

<b>TSC Category</b>	Productivity and Innovation					
<b>TSC</b>	Data Analytics					
<b>TSC Description</b>	Organise and analyse structured or unstructured data to create insights systematically					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
		<b>ATP-PIN-2001-1.1</b>	<b>ATP-PIN-3001-1.1</b>	<b>ATP-PIN-4001-1.1</b>	<b>ATP-PIN-5001-1.1</b>	
		Identify and process data according to required formats	Conduct data studies and present insights and trends in datasets	Develop data studies and deepen insights to evaluate trends in datasets	Drive efforts to improve data analytics capabilities within the organisation	
<b>Knowledge</b>		<ul style="list-style-type: none"> <li>Types of data analytics</li> <li>Tools and techniques for data collection, cleaning and visualisation</li> <li>Concepts of data quality</li> <li>Procedures to extract and process data sets</li> </ul>	<ul style="list-style-type: none"> <li>Tools and techniques for data collection, mining, cleaning and analysis</li> <li>Statistical principles underpinning data analysis techniques</li> <li>Principles of communicating data effectively</li> <li>Procedures to extract and process data sets</li> </ul>	<ul style="list-style-type: none"> <li>Tools and techniques for data collection, mining, cleaning and analysis</li> <li>Statistical principles underpinning data analysis techniques</li> <li>Methods for pattern-based classifications</li> <li>Data visualisation tools and techniques</li> <li>Principles of communicating data effectively</li> <li>Techniques to create data codes and building prediction functions</li> </ul>	<ul style="list-style-type: none"> <li>Tools and techniques for data collection, mining, cleaning and analysis</li> <li>Statistical principles underpinning data analysis techniques</li> <li>Methods for pattern-based classifications</li> <li>Data visualisation tools and techniques</li> <li>Principles of communicating data effectively</li> <li>Underlying principles behind data codes and prediction functions</li> <li>Data science techniques such as Advanced R Programming and Machine Learning (ML)</li> </ul>	
<b>Abilities</b>		<ul style="list-style-type: none"> <li>Identify data sources which fulfil research and analysis requirements</li> <li>Perform database queries across multiple sources to extract relevant data</li> <li>Process data following standard procedures to facilitate data analysis</li> </ul>	<ul style="list-style-type: none"> <li>Integrate information from multiple datasets</li> <li>Conduct data mining exercises to uncover trends in the data</li> <li>Perform data analysis to derive meaningful and actionable insights</li> <li>Recognise sequential patterns and sub-graph</li> </ul>	<ul style="list-style-type: none"> <li>Review data to ensure planning parameters are captured in extracted datasets</li> <li>Configure data models to perform advanced analytics which will provide insights of business value</li> <li>Engage in scalable pattern discovery</li> </ul>	<ul style="list-style-type: none"> <li>Formulate the organisation's data science plans to support business objectives</li> <li>Conduct horizon scans to identify, evaluate and implement new technologies and techniques to improve the effectiveness of data analytics</li> </ul>	

**SKILLS FRAMEWORK FOR AIR TRANSPORT  
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

		<ul style="list-style-type: none"> <li>Organise data into appropriate chart elements to report analytics outputs</li> </ul>	<p>patterns to draw linkages between variables</p> <ul style="list-style-type: none"> <li>Present analytics outputs in a visually appealing format to support decision-making</li> </ul>	<p>methods on big data to identify market trends</p> <ul style="list-style-type: none"> <li>Design effective and predictive dashboards to represent analytics outputs from large datasets</li> <li>Communicate insights to relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Develop tools to automate data science tasks and improve analytics capabilities</li> <li>Develop linkages of analytical outcomes to business objectives to influence business strategies</li> <li>Advise staff to develop effective and predictive dashboards which represent analytics outputs from large datasets</li> </ul>	
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