HR191	**POSITION DESCRIPTION**	UNIVERSITY OF CAPE TOWN IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

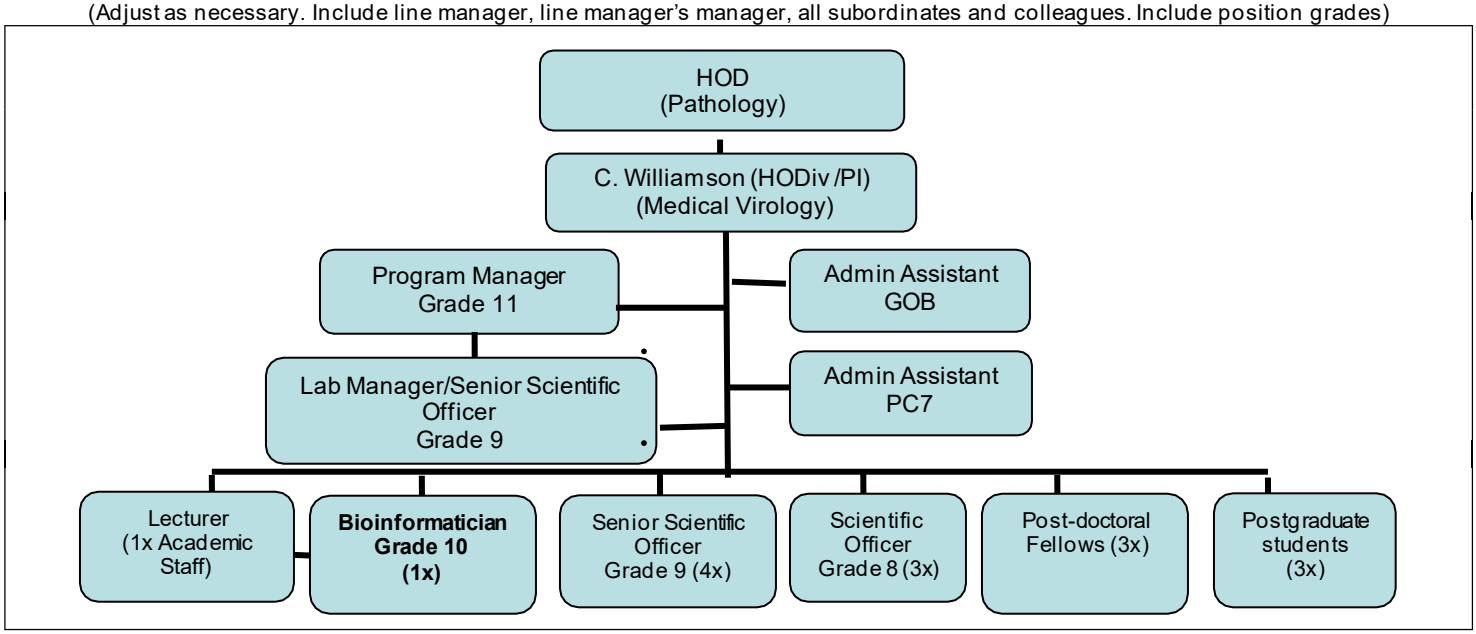
NOTES
- Forms must be downloaded from the UCT website: http://forms.uct.ac.za/forms.htm
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	Bioinformatician		
Job title (HR Business Partner to provide)			
Position grade (if known)	PC10	Date last graded (if known)	
Academic faculty / PASS department	Health Sciences		
Academic department / PASS unit	Pathology		
Division / section	Medical Virology		
Date of compilation	14/12/23		

ORGANOGRAM

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



PURPOSE

main purpose of this position is to provide bioinformatics support, advice and solutions across the group's projects. There are multiple facets to this position which encompasses maintenance and advancement of technical support structures, server admin, data management, participation in project meetings and discussions (internal and external), proposal and iterative advancement of project specific solutions.

This post requires the individual to integrate knowledge of biology with data analysis approaches, contributing to the overall research agenda and publications.

This post is involved in training of staff and students in bioinformatic skills. As both second and third generation sequencing is used frequently in the group, supporting and handling the data produced there, and developing tools to analyse the data, forms a major aspect of the position.

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
E.g.	General and office administration	25%	Takes, types up and distributes minutes and agendas for monthly departmental meeting. Greets visitors, enquires as to the nature of their visit and directs them to the appropriate staff member.	All staff members receive an electronic copy of accurate minutes and agendas, in the departmental template/format, a week before the meeting. Visitors are directed to appropriate staff member in a professional and efficient manner.
1	Training	10	Induction of new staff and students In-house training of staff and students in data management, data analysis and interpretation.	Amount/number of informal and formal training opportunities provided. *Users can* implement tools developed in house, as well as enabling them to develop their own, or use external packages.
2	Maintain tools, pipelines and support structures	25	Maintain support systems for the lab, including (but not limited to), LMS, seq pipelines, code repositories, data storage solutions, software tools (internal and externally developed), documentation, HowTo's and README's, SOP's, etc. Determine and oversee database needs of group	Measure uptime of LMS. Users can access lab tools. Members have access to group data. Tools work efficiently. Problems are resolved timeously Reliable data storage and backup
3	Research	50	Process, manage and quality control sequence data Run analysis pipelines Present results with relevant data visualization Provide general support for data analysis and publications. Interact with users to define their needs Identify new tools and methods which benefit the lab. Development of new tools and pipelines as required. Write research reports	Data analysis support provided Results generated Tools developed work and used. Tools advance project objectives (number and impact) Timely response to requests, and efficient resolution of tasks. SOPs and research reports written
4	Management	5	From time to time, identify and oversee tasks of external and internal consultants.	Effective management of consultants to solve specific problems.
5	Professional Development	10	Presentation at journal club, project meetings and group meetings. Attend and present at meetings as and when availability allows.	Attendance and participation in meetings, and presentation at meetings.

MINIMUM REQUIREMENTS

Minimum qualifications	Honours degree or Masters degree
Minimum experience (type and years)	If Honours qualification, at least 3 years experience in Bioinformatics, Computer Science/Data Science, or Biostatistics including experience in software development, with proficiency in Python and /or R; and experience in Unix-based computing environment If Masters qualification, at least 1 years experience in Bioinformatics, Computer Science/Data Science, or Biostatistics including experience in software development, with proficiency in Python and /or R; and experience in Unix-based computing environment. Minimum 1 year experience working in a Linux/Unix server environment. Experience in working within open source community, research output visualization techniques, relational databases (MySQL), and knowledge of Django web framework.
Skills	- Scripting in different languages and computational structural modeling. - Pipelines - Management of computer infrastructure
Knowledge	- Software development - Ability to work in a Unix-based computing environment - Ability to maintain multiuser linux based server - Ability Processing of complex data - Understanding of quality control, and statistical methods - Ability to visualize data - Teaching and training
Professional registration or license requirements	NA
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Ability to handle cash or finances'.)	Good communication and writing skills Ability to work in a team Good organizational skills Excellent attention to detail

Competencies (Refer to UCT Competency Framework)

Competence	Level	Competence	Level
Student service and support	2	Teamwork / collaboration	2
Analytical thinking / Problem solving	2	University awareness	2
Building interpersonal relationships	2	Research support skills	2
Planning and organizing / work management	2	Communication skills	2

SCOPE OF RESPONSIBILITY

Functions responsible for	• Bioinformatician work. • Maintain computational support systems for the lab
Amount and kind of supervision received	
Amount and kind of supervision exercised	Moderate supervision of junior bioinformatic staff
Decisions which can be made	
Decisions which must be referred	

CONTACTS AND RELATIONSHIPS

Internal to UCT	Finance Department, Procurement Office, ICTS, eResearch, CBIO, HPC, BST
External to UCT	Suppliers, courier service providers