricultural Mechanisation
AEC2100	Agricultural Economics	AEC2100	Agricultural Economics
RSC112S	Rangeland Science	RSC112S	Rangeland Science
ACS220S	Agricultural Statistics	ACS220S	Agricultural Statistics
SSA120S	Soil Science	SSA120S	Soil Science
EPR511S	English in Practice	EPR511S	English in Practice

Corresponding Courses (to be completed if courses on the old curriculum are failed) Please note this is not a credit table

Course Code	Bachelor of Agricultural Management (Old courses)	Course Code	Bachelor of Agricultural Management (New revised Equivalent Courses)
ICA511S	Introduction to Chemistry	ICA511S	Introduction to Chemistry

IBI510S	Introduction to General Biology	IBI510S	Introduction to General Biology
LBT4003S	Agricultural Mechanisation	LBT4003S	Agricultural Mechanisation
AEC2100	Agricultural Economics	AEC2100	Agricultural Economics
RSC112S	Rangeland Science	RSC112S	Rangeland Science
ACS220S	Agricultural Statistics	ACS220S	Agricultural Statistics
SSA120S	Soil Science	SSA120S	Soil Science
SRH2100	Small Ruminant Husbandry	SRH610S	Small Ruminant Husbandry
RMN211S	Rangeland Management	RMN6210S	Rangeland Management
LRH2200	Large Ruminant Husbandry	LRH6140S	Large Ruminant Husbandry
AAG2100	Agronomy	AAG610S	Agronomy
ALM620S	Agricultural Land Management	ALM621S	Agricultural Land Management
HCT3200	Horticulture	HCT620S	Horticulture
RME410S	Research Methodology (SNRT)	RME620S	Basic Research Methodology
LBT4001	Agricultural Extension	AGX620S	Agricultural Extension
NRH620S	Non-Ruminant Husbandry	NRH621S	Non-Ruminant Animal Husbandry
IAG710S	In-service Training (Research Project)	WLA710S	Work Integrated Learning (WIL)
AGE720S	Agroecology	AGE721S	Agroecology
ABM322S	Agribusiness Management	ABM322S	Agribusiness Management
FMA711A	Financial Management (Agriculture)	FMA711A	Financial Management (Agriculture)
FTE610S	Introduction to Food Technology	FST720S	Food Science Technology
RSO610S	Rural Sociology	RDS720S	Rural Development Sociology
MRI321S	Marketing Research and Market Intelligence		None
ACM720S	Agricultural Marketing		None
SAP721S	Sustainable Animal Production		None
SPP721S	Sustainable Plant Production		None
SAM721S	Strategic Agribusiness Management		None

Please Note:

- * The Table above only highlights new/revised courses in the Bachelor of Agriculture that should be done if courses on the Bachelor of Agricultural Management (old curriculum) are failed. Service courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well.
- * Courses in the old curriculum that do not have corresponding courses in the new curriculum will be taught until the old curriculum is phased out.
- * Institutional Core Courses are included in this programme.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Introduction to Chemistry	ICA511S	None	5	10
Introduction to Mathematics	ITM111S	None	5	10
Introduction to General Biology	IBI511S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Agricultural Mechanisation	AMC520S	None	5	12
Agricultural Economics	AEM520S	Introduction to Mathematics	5	10
Rangeland Science	RSC520S	Introduction to General Biology	5	12
Agricultural Statistics	AGS520S	Introduction to Mathematics	5	10
Soil Science	SSA520S	Introduction to Chemistry	5	12

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Information Competence	ICT521S	None	5	10
Small Ruminant Husbandry	SRH610S	Introduction to General Biology	6	12
Rangeland Management	RMN610S	Rangeland Science	6	12
Large Ruminant Husbandry	LRH610S	Introduction to General Biology	6	12
Agronomy	AAG610S	Introduction to General Biology Soil Science	6	12

Semester 4

Agricultural Land Management	ALM621S	Soil Science	6	12
Horticulture	HCT620S	Introduction to General Biology Soil Science	6	12
Animal Health	ANH620S	Introduction to Chemistry Introduction to General Biology	6	12
Basic Research Methodology	RME620S	Agricultural Statistics Computer User Skills	6	10
Agricultural Extension	AGX620S	English in Practice	6	12
Non-Ruminant Husbandry	NRH621S	Introduction to General Biology	6	12

Year 3

Semester 5

Work Integrated Learning (WIL)	WLA710S	All courses up to Semester four, unless only one course has been failed, for which the student obtained admission to the examination		
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Semester 6

Sustainability and Development	SYD611S	None	7	13
Agroecology	AGE721S	Rangeland Science	7	12
Agribusiness Management	ABM720S	Agricultural Economics	7	12
Financial Management (Agriculture)	FMA720S	Agricultural Economics	7	14
Food Science and Technology	FST720S	Introduction to Chemistry	7	12
Rural Development Sociology	RDS720S	None	7	12

BACHELOR OF SCIENCE IN HORTICULTURE

07BHOR

NQF Level: 7

NQF Credits: 382

NQF Qualification ID: Q2296

Description

The Bachelor of Science in Horticulture is primarily designed to provide a systematic and coherent introduction to the knowledge, principles, concepts, theories and problem-solving techniques on production of horticultural crops, management, breeding, protection as well as soil fertility. The programme will enable students to acquire cognitive/intellectual skills (Horticulture), practical skills and key transferable skills and empower them to apply these skills in solving problems that face the Namibian horticultural sector.

The Bachelor of Science in Horticulture degree programme aims at equipping students with basic managerial competencies through teaching, excursions and research, thereby sustaining the horticultural industry, increasing the production and use of horticultural and other crops in the country, creating new employment opportunities, and contributing to Namibia's economic development. Further, this programme intends to provide students with the knowledge and skills required to plan, implement, and evaluate projects related to horticultural production, protection and management.

Admission Criteria

The Bachelor of Science in Horticulture seeks suitably qualified candidates who are capable of benefiting from, contributing to, and successfully completing the programme. In order to be considered for admission to this programme, applicants must meet the General Admission Requirements of NUST and comply with the following additional requirements:

- * A pass in Biology or a Science-related subject, with at least an C-symbol at NSSC Ordinary Level;
- * A pass in Mathematics with at least a D-symbol, at NSSC Ordinary Level;
- * A pass in English with at least an E-symbol, at NSSC Ordinary Level.

Candidates who meet the Mature Age Entry requirements of NUST may be considered but will in addition be required to pass an admission test, compiled by the Department of Agricultural Sciences and Agribusiness.

Articulation Arrangements

The transfer of credits will be dealt with according to 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 credits that can be granted are 50% of the credits for a qualification.

Graduates of the Bachelor of Science in Horticulture will be able to pursue further studies in Horticulture (at Honours), or in a related cognate area of learning, at NQF level 8.

Mode of Delivery

The programme will only be offered on the full-time mode in line with NUST rules and regulations.

Requirements for Award of Qualification

The Bachelor of Science in Horticulture will be awarded to candidates credited with a minimum of 382 NQF credits. In addition, students should meet the administrative and financial requirements spelt out in the applicable NUST year book. This programme has one major subject/cognate area of learning, Horticulture, which is developed in increasing complexity across relevant NQF levels in accordance with NQF principles.

Teaching, learning strategies

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. This facilitation will make use of, inter alia, practical, projects, quizzes, lectures, oral presentations, assignments, excursions, presentation of audio-visual materials, problem based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Assessment Strategies

Examination Requirements

In addition to the general requirements of Senate, the assessment of the student's academic performance will be on the basis of a semester mark and an examination mark. Assessment will be according to the syllabus description for the different courses. A semester mark of 40% is required for admission to the examinations and all courses require a final mark of at least 50% to pass. Continuous Assessment, for both theory and practical will contribute 60% to the final mark except where otherwise stipulated in the course syllabus.

A written examination of three hours (one paper) will contribute 40% to the final mark and a subminimum of 40% is required to be admitted to the examination. All courses will require a final mark of at least 50% to pass.

Work-integrated Learning

The Bachelor degree student must undergo compulsory and credit bearing Work-integrated Learning in the 5th semester of the programme. Before deciding on a duty station, students should make sure that the duty station should be able to have activities related to the student topic of the student. A minimum overall pass of 50% is required. A minimum of 40% is required for the research project and general report. It is recommended that students should probably have at least a code 8 driver's license before conducting their Work-integrated Learning.

Promotion Policy

In addition to the general regulations of Senate, in order to pass, a student will obtain a sub-minimum of 40% to be admissible for examination and obtain an overall final mark of at least 50% per course.

Quality Assurance Requirements

The Department holds quality delivery of its programmes as a key objective in its implementation strategies. Each course (please refer to the detailed Qualification Requirements) will have one or more examiners and one moderator. Identified moderators can be either internal or external. The required minimum qualification of the moderator will be at least an Honours degree in Horticulture related field, except in the case of technical courses. The moderators must also be knowledgeable individuals who are well-respected experts in the field. Lecturing staff will set and mark tests and/or examinations in accordance with set memoranda.

The examinations, memoranda and course outlines will be forwarded to moderators, approved by BoS, for moderation. This ensures quality and equity of assessments and the qualification as a whole. All courses at NQF level 7 in this programme will be externally moderated.

Transition Arrangements

There is difference between the Bachelor of Horticulture and the Bachelor of Science in Horticulture. As such transition arrangements are not required.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
General Physics 1A	GNP501S	None	5	12
General Biology 1A	GNB501S	None	5	12
Introduction to Chemistry	ICA511S	None	5	10
Introduction to Mathematics	ITM111S	None	5	10

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Introduction to Human Resources Management	HRF512S	None	5	12
General Physics 1B	GNP502S	General Physics 1A	5	12
General Biology 1B	GNB502S	General Biology 1A	5	12
Soil Science	SSA520S	Introduction to Chemistry	5	12
Agricultural Statistics	AGS520S	Introduction to Mathematics	5	10

YEAR 2

Semester 3

English for Academic Purposes	EAP511S	English in Practice	5	14
Plant Physiology	PTP610S	General Biology 1A AND 1B	6	12
Plant Protection	PPN610S	None	6	12
Crop Production	CPN610S	Soil Science	6	12
Cell Biology	CEB601S	General Biology 1A	6	12

Semester 4

Vegetable Physiology and Production	VPP620S	Crop Production AND Plant Physiology	6	12
Fruit Physiology and Production	FPP620S	Crop Production AND Plant Physiology	6	12
Genetics	GEN602S	Cell Biology	6	12
Basic Research Methodology	RME620S	Agricultural Statistics Computer User Skills	6	10
Turf Grass and Landscape Management	TGL620S	Soil Science AND Plant Physiology	6	10
Agricultural Economics	AEM520S	Introduction to Mathematics	5	10

YEAR 3

Semester 5

Work Integrated Learning	WIH710S	Vegetable Physiology and Production Fruit Physiology and Production Basic Research Methodology	7	60
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Semester 6

Sustainability and Development	SYD611S	None	7	13
Crop Ecophysiology	CEY720S	Plant Physiology	7	12
Applied Vegetable Production	AVP720S	Vegetable Physiology and Production	7	12
Agribusiness Management	ABM720S	Agricultural Economics	7	12
Applied Fruit Production	AFP720S	Fruit Physiology and Production	7	12
Postharvest Physiology and Technology	PPT720S	Vegetable Physiology and Production Fruit Physiology and Production	7	12

DEPARTMENT OF NATURAL RESOURCE SCIENCES

CODE: 88

QUALIFICATIONS OFFERED

Bachelor of Natural Resource Management (Revised Programme)	07BNRS
Bachelor of Natural Resource Management in Nature Conservation (Phasing out until 2024)	07BNTC

BACHELOR OF NATURAL RESOURCE MANAGEMENT

07BNRS

NQF Level: 7

NQF Credits: 363

NQF Qualification ID: Q2088

Description

The Bachelor of Natural Resource Management (NRM) is designed to provide students with a logical introduction to the broad knowledge, principles, concepts, data, theories and problem-solving techniques in the natural resource management sector. The programme will enable students to acquire cognitive/intellectual skills, practical skills and key transferable skills in three broad thematic areas namely NRM Science, NRM Techniques and NRM Management, and to apply these skills in solving conservation related problems that face the Namibian natural resource management sector. This programme aims to improve the effective management of Namibia's natural resources, thus contributing to the sustainable utilisation of Namibia's natural environment.

Criteria for Admission

Candidates may be admitted to this Programme if they meet the General Admission Requirements of NUST and comply with the following additional requirements:

- A pass with at least a C symbol at NSSC Ordinary Level in one of the following subjects: Biology, Geography and Agriculture;
- A pass in Mathematics with at least a D symbol, at NSSC Ordinary Level;
- A pass in English with at least a D symbol, at NSSC Ordinary Level;

Candidates who meet the Mature Age Entry requirements of NUST will be considered.

Candidates must be medically fit, since field and physical work form an integral part of this study programme.

Articulation Arrangements:

Transfer of credits will be dealt with according to NUST 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 programme will be able to pursue further studies in Natural Resource Management, or a related field, at NQF level 8.

Mode of Delivery:

This programme will only be offered on full-time mode in accordance with NUST rules.

Requirements for Qualification Award:

The Bachelor of Natural Resource Management will be awarded to students credited with a minimum of 363 NQF credits. In addition, students should meet the administrative and financial requirements as defined in the NUST general rules and regulations.

Teaching and learning strategies

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 students. This facilitation will make use of a variety of appropriate methods that will encourage the use of the latest, innovative technologies available, such as making use of digital library resources, E-learning Support System portal, apt scientific internet resources, the use of cell phone Apps and aerial and photographic imagery for natural resource monitoring, to transfer skills appropriate to each course. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Assessment strategies

In addition to the general requirements of Senate, the assessment of the student's academic performance will be on the basis of a semester mark and examination mark. Assessment will be according to the course specifications for the different courses. A semester mark of 40% is required for admission to the examinations and all courses require a final mark of at least 50% to pass. A ratio of 60:40 Continuous assessments: Formal examination will apply to all courses for the final mark except where stipulated otherwise in the course syllabus. A subminimum of 40% is required to pass the examination.

Work-Integrated Learning

The Bachelor degree student must undergo compulsory Work-integrated Learning in the fifth semester of the programme. Before deciding on a duty station, he/she should make sure that the activities required by the department will be available. A minimum overall pass of 50% is required. A minimum of 40% is required for the research/monitoring project. It is recommended that students should have at least a code B driver's license before going on Work Integrated Learning.

Quality Assurance requirements

Each course (please refer to the detailed Qualification Requirements) will have one or more examiners and one moderator. Identified moderators can be either internal or external. The required minimum qualification of the moderator will be at least an Honours degree, except in the case of technical courses. The moderators must also be knowledgeable individuals who are well-respected experts in the field and must be approved by Senate. Lecturing staff will set and mark tests and/or examinations in accordance with set memoranda. The examinations, memoranda and course outlines will be forwarded to moderators for moderation. This ensures the quality and equity of assessments and the qualification as a whole. All level 7 courses for this programme will be moderated externally.

Transition Arrangements

The Bachelor of Natural Resource Management (Nature Conservation) (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 out-phasing programme (old curriculum) was in January 2019.

The deadline for complete phasing out of the Bachelor of Natural Resource Management (Nature Conservation) (old curriculum) is 2024, after which students must automatically switch to the revised programme (new curriculum) and fulfil all requirements based on the new curriculum.

Courses to be credited

Course Code	Bachelor of Natural Resource Management (Nature Conservation) (Old Courses)	Course Code	Bachelor of Natural Resource Management (Equivalent New/Revised Courses)
NCE510S	Nature Conservation Ecology 1	CSE511S	Conservation Ecology 1
NCB510S	Nature Conservation Biology	BNS511S	Biology for Natural Sciences
ALS520S	Animal Studies 1	ZLY520S	Zoology 1
NCE620S	Nature Conservation Ecology 2	CSE621S	Conservation Ecology 2
ALS610S	Animal Studies 2	ZLY621S	Zoology 2
CIS610S	Contemporary Issues	SYD611S	Sustainability and Development
AEM610S	Aquatic Ecosystem Management	WWR711S	Water and Wetland Resource Management
NRM612S	Natural Resource Management (Nature Conservation 1)	REM611S	Rangeland Ecology and Management
MTP612S	Management Principles	LME520S	Leadership and Management for Eco-enterprises
NCL612S	Nature Conservation Law Enforcement	LFN520S	Legal Framework for Natural Resources
MEE620S	Methodology of Environmental Education	EEE621S	Environmental Education and Extension
FMN520S	Financial Management (Nature Conservation)	FMG620S	Financial Management for Natural Resources
ECD520S	Environmental Conservation Development	CCP621S	Community Conservation and Protected Area Management
BRM620S	Basic Research Methodology (Nature Conservation)	BRM622S	Basic Research Methods (Natural Resource Management)
NRM720S	Natural Resource Management (Nature Conservation) 2	BCM721S	Biodiversity Conservation and Management
NCE720S	Nature Conservation Ecology 3	CSE721S	Conservation Ecology 3
NCT420S	Nature Conservation Techniques 1	TNM511S	Techniques for Natural Resource Management
NCT520S	Nature Conservation Techniques 2		
NCT620S	Nature Conservation Techniques 3		

Corresponding Courses (if failed). This is not a credit table

Course Code	Bachelor of Natural Resource Management (Nature Conservation) (Old Courses)	Course Code	Bachelor of Natural Resource Management (Equivalent New/Revised Courses)
NCE510S	Nature Conservation Ecology 1	CSE511S	Conservation Ecology 1
NCB510S	Nature Conservation Biology	BNS511S	Biology for Natural Sciences
ALS520S	Animal Studies 1	ZLY520S	Zoology 1
NCE620S	Nature Conservation Ecology 2	CSE621S	Conservation Ecology 2
PTS620S	Plant Studies 1	PTS620S	Plant Studies 1
NCT420S	Nature Conservation Techniques 1	TNM511S	Techniques for Natural Resource Management
NCT520S	Nature Conservation Techniques 2		
NCT620S	Nature Conservation Techniques 3		
ALS610S		ZLY621S	Zoology 2
PTS710S	Plant Studies 2	PTS710S	Plant Studies 2
AEM610S	Aquatic Ecosystem Management	REM611S	Water and Wetland Resource Management
NRM612S	Natural Resource Management (Nature Conservation 1)	LME520S	Rangeland Ecology and Management
MTP612S	Management Principles	LFN520S	Leadership and Management for Eco-enterprises
NCL612S	Nature Conservation Law Enforcement	EEE621S	Legal Framework for Natural Resources
MEE620S	Methodology of Environmental Education	FMG620S	Environmental Education and Extension
FMN520S	Financial Management (Nature Conservation)	FMG620S	Financial Management for Natural Resources
ECD520S	Environmental Conservation Development	CCP621S	Community Conservation and Protected Area Management
BRM620S	Basic Research Methodology (Nature Conservation)	BRM622S	Basic Research Methods (Natural Resource Management)
WIN710S	Work Integrated Learning	WIN710S	Work Integrated Learning
NRM720S	Natural Resource Management (Nature Conservation) 2	BCM721S	Biodiversity Conservation and Management
NCE720S	Nature Conservation Ecology 3	CSE721S	Conservation Ecology 3
ALS720S	Animal Studies 3		None
		WMH620S	Wildlife Monitoring and Handling
		EMP721S	Environmental Management Principles

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 Natural Resource Management that should be done if courses on the Bachelor of Natural Resource Management (Nature Conservation) old curriculum are failed. Service and institutional courses from other Departments are excluded, but the rules of relevant Departments apply to this programme as well. The following old course does not have a corresponding course in the revised (new) curriculum and will have to be offered until the old programme is completely phased out in 2024:

- * Animal Studies 3 (ALS720S)

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Conservation Ecology 1	CSE511S	None	5	11
Biology for Natural Sciences	BNS511S	None	5	10
Techniques for Natural Resource Management	TNM511S	None	5	11
Introduction to Geospatial Data	IGD411S	None	4	8
Introduction to Mathematics	ITM111S	None	5	10

Semester 2

Plant Studies 1	PTS620S	Biology for Natural Sciences	6	11
Environmental Education and Extension	EEE621S	None	6	12
Zoology 1	ZLY520S	None	5	10
Leadership and Management for Eco-enterprises	LME520S	None	5	9
Legal Framework for Natural Resources	LFN520S	None	5	9
Wildlife Monitoring and Handling	WMH620S	None	6	11

YEAR 2

Semester 3

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Plant Studies 2	PTS710S	Plant Studies 1	7	12
Water and Wetland Resource Management	WWR711S	None	7	12
Introduction to Applied Statistics	IAS501S	None	5	12
Geographic Information Systems 1	GES512S	Introduction to Geospatial Data Computer User Skills	5	12
Rangeland Ecology and Management	REM611S	None	6	12

Semester 4

English for Academic Purposes	EAP511S	English in Practice	5	14
Conservation Ecology 2	CSE621S	Conservation Ecology 1	6	12
Zoology 2	ZLY621S	None	6	11
Basic Research Methods (NRM)	BRM622S	Introduction to Mathematics	6	12
Community Conservation	CCP621S	None	6	12

Year 3

Semester 5

Work Integrated Learning		All courses up to Semester 4 must have been passed or at least examination admission obtained, except for the Institutional Core Courses. The HoD may decide on exceptions to the Rule.	7	60
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Semester 6

Sustainability and Development	SYD611S	None	7	13
Biodiversity Conservation and Management	BCM721S	Rangeland Ecology and Management Wildlife Monitoring and Handling	7	12
Environmental Management Principles	EMP721S	None	7	12
Financial Management for Natural Resources	FMG620S	Introduction to Mathematics	6	12
Conservation Ecology 3	CSE721S	Conservation Ecology 2	7	12

**BACHELOR OF NATURAL RESOURCE MANAGEMENT
(Old Curriculum - Phasing out 2024)**

07BNTC

NQF Level: 7

NQF Credits: 372

NQF Qualification ID:Q0229

Description

The Bachelor of Natural Resource Management in Nature Conservation supports students in the field of Natural Resource Management in Nature Conservation to acquire the necessary knowledge, skills and attitudes to ensure the sustainable utilisation of Namibia's natural resources, with the focus on conservation. This will allow graduates to contribute towards the national economy of Namibia. Graduates will typically be employed in positions such as Natural Resource Managers (Middle management positions), Nature Conservationists, Environmental Education Officers, Environmental Practitioners, Research Assistants, Tour Guides, etc.

Admission Requirements

Candidates may be admitted to the Bachelor of Natural Resource Management in Nature Conservation if they meet the General Admission requirements of the University Senate and complies with the following additional requirements:

- * A pass in Biology or a Biology-related subject with at least a "C" symbol at NSSC Ordinary level;
- * A pass in Mathematics with at least an "E" Symbol at NSSC Ordinary level;
- * A pass in English with at least "D" symbol at NSSC Ordinary level.

Candidates who meet the Mature Age Entry requirements of the Namibia University of Science and Technology will be considered, but may be required to pass an additional admission test, compiled by the Department of Nature Conservation.

Candidates must be medically fit, since field and physical work form an integral part of this study programme.

Examination Requirements (Bachelor of Natural Resource Management: Nature Conservation)

In addition to the general requirements of Senate, the assessment of the student's academic performance will be on the basis of a semester mark and examination mark. Assessment will be according to the syllabus description for the different courses. A semester mark of 40% is required for admission to the examinations and all course require a final mark of at least 50% to pass. Continuous Assessment for both theory and practical's contributes 60% to the final mark of all Bachelor degree courses presented by Nature Conservation, except where stipulated otherwise in the course syllabus. A written examination of three hours (one paper) contributes 40% to the final mark and a sub minimum of 40% is required. The proportion of overall marks allocated to theory and practicals should correlate with the proportion of time allocated to each.

All courses will be evaluated according to the evaluation criteria of those Departments.

Work Integrated Learning

The Bachelor degree student must undergo compulsory Work-Integrated Learning in the fifth semester of the programme. Before deciding on a duty station, he/she should make sure that activities required by the programme will be available. A minimum overall pass of 50% is required. A minimum of 40% is required for the research/monitoring project. It is recommended that students should have at least a code 8 driver's license before going on Work Integrated Learning.

Quality Assurance requirements

Each course (please refer to the detailed Qualification Requirements) will have one or more examiners and one moderator. Identified moderators can be either internal or external. The required minimum qualification of the moderator will be at least an Honours degree, except in the case of technical courses. The moderators must also be knowledgeable individuals who are well-respected experts in the field and must be approved by Senate. Lecturing staff will set and mark tests and/or examinations in accordance with set memoranda. The examinations, memoranda and course outlines will be forwarded to moderators for moderation. This ensures the quality and equity of assessments and the qualification as a whole. All level 7 courses for this programme will be moderated externally.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Principles of English Language Use	PLU411S	None	4	NCB
Computer User Skills	CUS411S	None	4	10
Basic Science	BSC410S	None	4	8
Nature Conservation Ecology 1	NCE510S	None	5	12
Nature Conservation Biology	NCB510S	None	5	12
Basic Mathematics	BMS411S	None	4	12

Semester 2

English in Practice	EPR511S	Principles of English Language Use	5	NCB
Information Competence	ICT521S	None	5	10
Nature Conservation Ecology 2	NCE620S	Nature Conservation Ecology 1 Basic Mathematics	6	13
Plant Studies 1	PTS620S	Nature Conservation Biology	6	13
Animal Studies 1	ALS520S	Nature Conservation Biology	5	12
Nature Conservation Techniques 1	NCT420S	None	4	12

YEAR 2

Semester 3

Animal Studies 2	ALS610S	None	6	13
Plant Studies 2	PTS710S	Plant Studies 1	7	13
Aquatic Ecosystem Management	AEM610S	None	6	13
Natural Resource Management (Nature Conservation)	NRM612S	Co-Requisites: Plant Studies 2 and Animal Studies 2		
Management Principles	MTP612S	Nature Conservation Techniques 1	6	9
Nature Conservation Law Enforcement	NCL612S	Principles of English Language Use	6	9

Semester 4

English for Academic Purposes	EAP511S	English in Practice	5	14
Methodology of Environmental Education	MEE620S	English in Practice	6	13
Nature Conservation Techniques 2	NCT520S	Nature Conservation Techniques 1	5	12
Financial Management (Nature Conservation)	FMN520S	Basic Mathematics Computer User Skills	5	9
Environmental Conservation Development	ECD520S	None	5	9
Basic Research Methodology (Nature Conservation)	BRM620S	Basic Mathematics, English in Practice, Computer User Skills	6	9

Year 3

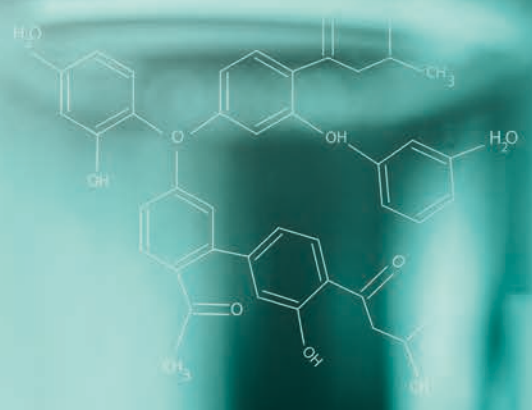
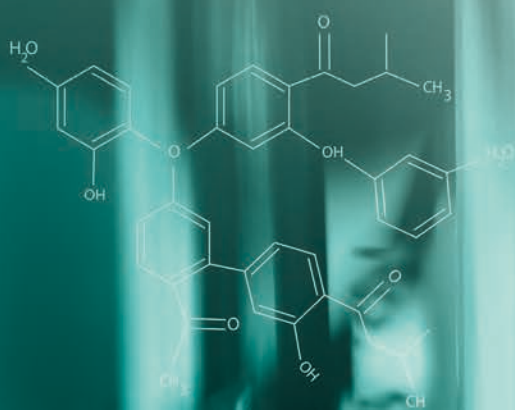
Semester 5

Work Integrated Learning (WIL)	WIN710S	All courses up to Semester 4 must have been passed or at least examination admission obtained. Exceptions may be approved by the Departmental Board	7	60
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Semester 6

Sustainability and Development	SYD611S	None	7	13
Natural Resource Management (Nature Conservation) 2	NRM720S	Natural Resource Management (Nature Conservation) 1 and Techniques 2 Co-Requisites: Techniques 3 and Animal Studies 3	7	13
Nature Conservation Ecology 3	NCE720S	Nature Conservation Ecology 2	7	13
Animal Studies 3	ALS720S	Animal Studies 2	7	13
Nature Conservation Techniques 3	NCT620S	Nature Conservation Techniques 2 Basic Mathematics and Computer User Skills	6	13

POSTGRADUATE PROGRAMMES



POSTGRADUATE PROGRAMMES

SCHOOL OF HEALTH SCIENCES

DEPARTMENT OF CLINICAL HEALTH SCIENCES

CODE: 85

QUALIFICATIONS OFFERED

Bachelor of Emergency Medical Care Honours (Phased in 2019)	07BOMC
Master of Health Sciences (Revised – Phasing in 2024)	09MHSC
Master of Health Sciences (Old Curriculum - Phased out 2023)	09MOHS
Doctor of Philosophy in Health Sciences (Phased in 2021)	10DOHS

BACHELOR OF EMERGENCY MEDICAL CARE HONOURS

08BMCH

NQF Level: 8

NQF Credits: 135

NQF Qualification ID: Q1110

Description

The Bachelor of Emergency Medical Care Honours is a postgraduate degree programme that is designed to create an opportunity for further tertiary education in the emergency medical care field. The programme aims to equip students with comprehensive and systematic knowledge and expertise in this discipline. The programme will enable students to develop their capacity to conduct supervised research of an applied nature as well as appraise existing or new treatment protocols to develop implementation strategies within the Namibian context. Furthermore, students will be equipped with the relevant knowledge and skills in disaster management, community health paramedicine and clinical care applicable to the emergency medical care setting.

Criteria for Admission

Applicants must have a Bachelor of Emergency Medical Care (Formerly Bachelor of Pre-hospital Emergency Medical Care) at NQF level 7 (with at least 360 NQF credits) from NUST or an equivalent NQF level qualification from a recognised institution or relevant pre-NQF qualification from a recognised institution worth at least 360 credits.

Applicants must also be registered with the HPCNA or equivalent registration body, as a Paramedic (Advanced Life Support Practitioner). Proof of Registration must be attached to the Application form.

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 total credits for a qualification.

Students who complete the Bachelor of Emergency Medical Care Honours will ordinarily be able to further studies in Emergency Medical Care, Health Sciences, or a related cognate area of learning at NQF level 9.

Mode of Delivery

The Bachelor of Emergency Medical Care Honours will be delivered on a full-time basis with a block release learning and distance learning mode that would be complemented by MyNUST E-Learning.

Requirements for Qualification Award

The Bachelor of Emergency Medical Care Honours will be awarded to candidates credited with a minimum of 120 NQF credits, and who have met the detailed requirements as set out below. In addition, students must meet the administrative and financial requirements of the University.

Transition Arrangements

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

Quality Assurance requirements

Each course (please refer to the Detailed Qualification Requirements) will have one or more examiner and one or more moderators. Moderators will be identified for each course (one internally and one externally) to ensure quality and consistency. The required minimum qualification of the moderator should be a Master’s degree in a related field of studies or the person must be a well-respected expert in their field. Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to both the internal and external moderators for moderation purposes, thereby, ensuring quality of the assessment for the whole qualification.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RME810S	None	8	15
Clinical Care Theory 1	CCT811S	None	8	15
Community Health Paramedicine	CHP811S	None	8	15
Disaster and Mass incident Management	DMI811S	None	8	15

Semester 2

Mini-Thesis	EMC821S	Research Methodology	8	30
Clinical Care Practice	CCP821S	Clinical Care Theory 1	8	15
Clinical Care Theory 2	CCT821S	Clinical Theory 1	8	15

**MASTER OF HEALTH SCIENCES
(Revised - Phasing in 2024)**

09MHSC

NQF Credits: 240

Description

The Master of Health Sciences is a Postgraduate degree by research that is aimed at developing skilled individuals with the ability to conceptualise, develop and conduct applied research in the field of Health Sciences. The Programme builds on previously acquired theoretical and practical knowledge at NQF level 8 and other relevant industrial experience of students to investigate and develop innovative ideas and products to solve problems in the field of Health Sciences.

The degree is designed for candidates with a Health Sciences background who seek to deepen and enhance competencies in specific areas. 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 Programme will create critical mass of skilled individuals in the field of Health Sciences that are of great need in Namibia, the continent, and the world at large. In addition, the Programme will allow graduates to vertically articulate to the Doctorate qualification at NQF level 10 in the field of Health Sciences.

Criteria for Admission

Candidates may be considered for admission into the Master of Health Sciences if they possess a Health Science related Bachelor Honours degree at NQF Level 8 or a recognised four-year Bachelor's degree with a research component or an equivalent qualification from recognised Institutions.

Applicants need to provide evidence of having conducted supervised research. Holders of appropriate qualifications in Health Sciences that meet the requirements will be considered on a case-by-case basis depending on internal capacity.

Articulation Arrangements

The Master of Health Sciences will ordinarily provide access to further studies in the same, or a related cognate area at the Doctoral level, at NQF Level 10.

Mode of delivery

The Programme is offered by full thesis through the full-time and part-time modes of study, using flexible delivery methods and in accordance with the rules for Postgraduate Studies, and at the discretion of the Department.

Requirements for Qualification Award

This qualification will be awarded to candidates credited with a minimum of 240 credits (all at NQF Level 9) 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.

In addition, students should meet the administrative and financial requirements of the University. The duration of studies for each mode shall be fulfilled as per the Rules and regulations for Postgraduate Studies at NUST.

Teaching, learning strategies

The Higher Degrees Committee (HDC), on the recommendation of the Departmental Postgraduate Committee, will appoint supervisor(s) / co-supervisor(s) for each student. Prospective students may also engage in discussions with potential supervisors based on intended areas of research specialisation. Students will be required to work independently in accordance with a pre-agreed research plan, which will be submitted according to the timeframe as specified by the Rules for Postgraduate Studies, and the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes at NUST. Students will be supervised, guided, and supported through regular contact sessions using all available resources during which study planning, progress, and other relevant academic issues/milestones are discussed. Academic support will be provided in accordance with the University's rules and procedures for Postgraduate Studies leading to the award of research degrees.

The learning processes include conduction of an in-depth, thorough, and relevant literature review in the area of research. This process will ensure alignment with the required knowledge of advanced information retrieval, processing, analysis, and synthesis. Students' research ideas and proposals will be geared towards problem solving and societal relevant research. Efforts will be made to develop the ideas in collaboration with industrial partners and stakeholders. This is essential in order to ensure alignment of research activities to the strategic plan of the Institution and that of the country.

In addition, students will be encouraged to attend seminars, workshops, and conferences within and outside the Institution during the course of their studies in order to gain wider exposure in research activities. The supervision will be carried out following developed research plan with specific milestones as required by the Department, agreed and signed by both the student and supervisor in the memorandum of understanding. Review of the signed milestone could occur based on valid circumstances from either party.

Supervisory guidance and learning activities will include research proposal development using Institutional format, research ethics, research methodology, laboratory work activities, data acquisition, presentation and interpretation processes, report writing and others.

Additional academic support will be provided in accordance with the University's rules and procedures for Postgraduate Studies, and ethical issues will be ensured in all required cases. Students will hence be required to conduct independent research work under the guidance of a supervisor.

Assessment strategies

It is compulsory that students attend regular Research activities and seminars throughout their study period. Students will be required to present their proposal within the first six months of registering. Presentation and knowledge of the field of study will be assessed/adjudged by a panel of experts consisting of the HoD and Research Committee through question-and-answer session. Unsuccessful students will be required to re-present their proposal within the subsequent six months for reassessment. This process and timelines apply to both full-time and to part-time students. All successful summary of research proposals will be submitted to HDC for 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 require 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 NUST rules for Postgraduate Studies. The thesis will be assessed by one (1) internal examiner in the same field of study or closely related area of specialisation other than the supervisor as approved by the HDC, through recommendation from the HOD, Programme Coordinator and Senior members of the Department and one (1) external examiner. Both should be independent of the supervisory team.

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 and the marks are approved by Higher Degrees Committee.

Transition Arrangements

This is a revised programme, and it is aligned to the old curricula. The Master of Health Science (old curriculum) will be completely phased out by 2023 with minimal disruption to existing students' learning progression, all students enrolled in the old curriculum will therefore be required to transition to the revised curriculum and fulfil the requirements based on the new curriculum. The stipulation of the maximum study period will be maintained, and candidates will be required to complete their studies within the stipulated time frame. The revised curriculum of the Master of Health Science will be phased in, in 2024.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
MSC910S	Thesis	None	MSC910P	Thesis	None
Semester 2			Semester 2		
MSC912S	Thesis	None	MSC912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
MSC913S	Thesis	None	MSC913P	Thesis	None
Semester 4			Semester 4		
MASC914S	Thesis	None	MSC914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
MSC915X	Thesis Extension	None	MSC915P	Thesis	None
			Semester 6		
			MSC916P	Thesis	None
YEAR 4					
			Semester 7		
			MSC917P	Thesis	None
			Semester 8		
			MSC918P	Thesis	None
YEAR 5					
			Semester 9		
			MSC919X	Thesis	None

**MASTER OF HEALTH SCIENCES
(Old Curriculum - Phasing out 2023)**

09MOHS

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q1107

Description

The Master of Health Sciences is a Postgraduate degree by research that is aimed at developing skilled individuals with the ability to conceptualise, develop and conduct applied research in the field of Health Sciences. The degree is designed for candidates with a Health Sciences background who seek to deepen and enhance competencies in specific area of Health Sciences. The Programme builds on previously acquired theoretical and practical knowledge at NQF level 8 and other relevant industrial experience of students to investigate and develop innovative ideas and products to solve problems in the field of Health Sciences. Hence it is designed to enhance critical thinking and applied techniques in order to contribute meaningfully to the advancement of innovated and applied research in Health Science for the benefit of the society.

Criteria for Admission

Candidates may be considered for admission into the Master of Health Sciences if they possess a Bachelor of Environmental Health Sciences, Bachelor of Biomedical Sciences or Bachelor of Emergency Medical Care Honours at NQF Level 8 from the Namibia University of Science and Technology or equivalent qualification from recognised institutions. A four year tertiary pre-NQF qualification with emphasis in Health Sciences may also be considered. Hence, holders of appropriate qualifications in Health Sciences that meet the requirements will be considered on a case-by-case basis depending on internal capacity.

Articulation Arrangements

The Master of Health Sciences will ordinarily provide access to further studies in the same, or a related cognate area at the Doctoral level, at NQF Level 10.

Mode of delivery

The Programme is offered by full thesis through the full-time and part-time modes of study, using flexible delivery methods and in accordance with the rules for Postgraduate Studies, and at the discretion of the Department.

Requirements for Qualification Award

This Master of Health Sciences degree will be awarded to students 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 University's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements of the University. Students will be required to make oral presentations of their research proposals within the first six (6) months of registration. It will be mandatory for students to attend seminars and workshops prescribed by the department and or the supervisor in order to improve the quality of their thesis.

Free text, following the qualification title would be utilised to identify the cognate area of research in which students' research topics might focus. A minimum of two years and a maximum period of four years are required to complete the programme, if registered on the full-time mode. A minimum of three years and a maximum period of six years are required to complete the programme, if registered on the part-time mode.

Teaching and Learning Strategies

The teaching and learning strategies are structured in line with expected learning outcomes at NQF level 9. This is geared towards the acquisition of critical thinking and problem solving skills and competence in applied research in Health Sciences. Hence, students will conduct interactive research work under the guidance of assigned supervisor(s). In general, students will be required to conduct independent research work in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress and other relevant academic issues/milestones are discussed. Academic support will be provided in accordance with the University rules and procedures for postgraduate studies leading to the award of research degrees.

The strategic learning processes include conduction of an in-depth, thorough and relevant literature review geared towards problem solving and societal relevant research. This is essential so as to align research activities to the strategic plan of the institution and that of the country. Students will be encouraged to attend research seminars, workshops and conferences on the recommendation of the Head of Department (HoD) and or the supervisor. Students shall implement the research plan with specific milestones as agreed and signed by both the student and supervisor and endorsed by the HoD. Review of the signed milestone could occur based on valid circumstances from either party. Hence, supervisory guidance and learning activities will include research proposal development using approved format together with plagiarism report, fulfilment of research ethics requirements, implementation of research methodology, data acquisition, data presentation and interpretation process, report writing and others. Additional academic support

will be provided in accordance with the University rules and procedures for postgraduate studies and ethical issues will be ensured in all required cases.

Assessment strategies

Students are required to submit a research proposal after six months for approval by the Postgraduate Studies Committee and then make oral presentation of the proposal. Attendance of prescribed seminars, workshops and conferences shall be compulsory for all students. Students are required to present work-in-progress every six months during research seminars for progress monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of three months for re-approval.

In compliance with the general requirements of Senate of NUST, students are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis requires students to work and conduct research investigation independently. 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 the student for correction before final binding and archiving. Final mark of the thesis will only be released after all corrections have been effected to the satisfaction of the faculty/supervisor.

Transition Arrangements

This is a new programme and does not replace any existing qualification. Transition arrangements as may be required shall be carried out when the programme is due for revision.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
THS911S	Thesis	None	THS911P	Thesis	None
Semester 2			Semester 2		
THS912S	Thesis	None	THS912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
THS913S	Thesis	None	THS913P	Thesis	None
Semester 4			Semester 4		
THS914S	Thesis	None	THS914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
THS915X	Thesis Extension	None	THS915P	Thesis	None
			Semester 6		
			THS916P	Thesis	None
YEAR 4					
			Semester 7		
			THS917P	Thesis	None
			Semester 8		
			THS918P	Thesis	None
YEAR 5					
			Semester 9		
			THS919X	Thesis	None

DOCTOR OF PHILOSOPHY IN HEALTH SCIENCES

10DOHS

NQF Level:

NQF Credits: 360

NQF Qualification ID:

Description

The Doctor of Philosophy (PhD) in Health Sciences programme will be by pure research (full thesis) registrable at NQF level 10. It aims at developing skilled and competent individuals with the ability to conceptualise, develop and conduct applied research in the field of Health Sciences. The programme builds on previously acquired theoretical and practical knowledge at NQF level 9 and other industrial experience of students to investigate and develop innovative ideas and products to solve problems in the field of Health Sciences. The programme will create a critical mass of skilled individuals in the field of Health Sciences that are of great need in the country. The growing sophistication and recent developments in health sciences research require stronger capacity for interdisciplinary research. Consequently, students need to have mastery of their disciplines in order to contribute their expertise in multi-disciplinary fora in education and research. In addition, cutting-edge research is increasingly dependent on collaboration among related disciplines in health sciences.

The hallmark of a research-focused doctoral degree is an individualised programme that supports development of expertise in various fields of Health Sciences with increasing depth in scientific investigation. The end product of a PhD in Health Sciences programme of study is the thesis, an independent research project completed under the guidance of the qualified supervisor that adds new knowledge to the field and prepares the graduate to embark on a scientific career. The PhD degree programme in Health Sciences will provide guidance, training and mentorship for students from various health fields, with the aim of preparing the next generation of health experts and researchers.

Overall, the programme aims to:

- develop competent individuals with the ability to conduct independent research in health sciences;
- enhance student's ability to apply previously acquired theoretical and practical knowledge to conduct applied research in health sciences;
- utilise existing competencies in advancement of innovative and applied research in health sciences in the country and beyond;
- use interdisciplinary approaches to solve complex problems in health research and education.
- encourage development of novelty work and or products.

The development of this PhD programme has the support of management of the Department and Faculty, Advisory Board Members, the health fraternity in Namibia, the Ministry of Health and Social Services, Health Professions Council of Namibia and academic peers from similar institutions within the region and in other parts of the world.

Programme Rationale

The Namibia University of Science and Technology (NUST) is driven by a vision to become a premier institution of higher learning in Science and Technology training leaders for the new economy. Moreover, NUST is aiming to be a world class University. This requires the institution to exhibit all the key characteristics of a credible higher learning institution, including increased outputs in applied research, publication of research results, and dissemination of the same to the public. There is a need to create an avenue for the acquisition of strategic competencies in Health Sciences at

PhD level for a large cohort of Health practitioners in Namibia. The need will be fulfilled by this generic PhD in Health Sciences degree. The Namibia University of Science and Technology will be the first higher education institution in Namibia to offer this qualification. The programme will provide an opportunity for NUST graduates in Health Sciences as well as Health practitioners within and outside the country to further develop and advance their careers. It will also address the desire of candidates that seriously aspire to further their career by enrolling for the programme without necessarily having to leave or lose their employment or travel out of the country to achieve this aspiration.

This postgraduate training will enable students to acquire knowledge, skills, attitudes and competencies required to enhance expertise and experience to the benefit of health systems and public health in the country.

Graduates will be able to make meaningful contributions to the development of the body of knowledge/expertise in areas of specialisation, and to the development of the national economy. This will lead to value-added economic activity which in turn will contribute to the achievement of national and international development strategies.

The programme is fully aligned with the requirements of National Qualification Framework (NQF) and NUST Curriculum Framework.

Exit Programme Outcomes (Qualification Outcomes)

On completion of the Doctor of Philosophy (PhD) in Health Sciences programme, graduates will be able to:

- Develop, present and demonstrate a deepened, comprehensive and systematic knowledge and expertise in Health Sciences through collection, analysis, interpretation and evaluation of quantitative and/or qualitative data;
- Demonstrate in-depth synthesis of theoretical principles in the subject matter and capacity for independent thinking;
- Present and communicate academic and/or professional work effectively, catering for interdisciplinary industrial and academic audiences;
- Exhibit professional competencies of independent self-guided learning, problem-solving, innovation, process evaluation, responsibility, accountability and general ethics;
- Solve complex health sciences related problems using interdisciplinary approach;
- Produce a thesis that represents an original contribution to the body of knowledge in the area of specialisation within Health Sciences using interdisciplinary approach.

Criteria for Admission

Candidates may be considered for admission into the PhD programme in Health Sciences if in possession of a Master's degree in Health Sciences from NUST, or an equivalent Master's degree in Health Sciences or related fields/sub-fields from recognised institutions subject to approval by NUST Senate. Furthermore, applicants need to provide evidence of having conducted supervised research at this level. The PhD degree in Health Sciences is a highly selective and specialisation-based programme, hence admission will be based on internal capacity for supervision.

Students are admitted into the programme if they obtained a minimum of 65% in their Masters. Conditions such as recognition of prior learning, industry experience, interviews and Faculty motivations can be considered to facilitate entry into the programme if the candidates obtained less than 65% in their Masters.

The Higher Degrees 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.

Mode of delivery

The programme will be offered 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 Award of the Qualification

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 University's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements of the University.

Free text, following the qualification title (as provided by annexure B of the NQF regulation) would be utilised to identify the cognate area of research of the student.

A minimum of three (3) years and a maximum period of five (5) years is 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 is required if registered on a part-time mode. Having satisfied the following conditions: submission of yearly progress reports and submission of two published manuscripts and a proof of the third submitted manuscript in accredited approved journals by the Department of Higher Education and Training. The attendance of at least one conference by the PhD student to present his/her study is a mandatory requirement before the final submission of the thesis. The study period may be extended with the approval of Senate.

Teaching, learning strategies

The HDC, on the recommendation of the Head of Department, will approve the appointment of supervisor(s) and co-supervisor(s) for each student. Students will be required to work independently in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress, and other relevant academic issues or milestones are discussed. Academic support will be provided in accordance with the University rules and procedures for postgraduate studies leading to the award of research degrees.

The strategic learning processes include conduction of an in-depth, thorough and relevant literature review in the area of research. This process will ensure alignment to the required knowledge of advanced information retrieval, processing, analysis and synthesis. Students' research ideas and proposals will be geared towards problem solving and societal relevant research. Efforts will be made to develop the ideas in collaboration with industrial partners and stakeholders. This is essential in order to ensure alignment of research activities to the strategic plan of the institution and that of the country.

In addition, students will be required to attend seminars, workshops and conferences within and outside the institution during the course of their studies in order to gain wider exposure in the art of research and research communication.

The supervision will be carried out following developed research plan with specific milestones as required by the Department, agreed and signed by both the student and supervisor. Review of the signed milestone could occur based on valid circumstances from either party. There will be a signed Memorandum of Understanding (MoU) between students, supervisors and the Department to keep record of the students' performance for the duration of the study period.

Hence, supervisory guidance and learning activities will include research proposal development using departmental format, research ethics, research methodology, laboratory work activities as required, data acquisition, presentation and interpretation processes, report writing and others.

Additional academic support will be provided in accordance with the University rules and procedures for postgraduate studies and ethical issues will be ensured in all required cases. In summary, students will be required to conduct independent research work under the guidance of a supervisor.

Assessment strategies

Students are required to submit a research proposal after six months for approval by the HDC. It is compulsory that students attend regular research methodology seminars until successful defence and 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 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.

The constituent panel members for the research presentation and defence for the thesis will include senior internal and external academics, the examiners, the supervisors and experts in the field of research. The responsibilities of the panel will include contributions, provide quality assurance and fairness during the process.

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 final result will only be released after correction of the thesis.

Quality Assurance requirements

The final assessment of the thesis will be carried out by qualified academics and relevant health 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 recommendation of the HDC.

Transition Arrangements

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

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
DHS101S	Thesis	None	DHS101P	Thesis	None
Semester 2			Semester 2		
DHS102S	Thesis	None	DHS102P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
DHS103S	Thesis	None	DHS103P	Thesis	None
Semester 4			Semester 4		
DHS104S	Thesis	None	DHS104P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
DHS105S	Thesis Extension	None	DHS105P	Thesis	None
Semester 6			Semester 6		
DHS106S	Thesis	None	DHS106P	Thesis	None
YEAR 4					
Semester 7			Semester 7		
DHS107X	Thesis	None	DHS917P	Thesis	None
			Semester 8		
			DHS918P	Thesis	None
YEAR 5					
			Semester 9		
			DHS919X	Thesis	None

DEPARTMENT OF PREVENTATIVE HEALTH SCIENCES

CODE: 86

QUALIFICATIONS OFFERED

Bachelor of Science in Health Information Systems Management

08BSHH

BACHELOR OF SCIENCE HONOURS IN HEALTH INFORMATION SYSTEMS MANAGEMENT

08BSHH

NQF Level: 8

NQF Credits: 135

NQF Qualification ID: Q2106

Description

The Bachelor of Science Honours in Health Information Systems Management is a degree programme that demands a high level of theoretical and practical engagement, intellectual independence and aims to foster deepened, comprehensive and systematic expertise in the major cognate area of learning, i.e. Health Information Systems Management (HISM). Students will be equipped with advanced cognitive and intellectual skills, key transferable skills and professional/technical/practical skills that would enable them to promote and maintain a healthy environment within working, living and recreational contexts.

Graduates will be able to practice professional behaviour within the scope of practice of the Health Information Systems Management, participate in the implementation of the core package of health information in the delivery of health information services as determined by the Ministry of Health and Social Services (MoHSS), and manage required activities in the application of the defined scope of practice. The programme requires the conduct and reporting of supervised research in order to adequately prepare students for entry into the profession. Graduates will be able to function as members of multi-disciplinary and multi-sectorial teams.

On successful completion of this programme, graduates may be able to find employment in the public and private sectors, municipalities, research institutions; other health-related institutions, as well as teaching/training institutions.

The programme has been endorsed by members of the Programme Advisory Committee (PAC), while academic peers had to be consulted for purposes of international benchmarking.

Criteria for Admission:

Candidates will be considered for admission to the Bachelor of Science Honours in Health Information Systems Management programme if they have a Bachelor in Health Information Systems Management at NQF Level 7 from NUST or an equivalent NQF level (NQF level 7) qualification from a recognised institution or relevant pre-NQF qualification from a recognised institution worth at least 360 credits.

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 credits that can be granted are 50% of the credits for a qualification.

Graduates of this programme will under normal circumstances be able to pursue further studies in health information systems management, health informatics, public health or a related cognate area of learning, at NQF Level 9.

Mode of Delivery

The Bachelor of Sciences Honours in Health Information Systems Management programme will be offered on a part-time mode of study in accordance with NUST rules. These will be delivered in a flexible delivery mode, utilising block release and complemented with blended learning and e-learning depending on the needs of students and availability of resources.

Requirements for Qualification Award

The Bachelor of Science Honours in Health Information Systems Management will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). Students must complete four compulsory courses (worth 60 credits) and two elective courses (worth 30 credits) as well as a mini-thesis (worth 30 credits). In addition, students must meet the administrative and financial requirements of the University.

Teaching and learning strategies

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 programme 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. This facilitation will make use of, inter alia, practical projects, tutorials, case studies, field trips, software demonstration, problem-based learning and individual and/or group work. The progress of learning embedded in such tasks will be monitored, recorded and assessed.

Depending on the context of each course, the facilitation methods will make use of any of the following: classroom lectures; blended learning approach; tutorials; group and individual assignments; projects; workshops and seminars. The progress of learning embedded in such tasks will be monitored, recorded and assessed. The particular learning strategies of each course can be found in the course specifications/syllabi.

Assessment strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests).

The use of validating end-of-term assessments may be minimised in order to free students' intellectual capacity for broader cognitive development. Assessment by means of tests will, therefore, be restricted to situations where it is necessary to establish that a previous specific performance can be repeated, or a specific skill can be transferred. In accordance with NUST's policy on diversified continuous assessment, each course will have a minimum of four assessment events, with allowance for supplementary assessment events. All courses will be assessed using a combination of diversified continuous assessment.

The Mini-thesis will be assessed in accordance with NUST's rules for studies at postgraduate level.

Transition arrangements

This is a new programme/qualification that does not replace any existing programme (s) or qualification (s). Transition arrangements are, therefore, not applicable.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RMH811S	None	8	15
Programming for Medical Informatics	PMI811S	None	8	15
Advanced Medical Coding and Billing	AMC811S	None	8	15
Evaluation for Health Programmes		None	8	15

Semester 2

Mini-Thesis	MHI821S	Research Methodology	8	30
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Plus TWO of the following elective courses

Information Governance	IGV821S	None	8	15
Applied Telemedicine and mHealth Technologies	ATH821S	None	8	15
Health Economics		None	8	15

SCHOOL OF NATURAL AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGY, CHEMISTRY AND PHYSICS

CODE: 9

QUALIFICATIONS OFFERED

Bachelor of Science Honours (Revised - Biology, Biotechnology, Chemistry, Physics) – (Phasing in 2024)	08BSCH
Bachelor of Science Honours (Old Curriculums) – (Phasing out 2023)	08BOSH
Master of Science in Natural and Applied Sciences	09MSNA

BACHELOR OF SCIENCE HONOURS

08BSCH

(Revised Curriculum – Phasing in 2024)

NQF Credits: 330

Description

The Bachelor of Science Honours aims to provide, consolidate and deepen the knowledge and expertise in applied natural science disciplines and develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to expose students to advanced scientific concepts, theories, tools, and methods. Students will be able to critically evaluate and apply theoretical and practical aspects of natural sciences in general; develop advanced information acquisition, and have the skills required to analyse and solve problems solve a wide range of pressing challenges and needs in relation to Science, Technology, Engineering and Mathematics (STEM) in the current Namibian market and economy.

This programme provides a platform for developing scientific literacy and for increasing essential scientific knowledge and skills for lifelong learning in STEM. Additionally, the programme is designed to enable students to appreciate the relationship between science and other disciplines. Thus, the programme will enable students to demonstrate deepened, comprehensive and systematic scientific knowledge required to effectively communicate research results in written and oral formats. Additionally, the programme is designed to enable students to apply knowledge of the natural sciences to real-life situations and appreciate the relationship between science and other disciplines.

Criteria for Admission

Candidates will be considered for admission to the Bachelor of Science Honours programme if they have a Bachelor of Science degree (with a major in Biology, or Chemistry or Physics) at NQF Level 7 from NUST. Alternatively, candidates should have an equivalent qualification at NQF level 7 from a recognised institution, worth at least 360 NQF credits, or a pre-NQF bachelor's degree of at least three years duration from a recognised institution in any of the following specialisations; Biology, Chemistry or Physics. Candidates may be required to participate in a final selection test and/or interview at the discretion of the Department.

NB: Admission into a specialisation will be based on the major undertaken previously at the undergraduate level (NQF Level 7).

Articulation Arrangements

Transfer of credits will be dealt with according to NUST's Recognition of Prior Learning regulations. 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% for articulation of the credits for a qualification.

Students who complete the Bachelor of Science Honours successfully can pursue further higher studies in the Natural Sciences, or related cognate areas of learning, at NQF level 9.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Science Honours (NQF Level 8) degree will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). The programme allows for specialisation in Applied Biology, Biotechnology, Applied Chemistry, and Applied Physics, of which students must complete two core compulsory courses (worth 30 credits); three-strand compulsory courses (worth 45 credits); one strand elective courses (worth 15 credits); as well as a mini-thesis (worth 30 credits). In addition, students must meet the administrative and financial requirements of the University.

Transition Arrangements

The revised Bachelor of Science Honours (new curriculum) will be implemented in 2024 with new students intake; therefore, transition arrangements are not applicable.

NB: A strand will be offered subject to the number of students enrolled or demand.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RME810S	None	8	15

Plus ONE of the following compulsory Strands depending on Specialisation

APPLIED BIOLOGY STRAND - 08BSCH

Environmental Biology and Aquatic Ecosystem Management	EBM811S	None	8	15
Methods in Recombinant DNA Technology	MRT811S	None	8	15
Microbial Systematics and Processes	MSP811S	None	8	15

BIOTECHNOLOGY STRAND - 08BBIO

Bioinformatics	BIO811S	None	8	15
Methods in Recombinant DNA Technology	MRT811S	None	8	15
Plant and Animal Biotechnology	PAB811S	None	8	15

APPLIED CHEMISTRY STRAND - 08BAPC

Advanced Analytical Methods and Chemometrics	AAC811S	None	8	15
Bioinorganic and Biophysical Chemistry	BBC811S	None	8	15
Industrial Organic Chemistry	IOC811S	None	8	15

APPLIED PHYSICS STRAND - 08BAPP

Environmental Physics	ENP811S	None	8	15
Advanced Geophysics	AGE811S	None	8	15
Instrumentation Physics	ISP811S	None	8	15

Semester 2

Mini-Thesis	MSH821S	Research Methodology	8	30
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Plus ONE of the following Strands depending on Specialisation chosen above

APPLIED BIOLOGY STRAND - 08BSCH

Advanced Microbiology	AMB821S	None	8	15
Biosynthetic Pathways and Molecular Biology	BPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

BIOTECHNOLOGY STRAND - 08BBIO

Environmental, Industrial and Medical Biotechnology	EIM821S	None	8	15
Biosynthetic Pathways and Molecular Biology	BPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

APPLIED CHEMISTRY STRAND - 08BAPC

Synthetic Aspects in Medicinal Chemistry	SAM821S	None	8	15
Environmental Pollution, Monitoring & Remediation	EPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

APPLIED PHYSICS STRAND - 08BAPP

Astrophysics	ASO821S	None	8	15
Materials Physics	MAP821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

**BACHELOR OF SCIENCE HONOURS
(Old Curriculum – Phasing out 2023)**

08BOSH

NQF Level: 8

NQF Credits: 135

NQF Qualification ID: Q1064

Description

The Bachelor of Science Honours aims at consolidating and deepening the knowledge and expertise in applied natural science disciplines and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to expose students to advanced scientific concepts, theories, tools, and methods. Students will be able to critically evaluate and apply theoretical and practical aspects of natural sciences in general; develop advanced information acquisition and have the skills required to analyse and problem solve a wide range of pressing challenges and needs in relation to science, technology, engineering and Mathematics (STEM) in the current Namibian market and economy.

This programme provides a platform for developing scientific literacy and for increasing essential scientific knowledge and skills for lifelong learning in STEM. Additionally, the programme is designed to enable students to appreciate the relationship between science and other disciplines. Thus, the programme will enable students to demonstrate deepened, comprehensive and systematic scientific knowledge required to effectively communicate research results in written and oral formats.

In following this programme, students will have had the opportunity to develop such skills, in particular relating to communication, interpersonal skills, learning skills, research skills, numeracy, self-management, use of IT and problem-solving and will have been encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.

Criteria for Admission

Candidates will be considered for admission to the Bachelor of Science Honours programme if they have a Bachelor of Science degree (with a major in Biology, or Chemistry or Physics) at NQF Level 7 from NUST. Alternatively, candidates should have an equivalent qualification at NQF level 7 from a recognised institution, worth at least 360 NQF credits, or a pre-NQF Bachelor degree of at least three years duration from a recognised institution with specialisations in Biology, Chemistry or Physics.

NB: Admission into a specialisation will be based on the major undertaken previously at the undergraduate level (NQF Level 7).

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.

Students who complete the Bachelor of Science Honours programme will be able to pursue further studies in applied natural sciences, or a related cognate area of learning, at NQF level 9.

Mode of Delivery

This programme will be offered on the full-time mode of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Science Honours degree will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). The programme allows for specialisation in Applied Biology; Biotechnology; Applied Chemistry, and Applied Physics, of which students must complete one core compulsory course (worth 15 credits); three strand compulsory courses (worth 45 credits); two strand elective courses (worth 30 credits); as well as a mini-thesis (worth 30 credits). In addition, students must meet the administrative and financial requirements of the University.

Teaching and learning strategies

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.

The learning process will be facilitated both inside and outside the classroom, requiring specific tasks to be carried out by the student. Depending on the context of each course, the facilitation methods will make use of any of the following: classroom lectures; guided laboratory classes and practical demonstrations; group and individual assignments and/or projects; seminars and workshops; directed

and independent study involving electronic/online resources, textbooks and other study materials; training and practice in the use of IT and software packages; problem-solving workshops or problem-based learning; class discussions; and tutorials.

The progress of learning embedded in such tasks will be monitored, recorded and assessed. The particular teaching and learning strategies of each course can be found in the course specifications/syllabi.

Assessment strategies

Students will be assessed through continuous and summative assessment. These assessments will focus on the achievement of competencies and take the form of problem solving exercises (both of a practical and written format), individual/group assignments, oral, audio-visual and poster presentations, computer-based assessments, critical analysis of case studies, report writing, practical application of skills and competencies, tutorials, practical projects and questioning (tests and/or examinations), peer and self-assessments and dissertations (mini-thesis).

In accordance with NUST policy on diversified continuous assessment, each course will have a minimum of six assessment events. Courses that are assessed using a combination of continuous assessment and a final end-of-semester examination must have at least three assessments. In order to be admitted to the final examination in any course, a minimum semester mark of 40% has to be obtained. This mark is determined by continuous assessment (CA) of a student's achievement by means of tests and/or assignments/seminars/practicals/tutorials. The weighting of the CA types will be assessed in accordance with stipulations in the syllabus of each course.

Where a student misses a continuous assessment or scores below 40% in the overall continuous assessment, the following rule will apply:

A student can only supplement and/or resubmit a maximum of ONE continuous assessment. Any supplementary continuous assessment will be written at the end of the semester, before the examination component.

The semester mark and the exam mark will be used in a 60:40 ratio, respectively, to determine the Final Mark. A student will have to obtain a minimum average of 50% as final mark to pass a course, subject to a sub-minimum of 40% in the examination mark.

The Mini-thesis will be assessed in accordance with NUST's rules for studies at postgraduate level.

Quality Assurance requirements

Each course (please refer to the Detailed Qualification Requirements) will have one or more examiner and one moderator. Moderators will be identified both internally and externally. The required minimum qualification of the moderator should be a Master degree in a related field of study or the person must be a well-respected expert in the field.

Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that particular course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purposes, therefore, ensuring quality of the assessment and the qualification as a whole. Courses at this NQF Level 8 will be externally moderated. Moderation of the mini-thesis will be done in accordance with NUST rules for studies at postgraduate level.

Transition Arrangements

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

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RME810S	None	8	15

Plus ONE of the following compulsory strands depending on Specialisation

APPLIED BIOLOGY STRAND - 08BOSH

Environmental Biology and Aquatic Ecosystem Management	EBM811S	None	8	15
Methods in Recombinant DNA Technology	MRT811S	None	8	15
Microbial Systematics and Processes	MSP811S	None	8	15

BIOTECHNOLOGY STRAND - 08BSHB

Bioinformatics	BIO811S	None	8	15
Methods in Recombinant DNA Technology	MRT811S	None	8	15
Plant and Animal Biotechnology	PAB811S	None	8	15

APPLIED CHEMISTRY STRAND - 08BSHC

Advanced Analytical Methods and Chemometrics	AAC811S	None	8	15
Bioinorganic and Biophysical Chemistry	BBC811S	None	8	15
Advanced Organic Chemistry	AOC811S	None	8	15

APPLIED PHYSICS STRAND - 08BSHP

Environmental Physics	ENP811S	None	8	15
Advanced Geophysics	AGE811S	None	8	15
Instrumentation Physics	ISP811S	None	8	15

Semester 2

Mini-Thesis	MSH821S	Research Methodology	8	30
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Plus ONE of the following compulsory strands depending on Specialisation

APPLIED BIOLOGY STRAND - 08BOSH

Advanced Microbiology	AMB821S	None	8	15
Biosynthetic Pathways and Molecular Biology	BPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

BIOTECHNOLOGY STRAND - 08BSHB

Environmental, Industrial and Medical Biotechnology	EIM821S	None	8	15
Biosynthetic Pathways and Molecular Biology	BPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

APPLIED CHEMISTRY STRAND - 08BSHC

Synthetic Aspects in Medicinal Chemistry	SAM821S	None	8	15
Environmental Pollution, Monitoring & Remediation	EPM821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

APPLIED PHYSICS STRAND - 08BSHP

Astrophysics	ASO821S	None	8	15
Materials Physics	MAP821S	None	8	15
Entrepreneurship	ENS821S	None	8	15

MASTER OF SCIENCE IN NATURAL AND APPLIED SCIENCES
(Phased in 2021)

09MSNA

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q2105

Description

The Master of Science in Natural and Applied Sciences is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and expertise in the Physics, Chemistry and Biology disciplines, and to develop student's capacity to conduct supervised research of an applied nature as well as ensuring sustainable use of natural resources. The programme is purposefully designed to enable students to evaluate and apply natural sciences theories, techniques and models to solve complex societal problems in the specialised Applied areas of Physics, Chemistry and Biology.

Criteria for Admission

Candidates will be considered for admission into the Master of Science in Natural and Applied Sciences programme if they have:

- * a minimum of Bachelor of Science in Natural and Applied Sciences Honours with evidence of a supervised research from the Namibia University of Science and Technology, or;
- * a four-year Natural and Applied Sciences (or related) degree from any other recognised institutions, or;
- * a pre-NQF professional or four-year Bachelor degree, with a professional project or research component from a recognised institution and evaluated as appropriate by the Department, in addition to meeting NUST's General Admission Requirements as stated in the General Rules.

Candidates may be required to attend a pre-selection interview at the discretion of the Higher Degrees Committee to ascertain their competencies for independent research in a specialised area of Natural and Applied Sciences. Additionally, evidence of English language proficiency is required. A cut off mark 60% in the area of specialisation is imposed as a minimum requirement.

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

Articulation Arrangements

Students who complete the Master of Science in Natural and Applied Sciences programme successfully will be eligible to pursue a Doctor of Philosophy (PhD) research in Natural and Applied Sciences, or a related cognate area of learning, at NQF level 10.

Mode of Delivery

This programme will be offered by research only on full-time and part-time modes of study in accordance with Namibia University of Science and Technology rules and regulations.

Requirements for Qualification Award

The Master of Science in Natural and Applied Sciences will be awarded to candidates credited with a minimum of 240 NQF credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet NUST's requirements as detailed in the rules for postgraduate studies. However, students are required to make oral presentations of their research proposals within the first six months of the programme and several scheduled seminars at the discretion of the supervisors to evaluate their progress and be provided useful feedback towards improving the quality of their theses.

In addition, students should meet the administrative and financial requirements of the University.

Students have a minimum of two (2) years to a maximum of four (4) years to complete the programme on a fulltime basis while students have a minimum of four (4) years to a maximum of six (6) years to complete the programme on a part-time basis.

Teaching and Learning Strategies

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 research activities through supervised and collaborative work with supervisors and peers in order to provide for the development of generic research and intellectual skills in Natural and Applied Sciences and specifically in the proposed areas of specialisation in Biology, Chemistry and Physics. The research activities and facilitation will include in-depth literature review and problem-solving seminars. Students will be encouraged to engage with the industry in Namibia to identify problems solvable by their research contributions and to take advantage of updating their knowledge through conferences and workshops both locally and internationally during the research programme.

The Postgraduate Studies Committee, on the recommendation of the Departmental Postgraduate Research Committee, will appoint supervisor(s)/co-supervisor(s) for each student. Students will be required to work independently in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress, and other relevant topics are discussed. Academic support will be provided in accordance with NUST's rules and procedures for postgraduate studies leading to the award of research-based degrees. Students will be expected to attend Seminars and give presentations.

Assessment Strategies

Students are required to submit a research proposal within six months for approval by the Postgraduate Studies Committee. It is compulsory and mandatory that students attend and present at regular research methodology seminars until successful defence and 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 three 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 professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

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

Transition Arrangements

This is a new programme and so it does not replace any existing NQF registered qualification. Transition arrangements will be developed and applied when the programme is due for revision.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
THN911S	Thesis	None	THN911P	Thesis	None
Semester 2			Semester 2		
THN912S	Thesis	None	THN912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
THN913S	Thesis	None	THN913P	Thesis	None
Semester 4			Semester 4		
THN914S	Thesis	None	THN914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
THN915X	Thesis Extension	None	THN915P	Thesis	None
			Semester 6		
			THN916P	Thesis	None
YEAR 4					
			Semester 7		
			THN917P	Thesis	None
			Semester 8		
			THN918P	Thesis	None
YEAR 5					
			Semester 9		
			THN919X	Thesis	None

DEPARTMENT OF MATHEMATICS, STATISTICS AND ACTUARIAL SCIENCE

CODE: 8

QUALIFICATIONS OFFERED

Bachelor of Science Honours in Applied Mathematics (Phased in 2022)	08BSHM
Master of Science in Applied Mathematics (Phasing in 2024)	09MSMS
Master of Science in Applied Mathematics (Phased out 2023)	09MSAM
Doctor of Philosophy in Mathematics	10DPSM
Bachelor of Science Honours in Applied Statistics (Phased in 2022)	08BSHS
Master of Science in Applied Statistics (Phasing in 2024)	09MSST
Master of Science in Applied Statistics (Phased out 2023)	09MSAS
Doctor of Philosophy in Statistics	10DPSC

**BACHELOR OF SCIENCE HONOURS IN APPLIED MATHEMATICS
(Phased in 2022)**

08BSHM

NQF Level: 8

NQF Credits: 150

NQF Qualification ID: Q0710

Description

The Bachelor of Science Honours in Applied Mathematics is a postgraduate degree that aims at consolidating and deepening the knowledge and expertise in the mathematics discipline and developing student’s capacity to conduct supervised research of an applied nature. The programme is purposely designed to enable students to evaluate and apply mathematical theories, techniques and models to solve complex mathematical related problems that face the public and private sectors.

Criteria for Admission

Candidates will be considered for admission into the Bachelor of Science Honours in Applied Mathematics programme if they have the Bachelor of Science in Applied Mathematics and Statistics from NUST. Alternatively, candidates should have an equivalent qualification at NQF level 7 in Mathematics or similar cognate area from a recognized institution, worth at least NQF 360 credits. Candidates’ official transcripts will be scrutinised to determine preparedness for the programme.

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.

Students who complete the Bachelor of Science Honours in Applied Mathematics programme will be able to pursue further studies in Applied Mathematics, or a related cognate area of learning, at NQF level 9.

Mode of Delivery

This programme will be offered on the full time and part-time modes of study in accordance with University rules and regulations.

Requirements for Qualification Award

The Bachelor of Science Honours in Applied Mathematics degree will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). Students are required to do and pass 5 compulsory courses (worth 75 credits), 1 elective course (worth 15 credits) and a mini-thesis (worth 30 credits). Besides, students should meet the administrative and financial requirements of the University.

Transition Arrangements

The last intake of students for the Bachelor of Science Honours in Applied Mathematics (08BSMH) was in January 2021. The 08BSMH programme will completely phased out by the end of 2021, after which all students, will be required to transition to the revised programme and fulfil all requirements based on the new/revised curriculum in accordance with the information in the Table below. Although some courses have been amended, there are no major changes that would warrant differentiating the

Corresponding Courses/Credit table

Course Code	Bachelor of Science Honours in Applied Mathematics (Old Courses)	Course Code	Bachelor of Science Honours in Applied Mathematics (Corresponding New/Revised Courses to be done/credited)
PDE801S	Partial Differential Equations	PDE801S	Partial Differential Equations
ACA801S	Advanced Complex Analysis	ACA801S	Advanced Complex Analysis



ADC801S	Advanced Calculus	ADC801S	Advanced Calculus
ANA801S	Applied Numerical Analysis	ANA801S	Applied Numerical Analysis
AOR802S	Applied Operations Research	AOR802S	Applied Operations Research
FAN802S	Functional Analysis	FAN802S	Functional Analysis

Quality Assurance requirements

Each course will have one or more examiner and one moderator. Moderators will be identified externally. The required minimum qualification of the moderator should be a Master's degree in a related field of study, or the person must be a well-respected expert in the field. Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that particular course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purpose, therefore, ensuring the quality of the assessment and the qualification as a whole.

Moderation of the mini-thesis will be done in accordance with the University's rules for studies at the postgraduate level.

As a quality assurance measure, the use of an internet-based plagiarism detection service (e.g. Turnitin) will apply to all written assignments and research projects in the programme and all courses to prevent plagiarism and create a culture of ethics and integrity in academic writing.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Partial Differential Equations	PDE801S	None	8	15
Applied Numerical Analysis	ANA801S	None	8	15
Research Methodology	RME801S	None	8	15
		None	8	15
Plus ONE of the following electives				
Advanced Complex Analysis	ACA801S	None	8	15
Advanced Calculus	ADC801S	None	8	15

Semester 2

Mini-Thesis	MTS802S	Research Methodology	8	30
Applied Operations Research	AOR802S	None	8	15
Functional Analysis	FAN802S	None	8	15

**MASTER OF SCIENCE IN APPLIED MATHEMATICS
(Revised Curriculum - Phasing in 2024)**

09MSMS

NQF Credits: 240

Description

The Master of Science in Applied Mathematics is a postgraduate specialisation degree by research that aims at consolidating and deepening the knowledge and expertise in the mathematics discipline, and to develop students' capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply mathematical theories, techniques, and models to solve complex mathematics-related problems in the research areas of Optimisation (including Operations Research), Generalised Fluid Dynamics, Financial Mathematics, Computational Methods, Mathematical Biology, that face the public and private sectors.

Criteria for Admission

Candidates will be considered for admission into the Master of Science in Applied Mathematics if they have a minimum of Bachelor of Science Honours in Applied Mathematics from the Namibia University of Science and Technology or equivalent qualification in a related discipline from any other recognised institutions. In either case, the candidate should have proven evidence of having conducted supervised research. Evidence of communication proficiency in the English language is required.

Candidates may be required to attend a pre-selection interview at the discretion of the Postgraduate Study Committee to ascertain their competencies for independent research in a specialised area of Applied Mathematics. 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 their personal interview.

Articulation Arrangements

Students who complete the Master of Science in Applied Mathematics programme successfully will be able to pursue a Doctor of Philosophy (PhD.) research in Mathematics, or a related cognate area of learning, at NQF level 10.

Mode of Delivery

This programme will be offered on the full-time and part-time modes of study in accordance with the Namibia University of Science and Technology rules and regulations. The delivery mode will employ the blended learning strategy of the University, which includes the online (i.e., e-Learning, Ms Teams, etc.) and face-to-face facilitation.

Requirements for Qualification Award

The Master of Science in Applied Mathematics will be awarded to students credited with a minimum of 240 NQF credits (all at NQF Level 9). 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.

In addition, students should meet the administrative and financial requirements of the Namibia University of Science and Technology.

Assessment Strategies

Students are required to submit a research proposal within six months of registering for the programme, for approval by the Higher Degrees Committee. Students are required to regularly attend and present their findings at research seminars until their thesis's successful defence and approval. Furthermore, students are required to present work-in-progress bi-monthly 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 resubmission and 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 investigate their individual research topics. Students are required to cultivate professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the rules for studies at the postgraduate level.

Students will present and defend their theses before an appropriately constituted committee and an External Examiner in accordance with the rules for postgraduate studies at the Namibia University of Science and Technology. Each thesis will be returned to the student for correction before final binding and archiving. The final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition Arrangements

The Master of Science in Applied Mathematics (old curriculum) will be completely phased out by the end of 2022 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 Master of Science in Applied Mathematics (revised curriculum) will be phased-in 2023.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
MMS910S	Thesis	None	MMS910P	Thesis	None
Semester 2			Semester 2		
MMS912S	Thesis	None	MMS912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
MMS913S	Thesis	None	MMS913P	Thesis	None
Semester 4			Semester 4		
MMS914S	Thesis	None	MMS914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
MME915X	Thesis Extension	None	MMS915P	Thesis	None
			Semester 6		
			MMS916P	Thesis	None
YEAR 4					
			Semester 7		
			MMS917P	Thesis	None
			Semester 8		
			MMS918P	Thesis	None
YEAR 5					
			Semester 9		
			MMS919X	Thesis	None

**MASTER OF SCIENCE IN APPLIED MATHEMATICS
(Old Curriculum - Phasing out 2023)**

09MSAM

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q0894

Description

The Master of Science in Applied Mathematics is a postgraduate specialisation degree that aims at consolidating and deepening the knowledge and expertise in the Mathematics discipline, and to develop student's capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply mathematical theories, techniques and models to solve complex mathematical related problems in the specialised areas of Optimisation (including Operations Research), Generalised Fluid Dynamics, Financial Mathematics, Computational Methods, Biomathematics and Mathematical Ecology, that face the public and private sectors.

Criteria for Admission

Candidates will be considered for admission into the Master of Science in Applied Mathematics if they have a minimum of Bachelor of Science in Applied Mathematics Honours from the Polytechnic of Namibia or equivalent qualification in a related discipline from any other recognised institutions. In either case, the candidate should have proven evidence of having conducted supervised research. Evidence of communication proficiency in the English language is required. Candidates may be required to attend a pre-selection interview at the discretion of the Postgraduate Study Committee, to ascertain their competencies for independent research in a specialised area of Applied Mathematics.

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

Articulation Arrangements

Students who complete the Master of Science in Applied Mathematics programme successfully will be able to pursue a Doctor of Philosophy (PhD.) research in Mathematics, or a related cognate area of learning, at NQF level 10.

Mode of Delivery

This programme will be offered on the full time and part-time modes of study in accordance with the Polytechnic of Namibia rules and regulations. The delivery mode will also employ the blended learning strategy of the Polytechnic, which includes the online learning (i.e., e-Learning) facilitation.

Requirements for Qualification Award

The Master of Science in Applied Mathematics will be awarded to students credited with a minimum of 240 NQF credits (all at NQF Level 9). The thesis will represent the entire body of work to be assessed and must meet the Polytechnic's requirements as detailed in the rules for postgraduate studies. However, students are required to make oral presentations of their research proposals within the first six months of registering for the programme and attend a number of scheduled seminars at the discretion of the supervisors to evaluate their progress and be provided useful feedback towards improving the quality of their theses.

In addition, students should meet the administrative and financial requirements the University

Assessment Strategies

Students are required to submit a research proposal within six months for approval by the Postgraduate Studies Committee. It is compulsory that students attend regular research methodology seminars until successful defence and 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 three 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 professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the rules for studies at postgraduate level.

Students will present and defend their theses before an appropriate constituted committee and an External Examiner in accordance with the rules for postgraduate studies at the Polytechnic. Each thesis will be returned to the student for correction, before final binding and archiving. Final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition Arrangements

This is a new programme and does not replace any existing NQF registered qualification. Transition arrangements will be developed and applied when the programme is due for revision.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
TAM911S	Thesis	None	TAM911P	Thesis	None
Semester 2			Semester 2		
TAM912S	Thesis	None	TAM912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
TAM913S	Thesis	None	TAM913P	Thesis	None
Semester 4			Semester 4		
TAM914S	Thesis	None	TAM914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
TAM915X	Thesis Extension	None	TAM915P	Thesis	None
			Semester 6		
			TAM916P	Thesis	None
YEAR 4					
			Semester 7		
			TAM917P	Thesis	None
			Semester 8		
			TAM918P	Thesis	None
YEAR 5					
			Semester 9		
			TAM919X	Thesis	None

**DOCTOR OF PHILOSOPHY IN APPLIED MATHEMATICS
(Phased in 2021)**

10DPSM

NQF Level: 10

NQF Credits: 360

NQF Qualification ID: Q2118

Description

The Doctor of Philosophy (PhD) in Mathematics is a postgraduate specialisation degree that aims at enhancing and expanding the knowledge and expertise in the mathematics field, and to advance the student's capacity to carry out supervised research at a highly advanced level in at least one sub-discipline of Mathematics. It is a programme intended to enable students to develop new mathematical theories, techniques and models to solve convoluted mathematical related problems. Students may develop and apply these in the specialised areas such as Optimisation (including Operations Research), Fluid Dynamics (to address water and energy problems), Computational Methods, Biomathematics, Mathematical Ecology, Dynamical Systems, Cryptography, Game Theory, and Mathematical Modelling (including Financial Mathematics) that will help to model financial problems and many others that face the public and private sectors. It focuses on the broad research-based learning in the area of Mathematics.

Criteria for Admission

Applicants will be considered for admission into the PhD in Mathematics if they have a Master of Science in Mathematics from NUST or equivalent qualification in a related discipline from a recognised institution at NQF Level 9 with evidence of a supervised research. Applicants will be required to submit a concept paper on their proposed research areas and may be required to attend a pre-selection interview at the discretion of the Faculty Research Committee (FRC) to ascertain their competencies for independent research in a specialised area of Mathematics and its applications.

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

Articulation Arrangements

The PhD is a terminal qualification; hence, articulation arrangements are not applicable.

Mode of Delivery

This programme will be offered on the full-time and part-time modes of study in accordance with NUST's *Rules for Postgraduate Studies*. Additional information is given in the *Guidelines for the Supervision and Examination of Masters and Doctoral Programmes*.

Requirements for Qualification Award

The PhD in Mathematics will be awarded to candidates credited with a minimum of 360 NQF credits (all at NQF Level 10). The thesis will represent the entire body of work to be assessed and must meet NUST'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 NUST Yearbook. Candidates have a minimum of three (3) years and a maximum of five (5) years to complete the programme on full-time mode. The minimum and maximum duration for completing the programme on part-time mode are six (6) years and eight (8) years respectively. The student is required to produce at least one research article before he/she can graduate.

Assessment Strategies

Students are required to submit a research proposal within six months for approval by the HDC. It is compulsory that students attend regular research methodology seminars until successful defense and 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 three 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 NUST's Rules for Postgraduate Studies. The thesis requires students to work independently and to investigate their own individual research topics. Students are required to cultivate professional work ethics to deliver the combination of research, analysis, communication and presentation demanded by their theses. The thesis will be assessed in accordance with the University's Rules for Postgraduate Studies.

Students will present and defend their theses before an appropriately constituted committee, which includes the External Examiner, in accordance with the Rules for Postgraduate Studies at NUST. The theses will be returned to students for correction before final binding and archiving. Final marks will only be released after corrections have been done.

Quality Assurance requirements

The final assessment of the thesis will be done by qualified academics and practitioners with relevant 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 recommendation of the HDC. 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. However, a supervisor cannot be appointed as an examiner for the thesis that was produced under his supervision.

Transition Arrangements:

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

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
TMM101S	Thesis	None	TMM101P	Thesis	None
Semester 2			Semester 2		
TMM102S	Thesis	None	TMM102P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
TMM103S	Thesis	None	TMM103P	Thesis	None
Semester 4			Semester 4		
TMM104S	Thesis	None	TMM104P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
TMM105S	Thesis Extension	None	TMM105P	Thesis	None
Semester 6			Semester 6		
TMM106S	Thesis	None	TMM106P	Thesis	None
YEAR 4					
Semester 7			Semester 7		
TMM107X	Thesis	None	TMM107P	Thesis	None
			Semester 8		
			TMM108P	Thesis	None
YEAR 5					
			Semester 9		
			TMM109P	Thesis	None
			Semester 10		
			TMM110P	Thesis	None
YEAR 6					
			Semester 11		
			TMM111P	Thesis	None
			Semester 12		
			TMM112P	Thesis	None
YEAR 7					
			Semester 13		
			TMM113P	Thesis	None
			Semester 14		
			TMM114P	Thesis	None

**BACHELOR OF SCIENCE HONOURS IN APPLIED STATISTICS
(Phased in 2022)**

08BSHS

NQF Level: 8

NQF Credits: 150

NQF Qualification ID: Q2309

Description

The Bachelor of Science Honours in Applied Statistics is a postgraduate degree aims at consolidating and deepening the knowledge and expertise in the statistics discipline, and to develop student’s capacity to conduct supervised research of an applied nature. The programme is purposefully designed to enable students to evaluate and apply statistical theories, techniques and models to solve complex statistically related problems that face the public and private sectors.

Criteria for Admission

Candidates will be considered for admission into the Bachelor of Science Honours in Applied Statistics programme if they have the Bachelor of Science in Applied Mathematics and Statistics from the Namibia University of Science and Technology. Alternatively, candidates should have an equivalent qualification at NQF level 7 in Statistics or similar cognate area from a recognised institution, worth at least NQF 360 credits. Candidates’ official transcripts will be scrutinized to determine preparedness for the programme.

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.

Students who complete the Bachelor of Science Honours in Applied Statistics programme will be able to pursue further studies in Applied Statistics, or a related cognate area of learning, at NQF level 9.

Mode of Delivery

This programme will be offered on the full time and part-time modes of study in accordance with NUST rules and regulations.

Requirements for Qualification Award

The Bachelor of Science Honours in Applied Statistics will be awarded to students credited with a minimum of 120 NQF credits (all at NQF Level 8). Students are required to do five compulsory courses (worth 75 credits), one elective course (worth 15 credits) and a mini-thesis (worth 30 credits). In addition, students should meet the administrative and financial requirements of the Namibia University of Science and Technology.

Transition Arrangements

The Bachelor of Science Honours in Applied Statistics (old curriculum) will be phased out by the end of 2021 with minimal disruption to existing students’ learning progression. The last intake of students for the out-phasing programme (old curriculum) was in January 2021. Students registered in 2021 for the out-phasing programme (old curriculum) who failed more than 50% of courses on the out-phasing curriculum at the end of the year, will be required to change their registration to the revised programme (new curriculum) in 2022.

The Bachelor of Science Honours in Applied Statistics (Revised curriculum) will take effect from January 2022. Courses will only be offered based on the revised syllabi in 2022. Students who fail any of the courses on the old curriculum will be required to repeat the failed courses based on syllabi of revised corresponding courses as detailed in the Table below.

Corresponding Courses to be done (if any course is failed) – this is not a credit table

Course Code	Bachelor of Science Honours in Applied Statistics (Old Courses)	Course Code	Bachelor of Science Honours in Applied Statistics (Corresponding New/Revised) Courses to be done
BIO801S	Biostatistics	BIO801S	Biostatistics
RME801S	Research Methodology	RME801S	Research Methodology
SQC801S	Statistical Quality Control	SQC801S	Statistical Quality Control
STP801S	Stochastic Processes	STP801S	Stochastic Processes
MVA802S	Multivariate Analysis	MVA802S	Multivariate Analysis
MTS802S	Mini-Thesis	MTS802S	Mini-Thesis
AOR802S	Applied Operations Research	AOR802S	Applied Operations Research
SAT802S	Sampling Theory	SAT802S	Sampling Theory
	None	TBC	Applied Spatial Statistics
ADC801S	Advanced Calculus	ADC801S	None

Quality Assurance requirements

Each course will have one or more examiner and one moderator. Moderators will be identified externally. The required minimum qualification of the moderator should be a master's degree in a related field of studies or the person must be a well-respected expert in the field. Lecturing staff will set and mark tests and/or examinations which will, together with relevant study material of that particular course and other material containing course learning outcomes in the context of the qualification learning outcomes, be forwarded to the moderator for moderation purpose, therefore, ensuring quality of the assessment and the qualification as a whole.

Moderation of the mini-thesis will be done in accordance with NUST rules for studies at postgraduate level.

As a quality assurance measure, the use of an internet-based plagiarism detection service (e.g. Turnitin) will apply to all written assignments and research projects in the programme and all courses to prevent plagiarism and create a culture of ethics and integrity in academic writing.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Applied Spatial Statistics	ASS801S	None	8	15
Biostatistics	BIO801S	None	8	15
Stochastic Processes	STP801S	None	8	15
Research Methodology	RME801S	None	8	15

Semester 2

Multivariate Analysis	MVA802S	None	8	30
Mini-Thesis	MTS802S	Research Methodology	8	15

Plus ONE of the following electives

Sampling Theory	SAT802S	None	8	15
Statistical Quality Control	SQC801S	None	8	15
Applied Operations Research	AOR802S	None	8	15

**MASTER OF SCIENCE IN APPLIED STATISTICS
(Revised Curriculum - Phasing in 2024)**

09MSST

NQF Credits: 240

Description

The Master of Science in Applied Statistics is of interdisciplinary nature that aims at consolidating and deepening the knowledge and expertise in the Statistics discipline, and to develop student's capacity to conduct supervised research of applied nature. It will equip students with the knowledge to use statistical methods that enable production of quality data, management and analysis of data, presentation and dissemination of information to ensure informed decision making. As a result, this programme is purposefully designed to enable students to evaluate and apply statistical theories, techniques and models to solve complex statistics related problems that face the public and private sectors.

Criteria for Admission

Applicants will be considered for admission into the Master of Science in Applied Statistics if they have a minimum of Bachelor of Science Honours in Applied Statistic from the Namibia University of Science and Technology, or equivalent qualification in a related discipline from any other recognised institutions. Applicants need to provide evidence of having conducted supervised research; possess communication proficiency in the English language and may be required to make-up specific deficiencies in coursework at the discretion of the Postgraduate Studies 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.

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

Articulation Arrangements

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

Mode of Delivery

The programme will be offered on a full-time and part-time basis in accordance with the Namibia University of Science and Technology rules. The delivery mode will employ the blended learning strategy of the University, which includes the online (i.e., e-Learning, MS Teams, etc.) and face-to-face facilitations.

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 University's requirements as detailed in the rules governing postgraduate studies. In addition, students should meet the administrative and financial requirements of the Namibia University of Science and Technology.

Assessment Strategies

Students are required to submit a research proposal within six months of registering for the programme for approval by the Higher Degrees Committee. It is compulsory that students present at regular research seminars until their thesis is successfully defended and approved. Furthermore, students are required to present work-in-progress bi-monthly 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 resubmission and 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 Namibia University of Science and Technology. The thesis will be returned to students for correction

before final binding and archiving. Final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition arrangements

The Master of Science in Applied Statistics (old curriculum) will be completely phased out by the end of 2023 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 Master of Science in Applied Statistics (revised curriculum) will be phased-in in 2024.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
MST910S	Thesis	None	MST910P	Thesis	None
Semester 2			Semester 2		
MST912S	Thesis	None	MST912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
MST913S	Thesis	None	MST913P	Thesis	None
Semester 4			Semester 4		
MST914S	Thesis	None	MST914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
MSP915X	Thesis Extension	None	MST915P	Thesis	None
			Semester 6		
			MST916P	Thesis	None
YEAR 4					
			Semester 7		
			MST917P	Thesis	None
			Semester 8		
			MST918P	Thesis	None
YEAR 5					
			Semester 9		
			MST919X	Thesis	None

**MASTER OF SCIENCE IN APPLIED STATISTICS
(Old Curriculum - Phasin out 2023)**

09MSAS

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q0893

Description

The Master of Science in Applied Statistics is of interdisciplinary nature that aims at consolidating and deepening the knowledge and expertise in the Statistics discipline, and to develop student's capacity to conduct supervised research of applied nature. The programme is fully aligned with requirements of the National Qualifications Framework (NQF) and the NUST Curriculum Framework. It also conforms to the regional and international standards and quality requirements.

Criteria for Admission

Applicants will be considered for admission into the Master of Science in Applied Statistic if they have a minimum of Bachelor of Science in Applied Statistic Honours from the Polytechnic of Namibia, or equivalent qualification in a related discipline from any other recognised institutions. Applicants need to provide evidence of having conducted supervised research; possess communication proficiency in the English language and may be required to make-up specific deficiencies in coursework at the discretion of the Postgraduate Studies 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. This 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 Postgraduate Studies Committee. These procedures will be fully explained to each prospective student during their personal interview.

Articulation Arrangements

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

Mode of Delivery

This programme will be delivered on a full-time and part-time basis in accordance with the Polytechnic of Namibia rules. The delivery mode will also employ the blended learning strategy of the Polytechnic, which includes the online learning (i.e., e-Learning) facilitation.

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 Polytechnic's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements of the University.

Teaching and learning strategies

The Postgraduate Studies Committee, on the recommendation of the Head of Department, will appoint supervisor(s)/co-supervisor(s) for each student. Students will be required to work independently in accordance with a pre-agreed research plan. Students will be supervised, guided and supported through regular contact sessions, using all available means during which study planning, progress, and other relevant topics are discussed. Academic support will be provided in accordance with the Polytechnic's rules and procedures for postgraduate studies leading to the award of research degrees.

Candidates are encouraged to pursue part of their research within the industries in Namibia, or at other recognised and established tertiary institutions abroad. The possibility to gain international exposure by participating in an international workshop/symposium will be promoted.

Assessment Strategies

Students are required to submit a research proposal within six months of registering for the programme, for approval by the Postgraduate Studies Committee. It is compulsory that students attend regular research seminars until successful defence and approval of their thesis. Furthermore, 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 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 appropriate constituted committee in accordance with the rules for postgraduate studies at the Polytechnic. The thesis will be returned to students for correction before final binding and archiving. Final mark will only be released after the suggested correction(s) have been implemented in the thesis.

Transition arrangements:

This is a new qualification. It does not replace any existing NQF registered qualification.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
TAS910S	Thesis	None	TAS910P	Thesis	None
Semester 2			Semester 2		
TAS912S	Thesis	None	TAS912P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
TAS913S	Thesis	None	TAS913P	Thesis	None
Semester 4			Semester 4		
TAS914S	Thesis	None	TAS914P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
TAS915X	Thesis Extension	None	TAS915P	Thesis	None
			Semester 6		
			TAS916P	Thesis	None
YEAR 4					
			Semester 7		
			TAS917P	Thesis	None
			Semester 8		
			TAS918P	Thesis	None
YEAR 5					
			Semester 9		
			TAS919X	Thesis	None

**DOCTOR OF PHILOSOPHY IN APPLIED STATISTICS
(Phased in 2021)**

10DPSC

NQF Level:

NQF Credits: 360

NQF Qualification ID:

Description

The Doctor of Philosophy (PhD) in Statistics is a postgraduate specialisation degree programme that aims at improving the student's level of thinking, expanding his/her skills, expertise and knowledge in the discipline, and ultimately developing the student's capacity to conduct and supervise research both in broad and specialised areas of statistics. The programme is devised to enable students to explore statistical theories, techniques and models to solve complex statistically related problems in areas such as Operations Research, Statistical Modelling, Financial Statistics, Computational Methods, Biostatistics and Statistical Ecology. Student will be able to frame, model and solve problems that face the public and private sectors. The programme focuses on developing student's ability to carry out original scientific research and to disseminate and publish the results.

Criteria for Admission

In order to be considered for admission into the Doctor of Philosophy in Statistics programme, the candidate must have a Master of Science in Applied Statistics from NUST or an equivalent qualification in a related discipline from a recognised institution at NQF Level 9 with evidence of supervised research. Candidates will be required to submit a concept paper on their proposed research areas and may be required to attend a pre-selection interview at the discretion of the Faculty Research Committee (FRC) to ascertain their competencies for independent research in a specialised area of Statistics and its applications.

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

Articulation Arrangements

A PhD in Statistics is a terminal qualification, hence articulation arrangements are not applicable.

Mode of Delivery

This programme will be offered both on full-time and part-time modes of study in accordance with NUST's *Rules for Postgraduate Studies*. Students are advised to read the *Guidelines for the Supervision and Examination of Masters and Doctoral Programmes* for additional information.

Requirements for Qualification Award

The PhD in Statistics will be awarded to candidates credited with a minimum of 360 NQF credits (all at NQF Level 10). The thesis will represent the entire body of work to be assessed and must meet NUST's requirements as detailed in the *Rules for Postgraduate Studies*. A PhD thesis must be an original contribution to the body of knowledge in the candidate's specialised research area. In addition, students should meet the administrative and financial requirements of their studies.

Candidates have a minimum of three (3) years and a maximum of five (5) years to complete the programme on full-time mode. The minimum and maximum duration for completing the programme on part-time mode are six (6) and eight (8) years respectively. The student is required to produce at least one research article before he/she can graduate.

Assessment Strategies

Students are required to submit and make an oral presentation of their research proposal within six months of their registration for approval by the HDC. It is compulsory that students attend regular research methodology seminars until successful defense and approval of their research proposals. Students are required to present work-in-progress during research seminars (at least one seminar every six months) for monitoring and assessment purposes. Students who fail the initial assessment of the research proposal will receive an extension of three months for re-approval.

In compliance with the general requirements of Senate, candidates are required to submit a thesis for evaluation, which should comply with NUST's *Rules for Postgraduate Studies*. The thesis requires candidates to work independently and to investigate their own individual research topics. Candidates are required to cultivate professional work ethics to deliver the combination of research, analysis, communication and presentation skills demanded by their theses. The thesis will be assessed in accordance with the *Rules for Postgraduate Studies*. Students will present and defend their thesis before an appropriately constituted committee which should include an External Examiner in accordance with the Rules for Postgraduate Studies at NUST. The theses will be returned to students for corrections before final binding and archiving. Final marks will only be released after corrections on the thesis have been done.

Quality Assurance requirements

The final assessment of the thesis will be done by qualified academics and practitioners with relevant 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 recommendation of the HDC. The examiners will be recommended by the FRC and appointed by the HDC in accordance with the regulations specified in the *Rules for Postgraduate Studies* of Part 1 of the NUST Yearbook and the NUST Guidelines for the Supervision and Examination of Master and Doctoral Programmes.

Transition Arrangements

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

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
TPS101S	Thesis	None	TPS101P	Thesis	None
Semester 2			Semester 2		
TPS102S	Thesis	None	TPS102P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
TPS103S	Thesis	None	TPS103P	Thesis	None
Semester 4			Semester 4		
TPS104S	Thesis	None	TPS104P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
TPS105S	Thesis Extension	None	TPS105P	Thesis	None
Semester 6			Semester 6		
TPS106S	Thesis	None	TPS106S	Thesis	None
YEAR 4					
Semester 7			Semester 7		
TPS107X	Thesis	None	TPS107P	Thesis	None
			Semester 8		
			TPS108P	Thesis	None
YEAR 5					
			Semester 9		
			TPS109P	Thesis	None
			Semester 10		
			TPS110P	Thesis	None
YEAR 6					
			Semester 11		
			TPS111P	Thesis	None
			Semester 12		
			TPS112P	Thesis	None
YEAR 7					
			Semester 13		
			TPS113P	Thesis	None
			Semester 14		
			TPS114X	Thesis	None

SCHOOL OF AGRICULTURE AND NATURAL RESOURCE SCIENCES

DEPARTMENT OF AGRICULTURAL SCIENCES AND AGRIBUSINESS

CODE: 87

QUALIFICATIONS OFFERED

Bachelor of Science in Agriculture Honours

08BSAH

Master of Agribusiness Management (Revised Programme)

09MAGB

**BACHELOR OF SCIENCE IN AGRICULTURE HONOURS
(Phased in 2018)**

08BSAH

NQF Level: 8

NQF Credits: 120

NQF Qualification ID: Q2090

Description

The Bachelor of Science Honours in Agriculture (with specialisation in Agribusiness Management or Sustainable Agriculture) is a postgraduate specialisation degree, designed for registration at NQF level 8. The programme builds on the outcomes of the Bachelor of Science in Agriculture (with specialisation in Agribusiness Management or Sustainable Agriculture) and 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 applied research.

Criteria for Admission

Candidates will be considered for admission to the Bachelor of Science Honours in Agriculture if they have a Bachelor of Science in Agriculture, or a Bachelor of Agriculture, from the Namibia University of Science and Technology and a minimum average of 60% in exit level courses. Alternatively, candidates should have an equivalent qualification at NQF level 7 from a recognised institution, worth at least 360 credits.

Holders of National Diploma in Natural Resource Management (Agriculture) from the Polytechnic of Namibia (now NUST) will be considered for admission to this programme provided they have an overall minimum average of 60%, and completed the following courses that form part of the Bachelor of Science in Agriculture curriculum:

- * Animal Health
- * Basic Research Methodology
- * Food Science and Technology
- * Rural Development Sociology
- * Financial Management (Agriculture)

Candidates with equivalent qualifications from other recognised tertiary education institutions may be required to make up specific deficiencies as deemed necessary by the departmental postgraduate selection panel. These candidates must submit academic records for all courses in their previous qualifications, as well as contact details of two referees for the selection panel to assess the equivalency of the courses with those offered at NUST. Candidates who have been working in the field subsequent to obtaining their previous qualifications and who meet the requirements will be preferred over candidates with no work experience.

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 Science Honours in Agriculture will be able to pursue further studies in Agriculture, or a similar/related cognate area of learning, at NQF level 9.

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 Science Honours in Agriculture will be able to pursue further studies in Agriculture, or a similar/related cognate area of learning, at NQF level 9.

Mode of Delivery

The programme will only be offered on full-time mode through block sessions in accordance with NUST rules and regulations.

Requirements for Qualification Award

This qualification will be awarded to students credited with a minimum of 120 credits (all at NQF Level 8), and who have met the administrative and financial requirements of the University. Students are able to specialise in Agribusiness Management or Sustainable Agriculture and have to complete 2 compulsory courses (worth 30 credits), 4 strand compulsory courses per specialisation (worth 60 credits) and a mini-thesis (worth 30 credits).

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methodology	RME810S	None	8	15
Applied Project Management	APJ811S	None	8	15

Plus TWO of the following Strand Courses depending on Specialisation

SUSTAINABLE AGRICULTURE STRAND

Dryland Permaculture Design	DPD810S	None	8	15
Applied Statistics for Sustainable Agriculture	ASS811S	None	8	15

AGRIBUSINESS MANAGEMENT STRAND

Applied Econometric for Agriculture	AEA810S	None	8	15
Applied Production Economics	APE811S	None	8	15

Semester 2

Mini-Thesis	MAT820S	Research Methodology	8	30
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Plus TWO of the following Strand Courses depending on Specialisation taken in Semester 1

SUSTAINABLE AGRICULTURE STRAND

Sustainable Animal Production Systems	SAP820S	None	8	15
Sustainable Plant Production Systems	SPP820S	None	8	15

AGRIBUSINESS MANAGEMENT STRAND

Agribusiness Management Analysis	AMA821S	None	8	15
Agricultural Policy Analysis	APA821S	None	8	15

**MASTER OF AGRIBUSINESS MANAGEMENT
(Revised Programme – Phased in 2020)**

09MAGB

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q2091

Description

The Master of Agribusiness Management by research is a postgraduate degree designed for registration at NQF Level 9. The revised Master's degree is designed to develop students' scientific research skills in various areas of agribusiness management. The programme further aims at equipping students with various methodological approaches, and develop competence in the application of qualitative, quantitative and mixed research methods through participation in research projects under the supervision of experienced staff members.

The programme will provide a unique education and required knowledge to finding sustainable solutions to interdisciplinary challenges related to the management of agribusinesses. The research will be of applied nature and aimed at addressing the practical problems related to Agribusiness Management in Namibia and beyond. Such research will lead to a better understanding of the Namibian agribusiness environment, which will allow managers in agribusiness to manage the country's agricultural enterprises more effectively in terms of sustainability, with the emphasis on NDP5. Graduates will be able to make meaningful contributions to the development of new knowledge/expertise in their areas of specialisation and to the socio-economic development of the country.

Criteria for Admission

Candidates, who hold Bachelor of Science Honours in Agriculture or related cognate areas at NQF Level 8, or equivalent qualification, from recognised institutions, may be considered for admission into this programme. Such qualifications must include a component of supervised research.

Final selection will be based on a personal interview with a departmental selection panel. Registration prior to the approval of a research proposal is provisional and will only become official, upon by the Higher Degrees Committee of the Namibia University of Science and Technology. These procedures will be fully explained to each prospective student during his or her personal interview.

Articulation Arrangements

The Master of Agribusiness Management 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

This programme will be delivered on a full-time and part-time basis, i.e. students are expected to conduct independent research complemented by block sessions between the supervisor and student in accordance with a pre-agreed research plan.

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 NUST's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements of the University.

Teaching and learning strategies

The Higher Degrees Committee, on the recommendation of the programme coordinator / Head of Department, will appoint appropriate supervisors and/or co-supervisor(s) for each student.

Students will be required to work independently most of the time with minor intervention. Guidance and support will be provided by the supervisor through regular contact with the student (face-to-face communication) as well as using relevant information and communication technologies. Academic support will essentially be provided in accordance with NUST's rules and procedures for postgraduate studies leading to the award of research degrees. Students will also be required to provide regular progress reports for assessment.

Assessment strategies

In addition to the general requirements of Senate, candidates are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis will be assessed by examiners, approved by Senate, upon recommendation of the Higher Degrees Committee. In addition, students will undergo an oral examination (i.e. *viva voce*) before submitting the final thesis in accordance with the rules for postgraduate studies at NUST.

Quality Assurance requirements

The examination will be done by qualified academics and practitioners with Doctoral degrees, or in special exceptions by Masters' holders with good publication records. The examiners must be recognised and respected individuals in the field with experience in assessment of postgraduate scientific reports or theses. Continuous monitoring of progress of students will be according to the methods of learning described in the syllabus outlined below.

Transition Arrangements:

There are significant changes to this programme, thus the Master of Agribusiness Management by coursework and Mini-thesis (old curriculum) will be phased out systematically until 2023 with no disruption to existing students' learning progression. The last intake for the Master of Agribusiness Management by coursework and Mini-thesis (old curriculum) was in 2019. The Master of Agribusiness Management by research will take effect from January 2020. Students who are registered on the out-phasing programme (old curriculum), and who fail more than 50% of the courses at the end of 2019, will be given an option to transition to the revised curriculum. These students, however, will lose credits.

The deadline for complete phasing out of the Master of Agribusiness Management by coursework and Mini-thesis (old curriculum) is 2023 after which students must automatically switch to the new programme and fulfil all requirements based of the new curriculum. The following courses in the Table below in the old curriculum do not have corresponding courses in the revised curriculum, hence they will be taught until the old curriculum is phased out completely in 2023.

Courses with no corresponding courses in the revised curriculum:

Course Code	Master of Agribusiness Management (Old Courses) by course work and Mini-thesis
ARM910S	Advanced Research Methodology
AMA910S	Agribusiness Management Analysis
PDE910S	Production Economics
AAM920S	Advanced Agricultural Marketing and Price Analysis
ASM920S	Agricultural Supply Chain Management
PDP920S	Project Design, Planning and Management
MAT920S	Thesis

CURRICULUM

Full Time					
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1					
MAT921P	Thesis	None			
Semester 2					
MAT921S	Thesis	None			
YEAR 2					
Semester 3					
MAT922S	Thesis	None			
Semester 4					
MAT923S	Thesis	None			
YEAR 3					
Semester 5					
MAT924S	Thesis	None			
Semester 6					
MAT927X	Thesis Extension	None			

DEPARTMENT OF NATURAL RESOURCE SCIENCES

CODE: 88

QUALIFICATIONS OFFERED

Bachelor of Natural Resource Management Honours	08BNRH
Master of Natural Resource Management	09MNRT
Doctor of Philosophy in Natural Resource Sciences	10DNRS

BACHELOR OF NATURAL RESOURCE MANAGEMENT HONOURS

08BNRH

NQF Level: 8

NQF Credits: 120

NQF Qualification ID: Q2093

Description

The Bachelor of Natural Resource Management 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 in the field of Natural Resources Management.

The programme is designed to develop students' capacity to conduct research of an applied nature to assist with effective management of natural resources. Further, it will equip the students with the requisite tools, knowledge, methods and a deepened theoretical grounding in Natural Resource Management. Students will be taught to independently identify, formulate, and solve complex problems in various aspects and their relevant components.

Criteria for Admission

Candidates may be admitted to this programme if they have a Bachelor of Natural Resource Management degree 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. All admissions are at the discretion of the Department and exceptions may be approved by the Department.

Potential candidates with a three-year National Diploma in Nature Conservation or equivalent courses will only be considered for admission to this programme provided that they have at least three years of relevant work experience, to show competency in the field, based on a portfolio of relevant work undertaken, at an acceptable standard.

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 academic records for 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 of Natural Resource Management but have other qualifications, which are not equivalent to the NRM qualification.

Articulation Arrangements

The transfer of credits will be dealt with according to 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 credits that can be granted are 50% of the credits for a qualification.

Graduates of this programme will be able to pursue further studies in Natural Resource Management or a similar/related cognate area of learning, at NQF Level 9.

Mode of Delivery

The programme will be offered both on full-time and part-time mode in accordance with NUST's rules and regulations.

Requirements for Qualification Award

The Bachelor of Natural Resource Management Honours will be awarded to students credited with 120 NQF credits at NQF Level 8. Students are required to do three compulsory courses (worth 45 credits), three elective courses (worth 45 credits), and a Mini-Thesis (worth 30 credits). Students can also take additional electives for non-credit purposes should they wish to do so. In addition, students should meet the administrative and financial requirements of the University.

Teaching, Learning Strategies

Teaching and learning strategies are described in the syllabus outlines for the different courses. In broad terms, the teaching and learning strategies for this programme are designed not only to equip students with the necessary expertise and knowledge regarding natural resource management but also to enable them to present and communicate academic or professional work effectively. These strategies will make use of a variety of appropriate methods that will encourage the use of the latest, innovative technologies available, such as making use of digital library resources, apt scientific internet resources, the use of cell phone Apps and aerial and photographic imagery for natural resource monitoring, to transfer skills appropriate to each course.

The teaching and learning strategies will enable students to practise the necessary skills/competencies required at this level, e.g. conducting research, efficient and effective information retrieval, effective planning, problem-solving, critical thinking, innovation and independent process evaluation. Regular field trips and practicals will be undertaken to teach students teamwork and organisational skills, and also to allow them to practise technical skills and to collect, analyse, evaluate and present data. The compulsory Mini-Thesis is aimed at developing students' research capacity by planning and applying a coherent and critical understanding of the principles, theories and methodologies applicable to Natural Resource Management.

Assessment Strategies

Students will be assessed through continuous and summative assessment, as well as final end-of-semester examinations. These assessments will focus on the achievement of qualification outcomes and take the form of problem-solving exercises, individual/group assignments and presentations, case studies, report writing, practical application of skills and competencies, practical projects and questioning (tests and/or examinations). In accordance with NUST's policy on diversified continuous assessment, each non-examination course will have a minimum of four assessment events. Courses that are assessed using a combination of continuous assessment and a final examination must have at least two assessments prior to the examination. The Mini-Thesis will be assessed in accordance with the NUST rules for studies at postgraduate level. The Mini-thesis, as well as written scientific assignments in all courses, will be subjected to Turnitin to discourage plagiarism.

In addition to the general requirements of the Senate, the assessment of the student's academic performance will be according to the syllabus description for the different courses. A semester mark of 40% is required for admission to the examinations and all courses require a final mark of at least 50% to pass. A ratio of 60:40 Continuous assessments: Formal examination will apply to all courses except the Mini-Thesis.

In addition to the general regulations of Senate, in order to pass, a student will obtain an overall final mark of at least 50% per course with a sub-minimum of 40% for the examination, where applicable. The proportion of marks contributed by each course to the overall average, will be in relation to the proportion of credits carried by each course. The Mini-thesis, as well as written assignments in all courses, will be subjected to Turnitin to discourage plagiarism.

CURRICULUM

YEAR 1

Semester 1

Course Title	Course Code	Pre-Requisite	NQF Level	NQF Credit
Research Methods for Natural Sciences	RMC811S	None	8	15
GIS and Remote Sensing in Practice	GRS811S	None	8	15
Conservation Biology	CSB810S	None	8	15

Plus ONE of the following Elective Courses

Integrated Water and Wetland Management	IWW821S	None	8	15
Rangeland Ecology	RGE811S	None	8	15

Semester 2

Mini-Thesis	MNT820S	Research Methods for Natural Sciences	8	30
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Plus TWO of the following Elective Courses depending on demand

Community Resource Management	CRM820S	None	8	15
Ecological Restoration	ELR821S	None	8	15
Integrated Environmental Management	INM821S	None	8	15
Forest Management	FMG821S	None	8	15
Wildlife Management	WLM821S	None	8	15

MASTER OF NATURAL RESOURCE MANAGEMENT

09MNRT

NQF Level: 9

NQF Credits: 240

NQF Qualification ID: Q0452

Description

The Master of Natural Resource Management is a research-based postgraduate degree designed for registration at NQF Level 9. The revised Master's degree is designed to develop students' scientific research skills in various areas of management of natural resources for the purpose of sustainable use. The programme further aims at equipping students with various methodological approaches, and develop competence in the application of qualitative, quantitative and mixed research methods through participation in research projects under the supervision of experienced staff members.

The programme will provide a unique education and required knowledge to finding sustainable solutions for interdisciplinary challenges related to the management of natural resources. The research to be conducted will be applied in addressing practical problems related to Natural Resource Management in Namibia and beyond. The unique habitats and aridity of the Namibian environment also makes it necessary for specialised training and research informed and guided by local experts. This will lead to a better understanding of the Namibian environment and its biodiversity, which will allow managers in Natural Resource to manage the country's natural resources more effectively in terms of sustainable utilisation, with the emphasis on conservation as highlighted in NDP5. Graduates will be able to make meaningful contributions to the development of new knowledge/expertise in their areas of specialisation and to the socio-economic development of the country.

Criteria for Admission

Candidates who hold qualifications in Natural Resource Management or related cognate areas at NQF Level 8, or equivalent, from recognised institutions, may be considered for admission to this programme. Such qualifications must include a component of research methodology and supervised research.

Final selection will be based on a personal interview with a departmental selection panel. Registration prior to the approval of a research proposal is provisional and will only become official when the proposal is approved by the Higher Degrees Committee of the Namibia University of Science and Technology. These procedures will be fully explained to each prospective student during his or her personal interview.

Articulation Arrangements

The Master of Natural Resource Management 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

This qualification will be delivered on a full-time and part-time basis, i.e. students are expected to conduct independent research complemented by contact sessions between the supervisor and student in accordance with a pre-agreed research plan.

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 NUST's requirements as detailed in the rules for postgraduate studies. In addition, students should meet the administrative and financial requirements spelt out in Part 1 of the Namibia University of Science and Technology Yearbook.

Full-time students have a minimum of two years and a maximum period of four years to complete the programme. An appropriate extension can be arranged for part-time students. Students have to register each semester for this programme.

Teaching and learning strategies

The Higher Degrees Committee, on the recommendation of the programme coordinator / Head of Department, will appoint appropriate supervisors and/or co-supervisor(s) for each student.

Students will be required to work independently most of the time with minor intervention. Guidance and support will be provided by the supervisor through regular contact with the student (face-to-face communication) as well as through the use of relevant information and communication technologies. Academic support will essentially be provided in accordance with NUST's rules and procedures for postgraduate studies leading to the award of research degrees. Students will also be required to provide regular progress reports for assessment.

Assessment Strategies

In addition to the general requirements of Senate, candidates are required to submit a thesis for evaluation, which should comply with international academic standards. The thesis will be assessed by examiners, approved by Senate, upon recommendation of the Higher Degrees Committee. In addition, students will undergo an oral examination (i.e. *viva voce*) before submitting the final thesis in accordance with the rules for postgraduate studies at NUST.

Quality Assurance Arrangements

The examination will be done by qualified academics and practitioners with Doctoral degrees, or in special exceptions by Masters' holders with good publication records. The examiners must be recognised and respected individuals in the field with experience in assessment of postgraduate scientific reports or theses. Continuous monitoring of progress of students will be according to the methods of learning described in the syllabus outline, below.

Transition arrangements

This is a Master by research only; hence Transition arrangements are not applicable.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
MNT911S	Thesis	None			
Semester 2			Semester 2		
MNT912S	Thesis	None			
YEAR 2					
Semester 3			Semester 3		
MNT913S	Thesis	None			
Semester 4			Semester 4		
MNT914S	Thesis	None			
YEAR 3					
Semester 5			Semester 5		
MNT915X	Thesis Extension	None			

DOCTOR OF PHILOSOPHY IN NATURAL RESOURCE SCIENCES

10DNRS

NQF Level: 10

NQF Credits: 360

NQF Qualification ID: Q0973

Description

The Doctor of Philosophy (PhD) in Natural Resource Sciences is aimed at equipping students with deepened knowledge and research skills in their specialisation area by creating new knowledge that will bring solutions and implement new ideas to the Natural Resource Sciences. The programme will enable students to develop a thorough understanding of relevant methodological approaches and develop general competence in and knowledge of one or more of the subfields in Natural Resource Sciences.

In addition, through independent research using advanced methods and techniques, the student will contribute new knowledge on the topic of interest and/or contribute to the solution of sophisticated application problems in the field of study.

The development of research competence has prime priority in the context of this PhD Programme. Thus, 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.

The qualification aims at producing high-calibre scientists in various specialisation areas related to Agriculture and Natural Resources.

Criteria for Admission

Applicants who hold qualifications from recognised institutions at NQF Level 9 in Natural Resource Sciences related subjects and/or related cognitive areas can be considered for admission to this programme. Applicants need to provide evidence of having conducted supervised research at Master's degree level. In addition, applicants will be requested to attend a pre-selection interview at the discretion of the Faculty. The applicants may be requested to make up specific deficiencies at the discretion of the supervisor and the respective Head of Departments. Apart from the applicant's qualification, the admission of an applicant will also depend on the availability and competent supervisor for the planned topic and the available staff resources of the affected department(s).

Higher Degree Committee (HDC) will approve the final selection and admission of the selected candidates in accordance with the regulations as specified by the Rules for Postgraduate Studies of the NUST Yearbook. First-time registration may only occur upon the submission and approval of a Concept Note by the HDC. The Concept Note is prepared under the guidance of the student's designated supervisor.

Continuation of admission to the programme is conditional on the production and approval of a comprehensive research proposal which needs to be submitted with the first two semesters for full-time students and within the first three semesters for part-time students. These procedures will be fully explained to each prospective student during his or her personal interview. Additional information is given in the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes.

Mode of Delivery

The qualification will be delivered on a full-time or part-time basis in accordance with the Rules for Postgraduate Studies. Students may interchange between full and part-time according to the speed of their progress. The whole programme is comprised of semester courses (six for the full-time mode and 12 for the part-time mode) each of which needs to be registered for in succession. Students may also opt to skip one semester, provided that the supervisor is informed and provides no service to the student for that semester.

If the student skips more than one semester, then a form for resumption of studies will need to be submitted upon re-registration within three years of first registration. If this period is exceeded without registration and the former student wishes to continue with the PhD programme then a new application would need to be submitted. Students who exceed the minimum registration period for the relevant mode of study will be registered for the Thesis Extension course in the subsequent semesters, until such time as they complete or reach the maximum study period. Additional information is given in the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes.

Requirements for Qualification Award

This qualification will be awarded to candidates credited with a minimum of 360 credits (all at NQF Level 10). The thesis will represent the entire body of work to be assessed and must meet the NUST requirements as detailed in the Rules for Postgraduate Studies. In addition, students should meet the administrative and financial requirements of the University.

Students who register for the full-time option every semester would be expected to complete the programme with six semesters, but may be permitted to extend to a maximum of 10 semesters while registering and paying for additional semester courses. Students who register for the part-time option every semester would be expected to complete the programme within 12 semesters, but may be permitted to extend to a maximum of 16 semesters while registering and paying for additional semester courses.

Students who opt for a combination of full and part-time registrations, will be permitted extra semesters in proportion to the number of semesters they registered under each option.

Teaching and Learning Strategies

The Higher Degrees committee will appoint supervisor(s) and/or co supervisor(s) for each student. It is however expected that the prospective student will study the research interests and activities of the Faculty's academic staff as these are described on their biographical webpages to determine whether there are qualified people whose current activities or research programmes align with his/her field and topic of interest.

The prospective student should then contact the Programme Coordinator who will facilitate a discussion with specific staff member/s with the aim of finding a suitable supervisor and a workable research topic that may be developed into a Concept Note. Students will be required to work independently in accordance with a pre-agreed research plan that has to be submitted as part of the Full Research Proposal. Students will be supervised, guided and supported through regular contact sessions using all available means during which study planning, progress and other relevant topics are discussed.

Depending on the subject matter background and the qualification and experience of the PhD student in general and on the proposed topic in particular, the supervisor may prescribe the attendance of one or more courses to address any identified technical, methodical and subject matter deficiencies of the student. Such course work may be done within existing NUST programmes or at another recognised institution in Namibia or abroad. The course fees for such courses were covered by the student fees for the PhD programme, if courses within the framework of existing NUST programmes are being used for this purpose.

Academic support will be provided in accordance with the NUST guidelines for the Supervision and Examination of Masters and Doctoral Programmes, the Rules for Postgraduate Studies of the University and other rules and procedures for postgraduate studies leading to the award of research degrees.

Assessment Strategies

Students are required to submit a research proposal for approval by Higher Degrees Committee (HDC), in accordance with the details as specified in the Rules for Postgraduate Studies and the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes.

A Thesis has to be submitted for evaluation at the end of the study period. The thesis should be a record of the independent investigation of the student's 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 chosen field of study and the University's tradition of high academic standards. The thesis will be assessed in accordance with the Rules for Postgraduate Studies and the Guideline for the Supervision and Examination of Masters and Doctoral Programmes.

Students will present and defend their thesis before an appropriately constituted panel in accordance with the Rules for Postgraduate Studies. The thesis will be returned to the students for correction before final binding and archiving. The doctoral certificate will only be released after correction of the thesis. Any other special arrangements will be done in accordance with the Rules for Postgraduate Studies and the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes.

Quality Assurance Arrangements

Qualified academic and practitioners with Doctoral Degrees will assess the thesis. The examiners will be knowledgeable and respected individuals in the respective fields of research that has been selected as research topic and should have experience in assessment of postgraduate scientific thesis. The examiners will be appointed by the Institutional HDC in accordance with the regulations specified in the Rules for Postgraduate Studies and the Guidelines for the Supervision and Examination of Masters and Doctoral Programmes.

CURRICULUM

Full Time			Part Time		
Course Code	Course Title	Pre-Requisite	Course Code	Course Title	Pre-Requisite
YEAR 1					
Semester 1			Semester 1		
NRS101S	Thesis	None	NRS101P	Thesis	None
Semester 2			Semester 2		
NRS102S	Thesis	None	NRS102P	Thesis	None
YEAR 2					
Semester 3			Semester 3		
NRS103S	Thesis	None	NRS103P	Thesis	None
Semester 4			Semester 4		
NRS104S	Thesis	None	NRS104P	Thesis	None
YEAR 3					
Semester 5			Semester 5		
NRS105S	Thesis	None	NRS105P	Thesis	None
Semester 6			Semester 6		
NRS106S	Thesis	None	NRS106P	Thesis	None
YEAR 4					
Semester 7			Semester 7		
NRS107X	Thesis Extension	None	NRS107P	Thesis	None
			Semester 8		
			NRS108P	Thesis	None
YEAR 5					
			Semester 9		
			NRS109P	Thesis	None
			Semester 10		
			NRS110P	Thesis	None
YEAR 6					
			Semester 11		
			NRS111P	Thesis	None
			Semester 12		
			NRS112P	Thesis	None
YEAR 7					
			Semester 13		
			NRS113X	Thesis Extension	None



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