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

NOTES

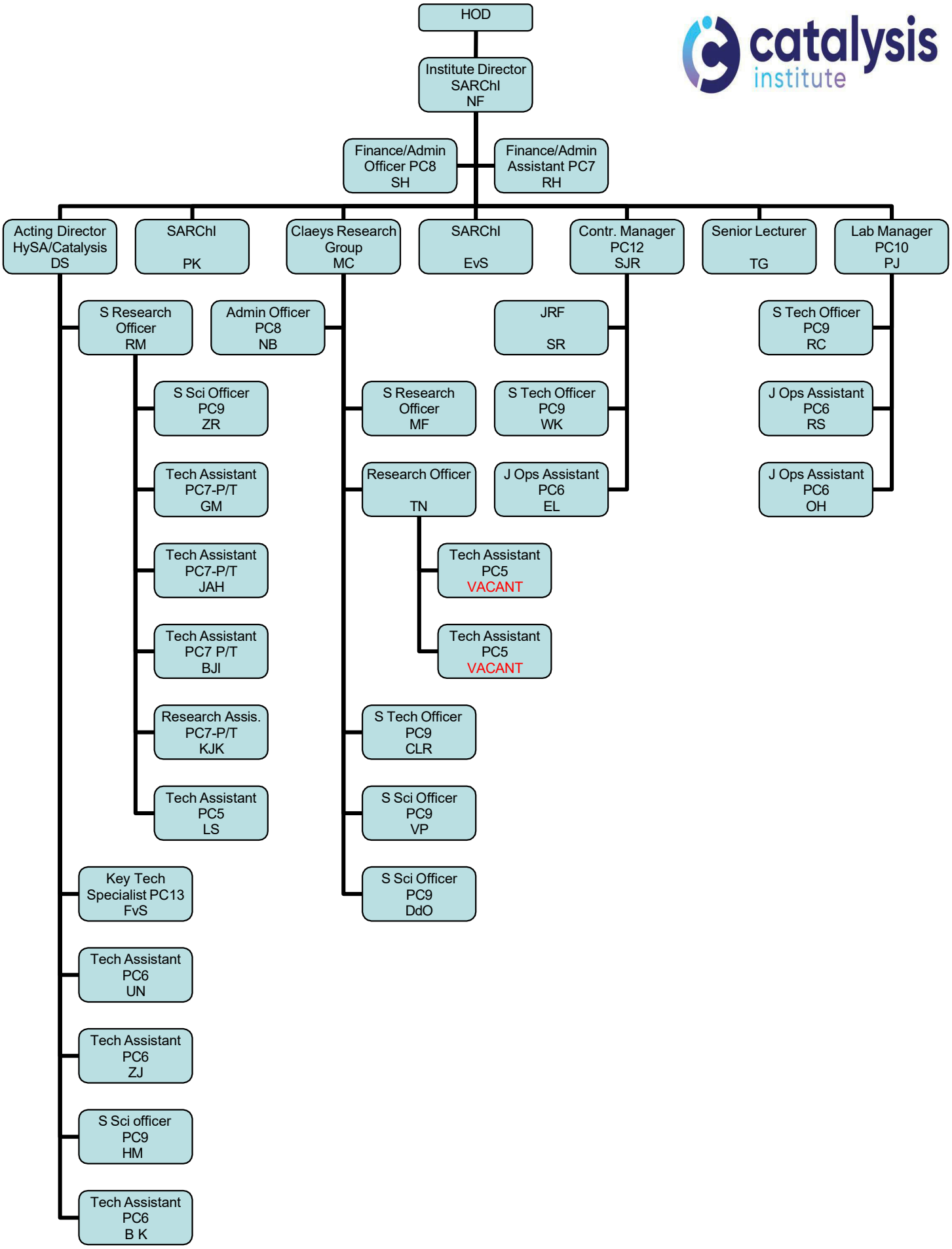
- Forms must be downloaded from the UCT website: https://forms.uct.ac.za/forms.htm
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	TECHNICAL ASSISTANT X 2 (Research Support/Operator)		
Job title (HR Business Partner to provide)			
Position grade (if known)	PC05	Date last graded (if known)	
Academic faculty / PASS department	Engineering and the Built Environment		
Academic department / PASS unit	Chemical Engineering		
Division / section	Catalysis Institute – Claeys Research Group		
Date of compilation	27 June 2025		

ORGANOGRAM

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


HOD
Institute Director SARChI NF
Finance/Admin Officer PC8 SH
Finance/Admin Assistant PC7 RH
Acting Director HySA/Catalysis DS
SARChI PK
Claeys Research Group MC
SARChI EvS
Contr. Manager PC12 SJR
Senior Lecturer TG
Lab Manager PC10 PJ
S Research Officer RM
Admin Officer PC8 NB
JRF SR
S Tech Officer PC9 RC
S Sci Officer PC9 ZR
S Research Officer MF
S Tech Officer PC9 WK
J Ops Assistant PC6 RS
Tech Assistant PC7-P/T GM
Research Officer TN
J Ops Assistant PC6 EL
J Ops Assistant PC6 OH
Tech Assistant PC7-P/T JAH
Tech Assistant PC5 VACANT
Tech Assistant PC7 P/T BJI
Tech Assistant PC5 VACANT
Research Assis. PC7-P/T KJK
S Tech Officer PC9 CLR
Tech Assistant PC5 LS
S Sci Officer PC9 VP
Key Tech Specialist PC13 FvS
S Sci Officer PC9 DdO
Tech Assistant PC6 UN
Tech Assistant PC6 ZJ
S Sci officer PC9 HM
Tech Assistant PC6 B K

PURPOSE

The main purpose of this position is to assist the Research Officer, Postdoctoral Fellows, and Postgraduate Students within the Claeys Research Group and to perform duties as deemed necessary by the Research Officer

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
1	Catalyst synthesis and characterization	50%	1. Routinely synthesize catalysts and support materials containing various metals using industrially relevant methods that allow scalability. 2. Characterize/analyze catalysts using instruments that are housed in the Chemical Engineering department (*i.e.*, at the Catalysis Institute and Analytical Lab)	1. Catalysts that are reproducible at different mass scales. 2. Catalyst compositions that are always verified using in-house analytical instruments. 3. Reporting any synthesis- or analysis-related issues to the Research Officer.
2	Construction and packing of reactors and preparation of glass ampoules	35%	Bi- weekly assist with the construction and packing of stainless-steel tube reactors and preparation of glass ampoules for gas sampling.	Constant availability of reactors and glass ampoules for the Research Officer and Postgraduate students.
3	Basic operation of single and multi-tubular test stations	10%	In cases where the Research Officer responsible, or Postdoctoral Fellows, or Postgraduate students are temporarily unavailable, the Research Assistant should be able to: 1. Operate the gas flow controllers, temperature controllers, and water chiller that are part of the high throughput system. 2. Detect (but not troubleshoot) errors on the computer that automates the gas product analysis.	Uninterrupted operation of the single and multi-tubular test stations. Reporting of any issues on the systems to the Research Officer.
4	Basic laboratory housekeeping	5%	The Research Assistant should ensure that all the lab spaces they occupy and equipment they use are always kept clean; in addition to complying with of all the relevant Health and Safety procedures and protocols.	Clean and presentable lab workspaces and equipment.

MINIMUM REQUIREMENTS

Minimum qualifications	Advanced Diploma in (Analytical) Chemistry, Chemical Engineering, Materials Science
Minimum experience (type and years)	Minimum 3 years in a laboratory or research environment (catalysis research environment would be advantageous)
Skills	Catalyst (powder) synthesis, analytical techniques (*e.g.*, XRD, ICP, BET, TPR, GC), record-keeping, organizational, interpersonal, individual and team work, communication
Knowledge	Inorganic chemistry, analytical chemistry, catalysis knowledge would be advantageous
Professional registration or license requirements	n/a
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Ability to handle cash or finances'.)	n/a

Competencies (Refer to UCT Competency Framework)

Competence	Level	Competence	Level
Communication	1	Quality commitment/ work standards	1
Planning and organizing/work management	1	Building interpersonal relationships	1
Teamwork/collaboration	1	Client/student service and support	1
Analytical	1	Research support skills	1

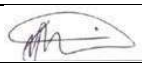
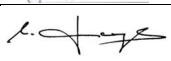
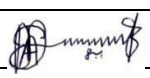
SCOPE OF RESPONSIBILITY

Functions responsible for	Provision of well synthesized and characterized supported metal catalysts. To provide well-constructed and packed tube reactors and glass ampoules for gas sampling.
Amount and kind of supervision received	The daily/weekly tasks of the Technical Assistant will be determined by the Research Officer, who will provide medium supervision thereafter.
Amount and kind of supervision exercised	Looking after the experiments and analyses being carried out. In cases where a third party performs the analysis on behalf of the Technical Assistant (e.g., in the Analytical Lab), the Technical Assistant should be able to relay specific instructions for the analysis.
Decisions which can be made	n/a
Decisions which must be referred	All decisions regarding synthesis, characterization, as well as the construction of reactors and glass ampoules will be made by the Research Officer.

CONTACTS AND RELATIONSHIPS

Internal to UCT	Research Officer under the CoalCO2-X project, as well as researchers, postgraduate students, and technical and administrative staff that are within the Catalysis Institute and Analytical Lab.
External to UCT	n/a

AGREED BY

	PRINT NAME	SIGNATURE	CONTACT NO.	DATE
Position Holder	VACANT X 2			
Direct Line Manager/~~Supervisor~~	Dr Thulani Nyathi		X 5760	21.08.2025
Area Line Manager	Prof. Michael Claeys		X 4440	21.08.2025
HOD	Prof. Niyi Isafiade			
Dean / ED	Prof. Aubrey Mainza			28-08-2025
HR Business Partner	Nurunisa Hendricks			