

Skills Framework for Precision Engineering

Programmes that broaden or deepen specific skills and knowledge for the various occupations in the sector

Technical and Engineering

Job Role:
Assistant Engineer/Associate Engineer

Full Qualification Programme	Provider
Bachelor of Engineering (Mechanical Engineering) - Part-time	Nanyang Technological University
Specialist Certificate in Manufacturing Engineering	
Specialist Diploma in Precision Engineering	Nanyang Polytechnic
Specialist Diploma in Digital Manufacturing	
Diploma in Engineering (Aerospace Manufacturing)	
Diploma in Engineering (Mechanical)	Ngee Ann Polytechnic
Diploma in Engineering (Operations and Engineering Management)	Republic Polytechnic

Technical Skills and Competencies (TSC)			Modular Programmes	Providers
Category	Title	Proficiency Level		
Automation Management	Automated System Design	Level 3	Introduction to Robotics Fundamentals	Singapore Institute of Technology
Engineering and Manufacturing Fundamentals	Geometric Dimensioning and Tolerancing	Level 3	Geometric Dimensioning and Tolerancing	Nanyang Technological University
			Implement Optical Metrology	
			Tolerance Stackup and Analysis in Mechanical Design	
	Heat Treatment Processing	Level 4	WSQ Review Heat Treatment Process for Metals (SF)	Singapore Institute of Manufacturing Technology
	Polymeric Material Characterisation	Level 3	WSQ Review Fundamentals of Polymer and Polymer Composites (SF)	Singapore Institute of Manufacturing Technology
Manufacturing and Operations	Cleanliness and Contamination Control	Level 3	Manage High Vacuum Technology	Nanyang Technological University
	Manufacturing Process Management	Level 3	Specialist Certificate in Manufacturing Engineering	Nanyang Technological University
	Manufacturing Technology	Level 3	Specialist Certificate in Manufacturing Engineering	Nanyang Technological University
Precision Manufacturing Process	Additive Manufacturing	Level 3	Introduction to 3D Printing	Nanyang Technological University
	Injection Mould Design	Level 3	WSQ Apply Injection Moulding Tool Design (SF)	Singapore Institute of Manufacturing Technology
	Laser and Optics Application	Level 3	Implement Optical Metrology	Nanyang Technological University
	Material Joining	Level 3	WSQ Apply Advanced Joining Technologies (SF)	Singapore Institute of Manufacturing Technology
			WSQ Understand the Microfluidics Manufacturing Processes	
	Plastic Injection Moulding	Level 3	WSQ Perform Advanced Polymer and Polymer Composites Processing (SF)	Singapore Institute of Manufacturing Technology
Product and Machine Assembly	Level 3	Design for Assembly in Manufacturing	Nanyang Technological University	
Product Development	Engineering Product Design	Level 3	Design for Assembly in Manufacturing	Nanyang Technological University
Quality Management	Failure Analysis	Level 4	Failure Analysis and Prevention for Engineering Materials, Structures and Device	Nanyang Technological University
	Quality System Management	Level 4	WSQ Manage Quality Systems and Processes	AVANTA Global Pte. Ltd.
Value Engineering	Lean Manufacturing	Level 4	WSQ Implement LEAN Manufacturing (SF)	Singapore Institute of Manufacturing Technology
Workplace Safety and Health Management	Workplace Safety and Health System Management	Level 4	WSQ Manage Workplace Safety and Health Systems	AVANTA Global Pte. Ltd.
	Workplace Safety and Health Practice	Level 3	Process Safety Series Workshops	Singapore Institute of Technology

For Generic Skills and Competencies (GSCs) programme listing, please refer to *Section (v) (c) - View the Training Programmes for GSCs*. Or click this [link](#) to view the GSCs Programme Listing.