



MCAST

MQF Level 4

ME4-A6-21

**Advanced Diploma in Aviation Operations
Course Specification**

Course Description

This course is designed to equip individuals with the necessary understanding and an all-round introduction to the aviation industry for those who wish to further their career in one of its occupational areas. It may lead to roles in airports such as passenger liaison, ramp work, cargo operations and ground handling, aircraft operations and customer service.

The course is structured to give learners an overview and preparation to specialized areas that interest career aspirations within aviation. The course covers the appropriate fundamentals for progression onto further aviation specialization in the sector. The theoretical elements are supplemented with practical elements. Successful students can progress to the Bachelor of Arts(Honours) in Business Enterprise.

Programme Learning Outcomes

At the end of the programme the learner will be able to:

- 1. Understand the basic operations in the aviation industry*
- 2. Apply the necessary theoretical and practical understanding of operation in airport terminals and aircraft operation environments*
- 3. Understand the legal requirements in the aviation industry*
- 4. Gain competence and develop skills in the principal areas of the Aviation Operation Industry*

Entry Requirements

4 SEC/O-Level/SSC&P (Level 3) passes Compulsory: English Language

or Any MCAST Level 3 Diploma

Key Information

Awarding Body - MCAST

Accreditation Status - Accredited via MCAST's Self Accreditation Process (MCAST holds Self-Accrediting Status as per 1st schedule of Legal Notice 296/2012)

Type of Programme: Qualification

MQF Level	Examples of Qualifications	'Qualification' Minimum Credits Required	'Award' Credits Required
Level 8	Doctoral Degree Third Cycle Bologna Process	NA	NA
Level 7	Masters Second Cycle Bologna Process	90-120	Less than 30
	Post-Graduate Diploma	60	
	Post-Graduate Certificate	30	
Level 6	Bachelor ²³ /Bachelor (Hons.) ²⁴ First Cycle Bologna Process	180-240	Less than 180
Level 5	Short Cycle Qualification	120	Less than 60
	Undergraduate Higher Diploma	90	
	Undergraduate Diploma	60	
	Undergraduate Certificate	30	
	VET Level 5 Programme ²⁵	60-120	
Level 4	Pre-Tertiary Certificate	30	Less than 120
	VET Level 4 Programme ²⁶	120	
	MATSEC Certificate	NA	
Level 3	VET Level 3 Programme ²⁷	60	Less than 60
	General and Subject Certificate	NA	
Level 2	VET Level 2 Programme ²⁸	60	Less than 60
	General and Subject Certificate	NA	
Level 1	VET Level 1 Programme ²⁹	40	Less than 40
	General and Subject Certificate	NA	
Introductory Level A	Preparatory Programme	30	Less than 30
Introductory Level B	Pre-entry Basic Skills Course	30	Less than 30

Table 1: Minimum number of credits for 'Qualifications' and parameters for 'Awards'

Fig.1: p56, Ministry for Education and Employment & National Commission for Further and Higher Education Malta (2016). *Referencing Report, 4th Edition*. NCFHE.

Total number of Hours: 3000

Mode of attendance: Full Time

Duration: 2 Years

Target audience for MCAST full-time courses is 16 to 65+

Target group: Students exiting compulsory education

The official language of instruction at MCAST is English. All notes and textbooks are in English (except for language courses which will be in the respective language being instructed). International candidates will be requested to meet English language certification requirements for access to the course.

This course will be offered at

MCAST has four campuses as follows:

MCAST Main Campus

Triq Kordin, Paola, Malta

All courses except for the Institute for the Creative Arts, Centre of Agriculture, Aquatics and Animal Sciences are offered here.

Institute for the Creative Arts

Mosta Campus

Misraħ Ghonoq Targa Gap,

Mosta

Institute of Applied Sciences,

Centre of Agriculture, Aquatics and Animal Sciences,

Luqa Road, Qormi

Gozo Campus

J.F. De Chambray Street

MCAST, Ghajnsielem

Gozo

Teaching, Learning and Assessment

The programmes offered are vocational in nature and entail both theoretical lectures delivered in classes as well as practical elements that are delivered in laboratories, workshops, salons, simulators as the module requirements dictate.

Each module or unit entails a number of in person and/or online contact learning hours that are delivered by the lecturer or tutor directly (See also section 'Total Learning Hours').

Access to all resources is provided to all registered students. These include study resources in paper or electronic format through the Library and Resource Centre as well as tools, software, equipment and machinery that are provided by the respective institutes depending on the requirements of the course or module.

Students may however be required to provide consumable material for use during practical sessions and projects unless these are explicitly provided by the College.

All Units of study are assessed throughout the academic year through continuous assessment using a variety of assessment tools. Coursework tasks are exclusively based on the Learning Outcomes and Grading Criteria as prescribed in the course specification. The Learning Outcomes and Grading Criteria are communicated to the Student via the coursework documentation.

The method of assessment shall reflect the Level, credit points (ECTS) and the schedule of time-tabled/non-timetabled hours of learning of each study unit. A variety of assessment instruments, not solely Time Constrained Assignments/Exams, are used to gather and interpret evidence of Student competence toward pre-established grading criteria that are aligned to the learning outcomes of each unit of the programme of study.

Grading criteria are assessed through a number of tasks, each task being assigned a number of marks. The number of grading criteria is included in the respective Programme Specification.

The distribution of marks and assessment mode depends on the nature and objectives of the unit in question.

Coursework shall normally be completed during the semester in which the Unit is delivered.

Time-constrained assignments may be held between 8 am and 8 pm during the delivery period of a Unit, or at the end of the semester in which the Unit is completed. The dates are notified and published on the Institute notice boards or through other means of communication.

Certain circumstances (such as but not limited to the Covid 19 pandemic) may lead Institutes and Centres to hold teaching and assessment remotely (online) as per MCAST QA Policy and Standard for Online Teaching, Learning and Assessment (Doc 020) available via link <https://www.mcast.edu.mt/college-documents/>

The Programme Regulations referenced below apply. (DOC 004* available at: link <https://www.mcast.edu.mt/college-documents/>)

Total Learning Hours

The total learning hours required for each unit or module are determined as follows:

Credits (ECTS)	Indicative contact hours	Total Student workload (hrs)	Self-Learning and Assessment Hours
1	5 - 10 hrs	25 hrs	20-15 hrs*
2	10 - 20 hrs	50 hrs	40-30 hrs*
3	15 - 30 hrs	75 hrs	60-45 hrs*
4	20 - 40 hrs	100 hrs	80-60 hrs*
6	30 - 60 hrs	150 Hrs	120-90 hrs*
9	45 - 90 hrs	225 hrs	180-135 hrs*
12	60 - 120 hrs	300 hrs	240-180 hrs*

* The 'Self-Learning and Assessment Hours' amount to the difference between the contact hours and total student workload.

Grading system

All MCAST programmes adopt a learner centred approach through the focus on Learning Outcomes. The assessment of MCAST programmes is criterion-referenced and thus assessors are required to assess learners' evidence against a pre-determined set of Learning Outcomes and assessment criteria.

For a student to be deemed to have successfully passed a unit, a minimum of 50% (grade D) must be achieved. In case of part time programmes, the student must achieve a minimum of 45% to successfully pass the unit.

All units are individually graded as follows:

A* (90-100)

A (80-89)

B (70-79)

C (60-69)

D (50-59)

Unsatisfactory work is graded as 'U'.

Work-based learning units are graded on a Pass/Fail basis only.

Detailed information regarding the grading system may be found in the following document: DOC 004 available at: link <https://www.mcast.edu.mt/college-documents/>

Intake Dates

- MCAST opens calls for application once a year between July and August of each year for prospective applicants residing in MALTA.
- Applications to full-time courses from international students not residing in MALTA are accepted between April and Mid-August.
- For exact dates re calls for applications please follow this link <https://www.mcast.edu.mt/online-applications-2/>

Course Fees

MCAST course are free for Maltese and EU candidates. International candidates coming from outside the EU need to pay fees for the respective course. Course fees are set on a per-level and course duration basis. For access to course fee structure and payment methods please visit <https://www.mcast.edu.mt/fee-payments-for-non-eu-candidates/>.

Method of Application

Applications to full-time courses are received online via the College Management Information System. Candidates can log in using Maltese Electronic ID (eID) or European

eIDAS (electronic identification and trust services) to access the system directly and create an account as the identity is verified electronically via these secure services.

Non-EU candidates need to request account creation through an online form by providing proof of identification and basic data. Once the identity is verified and the account is created the candidate may proceed with the online application according to the same instructions applicable to all other candidates.

Non-EU candidates require a study visa in order to travel to Malta and join the course applied for. For further information re study-visa please access <https://www.identitymalta.com/unit/central-visa-unit/>.

For access to instructions on how to apply online please visit <https://www.mcast.edu.mt/online-applications-2/>

Contact details for requesting further information about future learning opportunities:

MCAST Career Guidance

Tel: 2398 7135/6

Email: career.guidance@mcast.edu.mt

Current Approved Programme Structure

Unit Code	Unit Title	ECTS	Year	Semester
ETH&S-406-1509	Health, Safety and Security	6	1	YEAR
ETAVN-406-1501	International Aviation Network	6	1	YEAR
ETACT-406-1505	Aircraft Fundamentals and Characteristics	6	1	YEAR
ETAVN-406-1504	Customer Service in the Aviation Industry	6	1	2
ETAVN-406-1505	Air Passenger and Baggage Management	6	1	YEAR
ETAVN-406-1506	Communication in the Aviation Environment	6	1	YEAR
ETAVN-406-2000	General Operations-Aircraft Dispatch	6	1	YEAR
ETAVN-406-2001	General Operations-Ramp Handling	6	1	YEAR
CDKSK-406-2007	Mathematics	6	1	YEAR
CDKSK-406-2001	English	6	1	YEAR
ETAVN-406-1502	Civil Aviation Regulation and Air Law	6	2	YEAR
ETMGT-406-1501	Management Skills	6	2	2
ETMGT-406-1502	Marketing and Economics	6	2	2
ETAVN-406-1503	Weather and Environment	6	2	YEAR
ETAVN-406-1509	Cargo Operations	6	2	YEAR
ETAVN-406-1510	Cabin Operations	6	2	YEAR
ETACT-406-1506	Basic Fundamentals of Aircraft Operations	6	2	YEAR
ETFIN-403-1510	Fundamentals of Finance and Costings	3	2	2
ETACT-403-1507	Aircraft Handling	3	2	YEAR
CDKSK-404-1915	Employability and Entrepreneurial Skills	4	2	1
CDKSK-406-2000	Critical Thinking	6	2	YEAR
CDKSK-402-2104	Community Social Responsibility	2	2	1
Total ECTS		120	/	/

ETH&S-406-1509: Health Safety and Security

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit learners will develop fundamental knowledge related to Health and Safety practices and Security in the Aviation business. They will begin to understand how Occupational Health and Safety legislation regulates and integrates within an Aviation framework that renders the business so safe thus promoting the highest quality of service, and the importance of security as one of the core functions in an airport to secure passenger and airport infrastructure protection from malicious crime, threats, and terror.

The learners will develop essential information about managing Airside/Terminal Safety and Security that will help them understanding the risks one will encounter in the aviation industry and how safety standards and security procedures should be maintained throughout all aviation operations. This includes the Turnaround and other aviation operations, Hazard Identification and control measures, Safety Management System, Airside Safety awareness, Identification of accidents' root causes, reporting adverse events such as near miss, Fire safety and evacuation procedures, and introduction to first aid and maintaining a secure airport environment within local and European legislation.

Learning Outcomes

On completion of this unit the student will be able to:

- 1. Understand the importance of Health, Safety and Security in an aviation setting.*
- 2. Identify root causes of accidents in an aviation setting.*
- 3. Follow the emergency procedures and practices during an aircraft accident*
- 4. Determine how security is regulated at the various levels of airport and passenger and staff movements in the air terminal.*
- 5. Discuss the way systems and procedures are applicable to monitor, control and improve aviation security.*

ETAVN-406-1501: International Aviation Network

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The aviation industry is a large and growing industry. It facilitates economic growth, world trade, international investment and tourism. International aviation is therefore, central to the globalization taking place in many other industries.

Some of the priorities for the industry have changed yet, the spirit and passion remain. Even though, some of the priorities are not new such as: safety, the need for efficient operations, adequate capacity to meet growth and customer satisfaction, other priorities have gained prominence; such as security and environmental concerns. However, the industry cannot function without the vast array of ancillary services that in turn provide services to the commercial airlines and the aviation industry in general. Therefore, this unit will provide learners with knowledge about the diverse nature of the airline industry and the other stakeholders.

The aviation industry is governed and supported by strict regulatory regimes covering safety and security issues. These regulatory organisations are also backed up by a number of trade associations. In addition, airports, like the other stakeholders, play a very important role in the success of the aviation industry. Their location, governance, facilities and their functions are important and learners interested in this sector must explore these in some detail.

Learners will investigate the development of the industry in order to determine how it has changed over the years, including its major milestones and achievements. Many of these milestones have led to the development of organisations that regulate and/or facilitate the industry's development, growth and success. This unit will also provide learners with the knowledge and understanding of the extent of the Industry and the role of the organisations within this industry. In addition, learners will learn about the different characteristics of the commercial airlines. This unit is an interesting starting point for learners, who will be working in aviation, as it enables learners to investigate the industry holistically.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Understand the development of the International Aviation Industry and the way the industry contributes to the world economy.*
2. *Distinguish the effects of deregulation, liberalisation and economic development on the aviation industry.*
3. *Identify the operating characteristics of commercial airlines and airports*
4. *Outline the structure of the International Aviation Industry and the role of the organisations that support the aviation industry.*

ETAVN-406-1502: Civil Aviation Regulation and Air Law

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The aviation industry is considered as a vital infrastructure in today's world, providing for the transport of passengers and goods. As a result, the aviation industry has always been concerned with the safety and security of airports and aircraft. Consequently, international air transportation is governed by various laws, on a National, European and International level, to provide for safety and security.

During this unit, one will become familiar with the historical background and development of such aviation legislation and students will be provided with a global perspective of the legislative framework within civil aviation, including the legislative aspect on threats such as hijacking of aircraft, missile attacks, drones, armed attacks on airports, terrorism, cyber threats, as well as disruptive passengers.

This unit will also introduce the students to the various regulatory bodies and agencies that play an important role in civil aviation, and their respective functions within the industry.

Learning Outcomes

On completion of this unit the student will be able to:

- 1. Understand the concept of laws and regulations, and the circumstantial realities and challenges that the aviation industry faces daily.*
- 2. Recognise the bodies within international civil aviation, including the International Civil Aviation Organization and the European Aviation Safety Agency.*
- 3. Analyse various laws, regulations and international conventions related to aviation and their application.*
- 4. Identify the risk and security threats that the aviation sector faces continuously.*

ETMGT-406-1501: Management Skills

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit learners will develop fundamental knowledge related to management skills and will understand the concept of managerial effectiveness and leadership within aviation organizations. Learners will gain valuable insights into the airport scenario to understand the principles and practice of managing the performance of individuals in such an organization.

The unit introduces the learners to the principles and practice of human factors and team leadership and will also have the possibility to understand how different leadership styles impact on team performance.

In addition, learners will be able to recognize the nature and value of the airport business performance measurement and will also focus on the understanding of different types and levels of management, accountability, and achieving performance satisfaction within a managerial position in the aviation industry.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Understand the nature and role of management work in the aviation environment.*
2. *Ensure using the appropriate management tools and techniques that processes under own responsibility are operating effectively.*
3. *Manage effectively and diligently conflict situations that may arise in the aviation industry.*
4. *Communicate effectively using the appropriate communication skills and channels.*

ETMGT-406-1502: Marketing and Economics

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit learners will develop fundamental knowledge related to Marketing and Economics in the Aviation Industry. It will focus on Marketing in the aviation industry, Airline and Airports Economics and Commercial Operation , Research methodology for Aviation, e-Business for Airlines ,Airfares and Ticketing.

This unit will enable the learners to research,issue and market airline tickets.It will explain how to understand customer needs by knowing the market and also working with marketing constrains such as legal and financial constrains.

This unit will outline the types of research methods and their advantages and disatvantages within the airline industry.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Use market research methods to develop a marketing plan for aviation operations.*
2. *Understand the impact of e-business on airline activities and their effectiveness of airlines reservation websites.*
3. *Explain all the steps and measures taken in booking a flight via different points of sale.*
4. *Explain the nature of supply and demand for airline and airport services.*

ETACT-406-1505: Aircraft Fundamentals and Characteristics

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit is very important for learners following the qualification in Aviation Operations since it is mainly focussed on the ground segment of flight operations, and the aircraft systems covered in this unit are the ones that are most relevant.

The aircraft systems described in this unit are those of the Airbus A319/320, which is one of the most common commercial airplanes today. However, references to other, even larger aircraft, are also given where necessary.

This unit will seek to familiarise learners with the basic systems found on modern commercial jet aircraft as well as the basic characteristics of such aircraft. Therefore, by the end of the unit, the learners will be familiar with the characteristics of similar aircraft, like the Boeing 737 and even larger aircraft, like the Airbus 330 wide body jets.

In this unit learners will be visiting various local aviation companies.

Learning Outcomes

On completion of this unit the student will be able to:

- 1. Use equipment on board an aircraft safely and effectively.*
- 2. Communicate effectively with the flight crews and ground maintenance personnel, in the event of a flight being grounded or delayed due to technical problems.*
- 3. Recognise the different systems found on commercial passenger aircraft.*
- 4. Identify the basic performance limitations of commercial passenger jets.*

ETAVN-406-1503: Weather & the Environment

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit learners will develop fundamental knowledge related to the weather and the environment in Aviation. It will focus on the basic weather theory, weather reports, forecasts, and understanding the weather phenomena related to airports and aircraft operations.

Learners would be able to develop abilities to recognize weather conditions and a deep understanding of including the weather in airport planning for safe and expeditious operations. It will also focus on the understanding of the environmental impacts on society caused by the aviation industry. The role of the aviation industry in support of new and cleaner fuels, noise abatement, ecologically and human health, and reducing pollution. The unit will enable the learners to apply techniques in reducing aviation hazards related to bird and wildlife. Measures of control on airports, runways and the movement areas.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Understand the basic weather theory, weather reports, forecasts and weather phenomena related to airports and aircraft operations.*
2. *Identify aviation hazards related to different weather conditions and the impact of weather on Airport Operations.*
3. *Determine best methods of control and reduction in aviation pollution.*
4. *Apply the correct techniques to reduce aviation hazards in relation to the Bird and Wildlife Controls on Airports and Aerodrome.*

ETAVN-406-1504: Customer Service in the Aviation Industry

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

Customer service is a key factor in the operation of aviation organisations as competition within the industry is on the increase. Overall, this unit seeks to demonstrate to the learners the importance of good customer service throughout an organisation. Learners will also be shown and given skills in the application of good customer service throughout the organisation. Learners will then understand how good customer service can be the driving force in enabling aviation organisations to gain a competitive advantage.

This unit will provide learners with the knowledge and skills required to be able to provide, measure and improve customer service in the aviation industry. The unit will provide the learner with a range of theoretical and practical competences in understanding the needs and wants of the many different airline customers. In addition, learners will become familiar with the design and delivery of customer service programmes to be able to ensure a high level of customer satisfaction.

Learning Outcomes

On completion of this unit the students will be able to:

1. *Understand the importance of delivering effective customer service in the aviation industry.*
2. *Outline the different customer service models and strategies in the aviation industry.*
3. *Measure customer service in the aviation industry for future improvement.*
4. *Provide effective customer service within the aviation industry.*

ETAVN-406-1505: Air Passenger and Baggage Management

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit learners will develop fundamental knowledge related to Passenger handling at an airport, be it by the airport operators or by an airline. It will focus on the various types of services provided by both entities such as check-in procedures, baggage management from an airline's point of view, the security which comes along with such processes and an understanding of a passenger's "journey" within the airport itself. This includes the different departments within an air terminal that comprises security, immigration and customs. It will also focus on the different day to day variable that affect a passenger's trip such as flight disruptions, delays and many others. This unit will enable the learners to identify these incidences and act accordingly to normal procedures used globally.

Learning Outcomes

1. *Explain the method used to handle Check In, Boarding and Lost Luggage for arriving passengers.*
2. *State the requirements for acceptance of passengers on flights.*
3. *Describe the possible procedures and optimal solutions to a particular situation.*
4. *Describe a passenger's Journey explaining all steps and measures taken by an airport operator to control passengers and minimise congestion at various key points in the terminal.*

ETAVN-406-1506: Communications in the Aviation Environment

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The aim of this unit is to enable the learner to develop the necessary knowledge and understanding of the principles of communication within the aviation sector. This will enable the learner to communicate relevant information, both formally and informally, to all relevant and interested parties. Accurate communication within the aviation industry is paramount, to maintain a safe working environment and to cut down on excess costs.

Communication assumes an exchange of information that is clear, accurate, up to date and understood by both parties. The environment in a busy airport is usually hectic and noisy and communications may not be as straightforward as may be thought. Learners need to examine the different types of communications and their use. However, they also need to recognise how barriers to communication can cause delays, inconvenience, extra costs and even unsafe situations.

Job roles within the aviation industry require staff to speak with self-assurance, confidence, authority and diplomacy to members of the public and other staff. On completion of this unit, the student should have been given the opportunity to practise and strengthen his/her communication skills through a variety of role plays representing realistic situations.

Learning Outcomes

On completion of this unit the student will:

- 1. Carry out effective communications in an aviation setting.*
- 2. Ensure the effective transfer of aviation information for safety and efficiency reasons.*
- 3. Understand the importance of airport signage.*
- 4. Identify and use marshalling signals used on the apron.*

ETAVN-406-1509: Cargo Operations

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

In this unit the learners will be able to become familiar with the requirements and responsibilities of the shipper. As well as know the importance of airfreight in today's dynamic world and understand the role and responsibilities of the freight forwarder.

Learners will gain knowledge about the different operational procedures and processes that airlines and cargo handling companies adopt during acceptance and releasing of goods as well as understanding the handling procedures for different types of cargo.

In this unit learners will become familiar with other entities like Customs and AVSEC (SECURITY), which are also involved in the import and export activities related to airfreight. Finally, learners will understand what dangerous goods are and how these can be shipped as airfreight.

Learning Outcomes

1. *Determine the responsibilities of the shipper and the role of freight forwarder in aircraft cargo operations.*
2. *Explain the different procedures and processes related to import and export of goods by air.*
3. *State the role of other entities in ensuring a smooth operation like Customs and Security.*
4. *Describe the different handling procedures used for different types of cargo.*
5. *Apply the correct processes and procedures to handle freights with dangerous goods.*

ETAVN-406-1510: Cabin Operations

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

On any given flight, cabin crews are busy attending to the passengers' needs, ensuring their comfort but above all guaranteeing their safety and security.

In this unit, learners will have the opportunity to explore cabin operations from a holistic point of view. They will cover in detail and analyse the roles and responsibilities of the cabin crew and their in-flight managers in many different situations. Cabin crews are trained to deliver a high level of customer service. In this very competitive industry, airlines are trying to find a balance between, service quality and value for money for their passengers.

However, the cabin crew's role is much more than that of being a good host. Cabin crew are trained in how to cope with any eventuality, such as dealing with angry and disruptive passengers, in-flight fires, medical emergencies, aircraft evacuations, and other difficult situations.

On the other hand, in-flight managers lead their teams and motivate them in normal and emergency situations. The chain of command system is designed to enable communication to flow between flight crew and cabin crew. By investigating this system, the learner will recognize that effective interaction and communication are crucial in ensuring the safety of the aircraft, the passengers and the crew. Security threats to airlines are also on the increase and learners will understand how security is maintained on board.

After completing this unit, learners will come to recognize the complexity of the cabin crew's roles. They will learn about the many different procedures and services that need to be followed. They will understand that executing a well-coordinated on board operation can be a very challenging and exciting career.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *The importance of executing coordinated onboard passenger operations.*
2. *Recognise the roles and responsibilities of the cabin crew and the in-flight manager.*
3. *Identify the different procedures and service on board an aircraft in normal and emergency situations.*
4. *Maintain security onboard an aircraft.*

ETACT-406-1506: Basic Fundamentals of Aircraft Operations

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit seeks to familiarise the students with a sound knowledge of Aircraft Flight Operations, as well as discuss its many aspects, namely: Airfield Operations, Loading of Aircraft, basic Weight and Balance calculations, Aircraft take-off and landing performance and Flight Planning.

The unit is mainly focussed on the ground segment of flight operations, since this aspect of is highly relevant and should enable learners to greatly enhance their knowledge as regards to the aviation environment.

Learners will become familiar with the Loading of Aircraft, Weight and Balance and Take-off and Landing Performance of the Airbus Family of Airplanes, namely the Airbus A319/320, which is one of the most common commercial airplanes today. However, they are not limited to this since references to other, even larger aircraft, are given were necessary. The learners will also be covering in detail the principles of flight.

By the end of the unit, the learner will be familiar with aircraft flight planning, preparing a flight plan, planning the loading of aircraft through weight and balance calculations and calculating aircraft take-off and landing performance. The learners will also have the opportunity to visit a typical company Flight Operations Department to see first-hand the way everything functions.

Learning Outcomes

On completion of this unit the students will be able to:

1. *Carry out basic Aircraft Flight Operations according to current regulations.*
2. *Prepare a Flight Plan and fill it in correctly and accurately.*
3. *Determine basic airfield performance and understand airfield limitations.*
4. *Plan the distribution of load in the aircraft cargo holds using the appropriate calculations.*
5. *Understand the principles of flight in relation to aircraft flight operations.*

ETFIN-403-1510: Fundamentals of Finance and Costing

Unit Level (MQF/EQF): 4

Credits: 3

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 75

Unit Description

The main objective of this unit is to provide learners who do not have an accounting or finance background with a solid understanding of the fundamental principles relating to finance and costing. Primarily, students will familiarise themselves with key finance terminology, the fundamental concepts of cash flow and the various cost classification methods.

Subsequently, students will learn about the purpose of preparing, and the contents of, a Statement of Profit or Loss and a Statement of Financial Position. This will enable them to be able to calculate appropriate financial measures which will be used to evaluate the financial performance and position of an organisation.

The costing techniques that can be used to determine and control the material, labour and overhead costs of an organisation are also considered. With regards to material costs, learners will acquire a solid background about inventory-related costs, the purchasing process, the three methods of inventory valuations and inventory issues (FIFO, LIFO, and AVCO), inventory control and stock-taking procedures.

Eventually, the different types of labour remuneration methods, namely time-rate, piecework, the bonus system and salary, together with the fundamental concepts of overhead costing are considered. The latter includes the methods of overhead allocation and apportionment, the calculation of overhead absorption rates and depreciation.

Learning Outcomes

On completion of this unit, the learner will be able to:

1. *Understand the fundamental principles of finance and costing.*
2. *Evaluate the financial performance and position of an organisation using financial measures.*
3. *Use costing techniques to determine and control the inventory costs of an organisation.*
4. *Use costing techniques to determine the labour and overhead costs of an organisation.*

ETACT-403-1507: Aircraft Handling

Unit Level (MQF/EQF): 4

Credits: 3

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 75

Unit Description

In this unit learners will develop fundamental knowledge related to aircraft handling. Learners will start by focusing on the various procedures of marshalling were the learner will be exposed to a real case scenario which involves the towing of an aircraft.

Learners will also become familiar with the different equipment surrounding the aircraft and other services, such as: GPU, ACU, ASU, steps, airstairs, fuel, water, toilet, and airbridge. In addition to this, the learners will become familiar with the Pre-departure inspection procedures which include checking that all safety locks and pins are removed, no evident dents can be seen and many others.

Learners will also become familiar with Anti-icing and De-icing procedures, were one can see and decide which method is best in certain circumstances. Learners will also participate in class discussion were they will evaluate case studies to identify what could have been prevented in particular air crash scenarios.

In this unit learners will also have the opportunity to witness an aircraft Towing or Pushback, which is used in case the aircraft needs to be moved on ground. Finally, learners will acquire the necessary knowledge to be able to accomplish a wheel change on an aircraft.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Explain and use the correct method for Aircraft Marshalling and related procedures.*
2. *Identify the equipment found surrounding the aircraft during different procedures of aircraft handling.*
3. *Describe the different procedures and related solutions of Ground Aircraft De-icing Procedures*
4. *State the requirements of aircraft towing, aircraft pushback and wheel change.*

ETAVN-406-2000: General Operations-Aircraft Dispatch

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The aim of this unit is to enable the learner to develop the necessary knowledge and understanding of the role of the Turnaround Coordinator in dispatching an aircraft and gain the skills to coordinate such services safely according to the airline industry standards.

Meeting airline industry standards ensures that services are rendered with the highest level of health and safety required to safeguard staff, passengers, crew and equipment.

Learners will be guided to develop an understanding of all the services to be delivered once an aircraft is on ground, including the preparation before the arrival and tasks to be carried out after departure of same aircraft. They will also be able to understand the different challenges a Turnaround Coordinator faces during the whole process.

On completion of this unit the learner will be able to understand the responsibility, skills and documentation required to coordinate an aircraft turnaround effectively, according to set standards and have a sound knowledge of the cost implications and possibly strive for the reduction of these costs.

Learning Outcomes

On completion of this unit the learner will be able to:

- 1. Coordinate a full aircraft turnaround effectively;*
- 2. Implement safety and security standards during service delivery;*
- 3. Understand the importance of on-time performance;*
- 4. Understand all services and tasks that are required for a turnaround process.*

ETAVN-406-2001: General Operations - Ramp Handling

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The aim of this unit is to enable the learner to develop the necessary knowledge and understanding of the demands that will be placed on the loading staff during an aircraft turnaround and to gain the skills to lead the loading team to deliver such services to the standards required by airline industry.

Meeting airline industry standards ensures that the services are rendered within the safety standards required to safeguard, staff, passengers, crew and equipment.

Learners will be guided to develop an understanding of all organisations involved in Ramp Handling and the services delivered by the Ramp/Loading team once an aircraft is on ground, including the preparation before the arrival and tasks to be carried out after departure of same aircraft. They will also be able to understand the different challenges the Ramp/Loading team are faced with during the turnaround.

On completion of this unit, the learner will be able to understand the responsibility and skills required to lead the ramp/loading team to deliver ramp services to set standards meeting the time constraints set by the Turnaround Coordinator and work as a team whilst interacting with other organisations to strive for the reduction of operational costs through efficient Ramp Service delivery.

Learning Outcomes

On completion of this unit the learner will be able to:

- 1. Lead loading staff during efficient turnaround service delivery;*
- 2. Maintain ramp safety while services are being delivered;*
- 3. Ensure on time performance through efficient loading/unloading procedures;*
- 4. Understand Ramp tasks and equipment that are required for a turnaround process.*

CDKSK-406-2001: English

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

The main objective of this unit is to prepare students to use the English language to understand, analyse, organise and communicate specific technical knowledge by inferring meaning from, and using, embedded information, being able to evaluate information critically and communicate through different types of texts, as required by various but often specific technical contexts within the selected field of study.

The emphasis is on the processes needed to transition from use of the English language in General Education to that required for access to Higher Education.

In particular, L4 Key Skills English is targeted at learners who have completed Foundation College programmes (Levels 1 to 3) and seek to further their studies at Technical or Degree level.

In this respect, this unit recognises the necessity to meet two linguistic demands at this threshold level; strengthening students' linguistic competences to be able to communicate more specifically within their vocational area and stream and to prepare them for more rigorous academic thinking, research and writing as necessitated by degree courses.

Being introduced at this level are core and elective unit outcomes. Reading and writing outcomes are core components in this syllabus while listening and speaking are elective components. Every L4 programme must deliver the two core outcomes and any one of the two elective learning outcomes. The elective criteria to be assessed cannot be selected from and across both outcomes.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Read technical texts effectively to improve knowledge of the subject area;*
2. *Understand information presented orally in the form of recordings, or talks, discussions, seminars, interviews or presentations;*
3. *Demonstrate own understanding of the subject matter via oral presentation, mock interviews or similar oral delivery;*
4. *Write a research paper or technical report demonstrating cohesion, structure and appropriate style.*

CDKSK-406-2000: Critical Thinking

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

Critical Thinking is a vital skill, much in demand in all walks of vocational and academic life; indeed, it is one of the most sought after skills in the workplace and the teaching of this key skill will undoubtedly make students more competitive in the employment arena. Characterised by the careful, reflective consideration of reasoned argument and of the beliefs and claims that comprise arguments, the following level four course will present students with a range of diverse lectures. These will provide a number of opportunities to engage with informative discussions, texts and scenarios that will, in a range of contexts, be streamlined to suit their vocational area but will provide argument, opinion, and reasoning that will help them to hone the skills required. These skills will not only be useful across other academic disciplines, but also they are designed to promote use within the workplace.

Although Critical Thinking is predominantly a practical, skills-based discipline, each of the three sections in this level four course will introduce theoretical knowledge that underpins the skills to be learned and practised. The course will introduce brand new concepts and theories to the students that will allow them to expand their thinking skills and then reflect effectively upon their learning. The unit specification will comprise of a set of core themes and subjects, along with relevant texts to be used, but it allows teachers to implement and structure the learning in a manner that they find engages their students the most. It is a reasonably theoretical unit though it will encourage originality, creativity, innovation, and imagination and will encourage reflection as a natural action. There should be room for students to experience emotions of humour and of a more serious nature. This will allow them to see how these emotions impact upon others and indeed themselves and how these impact on the decision making process. The course should encourage students to respect the diverse opinions and views of others, even when they disagree. It will also give them the presence and strength of mind to be able to recognise persuasive language and react accordingly.

MCAST Critical Thinking Courses aim to develop the following intellectual attitudes and habits: fair-mindedness, independence, healthy scepticism, care and persistence, confidence in reasoning, effective reflection, intellectual courage.

Learning Outcomes

On completion of this unit the learner will be able to:

- 1. Demonstrate theoretical underpinning knowledge of reflective practice in written form;*
- 2. Recognise reasoned arguments, claims and counter arguments and the value of evidence in oral formats;*
- 3. Present valid and coherent arguments within a contextual framework;*
- 4. Construct objective, analytical arguments and conclusions that are well supported by relevant use of information, evidence, and data, in written form.*

CDKSK-406-2007: Mathematics

Unit Level (MQF/EQF): 4

Credits: 6

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 150

Unit Description

This unit provides a framework for students to develop mathematical thinking skills further to the level 3 unit specification to solve problems related to real-life situations. Students also develop skills, attributes and knowledge that contribute to their personal growth and effectiveness within their training and work environment and also within the community.

The unit is designed to adapt for the needs of a particular field of study (business & finance or engineering & transport and others).

To reach this goal the unit was divided into four learning outcomes which are related to statistics, graphical representation, game theory and finance. Through these different areas students will be able to develop the effective skills for information processing, reasoning, evaluation creative thinking and enquiry, all fundamental skills for the problem solving process. This will prepare students in applying and evaluating a range of strategies to solve real-life problems. This is in fact shown throughout the unit content where the first two learning outcomes and the last two learning outcomes combine together to use all the knowledge, understanding applications and analysis learned throughout each learning outcome to synthesis and evaluate a real-life context. Through this unit the learner will also learn to present and communicate results and conclusions effectively.

On successful completion of the unit the learner will be equipped with mathematical thinking skills which make them aware of and understand their thought process, to reassess and identify areas for development. Students learn to evaluate, reflect about their strategies, understand and verify results to solve problems. These skills will equip students with managerial skills, to further their studies and for work employability.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Demonstrate visual and logical techniques in evaluating graphical representations and communication skills in presenting the results effectively;*
2. *Apply information processing skills to solve problems in a relevant statistical context;*
3. *Demonstrate evaluation and communication skills in solving and presenting problems applied to costing methods and techniques;*
4. *Apply creative thinking skills and demonstrate evaluation skills to solve problems in a relevant (game theory) context.*

CDKSK-404-1915: Employability and Entrepreneurial Skills

Unit Level (MQF/EQF): 4

Credits: 4

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 100

Unit Description

This unit complements the vocational and key skill units at Level 4 and provides an opportunity for learners to enhance their employability and entrepreneurial skills.

Quite often, learners tend to focus most on technical skills and competences required in a certain trade which enable them to access employment. On the other hand, employers expect employees to be appropriately skilled to follow instructions, take initiative, work effectively in a team, take a lead when necessary and more. In view of this the unit starts with an introduction to the 4th industrial revolution and proceeds to the transversal skills necessary to find employment, retain employment and advance at the place of work. Learners will be able to highlight their strengths and identify the areas that require improvement.

The rest of the unit focuses on entrepreneurial skills, a skill which is one of the most important transversal skills identified by UNESCO. Learners are introduced to methods which can be used to generate new and innovative business ideas and methods which help them evaluate ideas and choose the most feasible. Furthermore, learners will cover the various stages of product and/or service development, including market analysis, processes, pricing strategy, promotion and resources required.

Learners will work in a small team and by the end of the unit they will have the opportunity to develop a business idea which is commercially viable. Furthermore, they will present the idea to prospective investors/stakeholders.

Learning Outcomes

On completion of this unit the learner will be able to:

1. *Understand the employability skills required for Industry 4.0.*
2. *Use idea generation techniques to come up with ideas and evaluate chosen ideas.*
3. *Understand the various stages of product and/or service development.*
4. *Work in a team to develop a business idea which is commercially viable.*

CDKSK-402-2104: Community Social Responsibility

Unit Level (MQF/EQF): 4

Credits: 2

Delivery Mode: Fully Face-to-Face Learning

Total Learning Hours: 50

Unit Description

This unit focuses on Community Social Responsibility and provides an opportunity for learners to better understand themselves and the others and to establish goals in life. Community social responsibility enables learners to understand their strengths and areas for improvement and prepares them for life, employment and to become active citizens in society.

Moving away from traditional delivery of other units, learners will be empowered to take ownership of their learning process. Hence, community social responsibility will be delivered through a combination of workshops, small-group sessions with mentors and various opportunities to reflect.

The set of sessions will tackle community social responsibility skills and will mostly focus on the self, the ability to work independently and important values in life. The second set of sessions will address interpersonal skills and will focus on working with others, dealing with diversity and conflicts. Furthermore, at the end of the sessions, the learners will be introduced to the importance of active citizenship in life.

Learning Outcomes

On completion of this unit the learner will be able to:

- 1. Identify personal goals through self-reflection.*
- 2. Evaluate how collaboration with others can be more effective.*
- 3. Explain the importance of giving and receiving feedback.*
- 4. Contribute actively to make a difference in society.*