

SKILLS FRAMEWORK FOR ELECTRONICS SKILLS MAP - PROCESS ENGINEER				
<b>Sector</b>	Electronics			
<b>Sub-sector</b>	Semiconductor and Data Storage			
<b>Track</b>	Technical and Engineering			
<b>Occupation</b>	Engineer			
<b>Job Role</b>	<b>Process Engineer</b>			
<b>Job Role Description</b>	<p>The Process Engineer applies engineering principles and techniques to optimise the production processes in a manufacturing environment to meet organisational objectives. His/Her work also includes troubleshooting process engineering issues and developing work instructions for 'out of control' processes. He needs to analyse manufacturing and/or maintenance issues and recommend engineering solutions.</p>			
	<p>In addition, the Process Engineer leads production and manufacturing systems improvement projects, and is expected to develop operation plans in accordance with organisational objectives. He would also be required to ensure compliance with Workplace Safety and Health, and other regulatory requirements in his line.</p>			
	<p>The Process Engineer is required to have strong communication skills to lead a team to meet organisational outcomes. He is expected to guide and mentor others under his charge.</p>			
<b>Critical Work Functions and Key Tasks</b>	<b>Critical Work Functions</b>		<b>Key Tasks</b>	
	Administer process engineering	Develop work instructions and control plans		
		Troubleshoot process engineering issues		
		Implement network solutions for production improvements		
	Manage Process Capability	Manage manufacturing processes using statistical modelling		
		Adopt new technologies to improve process monitoring		
		Investigate Out of Control (OOC) processes and improve the Process Capability		
		Review abnormality reports		
	Conform to management system requirements	Enforce compliance of safety and good manufacturing practices and processes in production areas		
		Maintain quality assurance systems		
		Monitor process performance data to establish good control parameters		
		Execute benchmarked reliability test plans		
		Conduct technical presentations		
Investigate root causes of process failures				
Contribute to continuous improvement	Lead continuous improvement projects			
	Lead working level community to explore opportunities for improvement projects			
Influence organisational development	Provide guidance to others			
	Develop training programmes for staff			
<b>Skills &amp; Competencies</b>	<b>Technical Skills and Competencies</b>		<b>Generic Skills and Competencies (Top 5)</b>	
	Audit Management	Level 4	Communication	Intermediate
	Continuous Process Improvement	Level 4	Decision Making	Intermediate
	Data Analytics Systems Design	Level 4	Leadership	Intermediate
	Data Synthesis	Level 4	Lifelong Learning	Intermediate
	Effectiveness Management	Level 4	Teamwork	Intermediate
	Electrostatic Discharge Control	Level 4		
	Embedded Systems Integration	Level 5		
	Emergency Management	Level 4		
	Enterprise Risk Management	Level 3		
	Factory Systems Management	Level 4		
	Failure Analysis	Level 4		
	Good Manufacturing Practices Implementation	Level 3		
	Hazards and Risk Control, and Policy Management	Level 4		
	Innovation Management	Level 3		
	Internet of Things (IoT) Management	Level 4		
	Learning and Development	Level 3		
	Manufacturing Process Management	Level 4		
	Operations Management	Level 4		
	Quality Systems Management	Level 4		
	Report Writing	Level 4		
Solutioning	Level 5			
Technical Presentations	Level 5			

	Workplace Safety and Health (WSH) Practices Implementation	Level 4	
<b>Programme Listing</b>	For a list of Training Programmes available for the Electronics sector, please visit: <a href="http://www.skillsfuture.sg/skills-framework/electronics">www.skillsfuture.sg/skills-framework/electronics</a>		

The information contained in this document serves as a guide.