



NOTES

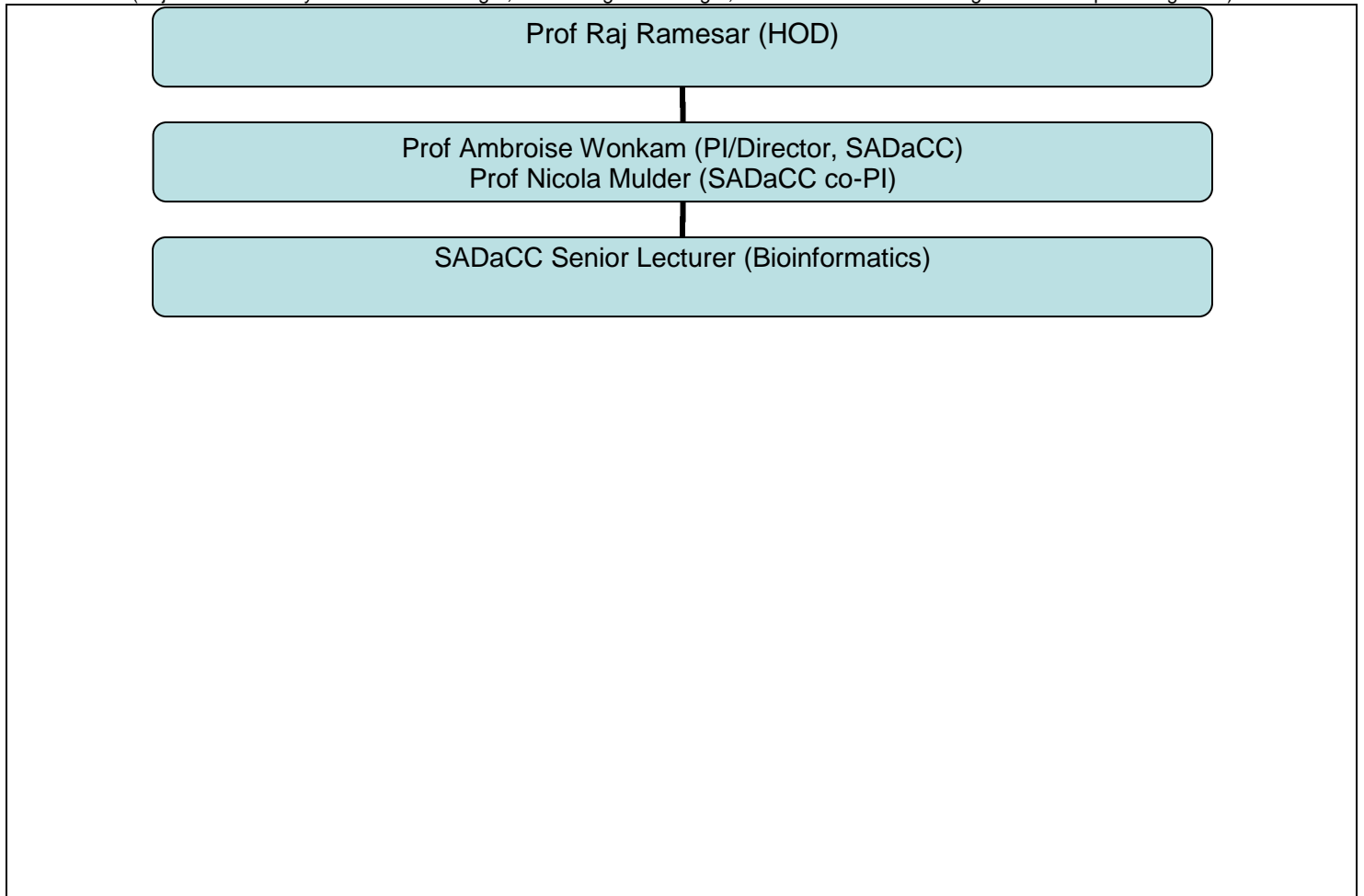
- Forms must be downloaded from the UCT website: <http://forms.uct.ac.za/forms.htm>
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	Senior Lecturer (Bioinformatics)		
Job title (HR Practitioner to provide)	Senior Lecturer		
Position grade (if known)	Senior Lecturer	Date last graded (if known)	
Academic faculty / PASS department	Health Sciences		
Academic department / PASS unit	Pathology		
Division / section	Division of Human Genetics, Sickle Africa Data Coordinating Center		
Date of compilation	06/August/2018		

ORGANOGRAM

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



PURPOSE

The purpose of this position is to develop and teach courses in the informatics field specifically databasing and semantics; to carry out research, to contribute to departmental administration and to supervise postgraduate students. In addition, the Senior Lecturer will be required to collaborate with a SADaCC sister consortium, Sickle Pan-African Research Consortium (SPARCO).

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
E.g.	General and office administration	25%	<p>Takes, types up and distributes minutes and agendas for monthly departmental meeting.</p> <p>Greets visitors, enquires as to the nature of their visit and directs them to the appropriate staff member.</p>	<p>All staff members receive an electronic copy of accurate minutes and agendas, in the departmental template/format, a week before the meeting.</p> <p>Visitors are directed to appropriate staff member in a professional and efficient manner.</p>
1	Student Supervision	20	<ul style="list-style-type: none"> • Conceptualize research projects, lead and train postgraduate students to execute their research projects • Mentoring of postgraduate students to provide one-on-one support for masters' and PhD students; support individual • Select appropriate assessment instruments and criteria, assess the work and progress of students. • Support students in publishing their work in sickle cell disease related work. • Seek ways of improving performance by reflecting on teaching design and delivery and obtaining and analysing feedback. 	<ul style="list-style-type: none"> • Students publish their work in peer reviewed journals • Student graduate within allocated time-frame • New curricular is developed
2	Teaching and Training	20	<ul style="list-style-type: none"> • Develop and coordinate didactic and web-based teaching and learning resources in for students in the Human genetics department and those affiliated to SADaCC in the Bioinformatics area • Develop implement curricular in Bioinformatics, Data Management and Semantics • Teach undergraduate, postgraduate and professional development courses 	<ul style="list-style-type: none"> • Workshops are conducted • Improved knowledge and skills in data management and application of semantics
3	Research	30	<ul style="list-style-type: none"> • Create conceptualize, lead and execute research projects related to Sickle Cell Disease, Bioinformatics • Create Hemoglobinopathy Database using MySQL and REDCap and formulate projects around this • Create a system to import data from the SPARCo sites into the SADaCC Hemoglobinopathy Database • Provide development support to the curators • Maintain Github site and web-presence for the SCDO to facilitate research • Develop computational methods that make use of big data and retrospective data in Sickle Cell Disease and use these for research purposes 	<ul style="list-style-type: none"> • Peer-reviewed publications • Databases that serve the needs of the consortium • Extraction of data from database for annual reports to be submitted to the funder • Software and tools available publicly and described in peer-reviewed publications

4	Leadership, management and administration	20	<ul style="list-style-type: none"> • Perform administrative functions at Divisional, Department, Faculty, University level, and Consortium level related to teaching and research projects (convene courses, manage research teams, manage funding for research monitor operational expenses, write progress reports etc). • Manage a team of developers within SADACC 	<ul style="list-style-type: none"> • To share responsibility and contribute to smooth functioning of the Division and the SADaCC Consortium
5	Social Responsiveness	10	<ul style="list-style-type: none"> • Communicate research finds in order to increase public awareness of research relevance 	<ul style="list-style-type: none"> • Participation and involvement at national and international societies, forums and conferences

MINIMUM REQUIREMENTS

Minimum qualifications	<ul style="list-style-type: none"> • PhD in Bioinformatics 					
Minimum experience (type and years)	<ul style="list-style-type: none"> • PhD in Bioinformatics; • A proven track record in peer-reviewed research publications in bioinformatics, semantics and specifically biological ontologies; • Proficiency in programming languages applicable to scalable data analysis; • Substantial experience working with Sickle Cell Disease data; • Proficiency in software and database development specifically MySQL; • Experience in course development and course convening; • Demonstrable experience in teaching, training and supervision of postgraduate students; • Willingness to travel and teach in Africa. <p>Advantageous:</p> <ul style="list-style-type: none"> • Postgraduate qualification in mathematics or computer science; • Experience in managing a team of developers; • Knowledge of statistics. • 					
Skills	<ul style="list-style-type: none"> • Teaching • Programming • Supervision of students • Work in a collaborative environment 					
Knowledge	<ul style="list-style-type: none"> • Ontologies and Semantics • Mathematics • Data-basing 					
Professional registration or license requirements	NA					
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Honesty to handle cash or finances'.)	Ability to work in a team					
Competencies (Refer to UCT Competency Framework)	Competence		Level	Competence		Level
	Teaching		2	Planning and organizing		2
	Research support skills		2	Analytical thinking / Problem solving		2
	Teamwork/ collaboration		2			
	Professional knowledge and skill		2			

SCOPE OF RESPONSIBILITY

Functions responsible for	Teaching, Research, Supervision of Students, Leadership and Management
Amount and kind of supervision received	Minimal
Amount and kind of supervision exercised	Supervision mainly of research, staff and deliverables funder requirements on projects
Decisions which can be made	Research direction related (within the scope of the grant). Student supervision. Modules to be taught
Decisions which must be referred	Staff hiring

CONTACTS AND RELATIONSHIPS

Internal to UCT	Division of Human Genetics, Sickle Africa Data Coordinating Center staff and students
External to UCT	Data Management Team from Sickle Pan-African Research Consortium