
Overview

This sub-discipline Data Science (803) is concerned with the competencies required to design and implement data studies to drive organisational decisions and insights. This involves undertaking tasks to develop, implement and evaluate algorithms, predictive data modelling and data visualisation to identify underlying trends and patterns in data using statistical and computational techniques and tools.

Working in the senior professional role (8035) is primarily focussed on managing the data science capability for data driven business insights realisation.

Performance criteria

You must be able to:

1. develop the required data science capability to inform business decision making
2. identify and interpret the implications of data patterns on problem scenarios
3. manage the data science capability to handle the increasing volume, velocity and variability of data
4. exploit data to extract insights in line with organisational procedures
5. manage data science projects in line with organisational procedures
6. configure and customise data models to investigate organisational hypothesis
7. prioritise proposed data science projects to maximise business improvement returns
8. manage the capacity to perform data science projects, in line with workload constraints
9. lead the implementation of the data science strategy, policies, procedures and metrics to support organisational requirements
10. create an effective culture of data-driven decision making
11. run complex data mining models on large volumes of data to provide business insights in line with organisational procedures
12. communicate the results of data science projects in line with organisational procedures
13. make appropriate recommendations to guide organisational decision making
14. perform skills and training needs analysis to identify appropriate external training solutions
15. conduct appropriate internal training in data science
16. explore new technologies and methods in data science to continually improve the data science capability
17. gain appropriate management buy-in for data driven decision making

Knowledge and understanding

You need to know and understand:

1. the organisational benefits of business insights
2. how to evaluate data science solutions in contributing to efficiency, growth and return on investment
3. how to identify and interpret the implications of data patterns
4. how to prioritise proposed data science projects
5. how to systematically approach a business problem and come up with a solution that leverages the available data
6. how to run complex data mining models
7. how to visually and analytically explore a data set
8. how to identify when to dig more deeply, with additional visual and predictive analytics
9. how to manage the capacity to perform data science projects
10. the application of statistics, data mining and data modelling and the application of relevant tools and techniques
11. how to measure the capability of the data science team
12. how to identify and validate new channels of recruitment to develop the data science capability
13. how to plan and develop training programmes to develop the data science capability
14. how to benchmark external training to compare and select training options

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