

# Occupational category description and competencies for entry to practice

## Engineering Manager

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## Educational requirements

The required academic qualification is generally a bachelor degree or higher in engineering or in an engineering-related field, following 12 years of schooling or comparable education.

## General role description

The role of engineering manager is a high-level executive position. It involves the formulation of engineering strategies, policies and plans and the direction, administration and review of engineering operations for an organisation.

### Tasks include:

- Determining, implementing and monitoring engineering strategies, policies and plans.
- Interpreting plans, drawings and specifications, and providing advice on engineering methods and procedures to achieve construction and production requirements.
- Establishing project schedules and budgets.
- Ensuring conformity with specifications and plans, and with laws, regulations and safety standards.
- Ensuring engineering standards of quality, cost, safety, timeliness and performance are observed.
- Overseeing maintenance requirements to optimise efficiency.
- Liaising with marketing, research and manufacturing managers regarding engineering aspects of new construction and product design.
- Contributing to research and development projects.
- Responsibility for selection, training and development of personnel working for him/her.

- Responsibility for planning, organising, directing, controlling and coordinating the engineering and technical operations of the organisation.

Note: a project manager or project engineer is not considered an engineering manager, rather they're considered as engineering professionals.

## Eligibility and Conditions

### An engineering manager should typically have:

- Five years of experience as an engineering professional before they can demonstrate sufficient competencies at the engineering manager level.
- Two years of experience operating at the engineering manager level.
- Persons reporting to them who are at the managerial level.

Applicants should note that this occupation is not an engineering occupation, but rather belongs to the Managers ANZSCO group. Consequently, a positive outcome will not allow automatic membership with Engineers Australia. Applicants may be required to undertake an entry to practice competency assessment.

It is also mandatory for engineering manager applicants to apply for a relevant skilled employment assessment and have at least five years employment as a professional engineer or two years of employment as an engineering manager.

# Entry to practice competencies

## Engineering manager

### EM 1: Knowledge and skill base

Element of competency	Indicators of attainment
<b>EM 1.1</b> <b>Contributes to engineering business strategies.</b>	<ul style="list-style-type: none"><li>a) Provides engineering analysis to contribute to the development of strategic plans and sustainability.</li><li>b) Integrates engineering objectives into business planning.</li><li>c) Seeks emergent business opportunities based upon engineering initiatives to create opportunities.</li><li>d) Works with others to develop engineering performance targets and financial plans.</li><li>e) Provides advice on engineering related costs and risks.</li><li>f) Implements processes to monitor and adjust team performance within the organisation's continuous improvement policies.</li><li>g) Undertakes risk assessment within organisational guidelines.</li><li>h) Develops quality plans for engineering operations.</li><li>i) Applies whole of life costing.</li></ul>
<b>EM 1.2</b> <b>Develops client relationships.</b>	<ul style="list-style-type: none"><li>a) Plans to meet internal and external clients' engineering requirements.</li><li>b) Ensures delivery of quality engineering products and services.</li><li>c) Seeks client feedback on the delivery of engineering products and services.</li><li>d) Monitors adjusts and reports on the client service received.</li><li>e) Assists customers to identify sustainable options and implications.</li></ul>

Element of competency	Indicators of attainment
<p><b>EM 1.3</b>  <b>Manages the implementation of engineering plans within the business.</b></p>	<ul style="list-style-type: none"> <li>a) Allocates roles and responsibilities to staff to achieve engineering plans.</li> <li>b) Provides engineering leadership.</li> <li>c) Manages performance and standards.</li> <li>d) Contributes to the solution of engineering problems.</li> <li>e) Monitors strategic engineering plans, goals and targets.</li> <li>f) Manages costs.</li> <li>g) Manages safety and quality.</li> <li>h) Manages environmental issues.</li> <li>i) Manages risks and contingencies.</li> </ul>
<p><b>EM 1.4</b>  <b>Manages resources.</b></p>	<ul style="list-style-type: none"> <li>a) Implements resource management plans.</li> <li>b) Procures resources.</li> <li>c) Manages asset maintenance.</li> <li>d) Manages disposal, waste management and recycling plans.</li> <li>e) Provides advice on engineering costs.</li> <li>f) Contributes to the innovative management of resources.</li> </ul>
<p><b>EM 1.5</b>  <b>Manages people.</b></p>	<ul style="list-style-type: none"> <li>a) Implements people management plan.</li> <li>b) Monitors team and individual performance targets.</li> <li>c) Participates in the selection of staff.</li> <li>d) Ensures the provision of skills and competencies requested to meet business targets.</li> <li>e) Manages the workplace culture so that staff work in a continual learning environment.</li> <li>f) Ensures the adherence to ethical, OH&amp;S and quality standards.</li> <li>g) Provides performance feedback.</li> </ul>

Element of competency	Indicators of attainment
<b>EM 1.6</b> <b>Manages suppliers.</b>	<ul style="list-style-type: none"> <li>a) Participates in supplier selection.</li> <li>b) Prepares documents for engagement of suppliers.</li> <li>c) Plans and implements monitoring of suppliers.</li> <li>d) Prepares and presents business plans / budgets in accordance with the organisation's guidelines and requirements.</li> </ul>
<b>EM 1.7</b> <b>Manages business information.</b>	<ul style="list-style-type: none"> <li>a) Identifies and complies with all statutory reporting requirements.</li> <li>b) Uses management information systems effectively to store and retrieve data for decision making.</li> <li>c) Prepares and presents business plans / budgets in accordance with the organisation's guidelines and requirements.</li> </ul>
<b>EM 1.8</b> <b>Monitors engineering business performance.</b>	<ul style="list-style-type: none"> <li>a) Establishes monitoring processes and feedback systems to ensure agreed targets are met.</li> <li>b) Establishes monitoring and reporting processes to ensure statutory requirements are met.</li> <li>c) Establishes and monitors processes so that continuous improvement is achieved at all levels of the business. Professional Engineer Category (Skill Level 1).</li> </ul>



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