TSC Category	Engineering Design and Project Management					
TSC	Engineering, Procurement and Construction Management					
TSC Description	Manage engineering design, procurement and construction for new process plants and/or plant expansion projects					
TSC Proficiency Description	**Level 1**	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**
			ECM-EPM-3004-1.1	ECM-EPM-4004-1.1	ECM-EPM-5004-1.1	
			Interpret engineering design principles, standards, codes and specifications to execute Engineering, Procurement and Construction (EPC) related activities within a project team	Facilitate the development and review of engineering design, procurement and construction to meet the objectives and specifications of new process plants and/or plant expansion projects	Validate the engineering design, technical specification of equipment and systems and constructions to ensure new process plants and/or plant expansion projects meet time, cost and quality objectives	
Knowledge			• EPC standards procedures and practices • Types of detailed engineering drawings • Fundamentals of material science and construction technology • Methods of developing material requisitions, including specifications, document requirements, testing and delivery terms • Techniques to monitor and control plant construction activities • Techniques to manage vendors and contractors • Principles of inspection and acceptance testing • Methods to observe and record non-conformance issues	• Engineering, Procurement and Construction (EPC) standards procedures and practices • Types of equipment Technical Qualifications (TQs) standards, procedures and practices • Material take-off standards, procedures and practices • Plant construction and geo-technics principles • Construction project management principles • Construction planning principles • Techniques to manage third-parties	• Engineering, Procurement and Construction (EPC) standards procedures and practices • New and emerging technologies and industry best practices in EPC • Workplace Safety and Health (WSH) and environmental related regulation requirements • Constructability reviews, principles and practices • Types of commercial and contract requirements • Construction management principles and practices • Corporate governance structures	

Abilities			• Interpret engineering design principles, standards, codes and specifications for EPC projects • Develop detailed engineering construction drawings • Prepare material requisitions and material take-off requests • Develop quality plans and inspection test plans • Procure engineering equipment and systems • Monitor and control vendors' and contractors' activities and project deliverables • Perform inspection and acceptance tests • Monitor and record non-conformance in supplies or construction activities	• Review procurement of equipment and systems • Review detailed engineering design drawings • Review material requisitions and take-off requests • Review contractors and subcontractor activities • Review quality plans and inspection test plans • Review acceptance tests reports • Review non-conformance in supplies or construction and recommend improvements • Carry out compliance audits	• Drive EPC projects ensuring time, cost and quality objectives are delivered • Set up and maintain appropriate corporate governance structures • Review and audit EPC project activities ensuring conformance to organisational standards • Direct project progress reviews against detailed engineering drawings and designs • Direct plant WSH and environmental audits during EPC project phases • Review commercial contracts and ensure compliance to work scope and organisation terms and conditions	