

ASSOCIATE PROFESSOR OF PROCESS DESIGN AND OPTIMISATION

DEPARTMENT/UNIT	Chemical and Biological Engineering
FACULTY/DIVISION	Engineering
CLASSIFICATION	Level D
DESIGNATED CAMPUS OR LOCATION	Clayton campus

ORGANISATIONAL CONTEXT

At [Monash](#), work feels different. There's a sense of belonging, from contributing to something ground-breaking – a place where great things happen. You know you are part of something special and purposeful because, like Monash, your ambitions drive you to make change.

We have a clear purpose to deliver ground-breaking intensive research; a world-class education; a global ecosystem of enterprise – and we activate these to address some of the [challenges](#) of the age, Climate Change, Thriving Communities and Geopolitical Security.

We welcome and value difference and [diversity](#). When you come to work, you can be yourself, be a change-maker and develop your career in exciting ways with curious, energetic, inspiring and committed people and teams driven to make an impact – just like you.

Together with our [commitment to academic freedom](#), you will have access to quality research facilities, infrastructure, world class teaching spaces, and international collaboration opportunities.

We champion an [inclusive workplace culture](#) for our staff regardless of ethnicity or cultural background. We have also worked to improve [gender equality](#) for more than 30 years. Join the pursuit of our purpose to build a better future for ourselves and our communities – [#Changelit](#) with us.

The **Department of Chemical and Biological Engineering** is ranked one in Australia and **48th** in the world. The department received the highest rating of 5/5 (equal 1st in Australia) indicating “well above world class” research in chemical engineering in the recent Excellence in Research Australia assessment, and the Faculty of Engineering as a whole received a 5/5 rating.

The Department is very active in both education and research and has an international reputation for its quality research programs and postgraduate training. The Department has 26 academic staff, and over 150 postgraduate students. The Department prides itself on fundamental and industry-focused research. The Department has internationally recognised research strengths in bioprocessing and biomaterials, particle technology, process design and optimization, food engineering, rheology, energy transformation and sustainable processing, nanomaterials and particle technology, and waste processing. The department plays a major role in several major interdisciplinary research initiatives New Horizons, Green Chemical Futures, Monash Institute of Medical Engineering, the Monash Centre for Membrane Innovation, and the Monash Energy Institute. The department has been the home of several large industrially focused research initiatives including the Bio-Resource Processing Institute of Australia, CRC for Greenhouse Gas Technologies, National Centre of Desalination, and the Victorian Centre for Sustainable Chemical Manufacturing and the Chemicals and Plastics Innovation Network. The department has also been very successful in attracting ARC Industrial Transformation Research Hubs, with three such hubs established in the last seven years. In addition, we have access via Monash University to the Melbourne Centre for Nanofabrication, Monash Centre for Additive Manufacturing and the Australian Synchrotron.

The department operates from multiple campuses – from Clayton – Australia and Bandar Sunway – Malaysia for undergraduate and postgraduate education and research; from Suzhou – China and Bombay – India for postgraduate education and research through the Southeast University-Monash Joint Graduate School and IITBombay-Monash Research Academy respectively.

The objectives of the department are to provide high quality programs in Chemical and Biological Engineering for undergraduate, masters and doctoral students as well as to undertake high-quality research with international impact.

To learn more about the department, please visit our website: www.eng.monash.edu.au.

We are committed to equitable decision making and apply the principles of [achievement relative to opportunity](#) in our selection processes.

We strive to provide a welcoming and open culture that is inclusive of students and staff of diverse genders, sexes, sexualities, religions and cultures, and people with disabilities. We welcome applications from individuals representing these diverse groups. In accordance with Monash University's commitment to Athena Swan principles. Monash University supports staff with young children and caregiving responsibilities through a range of programs, policies and resources www.monash.edu/gender-equity/parents.

POSITION PURPOSE

A Level D academic is expected to make a significant contribution to all activities of the organisational unit or interdisciplinary area and play a significant role within their profession or discipline. Academics at this level may be appointed in recognition of distinction in their disciplinary area.

The primary purpose of the position is to deliver high-quality teaching, attract research funding and deliver impactful multi-disciplinary research projects on time.

Reporting Line: The position reports to the Head of the Department

Supervisory Responsibilities: Not applicable

Financial Delegation: Not Applicable

Budgetary Responsibilities: Not applicable

KEY RESPONSIBILITIES

Specific duties required of a Level D academic may include:

1. The preparation and delivery of lectures, tutorials, practical classes, demonstrations, workshops, and clinical sessions
2. Initiation and development of course materials consistent with fundamental principles and developments in the industry
3. Course coordination including offering guidance to assistant lecturers and supervision of sessional staff in teaching unit/s if required
4. Consultation with students and supervision of PhD, honours and postgraduate students
5. Preparation and assessment of student assignments and examinations
6. Conduct of original research that will lead to publications in refereed journals or with high level academic or commercial publishers and attract external and government funding
7. Significant role in research project including, where appropriate, leadership of a research team
8. Significant contribution to the profession and/or discipline both nationally and internationally
9. Other duties as directed from time to time by the Head of the Department

KEY SELECTION CRITERIA

Education/Qualifications

1. The appointee will have:
 - A doctoral qualification, preferably in Chemical Engineering, or equivalent accreditation and standing and recognised as a leading authority in the relevant discipline.

In determining experience relative to qualifications, regard shall be had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement. In addition, a position at this level will normally require a record of demonstrable scholarly and professional achievement in the relevant discipline area.

Knowledge and Skills

2. Ability to teach core Chemical and Biological Engineering units including process design, multi-objective process optimization, sustainable processing; evidence of knowledge of process control, and particle technology and related modelling is preferable
3. A good knowledge of the industry relevant to the discipline of chemical and biological engineering. Prior industry experience preferable
4. A strong publication record in high-quality journals or equivalent and outstanding contribution to the discipline
5. Successful track record in obtaining external research grants
6. Record of successful supervision of postgraduate research students and the ability to make a significant contribution to postgraduate training programs
7. Demonstrated excellence in teaching in the relevant discipline area (i.e. through evaluations, innovation in presentation and through curriculum development)
8. Demonstrated ability to mentor staff and students

9. High level of interpersonal skills and a proven ability to establish good working relationships with colleagues, students and members of community and professional bodies
10. Demonstrated leadership in committees and other administrative work and portfolios
11. Proven ability to promote the discipline internally within the University as well as externally both nationally and internationally
12. A demonstrated capacity to work in a collegiate manner with other staff in the workplace

OTHER JOB-RELATED INFORMATION

- Travel to other campuses of the University may be required
- There may be a requirement to work additional hours from time to time
- There may be peak periods of work during which taking of leave may be restricted
- A current satisfactory Working With Children Check is required

GOVERNANCE

Monash University expects staff to appropriately balance risk and reward in a manner that is sustainable to its long-term future, contribute to a culture of honesty and integrity, and provide an environment that is safe, secure and inclusive. Ensure you are aware of and adhere to University policies relevant to the duties undertaken and the values of the University. This is a standard which the University sees as the benchmark for all of its activities in Australia and internationally.