Master of Engineering (Computer Aided Engineering and Design)

Gain the skills to integrate advanced digital engineering design and digital manufacturing technologies with product life-cycle management.

This program focuses on technologies supporting the entire life cycle of an engineering product. This incorporates all design aspects for manufacturing and maintenance and the disassembly, disposal, recycling and reuse of industrial products.

You will develop the skills to meet the global demand for specialist engineers and industrial designers. The program provides a holistic understanding of the engineering life-cycle management process based in integrated computer aided engineering (CAE) platforms. These platforms are now regarded by industry as best practice.

The application of cutting-edge technical knowledge and expertise in the creation of products and associated services will have strong potential to bring sustainable growth and high economic return.

Created in partnership with industry, the program uses a project-based learning approach that will expose you to advanced CAE concepts and skills. You will use CAE in practical activities and industry-led projects based on 3D real-time, life-like learning experiences.

You will be exposed to state-of-the-art infrastructure at the Advanced Manufacturing Precinct. This facility is equipped with the latest 3D visualisation technology and advanced digital manufacturing machines to realise your designs in physical form. You will also have access to the super-computer facilities that are available.

### Learning and teaching
Lectures, tutorial and laboratory sessions run during the afternoon and evening to fit in with the work commitments of part-time students.

Several learning and teaching approaches are used within this program to develop your capabilities and to assist you in developing skills as an independent and lifelong learner. These approaches may include classroom teaching and/or online sessions, laboratory sessions, problem-based learning, assignments and projects.

The program will also incorporate a virtual collaborative project-management environment to bring together students from different backgrounds and, where appropriate, suppliers. This community will be able to share ideas and resources and collaborate on common projects in the virtual environment.

### Industry connections
The program was created in consultation with industry leaders from BAE Systems Australia, Boeing, Advea Engineering, Futuris Automotive Interiors, Department of Defence, AGL and Dassault Systèmes.

The program gives you access to online learning resources.

### Career outlook
Graduates will have a comprehensive understanding of product life-cycle management including design, manufacturing, maintenance and recycling of industrial products in a range of industrial settings.

The Australian Government, Department of Employment, employment projections predict growth in the sectors of computer system design, operation and maintenance and recycling of industrial products in a range of industrial settings.

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### Program snapshot
- **Program code:** MC244
- **Duration:**
  - Full-time: 1 year
  - Part-time: 2 years
- **Location:** City campus
- **Program manager:**
  - Dr Toh Yen Pang
  - Tel: +61 3 9925 6128
  - Email: tohyen.pang@rmit.edu.au

www.rmit.edu.au/programs/mc244
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Professional recognition
You may be eligible for worldwide industry certification from Dassault Systèmes in key industry software.

International opportunities
The program will make use of the links between RMIT, Dassault Systèmes and Memko Pty Ltd to create opportunities for students to carry out their capstone project at local or overseas institutions or companies.

Program structure
The Master consists of 96 credit points.

Product Lifecycle Design and Management
You will gain a complete and holistic understanding of product life-cycle management (PLM), which represents an all-encompassing vision for managing data relating to the design, production, support and ultimate disposal of manufactured goods.

Virtual Validation, Documentation and Maintenance
This course introduces you to validation processes throughout a product life-cycle. You will apply cutting-edge technical knowledge and expertise in the creation of products and develop strategies for the integration of computerised maintenance management systems into managing of work flow, in-service and out-service maintenance processes.

Masters Engineering Project Part 1
This is the first part of a project that is conducted over two courses. You will plan your project, conduct a critical analysis of relevant published material and do sufficient work to evaluate and report on initial findings.

Masters Engineering Project Part 2
This is the second part of a project that is conducted over two courses. You will complete your research project, evaluate information and report your findings.

Entry requirements
- A four-year bachelor honours degree in any engineering field, at AQF level 8 or equivalent, with a minimum Grade Point Average (GPA) of 2.0 out of 4.0, or a minimum of 60% average
- A four-year bachelor degree in any engineering field, at AQF level 7 or equivalent, with a minimum GPA of 2.0 out of 4.0, or a minimum of 60% average, and at least two years of relevant and current industry experience;
- OR
- A four-year non-engineering bachelor degree at AQF level 8 or equivalent, with a specialisation in design relevant to the engineering field, with a minimum GPA of 2.0 out of 4.0, and at least two years of relevant and current industry experience.

Relevant industry experience includes engineering practice, technical design in support of engineering practice, or industrial design practice that incorporates engineering.

International qualifications are assessed according to the Australian Qualifications Framework (AQF).

How to apply
Direct to RMIT University:
rmit.edu.au/programs/apply/direct

Semester 1, 2017
- Applications open 14 August 2016
- Timely applications close 10 November 2016

Semester 2, 2017
- Applications open 1 May 2017
- Timely applications close 31 May 2017

Late applications will continue to be accepted after this date if places are still available.

Fees
2017 indicative fees
- Commonwealth supported places (CSPs) range from AU$6,349 to AU$10,596
- Full-fee: AU$29,760 per annum

How much you’ll pay will depend on whether you’re offered a Commonwealth supported place or a full-fee place. This program has full-fee places. A limited number of OSPs are also available. Government financial assistance is available to eligible students regardless of the type of place you enrol in.

Fees shown above apply to 2017 only and are based on an annual full-time study load of 96 credit points unless otherwise noted. A proportionate fee applies for more or less than the full-time study load. Tuition fees are adjusted on an annual basis and these fees should only be used as a guide.

For more information and to learn how to calculate your exact tuition fees see:
rmit.edu.au/programs/fees/postgraduate