



## POSITION DESCRIPTION

**School of Agriculture and Food**  
Faculty of Veterinary and Agricultural Sciences

### Instrumentation Officer

|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                           |                     |                    |                     |                     |                                                                            |                                                                           |
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| <b>POSITION NO</b>                                                         | 0030734                                                                                                                                                                                                                                                                                                                                                                                   |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>CLASSIFICATION</b>                                                      | PSC 6                                                                                                                                                                                                                                                                                                                                                                                     |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>SALARY</b>                                                              | \$79,910– \$86,499 p.a.                                                                                                                                                                                                                                                                                                                                                                   |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>SUPERANNUATION</b>                                                      | Employer contribution of 9.5%                                                                                                                                                                                                                                                                                                                                                             |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>WORKING HOURS</b>                                                       | Full time                                                                                                                                                                                                                                                                                                                                                                                 |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>BASIS OF EMPLOYMENT</b>                                                 | Fixed term – 3 years from commencement                                                                                                                                                                                                                                                                                                                                                    |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>OTHER BENEFITS</b>                                                      | <a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>                                                                                                                                                                                                                                                                   |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>HOW TO APPLY</b>                                                        | Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.                                                                                                                                          |                     |                    |                     |                     |                                                                            |                                                                           |
| <b>CONTACT FOR ENQUIRIES ONLY</b>                                          | <table><tr><td>Professor Deli Chen</td><td>Dr Tony Weatherley</td></tr><tr><td>Tel +61 3 8344 8148</td><td>Tel +61 3 8344 4642</td></tr><tr><td>Email <a href="mailto:delichen@unimelb.edu.au">delichen@unimelb.edu.au</a></td><td>Email: <a href="mailto:anthony@unimelb.edu.au">anthony@unimelb.edu.au</a></td></tr></table> <p>Please do not send your application to this contact</p> | Professor Deli Chen | Dr Tony Weatherley | Tel +61 3 8344 8148 | Tel +61 3 8344 4642 | Email <a href="mailto:delichen@unimelb.edu.au">delichen@unimelb.edu.au</a> | Email: <a href="mailto:anthony@unimelb.edu.au">anthony@unimelb.edu.au</a> |
| Professor Deli Chen                                                        | Dr Tony Weatherley                                                                                                                                                                                                                                                                                                                                                                        |                     |                    |                     |                     |                                                                            |                                                                           |
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For information about working for the University of Melbourne, visit our website:  
[about.unimelb.edu.au/careers](http://about.unimelb.edu.au/careers)

## ***Position Summary***

### **ABOUT THE POSITION**

The Instrumentation Officer's role is to provide analytical chemistry experience, knowledge and support within the Soil Science Group in the Faculty of Veterinary and Agricultural Sciences (FVAS). Duties will involve project work to streamline systems and develop methods, and analysis of a range of environmental samples (especially, soil, plant, water and gas samples) using isotope ratio mass spectrometry, flow injection analysis, inductively coupled plasma spectroscopy and chromatography where appropriate. The Instrumentation Officer will also manage the day-to-day operation of the soils laboratory, including implementing appropriate EH&S procedures as required, ensuring laboratory users are working in an appropriate manner, and ensuring equipment and facilities are maintained.

The position will be based at the Parkville campus of the University.

### **ABOUT US**

The University of Melbourne has affirmed its position as the number one university in Australia, and remains among the fastest-rising research universities in the world's top 100, according to the Academic Ranking of World Universities (ARWU). It is counted among the best universities in the world – 33 by the Times Higher Education (THE) and 32 by the US News and World Report Rankings. Please visit [Tradition of Excellence](#) for further information.

FVAS provides over 20 courses and 300 subjects to approximately 3,500 equivalent full time students. The Faculty provides the only professional entry veterinary program in Victoria and the Bachelor of Agriculture is the fastest growing undergraduate degree in Australia. The University of Melbourne's agriculture program is the largest in Victoria and ranked 36 in the world, whilst the Doctor of Veterinary Medicine program was the first graduate veterinary professional entry program in Australia. The Faculty is ideally placed to contemplate changes that have far-reaching consequences on its teaching, engagement and research.

## ***1. Key Responsibilities***

### **1.1 OPERATIONAL ACTIVITIES AND SERVICE QUALITY**

- ▶ Provide expert technical support and undertake routine analysis of environmental samples using a range of analytical approaches and instrumentation. The primary focus will be the operation of the Isotope Ratio Mass Spectrometer and ICP-OES. This requirement will change from time to time with the acquisition of new instrumentation.
- ▶ Maintain laboratory certification to the standards of the Australian Soil and Plant Analysis Council (ASPAC).
- ▶ Coordinate the work flow and undertake analytical services in an accurate, timely and efficient manner.
- ▶ Ensure that work is of a high standard and produced in a timely fashion by adhering to good laboratory practice policies and procedures; recognising and troubleshooting technical problems and keeping abreast of current technical literature.
- ▶ Provide highly specialised technical expertise and advice on appropriate procedures and the use of equipment to academic staff and students.

- ▶ Maintain accurate and comprehensive records of the analytical research work performed.
- ▶ Assist in the training of users (students, academics, technical officers) when necessary in the theory and operational principles of analytical instrumentation, including advice on quality control procedures.
- ▶ Maintain all instrumentation in optimal operational condition and maintain an accurate inventory of laboratory equipment, chemicals and consumables.
- ▶ Ensure that the laboratory complies with all relevant Australian Standards and Environmental Health and Safety regulations, including the appropriate storage and disposal of chemicals and waste products and report non-compliance.
- ▶ Assist in established cyclic events that are aimed at maintaining the standards of the laboratory.

## 1.2 INNOVATION AND IMPROVEMENT

- ▶ Under the broad direction of Professor Chen, Head of Soil Science Group, develop and work on projects for implementation in the research laboratories, such as new and improved procedures, standard laboratory protocols and methods
- ▶ Monitor and implement any new regulations with which the laboratory must comply and communicate relevant information to appropriate personnel.
- ▶ Implement, and modify as required, a laboratory fee-for-service business model and budget.

## 1.3 COLLABORATION AND LEADERSHIP

- ▶ Collaborate with academic staff, research staff, postgraduate students and members of external research groups on specific research projects as required, including modifying standard techniques to meet the objectives of the research projects.

# 2. Selection Criteria

In order to be considered for interview by the Selection Panel, applicants must address the following Criteria in their application. Please visit the University website for advice on how to address [Essential Selection Criteria](#)

## 2.1 ESSENTIAL

- ▶ A degree in analytical chemistry and/or a minimum of 3 years' experience in chromatography, flow injection analysis and mass spectrometry.
- ▶ Experience with analytical methods for the analysis of soil, plant, water and gas samples.
- ▶ Demonstrated experience in managing a research or commercial laboratory with the capacity to achieve results and provide highly specialised technical services.
- ▶ Well-developed leadership skills and a demonstrated ability to liaise with academic staff, support strategic direction and communicate with influence, and provide leadership to a diverse group of laboratory users (students and researchers).
- ▶ Evidence of extensive laboratory problem solving skills and a demonstrated ability to learn and modify new techniques.

- ▶ Evidence of proficient organisational, verbal and written communication skills including, time management and the ability to prioritise work.
- ▶ Demonstrated knowledge and experience in environmental health and safety, especially with respect to chemical hazard management in laboratory settings.
- ▶ Demonstrated ability to work, plan and perform duties under broad direction.
- ▶ Demonstrated commitment to quality client service and a capacity to support productive working relationships with people from diverse backgrounds.

## 2.2 DESIRABLE

- ▶ A postgraduate qualification in analytical chemistry.
- ▶ Experience working in a research laboratory in a large complex organisation, particularly in the education sector or in a government organisation.
- ▶ Experience in budget management, procurement and invoicing.
- ▶ Experience in maintaining laboratory accreditation or certification to national or international standards.
- ▶ Experience in applying for research funding, developing and implementing projects and improving operational processes and procedures.
- ▶ A full driver's license valid in the state of Victoria.

## 2.3 SPECIAL REQUIREMENTS OF THIS POSITION

- 2.1 Annual leave must be taken at a time that accommodates the peak workflows of the area.
- 2.2 Some heavy lifting and/or manual handling might be required from time to time.
- 2.3 Out of hours work may be required

# 3. Job Complexity, Skills, Knowledge

## 3.1 LEVEL OF SUPERVISION / INDEPENDENCE

The Instrumentation Officer will report to the discipline leader in Soil Science Group. The Instrumentation Officer will manage the day to day running of the Soil Science Group's analytical facilities in the Soils Laboratories at Parkville within the framework of University and Faculty policies and processes. The incumbent will seek advice from the research group or discipline leader in regard to their research, as required.

Any problems arising from the activities of the laboratory are to be addressed in accord with the University expectations in relation to the management of the laboratory services. It is further expected that the Instrumentation Officer will also seek advice from the Faculty Laboratory Manager in regard to University policy and process.

### 3.2 PROBLEM SOLVING AND JUDGEMENT

The position requires a specialist level of chemistry expertise in the operation and maintenance of instruments, equipment and laboratory resources, and to use this expertise to recognise and resolve technical and operational problems.

The incumbent is expected to provide expert technical advice and assistance to academic staff and postgraduate students in the planning and execution of research projects; this activity frequently involves development of novel techniques that require experimentation and evaluation prior to routine application.

The incumbent is responsible for maintenance of laboratory instrumentation, recognising malfunctions, and liaising with third parties to ensure timely repair. Judgement is also required in the allocation of laboratory resources to meet research commitments. The Instrumentation Officer must decide the priorities of the laboratory on a day-to-day and long-term basis to satisfy the requirements of its various users. Excellent organisational skills are essential, including the ability to plan work and prioritise tasks in a busy work environment.

### 3.3 PROFESSIONAL AND ORGANISATIONAL KNOWLEDGE

The Instrumentation Officer must possess advanced knowledge of and expertise in a variety of methods, and have a desire to learn and troubleshoot new methods. The incumbent is expected to continue to develop his/her knowledge, skills and experience to provide high quality technical expertise in the research activities of FVAS.

The incumbent must be fully cognisant of and comply with all relevant legislation relating to environmental health and safety and take appropriate measures to ensure the safety of all personnel utilising the facilities.

The Instrumentation Officer is required to have a thorough knowledge of, and operate at all times according to, University and FVAS policies and procedures. The Instrumentation Officer is expected to have a thorough understanding of the functions and goals of the Soil Science Group in research and knowledge of the administrative and governance structure of FVAS.

### 3.4 RESOURCE MANAGEMENT

The Instrumentation Officer will have strong resource management skills. These are required to oversee and undertake purchasing, as required, of laboratory items including chemicals and assets, and equipment maintenance, and ensure the laboratory is kept in operational condition.

### 3.5 BREADTH OF THE POSITION

The Instrumentation Officer is expected to maintain the Soil Science Group research spaces and instrumentation in good working order.

The incumbent is also expected to liaise and work with other Laboratory Technical staff across the Faculty and the campus to ensure effectiveness and efficient services and technical support, as appropriate and as directed by their supervisor. The incumbent is expected to abide by the expectations that would apply to all staff working in a laboratory environment.

## **4. *Equal Opportunity, Diversity and Inclusion***

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the University's People Strategy 2015-2020 and policies that address diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to service for excellence and reach the targets of Growing Esteem.

## **5. *Occupational Health and Safety (OHS)***

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<http://safety.unimelb.edu.au/topics/responsibilities/>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

## **6. *Other Information***

### **6.1 FACULTY OF VETERINARY AND AGRICULTURAL SCIENCES**

<http://fvas.unimelb.edu.au/>

The Faculty of Veterinary and Agricultural Sciences was formed in July 2014 through the merger of the former Faculty of Veterinary Science and the Department of Agriculture and Food Systems. The new Faculty creates opportunities for closer research collaborations and the formation of interdisciplinary teams to address major issues in veterinary and agricultural sciences. The Faculty's core teaching, postgraduate training, research, clinical consultancy and industry development activities are delivered at the Parkville, Werribee and Dookie campuses, and the Veterinary Hospital operates at Werribee.

Our interdisciplinary approach applies scientific, social, political and economic perspectives to address the needs of both human communities and the natural environment. We address the issues of climate change, food production and food

security, crop, plant and soil health, water management, sustainable use of resources for agriculture, animal health and disease and other problems challenging key decision makers today.

Our academic staff engage with government and industry to investigate critical societal issues and the Faculty is home to University research centres dedicated to this work. They include: Animal Welfare Science Centre; Primary Industry Climate Challenges Centre; Centre for Animal Biotechnology; Centre for Equine Virology; and the Asia-Pacific Centre for Animal Health', in which the University is a core partner. Research within the Faculty has led to some outstanding outcomes including: increased agricultural productivity; vaccines and diagnostic products that have been commercialised throughout the world; enhanced animal welfare; improvements in public health; and contributions to basic understanding of animal biology.

The Faculty is the only provider of Veterinary Science courses in Victoria and one of only a small number of Universities doing so in Australia. The Bachelor of Agriculture and Bachelor of Food Science along with coursework masters in Agricultural Sciences and Food Science offers one of the most comprehensive educational programs in agricultural and food science in Australia.

## 6.2 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at <http://about.unimelb.edu.au/careers>.

## 6.3 GROWING ESTEEM, THE MELBOURNE CURRICULUM AND RESEARCH AT MELBOURNE: ENSURING EXCELLENCE AND IMPACT TO 2025

Growing Esteem describes Melbourne's strategy to achieve its aspiration to be a public-spirited and internationally-engaged institution, highly regarded for making distinctive contributions to society in research and research training, learning and teaching, and engagement. <http://about.unimelb.edu.au/strategy-and-leadership>

The University is at the forefront of Australia's changing higher education system and offers a distinctive model of education known collectively as the Melbourne Curriculum. The new educational model, designed for an outstanding experience for all students, is based on six broad undergraduate programs followed by a graduate professional degree, research higher degree or entry directly into employment. The emphasis on academic breadth as well as disciplinary depth in the new degrees ensures that graduates will have the capacity to succeed in a world where knowledge boundaries are shifting and reforming to create new frontiers and challenges. In moving to the new model, the University is also aligning itself with the best of emerging European and Asian practice and well-established North American traditions.

The University's global aspirations seek to make significant contributions to major social, economic and environmental challenges. Accordingly, the University's research strategy *Research at Melbourne: Ensuring Excellence and Impact to 2025* aspires to a significant advancement in the excellence and impact of its research outputs.

<http://research.unimelb.edu.au/our-research/research-at-melbourne>

The strategy recognises that as a public-spirited, research-intensive institution of the future, the University must strive to make a tangible impact in Australia and the world, working across disciplinary and sectoral boundaries and building deeper and more substantive engagement with industry, collaborators and partners. While cultivating the fundamental enabling disciplines through investigator-driven research, the University has adopted three grand challenges aspiring to solve some of the most difficult problems facing our world in the next century. These Grand Challenges include:

- ▶ Understanding our place and purpose – The place and purpose grand challenge centres on understanding all aspects of our national identity, with a focus on Australia's 'place' in the Asia-Pacific region and the world, and on our 'purpose' or mission to improve all dimensions of the human condition through our research.
- ▶ Fostering health and wellbeing – The health and wellbeing grand challenge focuses on building the scale and breadth of our capabilities in population and global health; on harnessing our contribution to the 'convergence revolution' of biomedical and health research, bringing together the life sciences, engineering and the physical sciences; and on addressing the physical, mental and social aspects of wellbeing by looking beyond the traditional boundaries of biomedicine.
- ▶ Supporting sustainability and resilience – The sustainability and resilience grand challenge addresses the critical issues of climate change, water and food security, sustainable energy and designing resilient cities and regions. In addition to the technical aspects, this grand challenge considers the physical and social functioning of cities, connecting physical phenomena with lessons from our past, and the implications of the technical solutions for economies, living patterns and behaviours.

Essential to tackling these challenges, an outstanding faculty, high performing students, wide collaboration including internationally and deep partnerships with external parties form central components of Research at Melbourne: Ensuring Excellence and Impact to 2025.

#### 6.4 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <http://www.unimelb.edu.au/governance>