



SENIOR SCIENTIFIC OFFICER
Department of Computer Science
Faculty of Science

The Department of Computer Science is looking for a Senior Scientific Officer, for appointment as soon as possible, for technical assistance with preparation and support of undergraduate practicals. The successful applicant will report to the Head of Department (or nominee) and will assist the academic staff of the department with practicals and practical assessment. The workplace is a stimulating environment, which will expose the candidate to some of the latest ICT technologies.

The Computer Science Department runs Windows and Linux desktops, and has senior undergraduate laboratories of over 100 workstations.

Requirements:

- A post-graduate degree in Computer Science
- At least 2 years' post-Honours work experience in the computing field, or else a Master's or PhD degree in Computer Science
- Ability to program in a number of computing paradigms, including a modern object-oriented programming language, and the ability to learn new ones
- Ability to work largely unsupervised and to liaise with academics and students as regards computer science practicals

Responsibilities include, but are not restricted to:

- Implementation of software components required for practicals
- Creation of test data sets, databases, etc. required by practicals
- Programming model solutions
- Documenting departmental systems
- Reviewing and updating practical manuals
- Setting up marking scripts on the computer-based marking system for practical work
- Setting up and running practical tests
- Assisting with computer laboratory tutorials and practical queries
- Tutor and teaching assistant training and management
- Scheduling and co-ordination of laboratory use.

The annual remuneration package, including benefits, is between R 355 670 and R418 435.

To apply, please e-mail the below documents in a **single pdf file** to recruitment04@uct.ac.za

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>)
- A letter of motivation
- Curriculum Vitae (CV)

Please ensure the title and reference number are indicated in the subject line.

An application which does not comply with the above requirements will be regarded as incomplete. Only shortlisted candidates will be contacted and may be required to undergo a competency test.

Telephone: 021 650 5405

Website: www.cs.uct.ac.za

Reference: E18321

Closing date: 07 September 2018

UCT is committed to the pursuit of excellence, diversity and redress in achieving its equity targets. Our Employment Equity Policy is available at <http://www.uct.ac.za/downloads/uct.ac.za/about/policies/eepolicy.pdf>.

UCT reserves the right not to appoint



NOTES

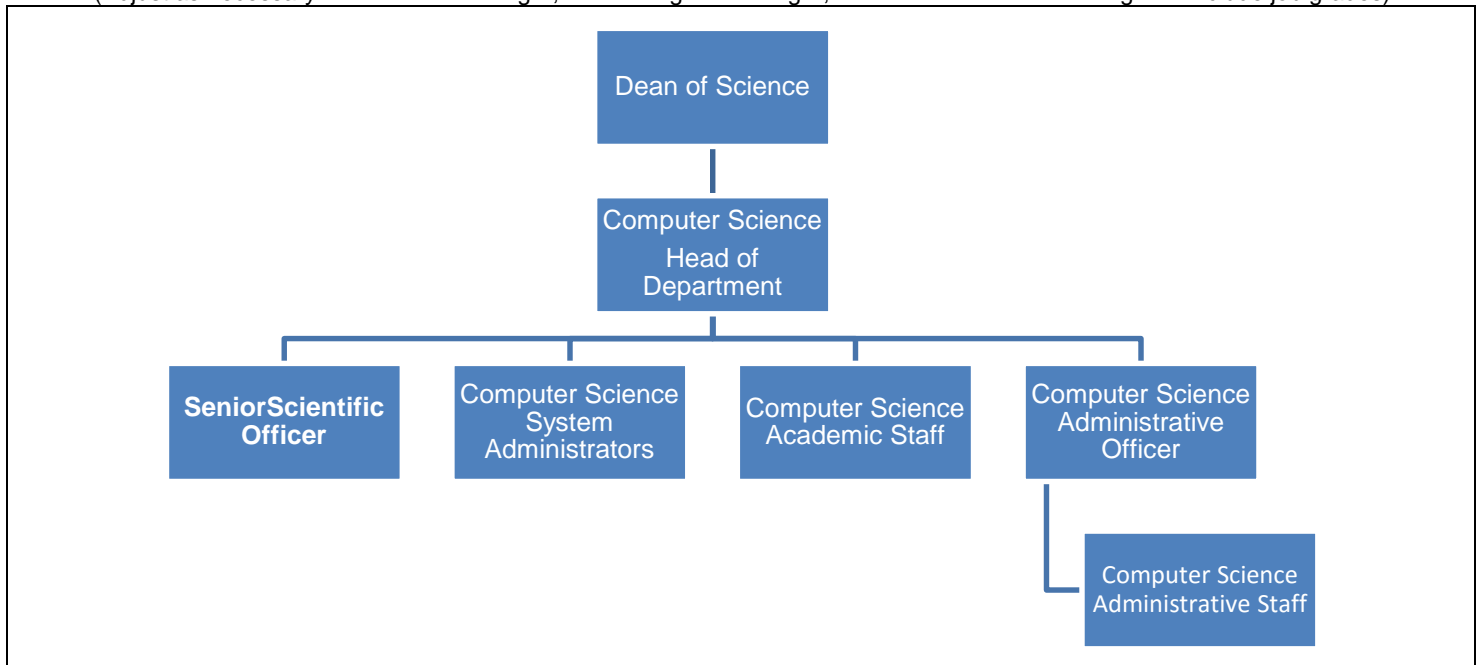
- Forms must be downloaded from the UCT website: <http://www.uct.ac.za/depts/sapweb/forms/forms.htm>
- This form serves as a template for the writing of job descriptions.
- A copy of this form is kept by the line manager and the job holder.

POSITION DETAILS

| | |
|----------------------------------------|-----------------------------|
| Position title | Senior Scientific Officer |
| Job title (HR Practitioner to provide) | |
| Job grade (if known) | PC 9 |
| Academic faculty / PASS department | Science Faculty |
| Academic department / PASS unit | Computer Science Department |
| Division / section | |
| Date of compilation | 11 / 11 / 2013 |

ORGANOGRAM

(Adjust as necessary. Include line manager, line manager's manager, all subordinates and colleagues. Include job grades)



PURPOSE

Computer Science practicals are a critical part of Computer Science qualifications, as a result of which every course has a practical sub-minimum requirement in order to pass the course. The main purpose of this position is to support our academic staff and students with practicals and practical assessments. The Scientific Officer will work closely with the academic staff in ensuring that Computer Science students gain the necessary practical experience expected of computing graduates.

JOB CONTENT

| Key performance areas (4 – 6) (What) | % of time spent | Activities / Objectives / Tasks (How) | Results / Outcomes (Why) | Competencies needed |
|-----------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 Preparation of Practicals | 70% | <ul style="list-style-type: none"> • Implementation of software components required for practicals • Creation of test data sets, databases, etc. required by practicals • Programming model solutions • Configuring and preparing the departmental Automarker system for practicals where appropriate | <ul style="list-style-type: none"> • Practicals unambiguously specified, feasibility confirmed and model solution implemented • Software components and test data or databases created to save staff and student time and ensure consistency of assessment • Automarker able to be used correctly and effectively to give students immediate feedback on incorrect submissions | <ul style="list-style-type: none"> • Post-graduate degree in Computer Science • Ability to program in variety of computing paradigms and ability to learn new ones • Ability to work with different operating systems and computer systems • Sufficiently assertive and with good communication skills as required to liaise with academic staff • Ability to prioritise conflicting demands and negotiate solutions, and to take initiative in planning ahead and ensuring systems are ready and working on time |
| 2 Documenting systems | 5% | <ul style="list-style-type: none"> • Documenting departmental systems • Documenting problems with practicals and their resolution • Reviewing and updating practical manuals e.g. report writing, makefile usage, etc. | <ul style="list-style-type: none"> • Staff and students have documentation of systems and how they must be used • Staff and students have documentation of technical solutions to problems for use when problem recurs | <ul style="list-style-type: none"> • Post-graduate degree in Computer Science • Ability to program in variety of computing paradigms and ability to learn new ones • Ability to work with different operating systems and computer systems • Ability to prioritise conflicting demands |
| 3 Undergraduate Support | 20% | <ul style="list-style-type: none"> • Troubleshooting problems during practicals • Assisting with computer lab tutorials • Detecting and monitoring practical problems and reporting to staff • Answering student queries on practical specifications • Tutor and teaching assistant training and management • Scheduling and co-ordination of laboratory use. | <ul style="list-style-type: none"> • Additional assistance available for students during laboratory tutorials and practicals, thus decreasing the number of students per assistant • Staff timeously informed of any problems with practicals | <ul style="list-style-type: none"> • Post-graduate degree in Computer Science • Ability to program in variety of computing paradigms and ability to learn new ones • Ability to work with different operating systems and computer systems • Good communication skills |

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|---|---------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Practical Assessment Assistance | 5% | <ul style="list-style-type: none"> Configuring and executing plagiarism detection tools and reporting to staff | <ul style="list-style-type: none"> Early and frequent detection of plagiarized code to eliminate copying | <ul style="list-style-type: none"> Post-graduate degree in Computer Science Ability to program in variety of computing paradigms and ability to learn new ones Ability to work with different operating systems and computer systems Ability to prioritise conflicting demands and negotiate solutions, and to take initiative in planning ahead and ensuring systems are ready and working on time |
|---|---------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

MINIMUM REQUIREMENTS

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|-------------------------------------|------------------------------------------------------------------|
| Minimum qualifications | Post-graduate degree in Computer Science |
| Minimum experience (type and years) | At least 2 years post-Honours experience in the computing field. |