

UNIT 2: HEALTH AND SAFETY IN THE AVIATION INDUSTRY



Unit 2: Health and Safety in the Aviation Industry

Unit code: R/602/5675

QCF Level 3: BTEC National

Credit value: 7

Guided learning hours: 57

LESSON 1: Understand the Importance of Health and Safety in the Aviation Industry & Understand how Health and Safety is Regulated in the Aviation Industry

AIM AND PURPOSE

The aim of this unit is for learners to gain knowledge and an understanding of health and safety within the aviation industry to ensure the integrity of flight operations, build public confidence and guarantee future development.

UNIT INTRODUCTION

This unit starts by asking learners to examine accident statistics and the importance of health and safety to the aviation industry. This sets the scene for introducing the organizations, laws and regulations tasked with keeping the aviation industry safe which are numerous and diverse and include the Health and Safety Executive (HSE), the Air Accidents Investigation Branch (AAIB) and the Civil Aviation Authority (CAA). Learners do not need to become experts, but should understand the structure of health and safety in the aviation industry.

Learners will explore the systems that have been put in place to keep the industry safe through case studies and real-life situations, for example injuries and fatalities to personnel working on the ramp, health issues relating to cabin crew on a flight. Understanding these situations enables those working in the industry to put systems in place to deal with a multitude of different, and sometimes unimaginable, scenarios.

Learners will look at the procedures for dealing with minor and major events on the ground and in the air. The aviation industry has developed emergency plans to deal with disasters; these plans need to be tested and calibrated by everyone concerned. Learners will examine the systems used to monitor, control and improve health and safety and learn about the supervisor's responsibility within a Human Factors programme. On completion of the unit learners will appreciate the importance of providing a safe and healthy aviation environment.

LO1 & 2. Understand the Importance of Health and Safety in the Aviation Industry & Understand how Health and Safety is Regulated in the Aviation Industry

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CLASS 21 of 24: CLASS DISCUSSION AND ACTIVITIES

LESSON DELIVERY

- 1) Introduction and overview of the unit.
- 2) Examine accident statistics and the importance of health and safety to the aviation industry

Accident statistics:

- Workplace
- At airports
- In the air

Incidents:

- Safety, e.g. bird strike, foreign object debris (FOD), aircraft fire, collision between aircraft and airside vehicle, fuel spillage
- Health, e.g. slips, trips, falls, hearing damage, musculoskeletal damage

Importance of maintaining a safe environment:

- To the organization, e.g. licensing, court fines, bad publicity, loss of revenue, compliance with health and safety regulations
- To staff, e.g. to reduce accidents and injuries, disciplinary action, responsibility in law
- To visitors and passengers, e.g. unfamiliar with their surroundings, unaware of potential dangers

3) Discuss how health and safety is regulated

Key legislation, regulations and procedures:

- The Health and Safety at Work Act 1974
- Other relevant health and safety legislation and regulations, e.g. noise control, Control of Substances Hazardous to Health (COSHH) regulations, working-time regulations, manual handling, data protection, personal protective equipment (PPE)
- Reporting of accidents and serious occurrences at work
- Civil aviation acts
- CAA regulations
- Company procedures relating to health and safety

Responsibilities of supervisors and employees:

- Ensuring staff compliance, e.g. wearing PPE, following manual handling regulations, maintaining training records, reporting and investigating incidents

Role of regulatory bodies and organizations involved in aviation health and safety:

- Regulatory bodies, e.g. International Civil Aviation Organization (ICAO), Civil Aviation Authority (CAA), Health and Safety Executive (HSE), Department for Transport (DfT), Air Accidents Investigation Branch (AAIB)
- Aviation and other organizations, e.g. local authority, ambulance, fire and rescue, police and social services, airports, airlines, handling agents, security companies, cleaning companies

Learners are ‘taught’ how the:

- 1) The importance of health and safety in the aviation industry.
- 2) How health and safety is regulated in the aviation industry

UNIT 2: LO1 & 2 GRADED ASSIGNMENTS GUIDELINES

LESSON 1: P1 – P2 – P 3 – P4 – P5 - M1

ASSIGNMENT TITLE: Health & Safety in the Aviation Industry

ASSESSMENT METHOD: Presentation

CASE STUDY/SCENARIO: Working for a health and safety company at a busy UK airport. You will be giving a talk to new employees on the importance of health and safety in the aviation industry.

P1. To achieve a Pass Grade for P1, the evidence must show that you are able to: **Describe different types of health and safety accidents or incidents that can occur relating to aircraft, other airside and landside hazards.**

To achieve P1, learners should describe five different types of health and safety accidents or incidents. They should describe at least one relating to aircraft, at least one relating to another airside hazard and at least one relating to a landside hazard. Case studies could be used.

P2. To achieve a Pass Grade for P2, the evidence must show that the learner is able to: **Explain the importance of maintaining a safe environment in aviation.**

To achieve P2, learners will need to explain the importance of maintaining a safe aviation environment for the organization, for staff and for visitors and passengers. Learners should refer to the accidents or incidents described for P1 and comment on accident statistics for the aviation workplace, at airports and in the air.

P3. To achieve a Pass Grade for P3, the evidence must show that the learner is able to: **Summarize key health and safety regulations and legislation.**

To achieve P3, learners will need to summarize the key legislation, regulations and procedures that apply to the industry. In terms of health and safety, the most important is the Health and Safety at Work Act 1974; learners will need to summarize this piece of legislation and identify why it is so important. Likewise, the general content and purpose of CAA regulations need to be summarized, but the content is far too large to cover in depth. Learners should select at least three other relevant health and safety laws and regulations, including reporting of accidents and serious occurrences at work, and company procedures relating to health, safety and security.

P4. To achieve a Pass Grade for P4, the evidence must show that the learner is able to: **Outline the responsibilities of supervisors and employees when complying with health and safety regulations and legislation.**

To achieve P4, learners should outline the responsibilities of supervisors and employees in complying with health and safety regulations and legislation.

P5. To achieve a Pass Grade for P5, the evidence must show that the learner is able to: **Explain the role of the regulatory bodies and organizations involved in aviation health and safety.**

To achieve P5, learners should explain the role of the regulatory bodies and other aviation organizations involved in aviation health and safety. To illustrate their explanation learners should link key legislation, regulations and procedures to the regulatory bodies and other aviation organizations. At least two examples should involve regulatory bodies and a further two should relate to other bodies listed in the unit content.

M1. To achieve a Merit Grade the evidence must show that, in addition to the pass criteria, you are able to: **Analyze the cause of health and safety accidents or incidents.**

To achieve M1, learners should analyze the cause of health and safety accidents or incidents in the aviation industry. A number of documented accidents have been caused by crew fatigue and a good response at this level could be 'Flight crew and cabin crew flying hours are regulated by JAR OPS/EU OPS. Crew are only allowed to fly a certain number of hours before they have to rest. Flight and duty time limitations and rest requirements are strictly monitored to ensure the safety of the crew, aircraft and passengers. If crew go over their regulated hours then fatigue can prevent them achieving their job roles, and this could then lead to an accident or incident that compromises the safety of the aircraft, its passengers and crew. For example, flight crew that are tired or fatigued may forget to complete their safety checks before landing.' It is expected that learners would include at least three accidents or incidents within their analysis.

UNIT 3: SECURITY IN THE AVIATION INDUSTRY SCORE SHEET

NAME OF STUDENT:

DATE:

Learning Outcome	Students Must Meet ALL The Following Requirements For PASS Grade	ACHIEVED	
		YES	NO
LO 1. Know the structure of the UK aviation industry	LO 1 & 2: Understand the importance of security in the aviation industry <i>TASK: You should carry out this task as an Employee at a busy airport:</i>		
	1. Briefly describe what is meant by “Health’ and “Safety”		
	2. For P1: Describe different types of health and safety accidents or incidents that can occur relating to aircraft, other airside and landside hazards.		
	3. For P2: Explain the importance of maintaining a safe environment in aviation.		
	4. For P3: Summarize key health and safety regulations and legislation.		
	5. For P4: Outline the responsibilities of supervisors and employees when complying with health and safety regulations and legislation.		
	6. For P5: Explain the role of the regulatory bodies and organizations involved in aviation health and safety.		
	7. For M1: Analyze and draw Conclusions about: The cause of health and safety accidents or incidents.		
	THE STUDENT’S WRITTEN REPORT USING POWER POINT IS:		
	8. Carrying Out the command in P1: To Describe which means: “Give an account, including all the relevant characteristics, qualities, or events.”		
	9. Carrying Out the command in P2: To Explain which means: “To give account of the purposes or reasons.”		
	10. Carrying Out the command in P3: To Summarize which means: “To sum up or to put things into your own words or to create a précis of the information discussed.”		
	11. Carrying Out the command in P4: To Outline which means: “A description setting out main characteristics/points.”		
	12. Carrying Out the command in P5: To Explain which means: “To give account of the purposes or reasons.”		
	13. Carrying Out the command in M1: To Analyze which means: “Examine methodically and in detail, typically in order to explain and interpret it.”		
	14. Discussing the <u>topics and perspectives related to</u> your research findings and the Course Content.		
	15. Citing reliable sources used in your work whether paraphrased or directly quoted.		
	16. Using Harvard Referencing Style properly.		
	17. Acceptable level of College Writing exhibited: Spelling, Punctuation, Grammar, Usage and Sentence Structures.		
18. Presenting specific examples in the aviation industry.			
19. Meeting Professional Guidelines for Power Point Presentation			
	The Student Is Awarded A: PASS Grade MERIT Grade DISTINCTION Grade	YES	NO
Name Of Assessor:		Date Of Assessment:	