



POSITION DESCRIPTION

Department of Chemical Engineering
Melbourne School of Engineering

Lecturer or Senior Lecturer in Food/Pharmaceutical Process Engineering

In line with the special measure H103/2014 provided for under section 12 of the Equal Opportunity Act 2010 (VIC), the Melbourne School of Engineering strongly encourages applications from suitably qualified female candidates.

POSITION NO	0050342
CLASSIFICATION	Lecturer (Level B) or Senior Lecturer (Level C)
SALARY	\$102,967 - \$122,268 p.a. (Level B) \$126,128 - \$145,431 p.a. (Level C)
SUPERANNUATION	Employer contribution of 17%
EMPLOYMENT TYPE	Full-time (continuing) position available <i>The School of Chemical and Biomedical Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.</i>
OTHER BENEFITS	http://www.eng.unimelb.edu.au/about/join-mse/why-join-mse
LOCATION	Parkville campus <i>This position may be required to travel to and work across multiple campuses</i>
CONTACT FOR ENQUIRIES ONLY	Professor Amanda Ellis Email: amanda.ellis@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers
joining.unimelb.edu.au

The University of Melbourne

Established in 1853, the University of Melbourne is a public-spirited institution that makes distinctive contributions to society in research, learning and teaching and engagement. It's consistently ranked among the leading universities in the world, with international rankings of world universities placing it as number 1 in Australia and number 32 in the world (Times Higher Education World University Rankings 2017-2018).

<https://about.unimelb.edu.au/strategy/growing-esteem>

Melbourne School of Engineering

Melbourne School of Engineering (MSE) has been the leading Australian provider of engineering and IT education and research for over 150 years. We are a multidisciplinary School organised into three key areas; Computing and Information Systems (CIS), Chemical and Biomedical Engineering (CBE) and Electrical, Mechanical and Infrastructure Engineering (EMI). MSE continues to attract top staff and students with a global reputation and has a commitment to knowledge for the betterment of society.

Our ten-year strategy, MSE 2025, is our School's commitment to bring to life the University-wide strategy *Growing Esteem* and reinforce the University of Melbourne's position as one of the best in the world. Investment in new infrastructure, strengthening industry engagement and growing the size and diversity of our staff and student base to drive innovation and develop the transformative technologies of the future are all fundamental principles underpinning MSE 2025.

<http://www.eng.unimelb.edu.au/about/join-mse/why-join-mse>

School of Chemical and Biomedical Engineering

The School of Chemical and Biomedical Engineering encompasses both the Department of Chemical Engineering and the Department of Biomedical Engineering. This fusion of engineering disciplines provides a dynamic and interdisciplinary environment that is world leading in both research and teaching.

Department of Chemical Engineering

The Department of Chemical Engineering is a large Department with approximately 21 teaching and research staff, 30 full time research staff and around 90 PhD students. We host several important Research Centres and nodes including the ARC Dairy Innovation Research Hub, the Particulate Fluids Processing Centre, ARC Centre of Excellence Enabling Eco-Efficient Beneficiation of Minerals, and the ARC Centre of Excellence in Convergent Bio-Nano Science and Technology. Our laboratories are housed across four locations including a substantially renovated main building, a second building devoted exclusively to research, two floors within the nearby Chemistry building and a presence within the Bio21 Institute. Academic staff have been elected as Fellows of the Royal Society, the world's oldest scientific society, the Australian Academy of Science, and the Australian Academy of Technological Sciences and Engineering.

Strong collaborations with industry, government and community partners inform teaching and research programs with real-world requirements. Industry Engagement is a key focus area for the Department. We carry out research projects based on deep collaborations with government and business and we also work with organisations that provide internship project opportunities for students.

We offer four Masters of Engineering degrees (Chemical, Chemical with Business, Biochemical, and Materials) with over 250 students, as well as undergraduate majors within the Bachelor of Science and Bachelor of Commerce.

<http://www.chemeng.unimelb.edu.au>

Position Summary

The University of Melbourne is looking for dynamic academics with expertise in Chemical Engineering. As an aspiring leader in Chemical Engineering, in this role you will deliver teaching into graduate and undergraduate programs as well as build a world class, independent and well-funded research program in a field consistent with the department's research domains.

You will collaborate with key stakeholders internally within the department and the school and externally including key industry and government agencies. You will bring with you established industry connections and leverage these to build partnerships and key collaborations.

You will join a well-established and successful department that has a strong track record of mentoring, and development of our academic leaders.

For this position we are looking for a candidate with a strong research profile that would enhance our Food and Pharmaceutical processing research domain. This could be in either of the following fields:

- **Food Engineering, including Industrial food processing**
- **Pharmaceutical processing**

With related expertise in any of the following areas: catalysis, production scale chromatography, cell culture, spray drying, crystallisation, solvent extraction, homogenisation, rheology and structure, anaerobic digestion and other food waste treatment operations.

The Department of Chemical Engineering sits within The School of Chemical and Biomedical Engineering (CBE) and is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

Our current Department of Chemical Engineering Research domains:

Materials Development – including nanotechnology, polymer science and ceramics processing to develop new materials. Applications range from drug delivery and sensors to high temperature rockets and batteries.

Separations Technology – encompassing solvent extraction, membrane processing, solid-liquid separations, adsorption and filtration. Applications are focussed on sustainable energy, hydrogen production, mining and water resources.

Surface Chemistry and Rheology – encompassing colloid science, interfaces, atomic force microscopy, suspensions and non-Newtonian rheology. Applications are in minerals processing, consumer products, food processing and wastewater treatment.

Bioprocessing – the use of biology within engineering processes. Applications include food, biofuels, plastics and pharmaceuticals.

These four domains are underpinned by cross-domain strengths in applied process engineering and in computational and mathematical modelling. There are strong collaborative links across the entire School of CBE.

Selection Criteria

1.1 ESSENTIAL

- A degree in chemical engineering or a related discipline.
- A PhD in engineering, applied science or a cognate discipline.
- A track record of quality research in either food and/or pharmaceutical engineering, as evidenced by research publications in leading journals and conferences.
- Record of achieving the highest levels of scholarship in engineering and/or industrial processing research relative to opportunity.
- Potential to lead a research program in fundamental and/or applied areas with clear links to industrial challenges.
- Capacity to teach effectively across a broad range of subjects, including the capacity to develop and deliver high quality seminars, lectures and workshops with a focus on the student experience as well as contribute to other teaching activities.
- Excellent oral and written communication skills.
- Ability to build networks with industry partners and other researchers, both local and international.
- Demonstrated ability to work as part of a team.
- Demonstrated ability to work both independently and as part of a team in a professional and collegial manner, and to build rapport with all levels of staff within a diverse work environment.
- A 1-2 page research plan outlining projects that will be the focus of the first five years in this position, commenting on problem significance, general approaches to be used and possible funding sources.

In addition to the above for appointment at Level C:

- A strong publication record and demonstrated independence of scholarship.
- The development of educational programs and methods.
- A successful record of attracting competitive research funding from government, industry or philanthropic sources.
- A successful record of engaging industry, government and/or the community in teaching and research.
- Experience in supervision of research higher degree students.

1.2 DESIRABLE

- A track record of engagement with industry and/or government
- Ability in applying for, and securing, awards
- Past experience of engagement with the community or media in the context of research or scholarship

Key Responsibilities

1.3 TEACHING AND LEARNING

- Teach subjects in the Master of Engineering, Specialised Masters or in engineering and breadth subjects taught in the University's Melbourne Model Undergraduate degrees;
- Provide adequate access for consultation with and mentoring of students;
- Initiate and develop high quality subject material;
- Supervise the program of study of undergraduate, graduate or postgraduate students engaged in coursework or smaller research projects.

1.4 RESEARCH

- Conduct research, including the publication of high-quality scientific research outcomes and the dissemination of research results at leading international conferences;
- Develop a portfolio of funding to support a research program that includes preparing grant applications to both internal and external funding agencies;
- Present at research workshops and seminars within the department.

1.5 ENGAGEMENT

- Build and foster industry engagement, including the development of collaborative research opportunities;
- Actively participate in professional activities including consulting, workshops and short courses for external participants and participation in meetings of professional societies;
- Engage in knowledge transfer and community activities beyond the university;

1.6 SERVICE AND LEADERSHIP

- Participate in industry and community liaison activities as arranged by the department;
- Participate in department activities such as student events and school visits; Contribution to the administrative functions of the Department as required;
- Perform other tasks as requested by the supervisor or the Head of the Department;
- Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 5.

In addition to the above, responsibilities for a Senior Lecturer will include:

- Supervise major undergraduate, graduate or postgraduate research projects;
- Undertake a significant role in research projects including, where appropriate, leadership of a research team;
- Undertake a significant role in knowledge transfer and community engagement;

- Undertake a major role in planning or committee work.

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.

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 strive for excellence and reach the targets of Growing Esteem.

<http://diversity.eng.unimelb.edu.au>