

**THE NELSON MANDELA
AFRICAN INSTITUTION OF SCIENCE AND TECHNOLOGY
(NM-AIST)**



**Criteria for Admission into Masters', PhD and Postdoctoral
Programmes**

July, 2024

STATEMENT BY THE VICE CHANCELLOR

The Nelson Mandela African Institution of Science and Technology (NM-AIST) is a Research-based Institution with unique status that engages in rigorous responsible and responsive research and Innovation in line with its: i) Charter of establishment (The Nelson Mandela African Institution of Science and Technology Charter 2013), ii) Accreditation by Tanzania Commission for Universities (TCU) based on Universities Act, 2005 and iii) Modus Operandi as well as conditions of service for its staff commensurate with that unique status. The NM- AIST currently offers competitive, cutting-edge world-class Master's and Doctorate degrees in the areas of Science, Engineering, Technology and Innovation (SETI).

To achieve the NM-AIST targets of attracting qualified candidates, an easy-to-use document, here by referred to as "Criteria for Admission into Masters', PhD degrees and Postdoctoral programmes" has been prepared to guide research-focused applicants on minimum requirements for pursuing their studies at the NM-AIST. We believe the applicants will match their qualifications with these criteria and find the NM-AIST a destiny for their post-graduate degrees.

Prof. Maulilio J. Kipanyula

Date

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1.0 Introduction

The Nelson Mandela African Institution of Science and Technology (NM-AIST) is a research-intensive Institution that admits postgraduate scholars. The admission criteria for Masters', PhD and Postdoctoral programmes at NM-AIST are intended to provide opportunities for candidates with diverse qualities to join the Institution by expanding the scope for admission such that factors other than Grade Points Average (GPA) (e.g. research experience, prototype development, etc.) are also considered. The NM-AIST aims to serve society and industry, thus these criteria ensure that candidates from academic institutions, research institutions, public and private industries/organizations as well as individual innovators are admitted competitively for promoting research and innovation excellence in line with the Mission and Vision of the Institution.

1.1 Vision of the NM-AIST

To be a centre of excellence in science, engineering, technology and innovation for humanity's sustainable development.

1.2 Mission of NM-AIST

To create a hub of inventions and innovations, scout and nurture inventors for enhanced value addition to the society and industry for Tanzania, Africa and global sustainable and inclusive growth.

1.3 Objective and Scope of these admission criteria

To provide minimum admission requirements for candidates with diverse qualities, experiences and potential innovations to join the NM-AIST's Masters, PhD and Postdoctoral programmes for society and industrial development.

2.0 Admission into Masters', PhD and Postdoctoral Programmes

NM-AIST offers Masters and PhD programmes (Table 1).

Table 1: Academic degree programmes offered at NM-AIST 2024

School	MSc. Programmes	PhD Programmes
Life Sciences and Bioengineering (LiSBE)	Master of Science in Biodiversity and Ecosystem Management (MSc. BiEM)	PhD in Biodiversity and Ecosystem Management (PhD BiEM)
	Master of Science in Sustainable Agriculture (MSc. SuAg)	PhD in Sustainable Agriculture (PhD SuAg)
	Master of Science in Human Nutrition and Dietetic (MSc. HuND)	PhD in Human Nutrition and Dietetic (PhD HuND)
	Master of Science in Food Science and Biotechnology (MSc. FoSB)	PhD in Food Science and Biotechnology (PhD FoSB)
	Master of Science in Health and Biomedical (MSc. HBS)	PhD in Health and Biomedical (PhD HBS)
	Master of Science in Public Health Research (MSc. PHR)	No PhD
	Master of Molecular Biomedical Engineering (M. MBE)	No PhD
	Master of Science in Industrial Pharmacy and Regulatory Science (MSc. IPRS)	No PhD
	Master of Science in Conservation Management of African Ecosystems (MSc. CMAE)	No PhD
Computational and Communication Science and Engineering (CoCSE)	Master Science in Applied Mathematics and Computer Science and Engineering (M. AMCSE)	PhD in Applied Mathematics and Computer Science and Engineering (PhD MCSE)
	Master of Information and Communication Systems and Engineering (M. ICSE)	PhD in Information and Communication Science and Engineering (PhD ICSE)
	Master Science in Applied Mathematics and Computer Science and Engineering (M. AMCSE)	PhD in Information and Communication Systems and Engineering (PhD ICSE)
	Master of Science in Embedded and Mobile Systems (MSc. EMoS)	No PhD

School	MSc. Programmes	PhD Programmes
	Master of Wireless and Mobile Computing (M. WiMC)	No PhD
	Master of Information Systems and Network Security (M. ISNS)	No PhD
Materials, Energy, Water and Environmental Sciences (MEWES)	Master of Science in Materials Science and Engineering (MSc. MaSE)	PhD in Materials Science and Engineering (PhD MaSE)
	Master of Science in Sustainable Energy Science and Engineering (MSc. SESE)	PhD in Sustainable Energy Science and Engineering (PhD SESE)
	Master of Science in Hydrology and Water Resources Engineering (MSc. HWRE)	PhD in Hydrology and Water Resources Engineering (PhD HWRE)
	Master of Science in Environmental Science and Engineering (MSc. EnSE)	PhD in Environmental Science and Engineering (PhD EnSE)
	Master of Science in Health Physics and Radiation Protection (MSc. HPRP)	No PhD
	Master of Science in Nuclear Science and Technology (MSc. NuST)	No PhD
Business Studies and Humanities (BuSH)	Master of Science in Innovation and Entrepreneurship Management (MSc. IEM)	PhD in Innovation and Entrepreneurship Management (PhD IEM)

2.1 Masters Programmes

2.1.1 Masters programmes by Coursework and Dissertation

To be admitted into a Master's programme by Coursework and Dissertation at the NM-AIST, the following requirements will be taken into consideration:

- (i) Possession of at least a second-class Bachelor's degree with a GPA of 3.0/5.0 or above, or its equivalent or a postgraduate diploma with a GPA of 4.0/5.0 or above, or its equivalent in appropriate areas of study from an accredited university or similar institution of higher learning. For an applicant holding unclassified degrees (e.g. M.D, BVM & DDS) should have an overall of "B" grade or above.
- (ii) The applicant must satisfy the Programme and specialty specific requirements as specified by the respective School/Department hosting the programme (Tables 2 - 5).

(iii) Provide evidence (e.g certificates, transcripts, etc.) of the above (i-ii) qualifications.

2.1.2 Master's Programmes by Research and Thesis

To be admitted into a Master's programme by Research and Thesis at the NM-AIST, the following requirements will be taken into consideration:

(i) Possession of a Bachelor's degree from an accredited university or similar institution of higher learning with a GPA of 3.5/5.0 or above, or its equivalent or a postgraduate diploma with a minimum GPA of 4.0/5.0 or above in appropriate areas of study from an accredited university or similar institution of higher learning. For an applicant holding unclassified degrees (e.g. M.D, BVM & DDS) should have at least an overall of "B⁺" grade and, Either;

(a) Possession of Registered Intellectual Property (IP) or Prototypes or Minimum Viable Product that qualifies for incubation/scaling up as evaluated by respective school in line with NM-AIST's research and innovation policy and guidelines;

OR

(b) Evidence of at least ONE YEAR working experience in related field and at least ONE PUBLICATION in an accredited peer-reviewed journal as the FIRST AUTHOR.

OR

(c) Evidence of at least ONE YEAR working experience in related field and at least TWO-CO AUTHORED PUBLICATIONS in an accredited peer-reviewed journal.

(ii) Submission along with application documents, a concise ONE-page concept notes or details of a prototype of what he/she wishes to work on as part of his/her study provided it is within the NM-AIST research agenda.

(iii) The applicant must satisfy the requirement of the Programme and its specialty as specified by the respective School/Department hosting the programme (Tables: 2 – 5).

(iv) Provide evidence (e.g certificates, transcripts, etc.) of the above (i-ii) qualifications.

2.1.3 Master's programmes by Coursework and Project

To be admitted into a Master's programme by Coursework and Project at the NM-AIST, the following requirements will be taken into consideration:

- (i) Possession of at least a second-class Bachelor's degree with a GPA of 3.0/5.0 or above, or its equivalent or a postgraduate diploma with a GPA of 4.0/5.0 or above, its equivalent in an appropriate area of study from an accredited university or similar institution of higher learning. For an applicant holding unclassified degrees (e.g. M.D, BVM & DDS) should have at least an overall of "B" grade. Working experience in related field (as guided by relevant School) will be added advantage.
- (ii) The applicant must satisfy the requirement of the Programme and its specialty as specified by the respective School/Department hosting the programme (Tables: 2 - 5).
- (iii) Provide evidence (e.g certificates, transcripts, etc.) of the above (i-ii) qualifications.

2.2 PhD programmes

2.2.1 PhD by Coursework and Dissertation

To be admitted into a PhD programme by Coursework and Dissertation at the NM-AIST, the following requirements will be taken into consideration:

- (i) Possession of at least a second-class Bachelor's degree with a GPA of 3.0/5.0 or above, or its equivalent or a postgraduate diploma with a GPA of 4.0/5.0 or above, or its equivalent in an appropriate area of study from an accredited university or similar institution of higher learning. For an applicant holding unclassified degrees (e.g. M.D, BVM, DDS etc) should have at least an overall of "B" grade.
- (ii) Possession of a Master's degree from an accredited university or similar institution of higher learning with a GPA of 3.0/5.0 or above, or its equivalent and at least an average of "B" in the relevant subjects or field of specialization.
- (iii) The applicant must satisfy the requirement of the Programme and its specialty as specified by the respective School/Department hosting the programme (Tables: 2 – 5).

- (iv) Provide evidence (e.g certificates, transcripts, etc.) of the above (i-iii) qualifications

2.2.2 PhD by Research and Thesis

To be admitted into a PhD programme by Research and Thesis at the NM-AIST, the following requirements will be taken into consideration:

- (i) Possession of a Bachelor's degree from an accredited university or similar institution of higher learning with a GPA of 3.0/5.0 or above, or a postgraduate diploma with a GPA of 4.0/5.0 or above for an applicant holding unclassified degrees (e.g. M.D, BVM, DDS etc) should have at least an overall of "B" grade.
- (ii) Possession of Master's degree from an accredited university or similar institution of higher learning with a minimum GPA of 3.0/5.0.
- (iii) Demonstrate working and research experience by producing evidence of any of the following:
 - a) At least ONE PUBLICATION in Indexed (SCI/SCIE) journals being the FIRST AUTHOR or
 - b) A protected IP (Patent, Trade Secret) with potential for incubation/ scaling up/ commercialization in line with NM-AIST's Frameworks, or
 - c) A funded research project with a PhD training component in which the applicant is the project PI/ Co PI in a related field and ONE Published article in Peer-Reviewed Journal or
 - d) A five-year working experience as a researcher in research-based institution and ONE Published article in Peer-Reviewed Journal.
 - e) Evidence of at least ONE YEAR working experience in related field and at least THREE PUBLICATIONS in an accredited peer-reviewed journal not necessarily as first author.
- (iv) Provide evidence (e.g certificates, transcripts, articles, Project contracts etc.) of the above (i-iii) qualifications,

- (v) Submission along with application documents, a concise TWO-page concept note or details of a prototype of what he/she wishes to work on as part of his/her study provided it is within the NM-AIST research agenda.
- (vi) The applicant must satisfy the requirement of the Programme and its specialty as specified by the respective School/Department hosting the programme (Tables: 2 - 5).

2.3 Postdoctoral positions

Postdoctoral position may arise from projects or other sources with specific conditions.

2.3.1 Eligibility

- (i) Postdoctoral associateships are open to individuals who have completed a doctoral degree in a relevant field, and who wish to advance their research careers.
- (ii) Should demonstrate specific innovation/prototype for further development as per NM-AIST Research and Innovation Policy and guideline.

2.3.2 Application for postdoctoral position

- (i) Applications should be sent to the Dean of School for transmission to Senate through school board and STLC.
- (ii) The postdoctoral applications and recruitment shall be throughout the year.

2.3.3 Post-doctoral registration

- (i) Postdoctoral candidates will be registered for a minimum of one year (12 months) as approved by the Senate.
- (ii) Progress for postdoctoral candidates shall be monitored through submission of reports on three monthly bases through seminar presentations.
- (iii) Upon successful completion of the Postdoctoral programme a certificate will be awarded.

3.0 Programme and Specialty Specific Requirements

In addition to the minimum entry requirements for Master's and PhD programmes stipulated in sections above (2.1 & 2.2), there are additional requirements specific to each programme and/or specialty stipulated by the host Department/School that will be considered for admission into the respective programmes or specialty (Tables: 2 - 5).

Table 2: Programmes and Specialty Specific Requirements for School of Life Science and Bioengineering (LiSBE)

Master Degree Programmes	Programme Specialization	Specific Requirements
Master of Science in Health and Biomedical Sciences (MSc-HBS)	Health and Biomedical Sciences	Bachelor Degree or postgraduate diploma in; Veterinary Science or Medicine (BVSc, BVM, DVM); Human Medicine (MD); Biomedical Sciences; Clinical Sciences; Animal Science; Microbiology; Molecular Biology; Biotechnology; Physiology (Medical or Veterinary), Pathology (Medical or Veterinary). Immunology (Medical or Veterinary); Parasitology; Zoology and related fields.
Master of Science in Sustainable Agriculture (MSc SuAG)	i) Plant Molecular Breeding ii) Agricultural Systems Management iii) Molecular Plant Pathology	Bachelor Degree or postgraduate diploma in; Agriculture; Crop Science; Biology; Horticulture; Agronomy; Plant Pathology; Biology; Genetics; Biotechnology; Botany and Forestry; Agricultural Economics; Crop Pathology, Agricultural Education and Extension; Agro-ecology, Botanical Science; Range Management and related fields.

Master of Science in Food Science and Biotechnology (MSc-FoSB)	(i) Postharvest handling and processing (ii) Food Safety and Quality	Bachelor Degree or postgraduate diploma in; Food science, Food science and technology, Food science and nutrition, Food biotechnology, Food technology and product development, Home economics and human nutrition, Food engineering, Food processing engineering, Postharvest science and technology, Postharvest technology, Postharvest technology and management, Bioprocessing and postharvest engineering, Horticulture, Functional foods, Food production management, Chemical and processing engineering, Food chemistry, Food biochemistry. Food safety, Food safety and public health, Mycotoxicology, Food microbiology, Biology, Microbiology, Food hygiene, Food regulation and legislation, and other related fields.
Master of Science in Human Nutrition and Dietetic (MSc-HuND)	i) Clinical Nutrition ii) Community nutrition	Bachelor Degree or postgraduate diploma in Human Nutrition, Home Economics and Human Nutrition, Family and Consumer studies, Food science and Nutrition, Food Science and Technology, Community
Biodiversity and Ecosystem Management	(i) Molecular biodiversity and bio prospecting (ii) Sustainable utilization of natural resources	Bachelor Degree or postgraduate diploma in; Ecology and Biodiversity; Wildlife Science and Conservation; Conservation Biology; Forestry; Silviculture; Aquaculture; Evolutionary Biology; Tropical Biodiversity and Wildlife Management; Organic Chemistry; Microbiology; Agro-ecology; Animal Science; Population Biology and related fields.

Public Health Research (PHR)	Determinants of Health and Diseases	Bachelor Degree or postgraduate diploma in Social Sciences (Sociology, Anthropology), Environmental Sciences, Doctor of Medicine, Veterinary Science/ Medicine, Human Nutrition Sciences, Statistics, Biology, Informatics and related fields
	Intervention Research	Bachelor Degree or postgraduate diploma in Statistics, Doctor of Medicine, Veterinary Science/ Medicine, Environmental Sciences, Human Nutrition Sciences, Biology and related fields
	Implementations and Health Systems Research	Bachelor Degree or postgraduate diploma in Social Sciences, Doctor of Medicine, Environmental Sciences, Health System Management, Economics, Statistics, Informatics and related fields
Master of Science in Industrial Pharmacy and Regulatory Science (MSc. IPRS)	Industrial Pharmacy and Regulatory Science	Bachelor Degree or postgraduate diploma in Pharmacy, Biomedical Sciences, Chemical and process engineers, Biochemistry, Chemistry, Clinical Sciences, Animal Science, Microbiology, Molecular Biology Biotechnology, Physiology (Medical or Veterinary), Analytical chemistry, Pathology (Medical or Veterinary), Immunology (Medical or Veterinary), or related fields
Master of Molecular Biomedical Engineering	Molecular Biomedical Engineering	Bachelor Degree or postgraduate diploma in Biomedical Engineering, Electrical and Electronics Engineering, Bachelor of electrical and biomedical engineering, Chemical Engineering, Physics, Mechanical Engineering, Industrial Biotechnology, Molecular Biology; Biomedical Technology, Clinical

		chemistry; Biochemistry, Biotechnology/Bioengineering, Analytical Chemistry or any other related engineering discipline for postgraduate course
Master of Science in Conservation Management of African Ecosystems (MSc. CMAE)	(i) Sustainable Management of Ecosystems (ii) Conservation Science and Practice	Bachelor's degree in one of the following fields; Wildlife Conservation and Management, Forestry, Rangeland Science, Biostatistics, Population Ecology, Community Based Natural Resource Management, Conservation Biology and Practice and other related fields

PhD Degree Programmes	Programme Specialization	Specific Requirements
PhD in Health and Biomedical Sciences (PhD-HBS)	Health and Biomedical Sciences	Bachelor Degree or postgraduate diploma and Master degree in; Veterinary Science or Medicine (BVSc, BVM, DVM); Human Medicine (MD); Biomedical Sciences; Clinical Sciences; Animal Science; Microbiology; Molecular Biology; Biotechnology; Physiology (Medical or Veterinary); Pathology (Medical or Veterinary); Immunology (Medical or Veterinary); Parasitology; Zoology and related fields.
PhD in Sustainable Agriculture (PhD-SuAG)	i) Plant Molecular Breeding ii) Agricultural Systems Management iii) Molecular Plant Pathology	Bachelor Degree or postgraduate diploma AND Master degree in; Agriculture; Crop Science; Biology; Horticulture; Agronomy; Plant Pathology; Biology; Genetics; Biotechnology; Botany and Forestry; Agricultural Economics; Crop Pathology, Agricultural Education and Extension; Agro-ecology, Botanical Science; Range Management and related fields.

PhD in Food Science and Biotechnology (PhD-FoSB)	(i) Postharvest handling and processing (ii) Food Safety and Quality	Bachelor Degree or postgraduate diploma AND Master degree in; Food science, Food science and technology, Food science and nutrition, Food biotechnology, Food technology and product development, Home economics and human nutrition, Food engineering, Food processing engineering, Postharvest science and technology, Postharvest technology, Postharvest technology and management, Bioprocessing and postharvest engineering, Horticulture, Functional foods, Food production management, Chemical and processing engineering, Food chemistry, Food biochemistry. Food safety, Food safety and public health, Mycotoxicology, Food microbiology, Biology, Microbiology, Food hygiene, Food regulation and legislation, and other related fields.
PhD in Human Nutrition and Dietetic (MSc-HuND)	(i) Clinical Nutrition (ii) Community nutrition	Bachelor Degree or postgraduate diploma AND Master degree in Human Nutrition, Home Economics and Human Nutrition, Family and Consumer studies, Food science and Nutrition, Food Science and Technology, Community
PhD in Biodiversity and Ecosystem Management	Biodiversity and Ecosystem management Sustainable utilization of natural resources	Bachelor Degree or postgraduate diploma AND Master degree in; Ecology and Biodiversity; Wildlife Science and Conservation; Conservation Biology; Forestry; Silviculture; Aquaculture; Evolutionary Biology; Tropical Biodiversity and Wildlife Management; Organic Chemistry; Microbiology; Agro-ecology; Animal Science; Population Biology and related fields.

Table 3: Programmes and Specialty Specific Requirements for School of School of Computational and Communication Science and Engineering (CoCSE)

Master's Degree Programmes	Programme Specialization	Specific Requirements
Master of Science in Applied Mathematics and Computational Science (AMCS)	Applied Mathematics and Computational Science (AMCS)	Bachelor Degree or postgraduate diploma in; Mathematics, Applied Mathematics, Statistics, Applied Statistics, Mathematical Modelling, Statistical Modelling, Computational Mathematics, Data Science or related fields
Master of Information and Communication Systems Engineering (Master of ICSE)	i) Electronics Engineering ii) Telecommunications Engineering	Bachelor Degree or postgraduate diploma in Mobile Computing, Wireless Networks; Software Engineering; Computer Science and Engineering; Computer Engineering, Electronics Engineering, Electrical Engineering, and Telecommunications Engineering or related fields.
Master of Science in Embedded and Mobile Systems (MSc EMoS)	i) Embedded Systems ii) Mobile Systems	Bachelor Degree or postgraduate diploma in; Mobile Computing; Wireless Networks; Software Engineering; Computer Science; Computer Engineering; Electronics Science and Engineering; Telecommunication Engineering; Electrical Engineering, Embedded systems, or related fields.
Master of Science in Wireless and Mobile Computing (WiMC)	Wireless and Mobile Computing	Bachelor Degree or postgraduate diploma in; Information Systems; Informatics; Mobile Computing; Wireless Networks; Software Engineering; Computer Science, electronics and Computer Engineering.
Master of Science in Information Systems and Network Security (ISNS)	Information Systems and Network Security	Bachelor Degree or postgraduate diploma in; Information Systems; Information Technology; IT Security, Informatics; Software Engineering; Computer Science; and Computer Engineering.

PhD Degree Programmes	Programme Specialization	Specific Requirements
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PhD in Information and Communication Systems Engineering (PhD in ICSE)	i) Electronics Engineering ii) Telecommunications Engineering	Bachelor Degree or postgraduate diploma AND Master degree in Mobile Computing, Wireless Networks; Software Engineering; Computer Science and Engineering; Computer Engineering, Electronics Engineering, Electrical Engineering, and Telecommunications Engineering or related fields
PhD in Applied Mathematics and Computational Science (AMCS)	Applied Mathematics and Computational Science (AMCS)	Bachelor Degree or postgraduate diploma in; Mathematics, Applied Mathematics, Statistics, Applied Statistics, Mathematical Modelling, Statistical Modelling, Computational Mathematics, Data Science or related fields
PhD Information and Communication Science and Engineering (ICSE)	i) Information Technology Systems Development and Management (ITSDM)	Bachelor Degree or postgraduate diploma AND Master degree in Information Systems; Information Technology; Informatics; Computer Science; Software Engineering; Computer Engineering, or related fields

Table 4: Programmes and Specialty Specific Requirements for School of Materials, Energy, Water and Environmental Science (MEWES)

Master's Degree Programmes	Programme Specialization	Specific Requirements
Masters of Science in Hydrology and Water Resources Engineering (MSc HWRE)	i) Water Resources Engineering and Management ii) Hydrology and climate studies	Bachelor Degree or postgraduate diploma in Water Resources Engineering, Irrigation Engineering, Geology, Hydrogeology, Environmental Science, Environmental Engineering, Geography, Civil Engineering, Sanitation Engineering, Mining Engineering and related fields Applicants MUST have at least “B” grades at a Bachelor's degree in courses majoring the degree programme/ specialty applied for. Work experience and knowledge in modelling will be an added advantage.

Masters of Science in Environmental Science and Engineering (MSc EnSE)	i) Environmental Science ii) Environmental Engineering	<p>Bachelor Degree or postgraduate diploma in Chemistry, Biology, Zoology, Aquatic/Marine Sciences, Chemical Engineering, Environmental Science/Engineering, Food Sciences/Engineering, Biochemical Engineering, Agriculture, Wildlife, Forestry, Mining Engineering, Mineral Processing, Geology, Public health, tourism and Natural Resources Conservation Water Resources Engineering, Microbiology and related fields.</p> <p>In addition to the above, applicants holding Bachelor's degrees majoring in Chemistry or Biology like Bachelor of Education with Chemistry/Biology and Bachelor of Science (Chemistry/Biology) MUST have at least "B" grades in Chemistry, Biology and/or other courses related to Environmental Science/Engineering, Chemical Engineering and related courses.</p>
Master of Science in Health Physics and Radiation Protection (HPRP)	i) Health Physics and Radiation Protection	<p>Bachelor Degree or postgraduate diploma in Natural Sciences; Health Sciences, Engineering; Specifically, the appropriate fields will include Physics, Chemistry, Biology, Health, Engineering Biological/Physical Sciences, Radiation Therapy Technology, Applied Nuclear Physics, engineering; Specifically, the appropriate fields will include Physics, Chemistry, Health, Radiology, Electrical, Mechanical or Chemical Engineering or related degrees or related fields</p>
Master of Science in Materials Science and Engineering (MSc MaSE)	Material Science and Engineering	<p>Bachelor Degree or postgraduate diploma in Physics, Chemistry, Biology, Mechanical Engineering, Structural Engineering, Mathematics and/or related courses, Mechanical Engineering, Civil Engineering,</p>

		<p>Chemical Engineering, Computer Engineering, Computer Science, Electrical Engineering, Polymer Engineering, Materials Science and Engineering and related fields.</p> <p>Applicants holding Bachelor's degrees majoring in Chemistry, Physics or Biology, like. Bachelor of Education with Chemistry/Biology/Physics and Bachelor of Science (Chemistry/Biology/Physics) MUST have at least "B" grades in Chemistry, Biology, Physics courses and/or other courses related to Environmental Sciences/Engineering and Chemical Engineering. Work experience in indigenous raw material application, material structure and failure and nanotechnology will be an added advantage.</p>
Master of Science in Sustainable Energy Science and Engineering (MSc SESE)	i) Smart Grid Technology ii) Sustainable Power Generation and Energy Utilization iii) Renewable Energy Engineering	<p>Bachelor Degree or postgraduate diploma in Energy Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Chemicals and Processing Engineering; or other Engineering disciplines or natural sciences (Physics and Chemistry) may also be sufficient provided that relevant coursework in Thermodynamics, Basic Engineering, Statics and Dynamics Controls, Heat Transfer, Fluid Dynamics, Energy and Mass Transfer, Reactor Design, Electrochemistry, Semiconductors, Mathematics: with a focus on Numerical Analysis, Vector Calculus Differential Equations, Computer Programming knowledge or related fields were pursued. Applicants MUST have at least "B" grades in Chemistry, Physics, Mathematics, Energy Sciences and/or Mechanical Engineering and related courses in their Bachelor's degree.</p>

Master of Nuclear Science and Technology (MSc NuST)	<p>(i) Nuclear Technology Applications in Agriculture and</p> <p>(ii) Nuclear Technology Applications in Industries</p>	<p>Scholars wish to specialize in applications of nuclear technology in Industries need to have Bachelor Degree or postgraduate diploma in; Physics; Chemistry; Electrical Engineering; Civil Engineering; Agricultural Engineering; Mechanical Engineering; Application of radiation in Industry, Chemical and Processing Engineering, Nuclear engineering, Computation Nuclear Science and Engineering, Nuclear Technology Application in Petroleum and Mining Industries, from any approved University.</p> <p>For scholars wish to specialize in Agriculture need to have Bachelor Degree or postgraduate diploma in; background in Biological Sciences, Agricultural Sciences, Biochemistry, Botany, Genetics, Molecular Biology, Agronomy, Soil Sciences, Nuclear Sciences and Plant Biotechnology from any approved University.</p>
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PhD Degree Programmes	Programme Specialization	Specific Requirements
PhD in Hydrology and Water Resources Engineering (MSc HWRE)	<p>iii) Water Resources Engineering and Management</p> <p>iv) Hydrology and climate studies</p>	<p>Bachelor Degree or postgraduate diploma AND Master degree in; Water Resources Engineering, Irrigation Engineering, Geology, Hydrogeology, Environmental Science, Environmental Engineering, Geography, Civil Engineering, Sanitation Engineering, Mining Engineering and related fields.</p> <p>Applicants MUST have at least “B” grades at a Bachelor’s degree in courses majoring the degree programme/ specialty applied for. Work experience and knowledge in modelling will be an added advantage.</p>

PhD in Environmental Science and Engineering (MSc EnSE)	iii) Environmental Science iv) Environmental Engineering	<p>Bachelor Degree or postgraduate diploma AND Master degree in Chemistry, Biology, Zoology, Aquatic/Marine Sciences, Chemical Engineering, Environmental Science/Engineering, Food Sciences/Engineering, Biochemical Engineering, Agriculture, Wildlife, Forestry, Mining Engineering, Mineral Processing, Geology, Public health, Ecotourism and Natural Resources Conservation Water Resources Engineering, Microbiology and related fields.</p> <p>In addition to the above, applicants holding Bachelor's degrees majoring in Chemistry or Biology like Bachelor of Education with Chemistry/Biology and Bachelor of Science (Chemistry/Biology) MUST have at least "B" grades in Chemistry, Biology and/or other courses related to Environmental Science/Engineering, Chemical Engineering and related courses.</p>
PhD in Materials Science and Engineering (MSc MaSE)	Material Science and Engineering	<p>Bachelor Degree or postgraduate diploma AND Master degree in Physics, Chemistry, Biology, Mechanical Engineering, Structural Engineering, Mathematics and/or related courses, Mechanical Engineering, Civil Engineering, Chemical Engineering, Computer Engineering, Computer Science, Electrical Engineering, Polymer Engineering, Materials Science and Engineering and related fields.</p> <p>Applicants holding Bachelor's degrees majoring in Chemistry, Physics or Biology, like Bachelor of Education with Chemistry/Biology/Physics and Bachelor of Science (Chemistry/ Biology/ Physics) MUST have at least "B" grades in Chemistry, Biology, Physics courses and/or other courses related to Environmental Sciences/Engineering and Chemical Engineering. Work experience in</p>

		indigenous raw materials application, material structure and failure and nanotechnology will be an added advantage.
PhD in Sustainable Energy Science and Engineering (MSc SESE)	(i) Smart Grid Technology (ii) Sustainable Power Generation and Energy Utilization (iii) Renewable Energy Engineering	Bachelor Degree or postgraduate diploma AND Master degree in Energy Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Chemicals and Processing Engineering; or other Engineering disciplines or natural sciences (Physics and Chemistry) may also be sufficient provided that relevant coursework in Thermodynamics, Basic Engineering, Statics and Dynamics Controls, Heat Transfer, Fluid Dynamics, Energy and Mass Transfer, Reactor Design, Electrochemistry, Semiconductors, Mathematics: with a focus on Numerical Analysis, Vector Calculus Differential Equations, Computer Programming knowledge or related fields were pursued. Applicants MUST have at least “B” grades in Chemistry, Physics, Mathematics, Energy Sciences and/or Mechanical Engineering and related courses in their Bachelor’s degree.

Table 5: Programmes and Specialty Specific Requirements for the school of Business Studies and Humanities (BuSH)

Master’s Degree Programmes	Specialization	Specific Requirements
Master of Science in Innovation and Entrepreneurship Management IEM)	i) Innovation Management ii) Entrepreneurship Management	Bachelor Degree or postgraduate diploma in Business Administration and or Management, Entrepreneurship Management, Innovation Management,

		Natural Science, Engineering, and Technologies or any related area
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PhD Degree Programme	Specialization	Specific Requirements
*Ph.D. in Innovation and Entrepreneurship Management (IEM)	i) Innovation Management ii) Entrepreneurship Management	Bachelor Degree or postgraduate diploma AND Master degree in Business Administration and or Management, Entrepreneurship Management, Innovation Management, Natural Science, Engineering, Technologies and any related area

4.0 English Proficiency

English is the primary language of instruction at NM-AIST. All applicants seeking admission to academic programmes at NM-AIST must possess adequate knowledge of written and spoken English as a prerequisite for admission. This demonstration may take one of the following forms:

- (i) Successful completion of a baccalaureate degree from a recognized university or similar institution of higher learning where English is the language of instruction, OR
- (ii) Successful completion of a postgraduate degree programme at a recognized university or similar institution of higher learning where English is the language of instruction, OR
- (iii) Submission of official results of the:
 - (a) Test of English as a Foreign Language (TOEFL) with a paper-based score of 550 (or higher),
or
 - (b) Computer-based score of 213 (or higher) or
 - (c) Internet-based with a score of 80 (or higher) or
 - (d) English course attended at NM-AIST and score at least B grade.

5.0 Foreign Academic Transcripts and Certificates for Masters and PhD Programmes

- 5.1 All applicants holding foreign qualifications must have their qualifications validated and equated by Tanzania Commission of Universities before submitting their applications for admissions.
- 5.2 Submission to TCU of an official translation of qualification into English (if certificates are in other languages) for verification
- 5.3 During this validation process the applicant will be offered provisional admission letter subject to TCU approval of the certificates. In case the TCU does not approve for any reason, NM-AIST shall not be responsible for disapproval and consequently there shall be no any refunds.

6.0 Application procedures for Masters and PhD Programmes

The application process will be done through NM-AIST online admission system-NOAS (<https://oas.nm-aist.ac.tz:8443/noas/>). Admission office under the Directorate of Academic Affairs shall provide means for assisting applicants with special needs.

7.0 Feedback on the Verdict of the Application

- 7.1 Information on status of the application will be communicated via email. Applicants can track their application status via NM-AIST online admission system (<https://oas.nm-aist.ac.tz:8443/noas/>).
- 7.2 Provisional admission letters can be issued or generated through the NM-AIST admission system whenever needed. However, admission letters will be issued on quarterly basis.
- 7.3 Decision on admission to NM-AIST shall provide special consideration to applicants with special needs who will be identified through NM-AIST online admission system.
- 7.4 Successful (Masters, PhD and Postdoctoral) applicants shall be posted on the NM-AIST website.

8.0 Implementation

These admission criteria have been prepared to be used along with other existing institutional and national documents guiding university admission process in Tanzania.

9.0 Amendment and review

Amendment or review of these admission criteria shall be done from time to time whenever needs arise and shall be approved of the NM-AIST Council. Any criteria missing in this document shall be done by addendum.

APPROVED BY THE COUNCIL

Prof. Maulilio J. Kipanyula
The Vice Chancellor

Date