

# Master of Engineering Management (MEM)

## 1. About the Master of Engineering Management

The Master of Engineering Management (MEM) course is developed for students with an engineering, technology or science background, and to equip them with specialised theoretical knowledge and practical skills in the field of management. This program is designed to cultivate individuals skilled in engineering management with the cognitive, technical and creative skills to solve problems, manage risks and develop strategies in an organisational context. Students will also develop the leadership and teamwork skills necessary to apply effective engineering management practices in technical organisations. Increased breadth will be developed through the inclusion of foundational project management skills, innovation and entrepreneurship knowledge, as well as sustainability practices, all of which impact on contemporary technical organisations.

The course objective is to develop graduates who demonstrate a high level of strategic competence and strong ability to interpret information to solve organisational problems. Graduates need to be able to work between technical teams and managerial teams in the organisation to translate needs and possible solutions. Graduates develop skills to determine what strategies to use when addressing and managing challenges faced by organisations. They will also acquire skills in research and problem solving to use to maintain and develop their professional practice once in the workplace. Graduates are prepared to engage in ongoing self-reflection, self-directed learning and professional development activities.

The MEM course will be facilitated on-campus via small classes and through online delivery to allow students increased flexibility to meet the needs of the working professional and be immediately applicable to their day job and/or future career.

## Graduate employment opportunities

The potential employment opportunities may include, but are not limited to, the following roles within organisations across various industries:

- Senior Engineering Manager
- Engineering Manager
- General Manager
- Director
- Chief Technical / Technology Officer
- Technology Advisor
- Operations Manager
- Production Manager
- Service Manager
- Quality Manager
- Compliance Manager
- Maintenance Manager
- Manager
- Project Manager/Project Engineering Manager/  
Project Lead
- Technical Manager
- Systems Manager
- Plant Manager
- Systems Manager
- Construction Manager
- Business Analyst
- Technical Business Analyst
- Change Manager
- Risk Manager
- Management Consultants
- Technology Area Managers
- Product Manager
- Supply Chain Manager
- Lead Engineer

## Course Overview

<b>Course Title</b>	Master of Engineering Management (MEM)		
<b>Study Options – Domestic Australian students</b>	Face to Face delivery Online delivery Full-time, part-time and accelerated options available.	<b>Study Options – International students</b>	Face to Face delivery Online delivery Full-time, part-time and accelerated options available.
<b>Start Dates</b>	February, June and September. For specific dates visit the <a href="#">website</a> .	<b>Course Length</b>	Full-time: 2 years Part-time: 4 years
<b>Payment Options - Domestic Australian students</b>	<b>Upfront payment</b> This means tuition fees will be invoiced each semester and payment is required on or before the due date.  <b>FEE-HELP</b> FEE-HELP is Australian Government’s loan scheme for higher education degree courses. It can assist you in paying for all, or part of, your course fees. Repayments commence via the tax system once your income rises above a minimum threshold. Just like with any other debt, a FEE-HELP debt is a real debt that impacts your credit rating.	<b>Payment Options – International students</b>	<b>Upfront payment</b> This means tuition fees will be invoiced each semester and payment is required on or before the due date.
<b>Course study requirements</b>	Each subject involves 10 hours of study per week, comprising 3 hours of facilitated study and 7 hours self-directed study.	<b>Assessment</b>	Case study analyses, group assignments, presentations, quizzes, reports and reflective essays.
<b>Locations</b>	TUA Campuses – Adelaide, Brisbane, Sydney and Melbourne  Online	<b>Delivered by</b>	Torrens University Australia
<b>Provider</b>	Torrens University Australia Ltd is registered as a self-accrediting Australian university by the Tertiary Education Quality and Standards Agency (TEQSA).	<b>CRICOS Course Code</b>	102618F
<b>Provider obligations</b>	Torrens University is responsible for all aspects of the student experience, including the quality of course delivery, in compliance with the <a href="#">Higher Education Standards 2015</a>	<b>Accrediting body</b>	Torrens University Australia Limited ABN 99 154 937 005, CRICOS Provider Code: 03389E. RTO No. 41343
<b>Course Fees</b>	For details, refer to the <a href="#">website</a> .	<b>Any other fees</b>	For details, refer to the <a href="#">website</a> .

## 2. Essential requirements for admission

The general admission criteria that apply to Torrens University Australia courses can be located by visiting the Torrens University Australia website - <https://www.torrens.edu.au/general-admission-information-for-torrens-university-australia-ltd>.

## 3. Admission Criteria

<b>Title of course of study</b>	Master of Engineering Management
<b>Applicants with higher education study</b>	Successful completion of an undergraduate engineering or technology-based degree (such as Mechanical, Civil, Electrical, Electronics, Electrical, and Software Engineering; Computer Sciences, IT, IS, Bioinformatics, Biotechnology or degrees in Basic and /or Applied Sciences) or equivalent.
<b>Applicants with vocational education and training (VET) study</b>	N/A
<b>Applicants with work and life experience</b>	Applicants without formal qualifications are eligible to apply if they have seven (7) years of professional, administrative or managerial work experience in an engineering or technical organisation. Applications will be assessed on a case-by-case basis.
<b>English Language Proficiency</b> (applicable to international students, and in addition to academic or special entry requirements noted above)	IELTS 6.5 (overall with no sub-scores less than 6.0 or equivalent)
<b>Applicants with recent secondary education (within the past two years) with ATAR or equivalent*</b> (for applicants who will be selected wholly or partly on the basis of ATAR)	N/A

## 4. How to apply

Via direct application to the institution

- <https://apply.torrens.edu.au/>

## 5. Advanced standing/academic credit/recognition of prior learning (RPL)

You may be entitled to credit for prior learning, whether formal or informal. Formal learning can include previous study in higher education, vocational education, or adult and community education. Informal learning can include on the job learning or various kinds of work and life experience. Credit can reduce the amount of study needed to complete a degree.

Applicants admitted based on prior higher education study may be eligible for Advanced Standing in the form of credit and/or recognition of prior learning (RPL) under the Torrens University Australia [Credit Policy](https://www.torrens.edu.au/policies-and-forms) - (<https://www.torrens.edu.au/policies-and-forms>).

- Students with completed subjects may be eligible for specified credit and/or elective exemptions
- Students who have completed a qualification at AQF level 5 (diploma) or above may be eligible for block credit (where a block credit agreement exists)
- Students with a mix of formal study and informal and/or non-formal learning may be eligible for recognition of prior learning in addition to any credit approved.

Credit will not be applied automatically. Applicants must apply for credit and/or RPL as early as possible prior to each study period, with applications not accepted after week 2.

For further information about credit and recognition of prior learning please see <http://www.torrens.edu.au/apply-online/course-credits>.

## 6. Where to get further information

- Torrens University Australia (TUA) Website
  - <https://www.torrens.edu.au/>
- Universities Admissions Centre (UAC) Website
  - <http://www.uac.edu.au/>
- Quality Indicators for Learning and Teaching (QILT) Website
  - <https://www.qilt.edu.au/>

## 7. Additional Information

### Course Structure

The Master of Engineering Management course structure comprises of 16 subjects (160 credit points). The course of study is made up of:

- *Core subjects*: There are 10 core subjects (100 credit points)
- *Elective subjects*: There are 6 elective subjects (60 credit points)

### Course Rules

To qualify for the award of Master of Engineering Management, the candidate must satisfactorily complete a course of study comprising 10 core subjects (100 credit points) and 6 elective subjects (60 credit points). A combined total of 160 credit points is required.

Electives can be taken from the approved table below or any postgraduate subjects (AQF 8 and / or AQF 9) with prior approval from the Program Director.

### Subjects

<b>SUBJECT DETAILS</b>
<b>SUBJECT CODE, SUBJECT TITLE, DESCRIPTOR</b>
<p><b>MGT501 Business Environment</b></p> <p>This subject introduces the student to the foundations of business. The focus of this subject is on providing fundamental concepts and context for students to enrich their mastery in subsequent studies while developing as a reflective practitioner. Students will examine the functional operations of business and the environments in which it operates. This may include analysing the economic, social, political, legal, technological and ethical influences on contemporary businesses. Students will also examine the viewpoints of internal and external stakeholders.</p>
<p><b>MGT502 Business Communication</b></p> <p>This subject introduces students to the concepts of business communications and transferrable academic skills. This subject presents an analysis of the types of communication processes, which occur in the internal and external business environment, including an examination of the theoretical underpinnings of communication in business. Emphasis is placed on writing skills, reports and presentations and on using technology to communicate. The subject introduces students to research skills, information literacy, critical analysis, writing, and language techniques. The aims of this subject are to provide knowledge and skills needed for success in Higher Education, to help students manage their own success and to assist them in reaching their academic potential.</p>
<p><b>FIN600 Financial Management</b></p> <p>This subject is focused on how to use accounting and financial information for decision-making purposes. It is designed for the leader/manager who will be using, rather than producing accounting and financial information. This subject also addresses the various types of financial decisions that leaders must make, and the strategies necessary to anticipate the alternatives, evaluate the advantages and disadvantages of each and recognise the trade-offs inherent in each alternative. The objective of this subject is for students to learn how to apply accounting and finance theory and principles to the analysis of important business problems, further developing their skills at using numerical analysis and research to support a line of argument.</p>
<p><b>PROJ6000 Principles of Project Management</b></p> <p>The process of creation, from conception through distribution, is complicated and requires a diverse set of management skills. Students in this course are introduced to the knowledge, tools, and techniques needed to manage projects, including IT projects, successfully throughout a project life cycle, and to the language used by</p>

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<p>practitioners in conjunction with the terminology recognised by the Project Management Institute (PMI). Students explore the project management knowledge areas and process groups of the Project Management Body of Knowledge (PMBOK) guide. Students also examine the ways these two dimensions of project management interact in initiating (scoping), planning, executing (launching), monitoring and controlling, and closing a project.</p>
<p><b>MEM601 Engineering Sustainability</b></p> <p>In this subject, students will gain an insight into engineering sustainability, its importance and challenges, and the role and responsibilities of engineers who contribute to organisational sustainability. This subject introduces students to environmental issues and associated sustainability challenges with a focus on sustainable engineering management practices in areas of operations, maintenance, workplace safety, managing hazards, innovation and product development. Students will apply tools and methodologies, such as lifecycle analysis and circular economy approaches, to define and solve complex, real-world sustainability problems in engineering contexts. Students will also learn about best practices in sustainability approaches and processes, and develop strategically focused environmental plans and actions in an ethical way to ensure environmental compliance of organisations.</p>
<p><b>MEM602 Engineering Risk Management</b></p> <p>In this subject, students will develop an understanding of risk and the systematic and effective governance and management of risk in engineering practice, including engineering projects, workplace safety, hazard reduction, design, research and development, and innovation. This subject covers a range of risk management standards, tools, feasibility assessments, and analytical methods to improve strategic and operational decision-making in identifying, prioritising, mitigating, developing, implementing and evaluating risk management processes. Students will learn to develop risk management plans, apply methodologies to evaluate and improve reliability and safety, and apply risk assessment techniques. Lastly, existing and emerging technologies are discussed and how they can be developed and used for the mitigation and management of risk.</p>
<p><b>MGT600 Management, People and Teams</b></p> <p>This subject introduces the student to the foundations of business. The focus of this subject is on providing fundamental concepts and context for students to enrich their mastery in subsequent studies while developing as a reflective practitioner. Students will examine the functional operations of business and the environments in which it operates. This may include analysing the economic, social, political, legal, technological and ethical influences on contemporary businesses. Students will also examine the viewpoints of internal and external stakeholders.</p>
<p><b>MGT607 Innovation, Creativity and Entrepreneurship</b></p> <p>This subject seeks to build the knowledge, skills and attitudes required to succeed as an ethical entrepreneur or entrepreneur. These knowledge and skills are then applied to identify and evaluate innovative high-growth product and service opportunities in the context of a start-up, a corporation, a not for profit or a government institution. The subject allows students to practice skills, including creativity, cash-flow modelling, business model analysis and lean experimentation. Students prepare a business plan for a new venture, or an improvement to an existing enterprise, enabling them to integrate their theoretical and practical knowledge.</p>
<p><b>MEM603 Engineering Strategy</b></p> <p>This subject introduces students to strategic perspectives on issues concerning engineering organisations globally and domestically. Students will learn about developing and managing strategic innovation and technology, intellectual property protection of technology, and the integration of technology strategy with business strategy. In this subject, students will learn to formulate novel and competitive solutions to complex business problems utilising technology to ensure short-term competitive advantage and long-term capability development. This knowledge is applied in organisational decision-making to achieve strategic and operational objectives. Implications of policy issues related to strategy in the context of engineering and technological organisations, including external strategic alliances and partnerships, will also be explored.</p>

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<p>These impacts will be considered in relation to external influences arising from the economic, political and cultural environment.</p>
<p><b>MEM604 Engineering Management Capstone</b></p> <p>This subject encourages students to think creatively about engineering management in business and organisations. By integrating theoretical concepts with work-based learning, students will solve client-based problems through an engineering management research project in a contemporary workplace situation. Students will examine, assess and apply research methods to solve authentic engineering management problems to demonstrate their ability to think critically and apply the concepts and tools learned in the subject to an organisation.</p>
<p>Electives can be taken from the approved table below or any postgraduate subjects (AQF 8 and / or AQF 9) with prior approval from the Program Director:</p> <ul style="list-style-type: none"> <li>• MIS500 Foundations of Information Systems</li> <li>• MIS602 Data Modelling and Database Design</li> <li>• MIS603 Micro services Architecture</li> <li>• MIS604 Requirements Engineering</li> <li>• MIS605 Systems Analysis and Design</li> <li>• MIS607 Cybersecurity</li> <li>• MIS608 Agile Project Management</li> <li>• MIS609 Data Management and Analytics</li> <li>• MGT601 Dynamic Leadership</li> <li>• MGT602 Business Decision Analytics</li> <li>• MGT603 Systems Thinking</li> <li>• MGT604 Strategic Management</li> <li>• MGT613 Corporate Sustainability</li> <li>• PROJ6001 Integrated Project Process Management</li> <li>• PROJ6002 Project Planning and Budgeting</li> <li>• PROJ6004 Contracts and Procurement</li> <li>• PROJ6005 Sustainability in Project, Portfolio and Program Management</li> </ul>

## Locations

The Master of Engineering Management can be studied fully online or at the below Torrens University Campuses:

- Queensland (Brisbane)
- New South Wales (Sydney)
- Victoria (Melbourne)
- South Australia (Adelaide)

## Campus Facilities and Services

All campuses are designed to provide students with professional spaces in which to learn and work. They have been planned with student study needs in mind with well-equipped accessible learning spaces as well as student breakout areas for group work and spending time with friends.

### Facilities and Services include:

Torrens University Australia Ltd, ABN 99 154 937 005, RTO41343, CRICOS 03389E.

Information provided in this document is current at the time of publishing (Feb 2021).



- The Customer Service Hub – our friendly and experienced staff can give help and advice about courses, your enrolment and campus life, including all services and activities on campus.
- Counsellors are available for students to consult with on a range of personal issues
- Student wireless access throughout the Campus
- Student break-out and relaxed study spaces for group work
- Student lounge areas – most with microwaves, kitchenette facilities and vending machines
- The Learning Hub, home to the Learning Support Team, encompasses Learning Skills Advisors, Learning Technology Advisors, and Library & Learning Skills Officers. It provides an integrated, holistic support program for students throughout the study lifecycle within a library/collaborative study environment.

**The service includes:**

- Support and workshops with highly qualified staff in the areas of Academic skills, Library skills, and Technology skills, both on campus and online.
- Physical and digital resources relevant to studies, such as books, journals, multimedia, databases
- Self-check kiosks for library loans and print and copy facilities

**A positive student experience**

Torrens University Australia values the importance of a positive student experience, and therefore has robust processes to resolve student complaints. The Student Complaints Policy, and associated procedures, can be accessed from the [website](https://www.torrens.edu.au/policies-and-forms) (<https://www.torrens.edu.au/policies-and-forms>).

**Paying for your qualification**

We offer two payment options for this course:

- **Upfront payment**

If you want to complete your qualification debt-free you can choose to pay as you go. This means tuition fees will be invoiced each semester and payment is required on or before the due date using EFTPOS, credit card or direct transfer.

- **FEE-HELP**

FEE-HELP is Australian Government's loan scheme for higher education degree courses. It can assist you in paying for all, or part of, your course fees. Repayments commence via the tax system once your income rises above a minimum threshold (\$45, 881 in 2019-20). Just like with any other debt, a FEE-HELP debt is a real debt that impacts your credit rating.

Further information about FEE-HELP, including eligibility, is available at:

- FEE-HELP website:  
<http://studyassist.gov.au/sites/studyassist/help-payingmyfees/fee-help/pages/fee-help->
- FEE-HELP booklets:  
<http://studyassist.gov.au/sites/studyassist/helpfulresources/pages/publications>

**Austudy and Abstudy**

Students enrolled in this course may be eligible for government assistance, such as [Austudy](#) or [Abstudy](#).