

**Research Unit in Bioinformatics (RUBi),  
Rhodes University  
Linux System Administrator**

The Research Unit in Bioinformatics (RUBi; <https://rubi.ru.ac.za>) at Rhodes University, Makhanda, South Africa is seeking a Linux System Administrator. The post is for one-year and renewable to a second year. The salary is R375 000/annum. The position is available from 1 November 2023. Applications and enquiries should be submitted to Prof Özlem Tastan Bishop ([o.tastanbishop@ru.ac.za](mailto:o.tastanbishop@ru.ac.za)). To apply, please e-mail a letter of application stating areas of expertise and a CV including names and contact details of at least two referees.

Only shortlisted candidates will be contacted.  
Closing date for applications: 13 October 2023

***MAIN JOB OBJECTIVES***

Installing, configuring, upgrading, administering, monitoring and maintaining the RUBi cluster operating system software and hardware. Managing and backing up the data in the RUBi clusters as well as transferring and organizing the data from CHPC.

The Research Unit in Bioinformatics (RUBi) makes extensive use of open-source software, and the Unit needs an experienced systems administrator who is capable of integrating, adapting and utilizing this software to meet the Unit's requirements.

Due to the nature of this job, the incumbent will be expected to work outside of normal office hours from time-to-time (e.g. to perform or oversee disruptive upgrades, maintain critical hardware, or manage failures). The incumbent must be willing and able to do this.

<b><i>DESCRIPTION OF KEY RESPONSIBILITY AREAS</i></b>	<b><i>KEY PERFORMANCE INDICATORS</i></b>
<b>SYSTEMS ADMINISTRATION – 40%</b>	<ul style="list-style-type: none"> <li>• Manage day-to-day adds, moves and changes.</li> <li>• Investigate and coordinate the resolution of potential and actual service problems.</li> <li>• Perform and test backups.</li> </ul>
<b>SYSTEMS MANAGEMENT - 20%</b>	<ul style="list-style-type: none"> <li>• Perform routine maintenance of existing infrastructure</li> <li>• Install software updates &amp; security patches.</li> <li>• Install &amp; configure new hardware, services &amp; systems.</li> </ul>
<b>RESEARCH SUPPORT– 40%</b>	<ul style="list-style-type: none"> <li>• Manage large bioinformatics data (store and transfer).</li> <li>• Set up back-ups.</li> </ul>

**JOB REQUIREMENTS**

***EDUCATION AND EXPERIENCE***

A relevant NQF level 6 Diploma (or equivalent) plus approximately 3 years' relevant experience where such experience includes:

- setting up and maintaining Linux Clusters;
- managing bioinformatics data (molecular dynamics);

- establishing back-up system;
- Working understanding of IP networks, network infrastructure & network services;
- Proficiency in one or more programming or scripting languages (particularly Python and/or PHP and/or C++).

## **COMPETENCIES, I.E. KNOWLEDGE, SKILLS AND ATTRIBUTES**

The job incumbent must be able to demonstrate the following competencies: -

### **PROFESSIONAL COMPETENCIES**

- Good algorithmic, analytical & problem-solving abilities, including an ability to retain these skills in high-pressure situations.
- A desire to learn, and an ability to teach oneself, new skills as they are needed.
- In depth knowledge of Linux server operating systems currently in use by RUBi.
- Working understanding of IP networks, network infrastructure & network services.
- Proficiency in one or more programming or scripting languages (particularly Python and/or PHP and/or C++).

In addition, the job incumbent should be able to demonstrate in-depth knowledge of four or more of the following areas or specialisation: -

- Server hardware & software installation;
- Backup systems;
- Directory services (such as eDirectory, Active Directory, LDAP, etc);
- File sharing services & discretionary ACLs;
- Network & service monitoring
- Relational database management systems (such as MySQL, PostgreSQL, MS SQL Server, etc);
- Security, firewalls & intrusion detection;
- Virtual infrastructure (VMware, Xen, etc) ;
- Web servers (such as Apache, nginx).

### **ADMINISTRATIVE SKILLS**

- Sound organisational skills including the ability to cope with and prioritize multiple demands.
- Excellent organisational skills including the ability to plan, prioritise and meet deadlines.
- Sound administrative skills.
- Sound time management skills.

### **PEOPLE AND COMMUNICATION SKILLS**

- Excellent interpersonal skills.
- The ability to communicate both verbally and in writing in English.
- The ability to communicate in other official languages will be an advantage.
- Champions diversity: culturally aware and sensitive, fosters an attitude of appreciating diversity in others.
- High level of self-awareness, is committed to own development.
- Able to gain the trust of others, able to keep confidences.

### **WORK BEHAVIOURS**

- Personal integrity with a keen sense of fairness.
- Commitment to transparent management, being open about decisions taken and mistakes made.
- Strong service orientation with a results focus, a strong sense of accountability.
- High level of professionalism and conduct that will enhance the reputation of the Division.
- Personal flexibility: willing to consider alternative perspectives and ideas.
- Good problem-solving orientation, committed to continuous improvement.
- Collaborative orientation: likes to consult others and get their input on matters.