



# 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 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-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:**



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

Candidates are expected to submit a research reflection or portfolio

**ACTIVITY:**



## **[APPLICATION FORM FOR A PERMANENT ACADEMIC POST](#)**

**ACTIVITY:**



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

**[POSITION: PROFESSOR](#)**

**[POSITION: ASSOCIATE PROFESSOR](#)**

**[POSITION: SENIOR LECTURER](#)**

**[POSITION: LECTURER](#)**

**[POSITION: JUNIOR LECTURER](#)**



The following positions exist in the various departments:

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
SCHOOL OF SCIENCE  
DEPARTMENT OF CHEMISTRY  
SCIENCE CAMPUS (FLORIDA)  
PROFESSOR/ ASSOCIATE PROFESSOR X1 (P5/P6)

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

**Professor / Associate Professor P5 / P6 (X1)** (Ref. CSET/TA/01-2019)

**Post specific requirements for Professor:**

- The candidate must have at least a Doctorate in the field of Chemistry with expertise in Physical Chemistry in at least one of the following research areas:  
*Kinetics, Thermodynamics, Thermochemistry, Statistical Mechanics, Statistical Thermodynamics, Molecular Spectroscopy, Quantum Chemistry, Computational Chemistry, Surface Chemistry, Biophysical Chemistry, Catalysis, Electrochemistry, Physical Polymer Chemistry, Crystallography and Nanoscience.*
- 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: *Seven accredited research output points over the previous 5 years or five accredited research output points over the previous 3 years.*
- A proven record of supervision of postgraduate master's and Doctoral students to completion.

**Recommendations:**

- NRF rating or proof of application for 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

**Post specific requirements for Associate Professor:**

- The candidate must have at least a Doctorate in the field of Chemistry with expertise in Physical Chemistry in at least one of the following research areas:  
*Kinetics, Thermodynamics, Thermochemistry, Statistical Mechanics, Statistical Thermodynamics, Molecular Spectroscopy, Quantum Chemistry, Computational Chemistry, Surface Chemistry, Biophysical Chemistry, Catalysis, Electrochemistry, Physical Polymer Chemistry, Crystallography and Nanoscience.*
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## Recommendations

- NRF rating or proof of application for 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

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
SCHOOL OF ENGINEERING  
DEPARTMENT OF CIVIL AND CHEMICAL ENGINEERING  
FLORIDA-SCIENCE CAMPUS (FLORIDA)  
FULL PROFESSOR/ ASSOCIATE PROFESSOR X1: CIVIL ENGINEERING  
SENIOR LECTURER/ LECTURER X4 : CIVIL ENGINEERING  
LECTURER/ JUNIOR LECTURER X2: CIVIL ENGINEERING  
LECTURER/ JUNIOR LECTURER X1: CHEMICAL ENGINEERING  
JUNIOR LECTURER X1: CHEMICAL ENGINEERING**

<b>(ACADEMICS)</b>	<b>CANDIDATES WITH A RESEARCH OR ACADEMIC BACKGROUND</b>
<b>(NON-ACADEMICS)</b>	<b>CANDIDATES FROM INDUSTRY</b>

### **Full Professor/ Associate Professor x1: Civil Engineering (Ref. CSET/TA/02-2019)**

#### **Post specific requirements**

- 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/ Associate Professor, and
- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering or equivalent.  
A proven record of supervision of master's or Doctoral candidates to completion  
Eligibility to Register with the Engineering Council of South Africa
- 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

#### **Field of Expertise for this position**

- Structural Engineering

#### **Experience:**

- The candidate must have relevant teaching/work experience in the higher education sector

#### **Recommendations:**

- Membership of the South African Institution of Civil Engineers
- Have an NRF rating
- Experience with teaching in an Open Distance e-Learning environment

### **Senior Lecturer/Lecturer x 4: Civil Engineering (Ref. CSET/TA/03-2019)**

#### **Post specific requirements for Senior Lecturer:**

Requirements for Senior Lecturer:

- A Doctoral degree in Civil Engineering OR a Master's degree in Civil Engineering or equivalent with

professional registration with ECSA as a Professional Engineer or a Professional Engineering Technologist, and

- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering equivalent.  
Eligibility to Register with the Engineering Council of South Africa

**Post specific requirements for Lecturer:**

- A Master's degree in Civil Engineering or equivalent OR a professional registration with ECSA as a Professional Engineer or a Professional Engineering Technologist
- 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

**Field of Expertise for this position**

- Specialization in any of the following areas:  
Geotechnical Engineering, Structural Engineering, Transportation Engineering , Construction Management,

**Experience:**

- The candidate must have relevant teaching/work experience in the higher education sector

**Recommendations:**

- Membership of the South African Institution of Civil Engineers
- Have an NRF rating
- Experience with teaching in an Open Distance e-Learning environment

**Lecturer/Junior Lecturer x2: Civil Engineering (Ref. CSET/TA/04-2019)**

**Post specific requirements for Lecturer:**

- A Master's degree in Civil Engineering OR a professional registration with ECSA as a Professional Engineer or a Professional Engineering Technologist
- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering
- Eligibility to Register with the Engineering Council of South Africa
- A commitment to register for a Doctoral degree
- The candidate must have relevant teaching/work experience in the higher education sector

**Post specific requirements for Junior Lecturer:**

- A BSc or BEng in Civil Engineering, or a BTech in Civil Engineering or equivalent plus a commitment to register for a master's degree.
- Eligibility to Register with the Engineering Council of South Africa

**Field of Expertise for this position**

- Specialization in any of the following areas:  
Environmental Engineering, Urban Engineering, Geotechnical Engineering, Water Engineering, Structural Engineering, Transportation Engineering.

**Recommendations:**

- Membership of the South African Institution of Civil Engineers

**Lecturer/ Junior Lecturer: Chemical Engineering (Ref. CSET/TA/05-2019)**

**Post specific requirements for Lecturer:**

- A Bachelors and master's degree in Chemical Engineering plus a commitment to register for a Doctoral degree OR
- A Bachelor's degree in Chemical Engineering plus registration with ECSA as a Professional Engineer or Engineering Technologist plus a commitment to register for a master's degree.

**Post specific requirements for Junior Lecturer:**

- A BSc or BEng in Chemical Engineering, or a BTech in Chemical Engineering plus a commitment to register for a master's degree.

**Experience:**

- The candidate must have relevant teaching/work experience in the higher education sector

**Recommendations:**

- Membership of the South African Institution of Chemical Engineers

**Junior Lecturer Chemical Engineering (Ref. CSET/TA/06-2019)**

**Post specific requirements for Lecturer:**

- A BSc or BEng in Chemical Engineering, or a BTech in Chemical Engineering plus a commitment to register for a master's degree

**Experience:**

- The candidate must have relevant teaching/work experience in the higher education sector

**Recommendations:**

- Membership of the South African Institution of Chemical Engineers

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
SCHOOL OF COMPUTING  
FLORIDA-SCIENCE CAMPUS (FLORIDA)  
SENIOR LECTURER X1**

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

**Senior Lecturer Computing (P7) x 1: (Ref. CSET/TA/07-2019)**

**Post specific requirements for Senior Lecturer: Computer Science:**

- A Doctorate degree Computer Science or related qualification to the school OR
- A Master's degree in Computer Science, plus a proof of registration for a Doctoral degree in Computer Science with significant progress towards completion.
- 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: five (5) accredited research output points over the previous 5 years or three (3) accredited research output points over the previous 3 years.
- Must have supervised master's candidates to completion.
- Evidence of satisfactory student pass rates (where possible) in the past two years of employment at their

institution

## Recommendations

- Evidence of satisfactory student pass rates (where possible) in the past two years of employment at their institution
- Preference will be made to candidates with base and higher qualifications in Computer Science

## Field of Expertise for this position

- We are looking for candidates who specialise in at least two of these modules: End User Computing; Networks; Big Data Science; OO Programming; Graphical User Interface Programming; Mobile Development ; Python Programming

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
SCHOOL OF SCIENCE  
DEPARTMENT OF MATHEMATICAL SCIENCES  
FLORIDA-SCIENCE CAMPUS (FLORIDA)  
FULL PROFESSOR/ ASSOCIATE PROFESSOR IN ASTRONOMY X1  
FULL PROFESSOR/ ASSOCIATE PROFESSOR/ SENIOR LECTURER IN PURE MATHEMATICS X1  
SENIOR LECTURER/ LECTURER IN OBSERVATIONAL ASTRONOMY X1  
SENIOR LECTURER/ LECTURER IN PURE MATHEMATICS X1**

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

### **Full Professor/ Associate Professor x1: Astronomy** (Ref. CSET/TA/08-2019)

#### **Post specific requirements for Professor:**

- A PhD in a relevant discipline

#### **Specialisation**

Astronomy

### **Full Professor/ Associate Professor/ Senior Lecturer x1: Pure Mathematics** (Ref. CSET/TA/09-2019)

**Post Requirements:** A PhD in a relevant discipline

#### **Specialization**

- A specialization in Graph Theory

### **Senior Lecturer/ Lecturer X 1: Observational Astronomy** (Ref. CSET/TA/10-2019)

#### **Post specific requirements for Lecturer**

MSc in a relevant discipline.

#### **Post specific requirements for Senior Lecturer**

PhD in a relevant discipline.

**Additional Requirements:** The successful candidate will be responsible for the Unisa Observatory on the Muckleneuk Campus. They will be in charge of the 2nd level practical's and will arrange public viewing evenings at

**HOW TO APPLY:** See last page of advertisement

the Observatory. Experience in optical observing is essential, as well as the use of programmes (such as IRAF) for reducing data collected at telescopes.

**Senior Lecturer/ Lecturer x1: Pure Mathematics** (Ref. CSET/TA/11-2019)

**Post specific requirements for Senior Lecturer:**

PhD in a relevant discipline.

**Post specific requirements for Lecturer:**

MSc in a relevant discipline.

**Recommendation**

Specialization in Analysis will be preferred

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY  
SCHOOL OF ENGINEERING  
DEPARTMENT OF ELECTRICAL AND MINING ENGINEERING  
X2 PROFESSOR – ELECTRICAL ENGINEERING**

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

**Professor/ (X2) Electrical Engineering** (Ref. CSET/TA/12-2019)

**Requirements for Professor:**

- A Doctoral degree at NQF Level 10 in Electrical Engineering or equivalent.
- Candidate must be eligible to register professionally with ECSA.
- 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.
- Supervision of master's and Doctoral candidates to completion.

**Recommendation:**

- Proven ability to take leadership in course/curricula design and development.
- Participate in departmental, school, college and University committees including working task teams and voluntary associations.
- Preference will be given to candidates who have specialised in Power Engineering, High Voltage Engineering, Mechatronics or Alternative Energy.

**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 J Maano – 011 670 9081**

**Closing Date : 01 November 2019 (Deliver 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 posted to Unisa HR: College of Science, Engineering and Technology, NB Pityana Building, Room 01-037, 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 01-037, 1<sup>st</sup> 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.**