

**SKILLS FRAMEWORK FOR DESIGN
SKILLS MAP – CREATIVE TECHNOLOGIST**

Sector	Design			
Track	Technology			
Sub-track	Technology Application in Design			
Occupation	Creative Technologist			
Job Role	Creative Technologist			
Job Role Description	<p>The Creative Technologist spearheads new product development and the improvement of existing products. He/She leads the development of drawings for prototyping and production, and conducts feasibility analysis for design plans. He works in close partnership with stakeholders to revitalise design solutions for outdated products and/or services. He develops staff through capability development and coaching.</p> <p>The Creative Technologist is able to manage multiple projects concurrently. He is responsible for the development and training of design engineering team to ensure the delivery of quality design products. In addition, he is a strong communicator with the ability to present ideas and concepts to both technical and non-technical audiences.</p>			
Critical Work Functions and Key Tasks	Critical Work Functions	Determine design requirements	Communicate requirement-specific solutions to stakeholders	Performance Expectations (For legislated / regulated occupations)
			Develop design rules and guidelines for product designs	
			Compartmentalise designs into functionally effective components	
			Conduct feasibility analysis for design plans	
	Develop prototypes for new products and/or services	Oversee design adjustments made to prototypes		
		Manage components and assemblies of prototypes in adherence to applicable industry and business standards		
		Develop solutions to circumvent future design issues		
		Lead the design and demonstration of product prototypes		
		Lead the development of drawings for prototyping and production		
		Monitor project execution to ensure timely completion		
	Evaluate product and service performance	Develop explanations regarding the limits of technical solutions		
		Implement changes and corrections across the lifecycle of products and/or services		
		Revitalise design solutions for outdated products and/or services in partnership with stakeholders		
		Preside over decisions that require deviation from standard practices for design of products and/or services		
Engage external stakeholders to gauge the feasibility of products and/or services				
Evaluate product concepts or technical solutions to identify the most viable products and/or services for implementation				
Influence organisational development	Develop staff through capability development and coaching			
	Develop on-the-job training programmes			
	Facilitate hiring decisions for the organisation			
	Lead change management initiatives			
Skills & Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
	Aesthetic and Design Sensibility	Level 4	Problem Solving	Advanced
	Behavioural Economics in Design	Level 3	Creative thinking	Advanced
	Business Presentation Delivery	Level 4	Transdisciplinary Thinking	Advanced
	Conceptual Thinking	Level 4	Computational Thinking	Advanced
	Creative Entrepreneurship	Level 4, 5	Digital Literacy	Advanced
	Critical Thinking	Level 4		
	Cultural Sensitivity for Design	Level 4		
	Data Analysis and Interpretation	Level 4		
	Design Sustainability and Ethics Management	Level 4, 5		

	Design Thinking Practice	Level 4, 5	
	Digital and Physical Prototyping	Level 4	
	Emerging Technology Synthesis	Level 4, 5	
	Empathetic Design	Level 4	
	Facilitation	Level 4	
	Imagination and Exploration	Level 4	
	Intellectual Property Management	Level 4, 5	
	Interaction Design Practice	Level 4, 5	
	Material Studies and Production Processes	Level 4	
	Product and Production Engineering	Level 4	
	Stakeholder Management	Level 4, 5	
	Systems Thinking	Level 4	
	User Testing and Usability Testing	Level 4	
Programme Listing	For a list of Training Programmes available for the Design sector, please visit: www.skillsfuture.sg/skills-framework/design		

The information contained in this document serves as a guide.