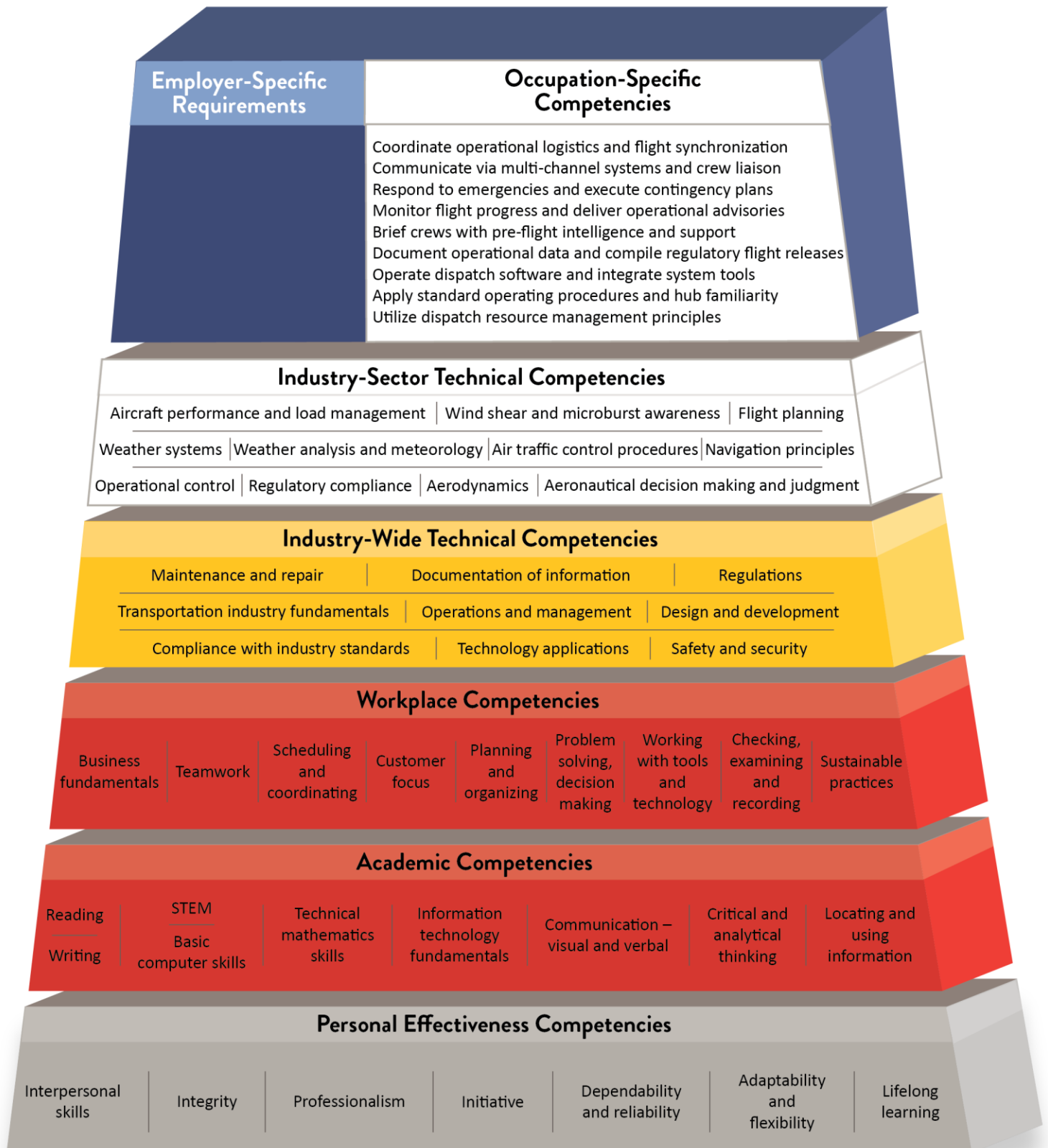


Minnesota Dual-Training Pipeline Competency Model for Transportation Occupation: Aircraft Dispatcher



Based on: Transportation, Distribution and Logistics Competency Model, Employment and Training Administration, United States Department of Labor, February 2025. For more detailed information about competency model creation and sources, visit dli.mn.gov/business/workforce/transportation.

Competency Model for Aircraft Dispatcher

Aircraft Dispatcher – An aircraft dispatcher is a certified aviation professional responsible for planning, coordinating, and monitoring flights to ensure safe and efficient air travel. Working primarily for an airline’s operations center, dispatchers share joint authority with the Pilot in Command under the Federal Aviation Administration’s (FAA) System of Operational Control, particularly for Part 121 scheduled airlines.

*Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job (OJT) training opportunities.

Industry-Sector Technical Competencies

Related Instruction for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee’s current or intended occupation.

- **Aircraft performance and load management** – Calculate and verify aircraft weight and balance, fuel loads, and payload distribution to optimize performance and ensure safe takeoff, cruise, and landing parameters.
- **Wind shear and microburst awareness** – Identify and avoid hazardous weather phenomena such as wind shear and microburst, ensuring flight plans and crew advisories reflect current and forecasted risks.
- **Flight planning** – Develop comprehensive flight plans that account for weather conditions, aircraft performance, fuel requirements, alternate airports, and regulatory compliance to ensure safe and efficient operations.
- **Weather systems** – Interpret and use weather charts, maps, forecasts, sequence reports, abbreviations, and symbols as it relates to National Weather Service in the National Airspace System.
- **Weather analysis and meteorology** – Interpret meteorological data to anticipate and mitigate adverse weather conditions, ensuring flight plans are adjusted accordingly and crews are informed of potential hazards.

- **Air traffic control procedures** – Understand pilot responsibilities and ATC procedures related to enroute operations, terminal area coordination, and instrument departure/approach protocols.
- **Navigation principles** – Apply principles of air navigation under instrument meteorological conditions in the National Airspace System.
- **Operational Control** – Apply joint authority with Pilot in Command to initiate, conduct, and terminate flights, ensuring all operational decisions prioritize regulatory compliance and the highest standards of flight safety.
- **Regulatory compliance** – Ensure all flight operations adhere to FAA regulations and airline policies, including weight and balance limits, crew duty times, and aircraft readiness.
- **Aerodynamics** – Understand an aircraft’s flight characteristics and performance in normal and abnormal flight regimes.
- **Aeronautical decision making and judgement** – Utilize structured decision-making frameworks to assess risk, evaluate alternatives, and make timely, safety-focused dispatch decisions under dynamic operational conditions.

Occupation-Specific Competencies

On-the-Job Training is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Coordinate operational logistics and flight synchronization** – Collaborate with pilots, ground crews, and air traffic control to align flight activities, resolve logistical challenges, and maintain real-time situational awareness.
- **Communicate via multi-channel systems and crew liaison** – Use radio, telephone, and digital platforms to transmit assignments, relay updates, and sustain continuous contact with flight crews throughout all flight phases.
- **Respond to emergencies and execute contingency plans** – Prepare for and manage in-flight emergencies or disruptions by coordinating reroutes, diversions, and support services while upholding safety and compliance standards.
- **Monitor flight progress and deliver operational advisories** – Continuously oversee flights enroute, tracking progress and advising crews of weather changes, notice to airmen (NOTAMs), and operational updates.

- **Brief crews with pre-flight intelligence and support** – Provide pilots with comprehensive pre-flight briefings covering route, weather, aircraft status, and contingency plans to ensure mutual agreement before departure.
- **Document operational data and compile regulatory flight releases** – Maintain flight logs, dispatch records, and performance statistics for audits, reviews, and continuous improvement initiatives.
- **Operate dispatch software and integrate system tools** – Utilize proprietary flight planning, tracking, and communication platforms tailored to the airline’s operations center.
- **Apply standard operating procedures and hub familiarity** – Implement airline-specific procedures and develop expertise in the route network, hub logistics, and regional operational nuances.
- **Utilize dispatch resource management principles** – Apply principles to coordinate aircraft, crew, airspace, and ground assets efficiently, maintaining situational awareness and optimizing operational decisions during both routine and irregular operations.

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