

JOB TITLE	Senior Instrumentation Scientist	GRADE	SL
POSITION CODE	10001474	OFO CODE	
FACULTY	Pharmacy	INCUMBENT	
SUPERVISOR/MANAGER	Head of Department	JOB TYPE (ACADEMIC/SUPPORT)	Academic
PERMANENT OR CONTRACT (IF CONTRACT – LENGTH OF CONTRACT)	Permanent	FULL-TIME OR PART-TIME (IF PART-TIME HOW MANY HOURS PER DAY)	Full-time
COUNCIL FUNDED POST OR OUTSIDE FUNDED	Council	DATE APPROVED	06 November 2023 (The Dean and HR Director)

MAIN JOB OBJECTIVE/S	
<p>To support the research and teaching of the Faculty of Pharmacy through the management, maintenance and use of complex analytical instruments or instrument clusters including related auxiliary equipment. A secondary but related purpose is also to further research in the Faculty through the teaching, training and supervision of post-graduate students and other instrument users, and through own research. The Instrument Scientist manages the teaching and research equipment in all laboratories in the Faculty. During term time, the Instrument Scientist may support teaching sessions in laboratories. The role holder will be expected to work closely with the technicians to contribute to maintaining the relevant work areas used for practical teaching, specifically when it comes to storage of instruments and equipment.</p>	
DESCRIPTION OF KEY RESPONSIBILITY AREAS	KEY PERFORMANCE INDICATORS
<p>RESEARCH AND SCIENTIFIC RESPONSIBILITIES - 40%</p>	<ul style="list-style-type: none"> • Active involvement in collaborative research within the Faculty and with external scientists. • Assist with postgraduate student research related to laboratory utilization. • Contribution of data and expertise to the publication of results. • Representation of the Faculty at national and international conferences. • Research in the technical and technological improvement of the analytical methods as a primary researcher and attraction of research funding for such research, as far as the obligations related to laboratory management permits.
<p>TECHNICAL RESPONSIBILITIES - 25%</p>	<ul style="list-style-type: none"> • All responsibilities are undertaken following CGMP. • Careful instrument calibration ensuring that the highest possible data quality may be realized. • Review service assignments with research staff, procure materials and parts, schedule service and calibration time with staff and perform assigned work. • Write qualification protocols and final reports. • Write calibration and preventive maintenance Procedures.

	<ul style="list-style-type: none"> ● Routine and preventative maintenance of equipment/instrument, such as UV, HPLC, DSC, TGA, IR, Zetasizer, and GC, instruments and water systems, rotavaps etc. ● Monitoring of the physical laboratory environment and provision of stable high-quality laboratory conditions. ● Day-to-day operation and monitoring of instruments and auxiliary equipment. ● Security, health, and safety matters pertaining to laboratories. ● Ensure the maintenance of the Faculty of Pharmacy laboratory equipment inventory, the technical library and the Quality Assurance services history records for calibration, preventive repairs, upgrades, safety inspections/evaluations, service manuals, failure analysis, hazard notices, and remedial actions.
<p>USER TRAINING - 20%</p>	<p>The Instrument Scientist may be involved in standard curriculum teaching but is usually responsible for user training at various levels.</p> <p>This may include: -</p> <ul style="list-style-type: none"> ● low level training for users who wish to use the instrument only on single occasions or for testing purposes. ● medium level courses for small project clients (e.g. BPharm projects with only short time of instrument utilization). ● In-depth training for heavy users and advanced users (Masters/PhD, post-doctoral level; professional scientists). ● regular training courses offered to the scientific community. (A track record of such courses increases the chances of success of applications for equipment funding). <p>In-depth user training may include: -</p> <ul style="list-style-type: none"> ● Basic principles and scientific background of the analytical method. ● Analytical options of the instrument. ● Introduction to standardization and calibration of the instrument. ● Data reduction and data processing. ● Evaluation of data quality. ● Data documentation. ● Data interpretation.

<p>MANAGEMENT AND ADMINISTRATION - 15%</p>	<ul style="list-style-type: none"> ● Representation of the Faculty within the university and outside the university. ● Preparation of annual reports to the HoD and/or Dean. ● Preparation of grant applications for equipment upgrades/repairs. ● Financial management of the laboratory including budgeting of repair and maintenance costs. ● Interaction with internal and external users and clients. ● Attraction of internal and external collaboration utilizing the laboratories. ● Monitoring of technical advances in the respective analytical field. ● Motivation for instrument upgrades and replacement when appropriate. ● Development of standard operating procedures. ● Organisation of access rules and instrument availability. ● Organisation of data storage and data transfer to users. ● Organisation of teaching and research schedules. ● Record keeping in the form of a laboratory logbook. ● Record keeping of scientific outputs of the laboratory (theses, conference abstracts, journal articles, technical reports, etc.). Strongly motivated, well organized, and shows professional initiative. ● Excellent organization skills with the ability to manage multiple tasks simultaneously. ● In addition, the Instrument Scientist (IS) may train other staff or post graduate students as instrument operators in order to allow for uninterrupted laboratory operation in the absence of the IS and maintain training records of such persons.
<p>SUPERVISION - 5%</p>	<p>The responsibilities in this regard will include: -</p> <ul style="list-style-type: none"> ● Ensuring that there are appropriate structures and processes in place to provide the necessary service and that there is co-ordination and integration of the different structures/processes/jobs within the laboratories. ● Ensuring that appropriate service standards are set for the laboratory and that staff and students understand these and are meeting these standards.

	<ul style="list-style-type: none"> • Monitoring of work of staff and dealing with any problems. • Induction and training of staff and students
JOB REQUIREMENTS	
Senior Instrument Scientist	
Qualification	<p>PhD in Pharmaceutical Science, Analytical/Physical Chemistry, or a closely related science field.</p> <p>Experience: 7 – 10 years of appropriate experience.</p>
Experience working with specific equipment	<ul style="list-style-type: none"> • In-depth understanding of analytical and other pharmaceutical sciences. • In-depth understanding of instrument calibration and setup for analysis and operation. • In-depth experience in solving complicated analytical problems. • Understanding of current Good Manufacturing (cGMP) and Laboratory practice.
Experience: technical; maintenance and laboratory management	<ul style="list-style-type: none"> • Extensive experience in the maintenance and use of analytical and other equipment. • Extensive utilization of analytical equipment in research. • Track record of providing good quality technical infrastructure (data production and data communication) for instrument users. • Previous experience working in a university research laboratory, the biotechnology/pharmaceutical, chemical, food or other industries where a number of equipment and analytical instruments are used. • Experience with working in cGMP settings.
Academic/ scientific qualification	<p>At least good track record:</p> <ul style="list-style-type: none"> • In the production of published data including numerous co-authorships on user publications, presentations at national and international conferences (particularly on technical aspects of instrument utilization). <p>Very good record of:</p> <ul style="list-style-type: none"> • training of postgraduate students. • Evidence of capacity for raising equipment funding. • Strong national and emerging international profile as an analyst.
Leadership, management and administration	<ul style="list-style-type: none"> • Very good scientific and administrative capability of managing laboratories.

	<ul style="list-style-type: none"> • Involvement in department, Faculty and/or University is expected. • Ability to attract industry contract work.
User Training (User courses at various levels, offered to staff, postgraduate students, researchers, etc.)	<ul style="list-style-type: none"> • A track record of organising successful user courses at a range of levels for local, regional and national participants covering theory and hands-on instrument operation. • Development of user courses covering the theoretical background and practical use of the instrument for RU staff and • Ability to interact positively within a team and in close collaboration with other working areas when needed.
Professional Involvement (lesser focus of application except at levels of CIS)	Satisfactory: <ul style="list-style-type: none"> • Service in professional field e.g., professional/academic bodies, in advisory capacity, journal service, reviews of instrument funding proposals or research reviews. • Representation of the laboratory at national and international conferences.
Community Engagement	Various opportunities exist for Instrument scientists to become involved in community engagement including the public understanding of science, the promotion of science and events such as SciFest or in collaboration with local schools. Ideally, at least satisfactory involvement in CE is expected at Instrument Scientist level with increasing evidence of involvement in community engagement at higher levels.
PEOPLE MANAGEMENT/SUPERVISORY DUTIES At this point in time there are no duties but as the work of the laboratory grows and funding allows for this, additional staff may be employed. This will not impact the level of appointment.	

<p>PLANNING</p> <p>(i) What is the longest (macro) period that the jobholder has to plan ahead?</p> <p>Annual</p> <p>(ii) Typically, how long are the micro phases/time periods that the macro planning is divided into?</p> <p>2 to 3 months</p> <p>ADDITIONAL INFORMATION</p> <p>Instrument Scientists are expected to work on weekends or after hours if their obligations require this.</p> <p>Academic leave: There is no academic leave linked to these posts as teaching is not a significant part of the obligations of this post.</p> <p>Other Leave: standard university policy applies.</p>

FOR HR USE ONLY - TO BE COMPLETED BY HR

RemChannel Code

1083 (SL)

Note: Any changes made to the job profile (other than the name of the incumbent, the position code and OFO code) must be approved by the HR Director or the Senior Manager: Specialist HR Services.