

<b>TSC Category</b>	Commercial Management					
<b>TSC</b>	Scheduling and Slot Coordination					
<b>TSC Description</b>	Develop and manage airline schedules and slots by applying optimisation techniques					
<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-CMG-3007-1.1</b>	<b>ATP-CMG-4007-1.1</b>	<b>ATP-CMG-5007-1.1</b>	<b>ATP-CMG-6007-1.1</b>
			Assess factors affecting airline schedules to coordinate slots for disrupted or delayed flights	Develop airline schedules and review slot coordination to meet flight schedules	Formulate procedures and models for airline schedule planning and slot coordination	Drive the development of overall strategies and optimisation models for the design of airline schedules
<b>Knowledge</b>			<ul style="list-style-type: none"> <li>• Airline schedule planning procedures</li> <li>• Concept of and procedures for slot coordination</li> <li>• Roles and responsibilities of different stakeholders and/or departments involved in airline scheduling</li> <li>• Constraints in airline scheduling and associated schedule disruptions</li> <li>• Concept of flight network nodes and arcs</li> <li>• Methods and procedures for managing schedule disruptions</li> <li>• Airline economics</li> <li>• Aircraft turnaround activities</li> <li>• Local and international guidelines such as International Air Transport Association (IATA) Worldwide Scheduling Guidelines (WSG)</li> </ul>	<ul style="list-style-type: none"> <li>• Airline schedule planning procedures</li> <li>• Concept of and procedures for slot coordination</li> <li>• Roles and responsibilities of different stakeholders and/or departments involved in airline scheduling</li> <li>• Procedures for crew re-scheduling</li> <li>• Cost impact analysis</li> <li>• Constraints in airline scheduling and associated schedule disruptions</li> <li>• Fleet assignment models</li> <li>• Local and international guidelines such as International Air Transport Association (IATA) Worldwide Scheduling Guidelines (WSG) and International Civil Aviation Organisation (ICAO) Annex for Rules of the Air</li> </ul>	<ul style="list-style-type: none"> <li>• Airline schedule planning procedures</li> <li>• Concept of and procedures for slot coordination</li> <li>• Types of irregular operations and their impact on airline schedules</li> <li>• Cost impact analysis</li> <li>• Concepts of airline integrated recovery models</li> <li>• Techniques of schedule feasibility analysis</li> <li>• Concept of aircraft maintenance routing</li> <li>• Local and international guidelines such as International Air Transport Association (IATA) Worldwide Scheduling Guidelines (WSG) and International Civil Aviation Organisation (ICAO) Annex for Rules of the Air</li> </ul>	<ul style="list-style-type: none"> <li>• New international developments in the area of airline scheduling</li> <li>• New international developments in the area of slot management</li> <li>• Strategic management</li> <li>• Theories of scheduling optimisation models and algorithms</li> <li>• Negotiation techniques</li> <li>• Techniques of schedule feasibility analysis</li> <li>• Politics of aviation</li> <li>• Local and international guidelines such as International Air Transport Association (IATA) Worldwide Scheduling Guidelines (WSG) and International Civil Aviation Organisation (ICAO) Annex for Rules of the Air</li> </ul>

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

<p><b>Abilities</b></p>			<ul style="list-style-type: none"> <li>• Identify differences between ground arcs and connecting arcs</li> <li>• Monitor internal and external factors which affect airline schedules</li> <li>• Determine appropriate methods to manage schedule disruptions</li> <li>• Execute procedures to re-optimize schedules after disruptions occur</li> <li>• Schedule slots in airports</li> <li>• Ensure slot requests are completed with accuracy</li> <li>• Coordinate with external stakeholders to re-schedule slots in airports based on changes in flight schedules</li> <li>• Coordinate with stakeholders to make operational changes based on adjustments to airline schedules and slots</li> </ul>	<ul style="list-style-type: none"> <li>• Determine implications of ground arcs and connecting arcs on airline scheduling</li> <li>• Develop plans to isolate disruptions to minimise downstream impact on flight networks</li> <li>• Analyse historical data to forecast propagated delays and total arrival delays for airline schedules</li> <li>• Calculate cost impact of disruptions and delays on airline operations</li> <li>• Analyse capabilities of airlines, airports and ground handling organisations to meet flight schedules</li> <li>• Conduct analysis to determine feasibility of scheduling slots for proposed flight routes</li> <li>• Verify slot requests to ensure accuracy and completeness and avoid the risk of losing historical slots due to errors</li> <li>• Collaborate with other departments to integrate flight schedule designs with fleet assignment decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Develop strategies to enhance robustness of airline schedules during planning stage</li> <li>• Develop Standard Operating Procedures (SOPs) for airline scheduling and slot coordination</li> <li>• Oversee processes for automating the generation of slot requests</li> <li>• Oversee processes for automating the management of current slots and slot changes</li> <li>• Establish integrated recovery models to manage flight schedules impacted by irregular operations</li> <li>• Implement optimisation models and solutions to minimise the number of passengers impacted by irregular operations</li> <li>• Propose recommendations on flight networks and new routes based on disruptions and delays identified in historical data</li> </ul>	<ul style="list-style-type: none"> <li>• Formulate overall strategies to deploy optimisation models and algorithms in the design of airline schedules</li> <li>• Augment airline schedules to maximise revenues</li> <li>• Negotiate agreements with airports and ground handling organisations to secure proposed airline schedules</li> </ul>
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