



## POSITION DESCRIPTION

Department of Biomedical Engineering  
Melbourne School of Engineering

### Lecturer or Senior Lecturer

*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	0044608
CLASSIFICATION	Lecturer (Level B) or Senior Lecturer (Level C)
SALARY	\$98,775 - \$117,290 p.a. (Level B) \$120,993 - \$139,510 p.a. (Level C)
SUPERANNUATION	Employer contribution of 17%
EMPLOYMENT TYPE	Full-time (continuing) position available
OTHER BENEFITS	<a href="http://about.unimelb.edu.au/careers/working/benefits">http://about.unimelb.edu.au/careers/working/benefits</a>
CURRENT OCCUPANT	New
HOW TO APPLY	Online applications are preferred. Go to <a href="http://about.unimelb.edu.au/careers">http://about.unimelb.edu.au/careers</a> , under 'Job Search and Job Alerts', select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	Professor David Grayden Email: <a href="mailto:grayden@unimelb.edu.au">grayden@unimelb.edu.au</a>

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

## ***Position Summary***

Located in the Department of Biomedical Engineering, this newly-created position offers aspiring academics the opportunity to join a newly formed, successful department within our consistently-ranked world-class Melbourne School of Engineering. The Department of Biomedical Engineering is made up of academics with strong track records of research, teaching and engagement, and has a strong focus upon mentoring and developing academic leaders.

You will deliver high quality teaching in graduate and undergraduate programs and be expected to build a world-class, independent and well-funded research program in a field that builds capability within the Department. These research areas can be summarised as:

**Biomaterials and tissue engineering** – developing tailored biomaterials and processes for regenerative medicine, stem cell culture and medical devices. Our research involves multidisciplinary collaborations with major focuses on biomaterials synthesis, fabrication and characterisation, antimicrobial materials, stem cell expansion, tissue regeneration and medical device design.

**Biomechanics and mechanobiology** – embracing a wide range of scales, from whole body structure and function, to cellular and nano-processes, in a multidisciplinary research effort toward improving health and wellbeing. Our research specialisations have a major focus on musculoskeletal modelling, injury, orthopaedics, cell and tissue biomechanics, biomaterials and microfluidics cell/tissue-on-chip systems.

**Bionics and neuroengineering** – using scientific methods to understand and model the nervous system, and to use this knowledge to engineer systems that interact with, augment, or mimic nervous system functionality. Applications include bionic ear, bionic eye, epilepsy control, brain-computer interfaces and electroceuticals.

**Biomedical imaging** – developing clinical and preclinical imaging technologies and associated imaging data analysis techniques, with application to a wide range of neurological diseases and disorders, and imaging of tissue microstructure. The particular imaging modalities of expertise include micro CT, preclinical MRI, ultrahigh field MRI, and MRI connectomics.

**Systems and synthetic biology** – developing computational approaches to understand human health and disease. Areas include modelling cellular processes and bio-nano interactions, computational frameworks for systems and synthetic biology and discovering molecular networks in cancer.

You will actively collaborate with other research groups in the Department and the Melbourne School of Engineering and interact with industry, research institutes, hospitals and/or government agencies. We particularly seek a candidate with strong connections to industry or the ability to build partnerships with key industrial collaborators.

You report to the Head of Department and you will be expected to take an active role in the leadership and administration of the Department.

The Melbourne School of 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.

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this, the School is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in

2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

## ***1. Selection Criteria***

### **1.1 ESSENTIAL**

- ▶ A PhD in engineering, applied science or a cognate discipline;
- ▶ A track record of quality research in Biomedical Engineering or a closely related field as evidenced by research publications in leading journals and conferences;
- ▶ Potential to achieve the highest levels of scholarship in engineering research;
- ▶ Capacity to teach effectively across a broad range of biomedical engineering subjects, including the capacity to develop and deliver high quality seminars and lectures and contribute to other teaching activities;
- ▶ Excellent oral and written communication skills;
- ▶ Demonstrated ability to work as part of a team.

#### **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;
- ▶ 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

## ***2. Key Responsibilities***

### **2.1 TEACHING AND LEARNING**

- ▶ Teach subjects in the Master of Engineering, Specialised Masters or in engineering and breadth subjects taught in the University's New Generation Undergraduate degrees, as directed by the Head of Department or Deputy Head;
- ▶ Providing adequate access for consultation with and mentoring of students;
- ▶ Initiation and development of high quality subject material;
- ▶ Supervision of the program of study of undergraduate, graduate or postgraduate students engaged in coursework or smaller research projects.

## 2.2 RESEARCH

- ▶ The conduct of research including the publication of high quality scientific research outcomes and the dissemination of research results at leading international conferences;
- ▶ The preparation of grant applications to external funding agencies;
- ▶ Presentation of research workshops and seminars within the department.

## 2.3 ENGAGEMENT

- ▶ Initiate and foster international and industry engagement, including the development of collaborative research opportunities;
- ▶ Participation in research domain specific societies;
- ▶ Active participation in professional activity 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.

## 2.4 SERVICE AND LEADERSHIP

- ▶ Participation in industry and community liaison activities as arranged by the department;
- ▶ Participation 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 4.

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

- ▶ Supervision of major undergraduate, graduate or postgraduate research projects;
- ▶ Significant role in research projects including, where appropriate, leadership of a research team;
- ▶ Significant role in knowledge transfer and community engagement;
- ▶ A major role in planning or committee work;
- ▶ Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4;

## ***3. Other Information***

### 3.1 DEPARTMENT OF BIOMEDICAL ENGINEERING

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

The Department of Biomedical Engineering is a vibrant and rapidly growing department that has recently (2017) been established within the Melbourne School of Engineering, working on some of the most challenging problems at the interface of engineering with life and medical sciences. The Department aims to apply interdisciplinary expertise and approaches to make new discoveries and provide innovative solutions that will improve healthcare and social wellbeing.

Our research covers a breadth of areas in biomaterials and tissue engineering; biomechanics and mechanobiology; bionics, biomedical imaging and neuroengineering; systems and synthetic biology. We have strong national and international linkages with industry, hospitals, research institutes, and universities.

We teach students within the Bioengineering Systems undergraduate majors in the Bachelor of Science and the Bachelor of Biomedicine, and offer two Masters programs: Master of Engineering (Biomedical) and Master of Engineering (Biomedical with Business).

### 3.2 MELBOURNE SCHOOL OF ENGINEERING

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

The Melbourne School of Engineering is one of Australia's leading Engineering Schools and aims to be the school of choice for the highest performing students and research staff in Australia and within the Times Higher Education Supplement top twenty Schools of Engineering internationally by 2020.

### 3.3 THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The University offers staff many benefits and prospective staff are encouraged to view the following web links:

[www.unimelb.edu.au](http://www.unimelb.edu.au)

[www.growingesteem.unimelb.edu.au](http://www.growingesteem.unimelb.edu.au)

[www.unimelb.edu.au/careers](http://www.unimelb.edu.au/careers)

### 3.4 EQUITY AND DIVERSITY

Another key priority for the University is access and equity. The University of Melbourne is strongly committed to an admissions policy that takes the best students, regardless of financial and other disadvantage. An Access, Equity and Diversity Policy Statement, included in the University Plan, reflect this priority.

The University is committed to equal opportunity in education, employment and welfare for staff and students. Students are selected on merit and staff are selected and promoted on merit.

### 3.5 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/unisec/governance.html>.

## 4. 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.