SKILLS FRAMEWORK FOR BIOPHARMACEUTICALS MANUFACTURING
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT

TSC Category	Production					
TSC	Production Planning					
TSC Description	Execute the production plans to meet production targets and cycle time indices					
TSC Proficiency Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**
				BPM-OPR-4014-1.1	**BPM-OPR-5014-1.1**	**BPM-OPR-6014-1.1**
				Facilitate the implementation of the production plans	Establish the organisation's plans and schedules for production activities	Align and integrate production plans within the department, across departments and with business priorities
Knowledge				• Principles of cycle time • Principles of production planning • Methods of interpreting production schedules • Equipment capacity to ensure that production quantities and timelines are achievable • Methods for monitoring actual to planned production • Recording systems and requirements • Methods and techniques for dealing with production difficulties • Methods of maximising resource utilisation and minimising waste, including alternate resource allocation in response to unplanned events	• Methods of developing production schedules • Types of biopharmaceuticals production activities, methods and processes and their interdependencies • Characteristics of raw materials and ingredients, packaging components and consumables • Methods for managing the flow of information between processes to be scheduled and related purchasing and despatch departments • Methods of determining the time and resources required for production activities and processes • Potential disruptions resulting from the implementation of new production schedules • Unusual and unplanned conditions that can affect achievement of schedules • Principles of contingency planning	• Organisation priorities and impact on the production department • Principles and techniques in resource management • Interdependencies among various production activities • Interdependencies among operations of the production department and other departments in biopharmaceuticals manufacturing facilities

					• Consequences of failing to meet delivery timelines, including stock-out fines if relevant	
Abilities				• Analyse production targets • Analyse past production rates and articulate impact on new production plans • Present data and analyses to support and maximise accuracy of forecasts • Plan production timelines according to organisational requirements and resource availability • Communicate the production plans to relevant personnel • Confirm that resources and personnel are available to meet schedules • Match work allocations to competencies available in the work teams according to enterprise procedures • Monitor actual production rates against plans and adjust as necessary	• Identify production priorities to meet customer and market expectations and set targets • Forecast production demand vis-à-vis internal capacity and resources • Identify and confirm resource requirements • Formulate production plans, highlighting key timelines, deliverables and accountabilities • Develop schedules to match production priorities • Schedule planned shut-downs at suitable times • Adjust the schedules in response to typical and atypical variables • Respond to unplanned events to minimise disruptions and optimise efficiency • Track and investigate variances to plans • Follow review procedures to identify opportunities to improve scheduling processes	• Define production priorities for the biopharmaceuticals manufacturing plants • Resolve conflicting demands among different production teams and activities • Make final production decisions for the organisation • Integrate production plans across the organisation • Spearhead continuous improvement strategies and projects with minimal disruption to ongoing production