TSC Category	Business Development					
TSC Title	Data Analytics					
TSC Description	Implementing data analytics within the organisation to generate business insights and intelligence through the use of statistical and computational techniques and tools, algorithms, predictive data modelling and data visualisation.					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		ICT-BIN-2104-1.1	ICT-BIN-3104-1.1	ICT-BIN-4104-1.1	ICT-BIN-5104-1.1	
		Identify underlying trends and patterns in business data using statistical and computational techniques and tools	Develop, apply and evaluate algorithms, predictive data modelling and data visualisation to identify underlying trends and patterns in data	Design and conduct data studies to drive organisational decisions and insights	Manage and enhance organisational data science capability by refining financial and other business performance criteria and design data studies	
Knowledge		• Principles of data modelling and data visualisation • Techniques used in data science and how to apply them • Range of data protection and legal issues • Range of functional languages that can be applied for business insights • Methods to apply statistical techniques and machine learning • Importance of the domain context for data science • Underlying data structures involved for data science	• Organisational domain(s) and key business processes • Methods to use analytics to tell the story of the data • Methods to use exploratory visual analysis and predictive modelling • Methods to identify and prioritise the problems to be solved • Methods to develop prototype algorithms • Methods to build a data model • Methods to use data mining to discover new business insights • Methods to interpret patterns in data and their relevance to business issues • Range of established and novel tools and techniques used in developing new business insights	• Organisational benefits of business insights • Methods to evaluate data science solutions in contributing to efficiency, growth and return on investment • Methods to identify and interpret the implications of data patterns • Methods to prioritise proposed data science projects • Methods to approach a business problem and come up with a solution that leverages the available data • Methods to run complex data mining models • Methods to visually and analytically explore a data set • Methods to manage the capacity to perform data science projects • Application of statistics, data mining and data modelling and the	• Organisational context for data and the opportunities that data analytics can provide • Business processes that use and manipulate data • Methods to develop and maintain controls for data quality • Methods to define and manage policies and programs for data stewardship • Impact that data analysis has on business service offerings • Horizon scanning methods	

			• Methods to apply complex software tools to analyse data • Use of statistical techniques, experimental techniques, and hypothesis testing	application of relevant tools and techniques • Methods to measure the capability of the data science team	
Abilities		• Use data mining, time series forecasting and modelling techniques to identify and predict trends and patterns in data • Assist with data transformation, quality checking and cleansing into digestible data sets • Perform database queries across multiple tables/unions to extract relevant data • Perform appropriate data analysis on distinct data sets • Produce performance dashboards and insight reports • Assist in the production of a range of business insight reports • Summarise and present business insights developed from data studies	• Apply predictive data modelling techniques to identify underlying trends and patterns in data using statistical computing tools, methods and procedures • Identify patterns across multiple data sets to derive insights • Develop prototype algorithms and proof of concept demonstrations • Make decisions about which patterns are meaningful, and which to further analyse • Assemble data aggregations to build data models to help test problem hypotheses • Use machine learning techniques to gain new insights from data • Mine data to find relevant insights to develop ongoing improvements • Asses the business insights presented to determine impact of insights on organisation • Manage the creation of interactive visualisations of data and data study outcomes	• Interpret implications of data patterns on business problem scenarios • Exploit business data to extract insights • Manage data science projects • Configure and customise data models to investigate organisational business hypotheses • Manage organisational capacity for performing data science projects • Run complex data mining models to provide business insights in line with organisational procedures • Communicate the results of data science projects • Make recommendations to guide organisational decision making	• Formulate the organisation's data science capability to inform business decision making • Lead the implementation of the data science strategy, policies, procedures and metrics to support organisational requirements • Oversee the design, collection, retrieval and analysis of forecasting and performance data • Produce ad hoc analyses and management reports for senior management • Develop and maintain controls on data quality, inter-operability and sources to effectively manage risk • Define and manage policies and programs for data stewardship and custodianship in line with legal, information security, and corporate risk and compliance requirements • Conduct horizon scan to identify, evaluate and implement new technologies and techniques which may	

			• Use industry standard tools and techniques for data visualisation in line with organisational procedures		contribute to the success of the organisation's data analysis capability	
Range of Application						