



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 COLLEGE OF SCIENCE ENGINEERING AND TECHNOLOGY**

To be considered for a position applicants must meet all the generic requirements plus 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:



TEACHING STATEMENT:

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

Option A: External applicants and internal applicants (from non academic positions) –

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.

Option B: Internal applicants (from academic positions) –

Explain your:

- Involvement in, or approach to, Open Distance Learning
- Approach to fostering a learner-centred 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

The teaching statement must be supported by a portfolio of evidence which may be requested from short listed candidates at the interview.

ACTIVITY:



APPLICATION FORM FOR A PERMANENT ACADEMIC POST:

ACTIVITY:



FOR MORE INFORMATION ON ACADEMIC POSITIONS (LEVELS) OPEN THE LINK OF THE POSITION YOU WISH TO APPLY FOR:

[POSITION: PROFESSOR](#)

[POSITION: ASSOCIATE PROFESSOR](#)

[POSITION: SENIOR LECTURER](#)

[POSITION: LECTURER](#)

[POSITION: JUNIOR LECTURER](#)

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The following positions exist in the various departments:

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COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCHOOL OF SCIENCE: DEPARTMENT OF MATHEMATICAL SCIENCES
FLORIDA-SCIENCE CAMPUS (FLORIDA)
ASSOCIATE PROFESSOR APPLIED MATHEMATICS X1
ASSOCIATE PROFESSOR PURE MATHEMATICS X1
SENIOR LECTURER X3

ASSOCIATE PROFESSOR: PURE MATHEMATICS (X1 POST)
(Ref: CSET/MATH/600/AP)

Post specific requirements for Associate Professor:

- Qualifications
 - A relevant Doctoral degree in Pure Mathematics.
- Research
 - Proven research profile and consistent publication record in high quality peer-reviewed journals.
 - Proven record of supervision of masters or doctoral candidates to completion.

The following would be an advantage:

- NRF rating or proof of application for NRF rating.
- Experience with teaching in an ODL environment.
- Any objective evidence of student or peer evaluation.
- Any evidence of research grants obtained or applied for.

ASSOCIATE PROFESSOR: APPLIED MATHEMATICS (X1 POST)
(Ref: CSET/MATH- APM/610/AP)

Post specific requirements: Associate Professor

- Qualifications
 - A relevant Doctoral degree in Applied Mathematics.
- Research
 - Proven research profile and consistent publication record in high quality peer-reviewed journals.
 - Proven record of supervision of masters or doctoral candidates to completion.

The following would be an advantage:

- NRF rating or proof of application for NRF rating.
- Experience with teaching in an ODL environment.
- Any objective evidence of student or peer evaluation.
- Any evidence of research grants obtained or applied for.

SENIOR LECTURER: (X3 POSTS)

(Ref: CSET/MATHS/620/SL)

Post specific requirements for Senior Lecturer

- Qualifications
 - A relevant Doctorate in Pure Mathematics or Applied Mathematics or applicable qualification at NQF level 10.
- Research
 - Proven research profile and consistent publication record in high quality peer-reviewed journals.
 - Potential to supervise postgraduate students.

The following would be an advantage:

- NRF rating or proof of application for NRF rating.
- Any experience with teaching in an ODL environment.
- Any evidence of student or peer evaluation.
- Evidence of membership in at least one relevant professional body or learned society.
- Any experience with teaching in an ODL environment.

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCIENCE CAMPUS (FLORIDA)
DEPARTMENT OF CHEMISTRY
SCHOOL OF SCIENCE
X1 LECTURER ANALYTICAL CHEMISTRY**

Ref: CSET/TM/LECT/CHEMISTRY/630/2017)

Post specific requirements for Lecturer

Minimum Requirements:

The required minimum qualification is a M.Sc. degree in Chemistry with specialization in Analytical Chemistry plus proof of registration towards a PhD in Analytical Chemistry. A Ph.D. qualification will be an added advantage. The applicant must have a minimum of two years of experience in teaching chemistry at undergraduate level. Interest in Analytical Chemistry Research is a specific requirement.

Duties:

- Develop and teach undergraduate analytical chemistry courses
- Develop and conduct practicals for undergraduate students
- Develop and teach practical modules for general chemistry students
- Participate in research and community engagement programmes
- Serve in committees within the Department and the College

DEPARTMENT OF MECHANICAL AND INDUSTRIAL ENGINEERING

SCHOOL OF ENGINEERING

SCIENCE CAMPUS (FLORIDA)

X1 ASSOCIATE PROFESSOR / SENIOR LECTURER : INDUSTRIAL ENGINEERING

X1 SENIOR LECTURER/LECTURER : INDUSTRIAL ENGINEERING

X2 TECHNICAL OFFICERS : MECHANICAL ENGINEERING

X1 TECHNICAL OFFICERS : INDUSTRIAL ENGINEERING

FLORIDA (JOHANNESBURG)

Associate Professor / Senior Lecturer (X1): Industrial Engineering

(Ref: CSET/TM/AP/640/-2017)

Post specific requirements for Associate Professor

- Associate Professor: A Doctoral degree in Industrial Engineering or equivalent plus eligibility in terms of qualifications and experience to register with ECSA as a Professional Engineer or a Professional Engineering Technologist (if not already registered) plus track record as a researcher.

Post specific requirements for Senior Lecturer

- Senior Lecturer: A Doctoral degree in Industrial Engineering or equivalent plus eligibility in terms of qualifications and experience to register with ECSA
OR
a Master's degree in Industrial Engineering or equivalent plus registration with ECSA as a Professional Engineer or a Professional Engineering Technologist plus a commitment to register for a Doctoral degree

Field of Expertise for this position

- We are looking for candidates specialised in one of these fields: manufacturing systems, material handling and facility layout design, operations research, supply chain management (mathematical modelling and optimisation).
- Knowledge of CNC programming language and ERP systems will be a bonus.

Recommendation:

- Membership of the South African Institute of Industrial Engineers
- Registration as a Professional Engineering (or Professional Engineering Technologist) with the Engineering Council of South Africa

Senior Lecturer / Lecturer (X1): Industrial Engineering

(Ref: CSET/TM/SL/650/2017)

Post specific requirements for Senior Lecturer

- Senior Lecturer: A Doctoral degree in Industrial Engineering or equivalent plus eligibility in terms of qualifications and experience to register with ECSA

OR

a Master's degree in Industrial Engineering or equivalent plus registration with ECSA as a Professional Engineer or a Professional Engineering Technologist plus a commitment to register for a Doctoral degree

Post specific requirements for Lecturer:

- Lecturer: A Master's degree in Industrial Engineering or equivalent plus eligibility in terms of qualifications and experience to register with ECSA

OR

a Bachelor's degree in Industrial Engineering or equivalent plus registration with ECSA as a Professional Engineer or a Professional Engineering Technologist plus a commitment to register for a Master's degree.

Field of Expertise for this position

- We are looking for candidates specialised in one of these fields: Automation, robotics & mechanisation and logistics
- Knowledge of Engineering Design, CAD/CAM, Rapid Prototyping, CNC programming language and ERP systems will be a bonus

Recommendation:

- Membership of the South African Institute of Industrial Engineers
- Registration as a Professional Engineering (or Professional Engineering Technologist) with the Engineering Council of South Africa

Technical Officer (x1): Industrial Engineering (Ref: CSET/TM/TO/63-2017)

(Ref: CSET/TM/TO/660-2017)

***A skills test may be required**

Post specific requirements for Technical Officer

Qualifications:

- A Bachelor Degree in Industrial Engineering or a National Diploma in Industrial Engineering with ECSA registration as a candidate Professional Technician or Technologist.

Duties:

- Set up experiments for laboratory sessions for National Diploma and BTech: Industrial Engineering.
- Take responsibility for Safety, Health and Environment documentation and procedures.

Recommendations:

- Trade test certificate in welding would be a big plus
- Laboratory/workshop experience in an academic environment is preferred
- Willingness to participate in community engagement project/activities.
- Willingness to enrol for the next level degree.
- Ensure a safe environment for students and staff in laboratories.
- Ability to make a reasonable presentation in topics related to Industrial Engineering practical sessions.

Field of Expertise for this position

- We are looking for candidates specialised in CNC machining and Automation & Control and are able to operate the relevant equipment

Technical Officer (x2): Mechanical Engineering

(Ref: CSET/TM/TO/670-2017)

***A skills test may be required**

Post specific requirements for Technical Officer

Qualifications:

- A Bachelor Degree in Mechanical Engineering or a National Diploma in Mechanical Engineering with ECSA registration as a candidate Professional Technician or Technologist.

Duties:

- Set up experiments for laboratory sessions for National Diploma and BTech: Mechanical Engineering.
- Take responsibility for Safety, Health and Environment documentation and procedures.
- Assist with workshop duties especially for fabrication of research experimental test rigs

Recommendations:

- Trade test certificate in welding would be a big plus
- Laboratory/workshop experience in an academic environment is preferred
- Willingness to participate in community engagement project/activities.
- Willingness to enrol for the next level degree.
- Ensure a safe environment for students and staff in laboratories
- Knowledge of the operations of Optical and Electron Microscopes will be a plus especially ability to prepare samples
- Experience with and willingness to support research activities within the department such as fabrication of test rigs and operation of optical and electron microscopes.
- Ability to make a reasonable presentation in topics related to Mechanical Engineering practical Sessions in at least two of the following fields:
 - Thermodynamics
 - Fluid Mechanics
 - Strength of Materials
 - Mechanics of Machines
 - Material Science / Engineering

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCIENCE CAMPUS (FLORIDA)**

IDEAS (Institute for the Development of Energy for African Sustainability) Is a new Institute at UNISA. Research areas include waste to energy and improving energy sufficiency of processes.

(5 YEAR FIXED TERM CONTRACT)

X2 SENIOR RESEARCHER (FISCHER TROPSCH)

X3 SENIOR RESEACHER (MINERALS PROCESSING)

Senior Researcher (x2) (Fischer Tropsch)

Ref: CSET/TM/SNR/IDEAS/680/2017)

Post specific requirements for Senior Researcher

Qualifications:

- Doctorate in Chemical Engineering or Chemistry or equivalent

Requirement:

- Experience working in Fischer Tropsch Pilot Plants

Recommendations:

- Candidates must have a track record in the field of Fischer Tropsch technology with particular reference to design, construction and operation of plants, catalyst synthesis and testing. This track record should include evidence of publications in international journals.

Senior Research (x3) (Minerals Processing)

Ref: CSET/TM/SNR/IDEAS/690/2017)

Post specific requirements for Senior Researcher

Minimum Qualifications:

- A Doctorate in Chemical Engineering or Extractive Metallurgy or equivalent

Requirement:

- Experience working in Mineral processing operations

Recommendations:

- Candidates must have a track record in the field of Minerals Processing Research with particular reference to improving the efficiency of unit operations and processes. This track record should include evidence of publications in international journals on optimisation of minerals processing processes or operations.

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
SCIENCE CAMPUS (FLORIDA)
DEPARTMENT OF ELECTRICAL AND MINING ENGINEERING
SCHOOL OF ENGINEERING
X1 SENIOR LECTURER/ LECTURER**

Senior Lecturer/Lecturer/ (x1) Electrical Engineering

(Ref: CSET/TM/SOE//TOELECT/670/2017)

Post specific requirements for Senior Lecturer/Lecturer

- Senior Lecturer: A Doctoral degree a NQF level 10 in Engineering or equivalent plus eligibility to register with ECSA or a Master's degree at NQF level 9 in Electrical Engineering or equivalent plus registration with ECSA as a Professional Engineer or a Professional Engineering Technologist plus willingness to register for a Doctoral degree.
- Lecturer: A Master's Degree at NQF level 9 in Electrical Engineering or equivalent plus eligibility in terms of qualifications and experience to register with ECSA, or a Bachelor's degree in Electrical Engineering at NQF level 8 or equivalent plus registration with ECSA as a Professional Engineer or a Professional Engineering Technologist plus willingness to register for a Master's Degree.
- Preference will be given to candidates who have specialised in Power Engineering, High Voltage Engineering, Mechatronics or Alternative Energy.

Recommendation:

- Membership of the South African Institute of Electrical Engineers.

Salary	:	Remuneration is commensurate with the seniority of the position
Assumption of duty	:	As soon as possible
Enquiries	:	Mr TA Masego – 011 670 9237 Mr JM Maano – 011 670 9081
Closing date	:	09 June 2017 <u>Applications to be delivered before close of business at 16:00</u>

- Your [application form](#) 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 posted to Unisa HR: College of Science, Engineering and Technology, NB Pityana Building, Room 1-23, Science Campus, P/Bag X 6, Florida, 1710.
- Hand delivered applications can be deposited into the Application Box (marked COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY) situated at Science Campus: NB Pityana Building, Office 123 , 1st Floor.
- If you apply for more than one position, each application must be in a separate envelope.



- **Applications which are posted in the wrong application box will not be considered.**
- **Applications via email will not be considered.**
- **Late, incomplete and incorrect applications will not be considered.**

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.