

**SKILLS FRAMEWORK FOR FINANCIAL SERVICES
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Data Analytics and Information Technology Management					
TSC	Data Mining and Modelling					
TSC Description	Establish and deploy data modelling techniques to support narrative and predictive analytics efforts and identify trends and patterns for simulation and forecasting purposes					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			FSE-DAT-3003-1.1-1	FSE-DAT-4003-1.1	FSE-DAT-5003-1.1-1	
			Address potential data quality issues, conduct narrative analytics and deep-dive analyses to identify patterns and trends	Build leading practices in safeguarding data accuracy, cleanliness and integrity, review and propose appropriate analytics models	Drive, design and establish data mining and modelling methodologies and data quality governance frameworks	
Knowledge			<ul style="list-style-type: none"> • Various uses of data mining • Data modelling tools and techniques • Data collection methodologies and approaches • Data confidentiality issues associated with presenting statistical results • Business objectives 	<ul style="list-style-type: none"> • Methods to validate data and information • Types of statistical methodologies to make inferences • Key metrics to drive desired outcomes • Statistical software suitable for data-mining requirements • Organisation's business problems 	<ul style="list-style-type: none"> • Guiding principles in data mining and modelling frameworks • Data mining requirements based on organisational needs • Application data modelling tools and techniques to synthesise patterns and trends 	
Abilities			<ul style="list-style-type: none"> • Implement guidelines to safeguard data accuracy, cleanliness and integrity • Collect and prepare data sets for analysis, simulation and forecasting • Identify data quality issues • Conduct deep-dive analyses to identify patterns and trends in data sets 	<ul style="list-style-type: none"> • Establish leading practices in safe guarding data accuracy, cleanliness and integrity • Provide guidance on resolution of data quality issues • Review appropriate analytics models based on relationships between variables • Propose appropriate business scenarios for the conduct of preliminary simulation and forecasting analytics 	<ul style="list-style-type: none"> • Design and establish data mining and modelling methodologies to be applied within the organisation • Establish data quality governance frameworks • Review findings on analytics correlations and causality • Establish interactive analytics models based on dynamic scenarios • Review business scenarios and outputs from simulation and forecasting analytics 	

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					<ul style="list-style-type: none">• Drive the design and implementation of stress testing processes and analytics	
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