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

NOTES

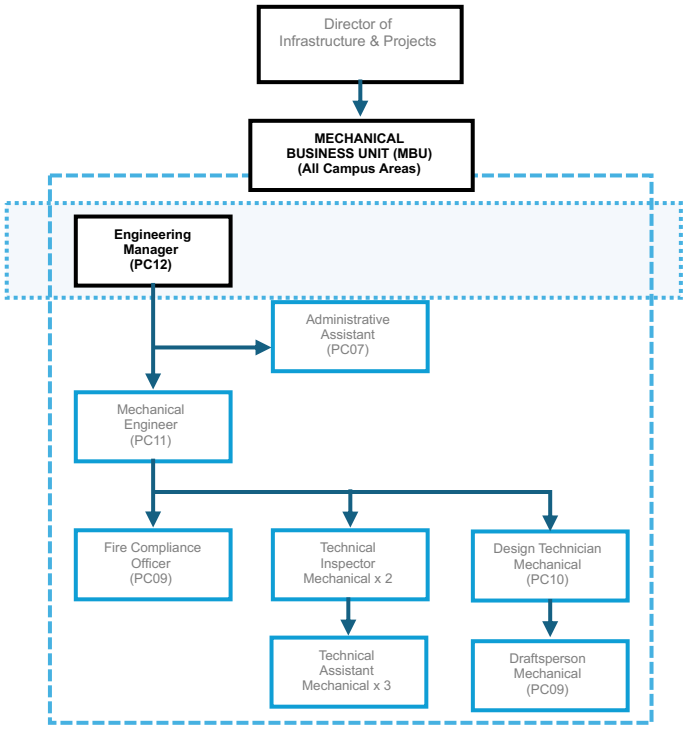
- Forms must be downloaded from the UCT website: http://forms.uct.ac.za/forms.htm
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	**Engineering Manager - Mechanical**		
Job title (HR Business Partner to provide)			
Position grade (if known)		Date last graded (if known)	
Academic faculty / PASS department	Properties and Services		
Academic department / PASS unit	Maintenance and Operations		
Division / section	Mechanical Business Unit		
Date of compilation			

ORGANOGRAM

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



PURPOSE

The main purpose of this position is:

The Engineering Manager: Mechanical will establish and lead the Mechanical Business Unit, overseeing all mechanical systems across the university campuses. The role ensures reliable operation, statutory compliance, and energy-efficient performance of HVAC systems, service water heating (heat pumps, boilers), gas reticulation, fire safety systems (detection, PA systems, sprinklers, fire curtains, portable devices), lifts and elevators, pumps and motors, and specialized faculty-procured equipment. The unit is responsible for managing corrective, planned, and preventative maintenance as well as coordinating all minor and major mechanical projects.

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
1	Leadership & Management of the Mechanical Business Unit	20%	Lead and manage all staff within the unit (engineers, inspectors, technicians, draftspersons).	Annual staff performance appraisals completed 100% on time.
			Implement staff performance management, mentoring, and development plans.	At least 2 staff development/training interventions per team member per year.
			Develop and monitor budgets for operations and capital expenditure.	Unit budget variance maintained within ±5% of approved allocation.
			Establish policies, procedures, and reporting frameworks.	Monthly and annual reports submitted 100% within institutional deadlines.
2	Mechanical Infrastructure Operations & Maintenance	20%	Develop and oversee preventative, planned, and corrective maintenance schedules.	Preventative maintenance schedule achieved at ≥90% completion annually.
			Manage all mechanical systems including HVAC, boilers, pumps, lifts, fire systems, and utilities.	Unplanned downtime on all mechanical systems reduced to <2% of annual operating hours.
			Implement asset lifecycle management processes.	Asset register maintained with 100% of critical assets captured and condition-rated annually.
			Track and report downtime and reliability indicators	≤ 10% repeat failures on critical equipment.
3	Compliance and Risk Management	15%	Conduct statutory inspections, audits, and risk assessments.	100% compliance with statutory inspection requirements
			Maintain compliance documentation and safety files.	All compliance audits completed on schedule (minimum 2 internal audits per year)
			Ensure designs, operations, and maintenance comply with OHS Act, SANS, ASHRAE, NFPA, and other standards.	All safety incidents reported and investigated within 48 hours.
			Report and investigate mechanical incidents.	Zero regulatory fines or penalties incurred.
4	Mechanical Design and Project Coordination	15%	Review and approve all mechanical design drawings for projects.	100% of project mechanical designs reviewed and approved by the unit before implementation.
			Coordinate with consultants and contractors to ensure compliance and integration.	Design review turnaround time ≤15 working days from submission.
			Provide technical expertise and enforce quality standards.	Less than 5% of projects requiring redesign/rework due to non-compliance with mechanical standards.
			Ensure institutional operational requirements are built into designs.	All major projects achieve compliance sign-off before commissioning.
5	Utilities and Energy Efficiency Management	15%	Monitor mechanical energy consumption (heating, cooling, hot water, compressed air)	≥ 3% annual reduction in mechanical energy consumption

			Implement demand side management and energy efficiency initiatives.	Monthly utility reports submitted 100% on time with accurate cost/consumption tracking.
			Report on utility performance and costs.	Energy efficiency projects implemented with minimum ROI of 10% annually.
			Identify cost-reduction opportunities of mechanical systems.	Electrical utility billing variances resolved within 1 billing cycle.
6	Specialized Equipment & Fire Safety Systems Coordination	15%	Coordinate with faculties on the technical review, procurement, and installation of specialized research and teaching equipment requiring mechanical support (e.g., lab HVAC, fume cupboards, autoclaves, compressed air, clean rooms).	100% of specialized equipment recorded in IWMS asset register with updated lifecycle plans.
			Manage design, installation, and maintenance of fire detection, alarm, and public address systems and Oversee sprinkler systems, hydrants, hose reels, fire curtains, gaseous suppression, and portable fire-fighting equipment.	100% of fire systems tested, inspected, and certified annually.
			Manage statutory inspections, testing, and certification of lifts and escalators and Ensure uptime and reliability through preventative maintenance programs.	≥ 95% uptime of lifts and escalators. 100% of lifts certified and inspected per regulatory requirements.
			Conduct regular risk assessments of critical mechanical and fire systems. Integrate systems into campus-wide safety management platforms.	100% compliance with OHS Act, SANS 10400-T, NFPA codes for fire and life safety. 100% of identified risks documented and mitigation measures implemented within 3 months.
			Manage contractors, suppliers, and OEMs for C&I projects and maintenance.	100% Vendor compliance rate with SLAs, projects and regulatory requirements.
7	P&S Values and Culture	100%	Integrate the P&S values (Respect, Trust, Teamwork, Accountability and Responsiveness) in every decision, execution, and interaction.	Awareness of how values impact everything we do and actively/visibly incorporating in daily operations as well as meeting strategic objectives. Be a change agent.
			Promote and positively participate in building the P&S culture.	
			Ensure that the P&S values are lived and enhance productive and collegial relationships within the team, departments and external stakeholders.	
			Act with care and professional integrity in everything we do.	

MINIMUM REQUIREMENTS

Minimum qualifications	Bachelor's Degree in Mechanical Engineering (B.Eng or BSc Eng) (NQF Level 8)
Minimum experience (type and years)	Professional mechanical engineer with at least 10 years' relevant experience in mechanical engineering, including operations, maintenance, and project design. Proven leadership and management experience in directing multi-disciplinary teams. Strong knowledge of HVAC systems, service water heating (boilers, heat pumps), fire protection and life safety systems, lifts and elevators, gas installations, pumps, and specialized mechanical equipment. Familiarity with mechanical and fire safety codes, SANS standards, ASHRAE, NFPA, EN regulations, and OHS Act legislation.
Skills	• Adaptability • Administrative knowledge and skill • Organizational Skills • Communication Skills (Written and Verbal) • Computer literacy • Interpersonal Skills • Teamwork • Safety awareness, • Stress tolerance
Knowledge	• Autodesk AutoCAD and Revit (for design drawing reviews, as-built updates, and project integration). • CMMS modules (linked to Archibus) for preventative and corrective maintenance scheduling. • Building Management Systems (BMS) and integration with SCADA platforms for HVAC, fire detection, and vertical transportation systems • HVAC Design & Analysis Software • Standards and Codes **-** National: SANS 10400 (Building Regulations – Fire Protection), SANS 347 (Pressure Equipment), OHS Act, SANS 10139 (Fire Detection), SANS 10287 (Boilers), SANS 10252/3 (Water Services), Gas Regulations, Lift Regulations.
Professional registration or license requirements	Pr.Eng (ECSA)
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Ability to handle cash or finances'.)	• Honesty and integrity. • Professionalism • Team player • Medically fit

Competencies (Refer to UCT Competency Framework)	Competence	Level	Competence	Level
	Analytical thinking / Problem solving	3	Resource management	3
	Individual Leadership	3	Client/student service and support	3
	Planning and organizing / work management	3	Quality commitment / work standards	3
	Professional knowledge and skill	3	University awareness	3

SCOPE OF RESPONSIBILITY

Functions responsible for	Corrective maintenance, preventative and planned maintenance, liaison and monitoring, inspections and audits and general supports for all electrical, control and instrumentation activities..
Amount and kind of supervision received	Limited supervision and expected to use own initiative to get tasks requested done or know when to revert with a query.
Amount and kind of supervision exercised	Full supervision of mechanical business unit team members and contractor performance
Decisions which can be made	Decisions pertaining to own and business unit job and workflows. Decisions regarding management, processes and systems to support the electrical business unit objectives.
Decisions which must be referred	Decisions relating to escalated queries and program decisions. All departmental type of decisions which require P&S executive to apply their discretion and decision-making authority.

CONTACTS AND RELATIONSHIPS

Internal to UCT	Maintenance and projects business units and team members. Staff within the Properties and Services Department and the broader UCT community.	
External to UCT	Vendors, Suppliers and other external stakeholders.	