|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TSC Category** | Risk Management, Governance and Regulatory Compliance | | | | | |
| **TSC Title** | Product Risk Analytics | | | | | |
| **TSC Description** | Utilise quantitative methods, stress testing approaches and risk modelling to support robust integrated risk management frameworks and methodologies for products | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
|  |  |  |  |  |  |
|  |  | Understand and analyse quantitative models and implement basic stress testing approaches to monitor and measure risks, while also implementing risk response activities | Design and deploy analysis of quantitative models, risk scenarios, and stress testing processes to facilitate risk management approaches across the organisation and functions | Develop and drive organisation’s strategy for designing and implementing quantitative analytics models, scenario analyses and stress testing approaches aligned to the organisation’s integrated risk management approaches |  |
| **Knowledge** |  |  | * Risk management guidelines and regulations * Stress testing processes * Organisation’s risk indicators, risk response activities and processes * Basic principles of data analytics, quantitative methods, pricing and valuation models * Data analytics * Financial mathematics * Financial products and markets * Data management and use of technology | * Development and validation approaches for risk management quantitative models * Knowledge of risk principles, trends and developments in product development * Risk measurement, pricing and valuation models * Risk management and mitigation framework, policies and processes | * Methods for developing procedures, processes and guidelines * Emerging trends and developments in risk management within product development * Organisation’s strategic direction, objectives, and risk appetite |  |
| **Abilities** |  |  | * Execute risk assessment and modelling processes * Conduct bottom-up and top-down stress testing approaches * Analyse stress test results and/or risk models to identify, assess and report risks to relevant stakeholders * Report possible impact of identified risks on organisation’s risk exposure, risk profile business and/or environment * Develop pricing and valuation models according to parameters to identify risks involved * Propose possible risk response activities aligned to identified risks * Facilitate risk response activities with organisational stakeholders | * Define objectives, variables and parameters for risk analytics and risk modelling activities * Identify possible scenarios and implementation strategies for scenario analyses and stress testing * Define objectives, variables and parameters for risk analytics and risk modelling activities * Identify possible scenarios and implementation strategies for scenario analyses and stress testing * Derive and report outcome of stress test results analyses * Assess and report identified risk events and their impact to the organisation * Identify and propose risk response activities * Define appropriate data management initiatives * Monitor risk analytics activities and propose improvement initiatives to mitigate risk * Identify and propose risk response activities * Define appropriate data management initiatives * Monitor risk analytics activities and propose improvement initiatives to mitigate risk * Propose valuation and pricing for products and services based on models | * Define organisation’s risk analytics framework, policies and processes and objectives * Develop key risk indicators for organisation * Define forward looking scenarios for stress testing and scenario analyses * Regularly report risk analytic activities and findings to senior management * Propose and deploy appropriate risk controls to ensure compliance and manage risk exposure * Align risk analytics activities with enterprise risk management approaches * Design and prepare crisis management and business continuity approaches * Advise organisational stakeholders on overall risk appetite and risk tolerance limits |  |
| **Range of Application** | N/A | | | | | |

©SkillsFuture Singapore and Infocomm Media Development Authority

Effective Date: March 2022, Version 1.0