

SKILLS FRAMEWORK FOR BIOPHARMACEUTICALS MANUFACTURING SKILLS MAP – ENGINEERING AND MAINTENANCE SUPERVISOR		
Sector	Biopharmaceuticals Manufacturing	
Track	Engineering and Maintenance	
Occupation	Supervisor	
Job Role	Engineering and Maintenance Supervisor	
Job Role Description	<p>The Engineering and Maintenance Supervisor is responsible for overseeing and verifying installation and assembly work conducted within the manufacturing facility. He/She also has oversight of maintenance, testing and repair work carried out by his team. He contributes to the proactive management of energy and utilities within the system and liaises with vendors. The Engineering and Maintenance Supervisor also supports in the management of the department by recommending ways to improve department workflows and facilitating equipment replacements and improvements. He must have sound technical knowledge of equipment and systems within the facility whilst also being able to plan and manage Engineering and Maintenance activities to maximise resources and minimise equipment downtime.</p> <p>The Engineering and Maintenance Supervisor should be organised, have a systematic approach to solving problems and be able to communicate with team members and external parties to achieve the desired organisational outcomes.</p>	
Critical Work Functions and Key Tasks	Critical Work Functions	Key Tasks
	Install equipment and systems	Plan manpower, equipment installations and assembly works schedules
		Supervise installations and assembly works
		Verify quality of documentation for installations and assembly works
		Develop guidelines and procedures for the changeover and implementation of flexible facilities
		Oversee product and facility changeover for multiple product lines
	Maintain equipment and systems	Plan maintenance work schedules
		Assign responsibilities and resources to perform maintenance activities
		Supervise testing, maintenance and repair work to ensure compliance with Health, Safety and Environment (HSE) and Current Good Manufacturing Practices (CGMPs) procedures
		Verify that approved repair solutions are implemented
		Verify accuracy of testing, maintenance and repair works documentation
Verify cleanliness of equipment after maintenance and repairs are performed		

		Take stock of machine parts, equipment, and other supplies		
	Manage energy resources and utilities	Oversee day-to-day operations of CGMP utility equipment and systems		
		Monitor resolution of disruptions to energy resources and utilities supplies		
	Manage the department	Recommend solutions to improve Engineering and Maintenance department workflows		
		Submit capital requests to support equipment replacement, upgrades, and other improvements to the Engineering and Maintenance department		
		Evaluate the impact of disruptive events on critical business functions of the department to assist with business continuity planning		
		Implement risk controls within the department		
	Manage vendors for equipment and facility repairs, maintenance, and upgrades			
Skills & Competencies	Technical Skills & Competencies		Generic Skills & Competencies (Top 5)	
	Budgeting	Level 3	Communication	Intermediate
	Business Continuity Management	Level 4	Interpersonal Skills	Intermediate
	Business Performance Management	Level 4	Resource Management	Intermediate
	Change Management	Level 4	Service Orientation	Intermediate
	Conflict Resolution	Level 4	Teamwork	Intermediate
	Continuous Improvement	Level 4		
	Equipment and Systems Repair	Level 3		
	Equipment and Systems Testing	Level 3		
	Facility Maintenance	Level 3		
	Flexible Facilities Implementation	Level 4		
	Good Manufacturing Practices Implementation	Level 4		
	Hazards and Risk Identification and Management	Level 4		
	Health, Safety and Environment Procedures Implementation	Level 3		
	Innovation Management	Level 4		
	Installation and Assembly	Level 3		
	Maintenance Strategy Development	Level 4		
	Preventive Maintenance	Level 3		

	Project Management	Level 4	
	Risk Management	Level 4	
	Systems Thinking	Level 4	
	Team Effectiveness Management	Level 4	
	Utilities Management	Level 4	
	Vendor Management	Level 4	
Programme Listing	For a list of Training Programmes available for the Biopharmaceuticals Manufacturing sector, please visit: www.skillsfuture.sg/skills-framework/biopharmmmfg		

The information contained in this document serves as a guide.