

| SKILLS FRAMEWORK FOR PRECISION ENGINEERING SKILLS MAP - CHIEF ENGINEER | | | | |
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| Sector | Precision Engineering | | | |
| Track | Technical and Engineering | | | |
| Occupation | Engineer | | | |
| Job Role | Chief Engineer | | | |
| Job Role Description | <p>The Chief Engineer is responsible for developing, enhancing, and influencing the organisation's technical roadmap. He/She establishes the organisation's technical vision and leads in all aspects of technology development, while providing directions in technology-related issues. He establishes organisation engineering quality management systems and evaluates quality engineering processes to satisfy business and legislative requirements.</p> <p>He possesses a high level of technical and engineering competence, as well as social and leadership skills to champion organisational development interventions, and is able to address ethical and professional issues facing the organisation, in accordance with current professional and ethical codes of practice.</p> | | | |
| Critical Work Functions and Key Tasks | Critical Work Functions | Key Tasks | | Performance Expectations (For legislated / regulated occupations) |
| | Manufacture components and end products | Verify new product designs using physical models | | |
| | | Incorporate quality management from product conception to disposal | | |
| | Conform to management system requirements | Develop strategies and plans to implement integrated quality management systems | | |
| | | Propose improvements to workplace safety and health within operations | | |
| | Manage manufacturing process workflow | Carry out design of experiments | | |
| | | Manage overall manufacturing performance | | |
| | | Develop application strategies for new technologies within manufacturing processes | | |
| | Contribute to continuous improvement | Evaluate the organisation's approach towards a lean enterprise | | |
| | | Review innovation practices to enhance business competitiveness | | |
| Influence organisational development and strategies | Align staff development activities with manufacturing and business needs | | | |
| | Analyse data for business insights identification | | | |
| | Manage tripartite relations for the organisation | | | |
| Skills & Competencies | Technical Skills and Competencies | | Generic Skills and Competencies (Top Level 5) | |
| | Additive Manufacturing | Level 6 | Leadership | Advanced |
| | Automated System Design | Level 5 | Transdisciplinary Thinking | Advanced |
| | Automation Process Control | Level 6 | Decision Making | Advanced |
| | Business Innovation | Level 5 | Communication | Advanced |
| | Change Management | Level 5 | Interpersonal Skills | Advanced |
| | Conflict Management | Level 6 | | |
| | Cyber Risk Management | Level 5 | | |
| | Data Synthesis | Level 6 | | |
| | Emergency Response Management | Level 2 | | |
| | Engineering Product Design | Level 6 | | |
| | Failure Analysis | Level 5 | | |
| | Innovation Management | Level 6 | | |
| | Internet of Things Management | Level 5 | | |
| | Laser and Optics Application | Level 6 | | |
| | Lean Manufacturing | Level 6 | | |
| | Manufacturing Technology | Level 5 | | |
| | Metal Forming | Level 6 | | |
| | Networking | Level 6 | | |
| | New Product Introduction | Level 6 | | |
| | Organisational Analysis | Level 6 | | |
| | Production Line Set-Up | Level 6 | | |
| | Project Management | Level 6 | | |
| Quality Process Control | Level 5 | | | |
| Quality System Management | Level 6 | | | |
| Research and Development | Level 5 | | | |
| Virtual Reality Application | Level 4 | | | |

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| | Vision Leadership | Level 5 | |
| | Workplace Safety and Health System Management | Level 6 | |
| Programme Listing | For a list of Training Programmes available for the Precision Engineering sector, please visit: www.skillsfuture.sg/skills-framework/pe | | |