



Course Description

AVM1121 | Hazardous Materials/Dangerous Goods | 3.00 credits

This course is designed to provide the student with knowledge of dangerous goods/ hazardous materials and their effect in air transportation and logistics. The students will be conversant in hazardous material regulations for cargo and passenger transportation. The course will encompass the identification, labeling, packaging and handling of 9 types of dangerous goods in air transportation and general logistics. Prerequisite: AVM2120.

Course Competencies:

Competency 1: The student will demonstrate knowledge and understanding of hazardous materials/ dangerous goods by:

1. Explaining hazardous materials and dangerous goods transportation, procedures, and regulations,
2. Discussing the outcome of procedural and/or regulatory failure by citing previous accidents and environmental disasters caused by dangerous goods/ hazardous materials
3. Pointing out how to differentiate dangerous goods from other types of cargo, from the most basic and least harmless types of dangerous goods to the most damaging and difficult to transport
4. Defining the responsibilities of operators and shippers
5. Recalling the labeling and packaging requirements for the various types of dangerous goods and listing the documentation necessary for dangerous goods transportation
6. Displaying familiarization with the International Air Transport Association (IATA) dangerous goods manual
7. Summarizing the procedures for handling dangerous goods carried by passengers as luggage or carry-on baggage

Competency 2: The student will analyze and interpret the assigned hazardous materials/ dangerous goods text (manuals, publications, or otherwise) from a variety of perspectives and be able to by:

1. Identify hazardous materials and dangerous goods, find out the quantity of hazardous materials that can be loaded into a passenger-carrying flight, conclude the quantity of hazardous materials that can be loaded into a cargo flight, and figure out the amount and type of radiation in a shipment (if applicable)
2. Demonstrating compliance with loading, securing, and storing procedures
3. Reviewing and explaining a hazardous goods declaration sheet, shipping label, and airway bill

Competency 3: The student will produce reasoned, critical responses to common concerns in the transportation of hazardous materials and dangerous goods by:

1. Analyzing a shipping label and determining if the hazardous materials can be shipped in a passenger/cargo flight
2. Describing the classification of the nine dangerous goods classes with their main criteria so that the hazards of each classification are clearly understood
3. Identifying the United Nations (UN) number for each of the above and why it is essential to be familiar with this nomenclature
4. Naming the procedures to follow in the case of a hazardous materials accident or incident and the appropriate agencies that should be notified and involved

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Formulate strategies to locate, evaluate, and apply information
- Describe how natural systems function and recognize the impact of humans on the environment