UNIVERSITY OF SOUTH AFRICA

UNISA is the only publicly funded Institution in South Africa dedicated to distance education. In keeping with its mandate as a comprehensive, open and distance learning tertiary institution offering a variety of academic and career-focused programmes, the University is inviting applications for positions in the **COLLEGE OF SCIENCE ENGINEERING AND TECHNOLOGY.**

To be considered for a position, applicants must meet all the generic requirements <u>plus</u> the specific requirements as stated per position. If found suitable for appointment, Unisa may offer an applicant a position at a level other than the level that was applied for. Furthermore, Unisa reserves the right to offer the applicant a contract appointment.

ACTIVITY:

<u>TEACHING STATEMENT</u>:

<u>All applicants to attach a teaching statement (max 2 000 words) to their application as specified in one of the following options:</u>

<u>**Option A: External applicants and internal applicants (from non-academic positions)**</u> – Describe how you intend to approach teaching and learning by taking into account the information in the policies listed below:
- Unisa's Tuition Policy
- Unisa's Open Distance Learning Policy
- Unisa's Assessment Policy
- Curriculum Policy
- Open Distance Learning (ODL) Pedagogy

The above mentioned Policies of UNISA can be accessed on the web using a search engine. In the event that you cannot trace the ODL Pedagogy policy finalise your teaching statement without it.

<u>**Option B: Internal applicants (from academic positions)**</u> –
Explain your:
- Involvement in, or approach to, Open Distance Learning
- Approach to fostering a learner-centered approach
- Involvement in, or approach to, teaching at either undergraduate or postgraduate level
- Involvement in developing study material as an individual or in a team approach
- The extent to which you have, or would, use an electronic learning platform for teaching
- Your pass success rates in the courses you teach/taught and your plan to increase or maintain these rates
- A peer and student evaluation of your teaching
- Your involvement in and provision of learner support to students

ACTIVITY:

<u>The teaching statement must be supported by a portfolio of evidence which may be requested from short listed candidates at the interview.</u>
<u>Candidates are expected to submit a research reflection or portfolio</u>

ACTIVITY:

<u>APPLICATION FORM FOR A PERMANENT ACADEMIC POST</u>

☞ **The following positions exist in the various departments:**

> **COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY**
>
> **SCHOOL OF ENGINEERING**
>
> **DEPARTMENT OF CIVIL ENGINEERING**
>
> **SCIENCE CAMPUS (FLORIDA)**
>
> **PROFESSOR X1**
>
> **SENIOR LECTURER: STRUCTURAL ENGINEERING X1**
>
> **SENIOR LECTURER: STRUCTURAL/ GEOTECHNICAL ENGINEERING X1**
>
> **LECTURER: STRUCTURAL/ GEOTECHNICAL ENGINEERING X1**

(ACADEMICS)	**CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND**
(NON-ACADEMICS)	**CANDIDATES FROM INDUSTRY**

Full Professor × 1: Civil Engineering *(Ref.01-2024/CSET/Re-Ad5/P-CiE)*

Post specific requirements for Professor:

- A Doctoral Degree in Civil Engineering or equivalent plus experience/track record as a researcher or a professional engineer that warrants the position of Professor, and
- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering or equivalent.
  Eligibility to Register with the Engineering Council of South Africa
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate master's and Doctoral students to completion.

Field of Expertise:

- The candidate must have expertise in at least one of the following research areas:
  Transportation Engineering or Water Engineering or Geotechnical engineering or Construction materials or Structural engineering or Environmental engineering

Recommendations:

- Professional Registration with ECSA
- NRF rating
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in departmental, school, college and University committees including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects

Senior Lecturer ×1: Civil Engineering (Structural/ Geotechnical Engineering) (*Ref.02-2024/CSET/Re-Ad/SL:SGE-CiE*)

Post specific requirements for Senior Lecturer:

- A Doctoral Degree in Civil Engineering or equivalent plus experience/track record as a researcher or a professional engineer that warrants the position of Senior lecturer, and
- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering or equivalent.
- Minimum of 3 years relevant experience in the teaching and curriculum development of Civil Engineering core modules at undergraduate and postgraduate levels at a tertiary institution.
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective appointment date.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters or books in line with the Unisa Research and Innovation Policy at this level

Field of Expertise:
- The candidate must have expertise in Structural/ Geotechnical Engineering.

Recommendations:
- Professional Registration with ECSA
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in community engagement projects

Lecturer (X1): Civil Engineering (Geotechnical or Structural Engineering) (*Ref.03-2024/CSET/Re-Ad/L-CiE***)**
Post specific requirements for Lecturer.
- A Master's Degree in Civil Engineering or equivalent.
- A BSc or BEng in Civil Engineering or a BTech in Civil Engineering or equivalent.
- Eligibility to Register with the Engineering Council of South Africa within two years of the effective appointment date.
- 1 year of teaching/work/relevant experience

Field of Expertise:
- The candidate must have research expertise in Geotechnical Engineering or Structural Engineering.

Recommendations:
- Professional Registration with ECSA
- Experience with reflexive/ODL research
- Participation in departmental, school, college, and University committees, including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects.
- Proof of published research in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level*.*

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING

SCIENCE CAMPUS (FLORIDA)

SENIOR LECTURER X2

(ACADEMICS)   CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND
(NON-ACADEMICS)   CANDIDATES FROM INDUSTRY

Senior Lecturer (X2): Electrical Engineering *(Ref.04-2024/CSET/NEW/SL-EE)*
Post specific requirements for Senior Lecturer:
- A Doctoral degree in Electrical Engineering or equivalent plus experience/track record as a researcher or a professional engineer that warrants the position of Senior Lecturer, and
- A BSc or BEng in Electrical Engineering, or a BTech in Electrical Engineering or equivalent.
- Minimum of 3 years relevant experience in the teaching and curriculum development of Civil Engineering core modules at undergraduate and postgraduate levels at a tertiary institution.
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective appointment date.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters or books in line with the Unisa Research and Innovation Policy at this level

Field of Expertise:
- The candidate must have expertise in at least one of the following research areas: Power systems, Telecommunications, and Control systems, Renewable energy, Artificial intelligence

Recommendations:
- Professional Registration with ECSA
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in community engagement projects.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF ENGINEERING

DEPARTMENT OF MINING ENGINEERING

FLORIDA-SCIENCE CAMPUS (FLORIDA)

ASSOCIATE PROFESSOR X1

(ACADEMICS)	**CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND**
(NON-ACADEMICS)	**CANDIDATES FROM INDUSTRY**

Associate Professor (X1): Mining Engineering *(Ref.05-2024/CSET/Re-Ad5/AP-MiE)*
Post specific requirements Associate Professor.
- A Doctoral degree in Mining Engineering or equivalent plus experience/track record as a researcher for a position of Associate Professor
- A BSc or BEng in Mining Engineering, or a BTech in Mining Engineering
- A proven record of supervision of master's OR Doctoral candidates to completion
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective after the appointment date.
- 4 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters, or books in line with the Unisa Research and Innovation Policy at this level.

Field of Expertise for this position:
- The candidate must have expertise in at least one of the following research areas:
  Rock Engineering, Mine Design and Planning, Mine Mechanisation, Mineral Economics, Geostatistics and Geometallurgy.

Recommendations:
- A Bachelor's degree (NQF7/8) in a discipline closely related to Mining Engineering
- Professional Registration with ECSA or registration in process
- NRF rating or eligibility to apply for rating.
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in departmental, school, college and University committees including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCHOOL OF ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING
SCIENCE CAMPUS (FLORIDA)
SENIOR LECTURER X2
LECTURER X1

(ACADEMICS)   **CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND**
(NON-ACADEMICS)   **CANDIDATES FROM INDUSTRY**

Senior Lecturer x2: Mechanical Engineering *(Ref.06-2024/CSET/NEW/SL-MeE)*

Post specific requirements for Senior Lecturer:

- A Doctoral degree in Mechanical Engineering or equivalent plus experience/track record as a researcher or a professional engineer that warrants the position of Senior Lecturer, and
- A BSc or BEng in Mechanical Engineering, or a BTech in Mechanical Engineering or equivalent.
- Minimum of 3 years relevant experience in the teaching and curriculum development of Civil Engineering core modules at undergraduate and postgraduate levels at a tertiary institution.
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective appointment date.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters or books in line with the Unisa Research and Innovation Policy at this level

Field of Expertise:

- The candidate must have expertise in at least one of the following research areas:
  Solid Mechanics, Mechanical Engineering Design, Computational Modelling, Fluids Mechanics, Mechanics of Machines and Automatic Control.

Recommendations:

- Professional Registration with ECSA
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in community engagement projects.

Lecturer (X1): Mechanical Engineering (*Ref.07-2024/CSET/NEW/L-MeE)*

Post specific requirements for Lecturer.

- A Master's Degree in Mechanical Engineering or equivalent.
- A BSc or BEng in Mechanical Engineering or a BTech in Mechanical Engineering or equivalent.
- Eligibility to Register with the Engineering Council of South Africa within two years of the effective appointment date.
- One year of teaching/work/relevant experience

Field of Expertise:

- The candidate must have expertise in teaching at least two of the following modules: Solid Mechanics, Mechanical Engineering Design, Manufacturing Technology, Fluids Mechanics, Mechanics of Machines, Engineer in Society, Environmental Engineering, and Automatic Control.

Recommendations:

- Professional Registration with ECSA
- Experience with reflexive/ODL research

- Participation in departmental, school, college, and University committees, including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects.
- Proof of published research in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF ENGINEERING

DEPARTMENT OF INDUSTRIAL ENGINEERING

SCIENCE CAMPUS (FLORIDA)

PROFESSOR/ ASSOCIATE PROFESSOR X1

SENIOR LECTURER X2

LECTURER X1

(ACADEMICS)   CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND
(NON-ACADEMICS)   CANDIDATES FROM INDUSTRY

Professor/ Associate Professor (X1): Industrial Engineering *(Ref.08-2024/CSET/Re-Ad1/P.AP-IE)*

Post specific requirements Professor:
- A Doctoral degree in Industrial Engineering or equivalent plus experience/track record as a researcher for a position of Professor
- A BSc or BEng in Industrial Engineering, or a BTech in Industrial Engineering
- A proven record of supervision of Masters AND Doctoral candidates to completion
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective after the appointment date.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.

Field of Expertise:
- The candidate must have expertise in at least one of the following research areas: Systems Engineering, Enterprise Architecture, Design for Manufacture, Material and Process Selection, Operation Research, Quantitative Techniques, Industrial Engineering Design, Industrial Accounting and Engineering Costing

Recommendations:
- Professional Registration with ECSA
- NRF rating or eligibility to apply for rating.
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in departmental, school, college and University committees including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects

Post specific requirements for Associate Professor:
- A Doctoral degree in Industrial Engineering or equivalent plus experience/track record as a researcher for a position of Associate Professor.
- A BSc or BEng in Industrial Engineering, or a BTech in Industrial Engineering
- A proven record of supervision of Masters OR Doctoral candidates to completion

- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective after the appointment date.
- 4 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, or book chapters or books in line with the Unisa Research and Innovation Policy at this level.

Field of Expertise:
- The candidate must have expertise in at least one of the following research areas: Systems Engineering, Enterprise Architecture, Design for Manufacture, Material and Process Selection, Operation Research, Quantitative Techniques, Industrial Engineering Design, Industrial Accounting and Engineering Costing

Recommendations:
- Professional Registration with ECSA or registration in process
- NRF rating or eligibility to apply for rating
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in departmental, school, college and University committees including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects

Senior Lecturer (X2): Industrial Engineering (*Ref.09-2024/CSET/Re-Ad/SL-IE)*

Post specific requirements for Senior Lecturer:
- A Doctoral degree in Industrial Engineering or equivalent plus experience/track record as a researcher or a professional engineer that warrants the position of Senior Lecturer, and
- A BSc or BEng in Industrial Engineering, or a BTech in Industrial Engineering or equivalent.
- Minimum of 3 years relevant experience in the teaching and curriculum development of Civil Engineering core modules at undergraduate and postgraduate levels at a tertiary institution.
- Eligibility to register with the Engineering Council of South Africa as a Professional Engineer or Professional Engineering Technologist within 2 years effective appointment date.
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters or books in line with the Unisa Research and Innovation Policy at this level

Field of Expertise:
- The candidate must have expertise in at least one of the following research areas:
Systems Engineering, Enterprise Architecture, Design for Manufacture, Material and Process Selection, Operation Research, Quantitative Techniques, Industrial Engineering Design, Industrial Accounting and Engineering Costing

Recommendations:
- Professional Registration with ECSA
- Evidence of research grants obtained or applied for
- Experience with reflexive/ODL research
- Participation in community engagement projects.

Lecturer (X1): Industrial Engineering (*Ref.10-2024/CSET/Re-Ad/L-IE)*

Post specific requirements for Lecturer:
- A master's degree in industrial engineering or equivalent.
- A BSc or BEng in Industrial Engineering, or a BTech in Industrial Engineering or equivalent.
- Eligibility to Register with the Engineering Council of South Africa within two years of the effective appointment date.
- One year of teaching/work/relevant experience

Field of Expertise:
- The candidate must have expertise in teaching at least two of the following modules:
  Automation, Enterprise Architecture, Design for Manufacture, Material and Process Selection, Operation Research, Entrepreneurship, Industrial Accounting and Engineering Costing

Recommendations:
- Professional Registration with ECSA
- Experience with reflexive/ODL research
- Participation in departmental, school, college and University committees including workplace committees or task teams and voluntary associations.
- Participation in community engagement projects.
- Proof of published research in peer-reviewed conference proceedings or journals in line with Unisa Research and Innovation Policy at this level.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF SCIENCE

DEPARTMENT OF MATHEMATICAL SCIENCES

FLORIDA-SCIENCE CAMPUS (FLORIDA)

FULL PROFESSOR (P5) X1: PURE MATHEMATICS

FULL PROFESSOR/ ASSOCIATE PROFESSOR (P5/P6) X1: FINANCIAL MATHEMATICS

LECTURER X1: PURE/ APPLIED MATHEMATICS

(ACADEMICS)	CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND
(NON-ACADEMICS)	CANDIDATES FROM INDUSTRY

Professor (X1): Pure Mathematics (*Ref.11-2024/CSET/Re-Ad7/P-Pure)***

Post specific requirements for Professor:
- A Doctorate degree or equivalent in Pure Mathematics or related field.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books or book chapters in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of research Masters and Doctoral students to completion.
- 5 years teaching/work/relevant experience

Field of Expertise for this position:
- The candidate must have expertise in one or more of the following areas: Algebraic Logic, Category Theory, Commutative Algebra, Functional Analysis, Measure Theory, Nonstandard Analysis, Operator Theory, Universal Algebra, Algebraic Topology.

Recommendations:
- Ability to lecture in an online environment.
- An NRF rating or proof of application thereof would be an advantage.
- Participation in community engagement projects
- Active academic citizenship roles
- Proven record of national/international collaborations.

Professor/ Associate Professor (X1): Financial Mathematics (*Ref.12-2024/CSET/Re-Ad6/P.AP-Financial)*

Post specific requirements for Professor:
- A Doctorate degree or equivalent in Financial Mathematics or related field.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books or book chapters in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of research Masters and Doctoral students to completion.
- 5 years teaching/work/relevant experience

Field of Expertise for this position
- A PhD in Financial Mathematics or closely related fields (such as Stochastic calculus, Stochastic partial differential equations Financial Engineering, Actuarial Science, or Quantitative Risk Management).
- The applicant will be expected to teach modules and supervise postgraduate students (MSc and PhD) in Financial Mathematics, in support of the Department's portfolio of transformation and postgraduate programmes in Financial Mathematics. Software Development Skills, i.e., Mathematical Programming in Python, Sage, Matlab, or C++ will be an added advantage.

Recommendations:
- Ability to lecture in an online environment
- An NRF rating or proof of application thereof would be an advantage.

Post specific requirements for Associate Professor:
- A Doctorate degree or equivalent in Financial Mathematics or related field.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books or book chapters in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of research Masters or Doctoral to completion.
- 4 years teaching/work/relevant experience

Field of Expertise for this position
- A PhD in Financial Mathematics or closely related fields (such as Stochastic calculus, Stochastic partial differential equations Financial Engineering, Actuarial Science, or Quantitative Risk Management).
- The applicant will be expected to teach modules and supervise postgraduate students (MSc and PhD) in Financial Mathematics, in support of the Department's portfolio of transformation and postgraduate programmes in Financial Mathematics. Software Development Skills, i.e., Mathematical Programming in Python, Sage, Matlab, or C++ will be an added advantage.

Recommendations:
- Ability to lecture in an online environment
- An NRF rating or proof of application thereof would be an advantage.

Senior Lecturer (X1): Astronomy (*Ref. 13-2024CSET/NEW/SL-Astronomy)*

Post specific requirements for Senior lecturer:
- A Doctoral degree or equivalent in Pure Mathematics plus experience/track record as a researcher for a position of Senior Lecturer
- Proven research profile and consistent publication record in peer-reviewed conference proceedings, journal articles, book chapters or books in line with the Unisa Research and Innovation Policy at this level.
- 3 years teaching/work/relevant experience

Field of Expertise for this position:
- We are interested in hiring a candidate with a research interest, technical skills and experience in radio astronomy and radio interferometry. Some experience in postgraduate supervision will be advantageous.

Recommendations:
- Ability to lecture in an online environment
- Participation in community engagement project

Lecturer (X1): Pure/ Applied Mathematics (*Ref.14-2024/CSET/NEW/L-Pure/Applied)***
Post specific requirements for Lecturer:
- A Master's degree or equivalent in Pure/Applied Mathematics
- One year experience at a tertiary institution
- Registered as a Mathematics/Applied Mathematics PhD student

Recommendations:
- Ability to lecture in an online environment
- Participation in community engagement project

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCHOOL OF SCIENCE
DEPARTMENT OF CHEMISTRY
FLORIDA-SCIENCE CAMPUS (FLORIDA)
SENIOR LECTURER (P7) X1: CHEMISTRY /BIOCHEMISTRY EDUCATION

(ACADEMICS)   **CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND**
(NON-ACADEMICS) C A N D I D A T E S FROM

Senior Lecturer (X1): Chemistry/ Biochemistry Education *(Ref.15-2024/CSET/Re-Ad4/SL-ChEdu)*
Post Requirements for Senior Lecturer:
- PhD degree in Science Education with specialization in Chemistry or cognate field.
- MSc in Chemistry or master's degree in science education with specialization in Chemistry
- BSc Honours in Chemistry or BSc Honours in Science Education with Chemistry **OR**
- BSc Honours in Biochemistry or BSc Honours in Science Education with Life Science
- An extensive experience (minimum of 3 years) in the teaching and curriculum development of Science Education postgraduate levels at a tertiary institution.
- A proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level.
- Record of successful supervision of postgraduate dissertations and/or thesis of MSc and/or PhD students
- Success in securing external research funding.

Field of Expertise:
- A proven track record in the field of Chemistry Education.

Recommendations:
- Experience with teaching in an ODL environment.
- Active academic citizenship roles.
- Proven record of collaborations.
- Experience in multidisciplinary research activities.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
INSTITUTE FOR NANOTECHNOLOGY AND WATER
SUSTAINABILITY
SCIENCE CAMPUS (FLORIDA)
PROFESSOR X1
ASSOCIATE PROFESSOR X1
SENIOR LECTURER X1

The Institute for Nanotechnology and Water Sustainability (iNanoWS) is a research Institute of the College of Science, Engineering and Technology (CSET) that addresses current and emerging issues relating to Water Quality and Water Scarcity. iNanoWS focuses on the development of Nanotechnology enhanced smart materials and their application in Water Treatment and Water Sustainability. iNanoWS has two Research Focus areas namely Nanoscience and Water Sustainability. The Institute is further divided into the following thematic areas; Membrane Science and Technology, Nanostructured Materials, Applied Electrochemistry, the Urban Water Cycle and Water Treatment Technologies, Water and Health and Analytical & Environmental Research.

Professor (X1): Analytical and Environment Research *(Ref.16-2025/CSET/Re-Ad/P-AER)*
Post specific requirements for Professor:
Qualifications:
- Doctorate in Analytical Chemistry, Water Science/Environmental Science or Environmental Engineering or equivalent.

Requirements:
- Candidate must have a proven track record in the field of Analytical and Environmental research with specific expertise on applications to both chemical and microbial emerging pollutants in aquatic systems.
- Proven research track record in ability to handle Analytical Instruments, analytical work covering different type of matrices, with aspects of toxicology and risk assessment.
- 5 years teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate (Masters and Doctoral) students to completion.
- A proven track record of successful mentoring of Postdoctoral Fellows.
- Mentoring of junior staff and the ability to attract external funding in the relevant field of research and collaboration with other researchers, both nationally and internationally.

Recommendation:
- An NRF C rating (or above) will be an added advantage.
- Registration with South African Professional bodies such as SACNASP and ECSA.

Associate Professor (X1): Urban Water Cycle and Water Treatment Technologies *(Ref.17-2024/CSET/Re-Ad3/AP-UWCWTT)*

Post specific requirements for Associate Professor:
Qualifications:
- Doctorate in Chemistry/Water Science/Environmental Science, Environmental Engineering or Equivalent

Requirements:
- Candidate must have a proven track record in the field of the Urban Water Cycle and treatment technologies with expertise in Natural Organic Matter dynamics in drinking water treatment,

emerging micro pollutants research and design of innovative water treatment technologies.

- 4 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the UNISA Research and Innovation Policy at this level
- A proven record of supervision of postgraduate students (master's and Doctoral) to completion or appropriate industry experience will be considered.
- Involvement in industry-based research, engaged scholarship and the ability to attract external funding.

Recommendations:
- Registration South African Professional Bodies such as SACNASP and ECSA.
- A proven track record of successful mentoring of Postdoctoral Fellows.

Senior Lecturer (X1): Urban Water Cycle and Water Treatment Technologies
(Ref.18-2024/CSET/Re-Ad2/SL-UWCWTT)

Post specific requirements for Senior Lecturer:
- Doctorate in Chemistry, Water Science/Environmental Science or Environmental Engineering or equivalent
- Candidate must have a track record in the field of the Urban Water Cycle and treatment technologies with particular expertise in Natural Organic Matter dynamics in drinking water treatment, emerging micro pollutants research and design of innovative water treatment technologies.
- The successful applicant must clearly demonstrate research on incorporation of nanoparticles into support matrices for Removal of Pollutants from water and resource recovery.
- 3 years relevant teaching/work/relevant experience
- Proven research profile and consistent publication record in peer-reviewed conference proceedings or journals in line with the Unisa Research and Innovation Policy at this level.

Recommendation:
- A proven record of supervision of master's students.
- Registration with South African Professional Bodies such as SACNASP

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF ENGINEERING

DEPARTMENT OF STATISTICS

SCIENCE CAMPUS (FLORIDA)

FULL PROFESSIOR/ ASSOCIATE PROFESSOR X1: STATISTICS

(ACADEMICS)	CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND
(NON-ACADEMICS)	CANDIDATES FROM INDUSTRY

Full Professor / Associate Professor ×1: Statistics (*Ref.19-2024/CSET/Re-Ad3/P.AP-STA)*
Post specific requirements for Professor:
- A Doctoral degree in Statistics.
- Candidates should have a strong background in Mathematical Statistics (or Mathematics and Statistics) from their undergraduate and Honours or equivalent degrees.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books or book chapters in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate Masters and Doctoral students to completion.
- Experience of using statistical and mathematical software packages (e.g. SAS, R, SPSS, STATA, Mathematica and Matlab).
- 5 years teaching/work/relevant experience

Field of Expertise for this position
- We are looking for candidates with expertise to teach Mathematical Statistics modules at all levels.

Recommendations

- Specialization in at least one of the following fields will be an advantage: Bayesian Statistics, Spatial Statistics, Data Science.
- Experience to teach in an online environment.
- NRF rating or proof of application for NRF rating.

Post specific requirements for Associate Professor:
- A Doctoral degree in Statistics.
- Candidates should have a strong background in Mathematical Statistics (or Mathematics and Statistics) from their undergraduate and Honours or equivalent degrees.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books or book chapters in line with the Unisa Research and Innovation Policy at this level.
- A proven record of supervision of postgraduate Masters students to completion.
- Experience of using statistical and mathematical software packages (e.g. SAS, R, SPSS, STATA, Mathematical and Matlab).
- 4 years teaching/work/relevant experience

Field of Expertise for this position
- We are looking for candidates with expertise to teach Mathematical Statistics modules at all levels.

Recommendations

- Specialization in at least one of the following fields will be an advantage: Bayesian Statistics, Spatial Statistics, Data Science.
- Experience to teach in an online environment.
- NRF rating or proof of application for NRF rating.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

SCHOOL OF COMPUTING

SCIENCE CAMPUS (FLORIDA)

PROFESSOR/ ASSOCIATE PROFESSOR (P5/P6) X3

ASSOCIATE PROFESSOR (P6) X1

SENIOR LECTURER X1 (P7) X1

(ACADEMICS)	**CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND**
(NON-ACADEMICS)	**CANDIDATES FROM INDUSTRY**

Professor/Associate Professor P5/P6 X3: Computer Science (*Ref.20-2024/CSET/Re-Ad6/P.AP-CS***)**
Post specific requirements for Professor:
- A Doctorate degree or equivalent in Computer Science or related field
- Candidates should hold both an undergraduate degree and higher qualifications in Computer Science or related field.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books, or book chapters in line with the Unisa Research and Innovation Policy at this level

- A proven record of supervision of postgraduate students: Master's and Doctoral students to completion or appropriate industry experience will be considered.
- Research in the field of Computer Science in one or more in these areas, Artificial Intelligence, Machine Learning, Data Science, Theoretical Computer Science, Image Processing, Software Engineering, Natural Language Processing, Security, Scientific Computing, Computer Architecture, Data Science, and Robotics
- Experience in Program Development, Program Review and Program Qualification Mix.
- Experience in leadership including leadership in different committees.
- Record of attracting the external funding
- Experience in participating and leading Engaged Scholarship (Community Engagement)
- 5 years teaching/work/relevant experience

Recommendations:
- NRF Rated
- Experience in teaching in an Open Distance Learning pedagogy.
- Preparedness to advance Open Distance Learning pedagogy.

Post specific requirements for <u>Associate Professor:</u>
- A Doctorate degree or equivalent in Computer Science or related field
- Candidates should hold both an undergraduate degree and higher qualifications in Computer Science or related field.
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books, or book chapters in line with the Unisa Research and Innovation Policy at this level
- A proven record of supervision of postgraduate students: Master's students to completion or appropriate industry experience will be considered.
- Research in the field of Computer Science in one or more in these areas, Artificial Intelligence, Machine Learning, Data Science, Theoretical Computer Science, Image Processing, Software Engineering, Natural Language Processing, Security, Scientific Computing, Computer Architecture, Data Science, and Robotics
- Experience in Program Development, Program Review and Program Qualification Mix.
- Experience in leadership including leadership in different committees.
- Record of attracting the external funding
- Experience in participating and leading Engaged Scholarship (Community Engagement)
- 4 years teaching/work/relevant experience

Recommendations:
- NRF Rated
- Experience in teaching in an Open Distance Learning pedagogy.
- Preparedness to advance Open Distance Learning pedagogy.

Associate Professor (X1): Computer Science *(Ref.21-2024/CSET/Re-Ad4/AP-CS)*
Post specific requirements for <u>Associate Professor:</u>
- A Doctorate degree in Computer Science or equivalent field
- Candidates should hold both an undergraduate degree and higher qualifications in Computer Science
- Proven research profile and consistent publication record in accredited journals, peer-reviewed conference proceedings, books, or book chapters in line with the Unisa Research and Innovation Policy.
- A proven record of supervision of postgraduate Master's students to completion. Or for candidates who have no experience in an academic environment; ability to supervise master's and Doctoral students.
- 4 years teaching/work/relevant experience

Field of Expertise for this position:

- We are looking for candidates with expertise in at least two of the following fields: OO Programming; Parallel Programming; Networks; Theoretical Computer Science; Compiler Construction; Scientific Computing/Bigdata Science; Logic-Based Reasoning/Hardware Programming; Artificial Intelligence; Natural Language Processing; Formal Program Verification; Graphical User Interface Programming; Advanced Internet Programming; Mobile Development; Computer Security.

Recommendations:

- NRF rating or proof of application for NRF rating will be an advantage.
- Have experience in the development of new post graduate modules.
- Candidates research must be aligned with the Departments research interests.

Senior Lecturer (X1): Computer Science (*Ref.22-2024/CSET/Re-Ad/SL-CS)*

Post specific requirements for Senior Lecturer:

- A Doctorate degree in Computer Science or related field
- A Research profile with publications in accredited journals, peer-reviewed conference proceedings, books, or book chapters in line with the Unisa Research and Innovation Policy or appropriate industry experience will be considered.
- Evidence of supervision of Honours and master's students or appropriate industry experience will be considered.
- Research in the field of Computer Science in one or more in these areas, Artificial Intelligence, Machine Learning, Data Science, Theoretical Computer Science, Image Processing, Software Engineering, Natural Language Processing, Security, Scientific Computing, Computer Architecture, Data Science, and Robotics
- Participating in Engaged Scholarship (Community Engagement)
- Experience in participating in different committees in department, school, or external bodies.
- 3 years teaching/work/relevant experience

Recommendations:

- Experience and preparedness to advance Open Distance Learning pedagogy.
- Record of successful application for external funding
- Experience in Program Development, Program Review and Program Qualification Mix.
- Experience in leadership including heading different committees.
- Experience in attracting external funding.

Salary	**:** Remuneration is commensurate with the seniority of the position
Assumption of duty	**:** As soon as possible.
Enquiries	**: 011 670 9081 Mr J Maano**
Closing Date	**: 19 July 2024** *(Email application before close of business at 16:00).*

Your **APPLICATION FORM FOR A PERMANENT ACADEMIC POST** must be accompanied by a COMPREHENSIVE CURRICULUM VITAE and;

- identity document (*including passport, work permit, permanent residence permit or proof of nationalisation if applicable*) (certified copies within the previous six months);
- all educational qualifications (certified copies within the previous six months).
- academic transcripts/records (certified copies within the previous six months);
- proof of SAQA verification for foreign qualifications (*if applicable)* (certified copies within the previous six months)
- **for ACADEMIC POSITIONS** a teaching statement (refer to page 1 of advertisement).
- UNISA reserves the right to authenticate all qualifications without any further consent from the applicant.
- The contact details of three contactable references must be provided, one of which must be from your present employer excluding your current line manager if you are an internal Unisa applicant
- **Late, incomplete and incorrect applications will not be considered**.
- Unisa is not obliged to fill an advertised position
- *Appointments will be made in accordance with Unisa's Employment Equity Plan and other applicable legislation.*

- **We welcome applications from Persons with Disabilities**

ACTIVITY:

- **Applications must be emailed to** CSET2PA@unisa.ac.za
- **If you apply for more than one position, each application must be on a separate email.**
- **Applications emailed to the wrong email address will not be considered.**
- **Late, incomplete and incorrect applications will not be considered.**

All applications should reach UNISA before 16h00 on the closing date.

Correspondence will be limited to short-listed candidates only. If you have not been contacted within two months after closing date of this advertisement, please accept that your application was not successful.