

University of Management and Technology

Course Outline

Course Background Details:

Program	BS Aviation Management
Course Code	AM124
Course Title	Airport Fundamentals
Credit Hours	03
Duration	15 Weeks
Prerequisites	AM 114 - Aviation Sciences
Resource Person	Bilal Ahmad
Counseling Duration	Days and Time: <ul style="list-style-type: none">• TBA

Description:

Airports are much more than just the places to catch flights, attend an in-transit business meeting, spot planes or do some duty-free shopping. They are among the largest investments and they continuously host various complex activities related to passengers, airlines, cargo and maintenance. This course is the opportunity to gain knowledge about basic functions, regulations and activities at the airport.

Contact Details:

- **Lecturer:** Bilal Ahmad, **Email:** bilalahmad@umt.edu.pk
- **Course Coordinator:** TBA

Course Learning Outcomes: (CLOs)

- CLO1: **Remember** basic airport terminologies, **identify** airport classes, **describe** the components of airport and **recognize** various marking and signs at a typical airport. (C1)

- CLO2: Show **understanding** of airport systems, regulatory influences, stakeholders and environmental impacts. (C2)
- CLO3: **Comprehend** and **analyze** the complex activities/functions at the airport while incorporating ethics. (C2, C4)

CLO – PLO Mapping:

CLOs	PLOs										
	Critical Thinking and Decision Making	Effective Communication Skills	Ethics	Core Business Knowledge and Competence	Effective Teamwork	Industry Focus	Global Perspective (Internationalization)	Leadership Skills	Computer-based Information	Corporate Social Responsibility	Organizational Behavior
	1	2	3	4	5	6	7	8	9	10	11
1				C1		C1					
2						C2	C2				
3	C4		C4			C2					

Learning Methodology:

The course will be delivered through a series of lectures and workshops. This course is unique in the sense that it incorporates three main Assignments, one each for research, activity and ethics along with the case studies to understand the functions and activities of the airport. These assessments should help develop a research insight, ethics awareness, foster creativity and critical thinking and above all create more interest in the course. The course will be supported/enabled by the LMS which provides a vital space for your learning.

Resources:

1. Text Books

- i. Ashford, N. J., Coutu, P., & Beasley, J. R. (2012). *Airport Operations, Third Edition*. McGraw-Hill Education.
 - a. **URL for E-Copy (Paid):** <https://www.amazon.com/Airport-Operations-Third-Norman-Ashford/dp/0071775846>
 - b. **Length:** 640 pages
 - c. **ISBN:** 978-0071775854

2. Reference Books/Material

- i. Young, S., & Wells, A. T. (2019). *Airport Planning & Management, Seventh Edition*. McGraw-Hill Education.
 - a. **URL for E-Copy (Paid):** <https://www.amazon.com/Airport-Planning-Management-Seventh-Young/dp/1260143325>
 - b. **Pages:** 464
 - c. **ISBN:** 978-1260143324

- ii. Price, J., & Forrest, J. (2016). *Practical Airport Operations, Safety, and Emergency Management: Protocols for Today and the Future*. Elsevier Science.
 - a. **URL for E-Copy (Paid):** <https://www.amazon.com/Practical-Airport-Operations-Emergency-Management-ebook/dp/B01BWMIG7I>
 - b. **Pages:** 601
 - c. **ISBN:** 978-0128005156

- iii. ICAO. (2016). *Annex-14, Aerodromes (7th ed., Vol. I)*. ICAO.

3. Reference Journal Articles

- i. Isaa, N. A. M., & Mohamedb, W. M. W. (2016). The 'Love-Hate Relationship' between Airlines and Airports and its Implications to the Aviation Industry: The Stakeholder Theory Perspective.

This paper intends to look at the issues pertaining to the so-called 'love-hate relationship' that airlines and airports have experienced and to understand the underlying conflict and differences between these two parties. It also evaluates whether there is a 'win-win' solution in addressing the conflicting needs. This paper is written in the perspective of stakeholder management and intended to provide impartial opinions to both parties without compromising each other needs. Also, the needs of other stakeholders should not be neglected and government has to ensure that all stakeholders' rights are protected.

- ii. Isa, N. A. M., Hamid, N. A., & Leong, T. P. (2016). A Stakeholder Analysis of the klia2 Airport Terminal Project. *Environment-Behaviour Proceedings Journal*, 1(3), 281-289.

Managing an airport terminal project is complex due to the involvement of a large number of stakeholders. Airport stakeholders include many organizations and individuals, making it a collaborative service environment. Stakeholder theory denotes that organisation should strive to create value for all its stakeholders without the need to trade off. This study attempted to provide an overview of the literature relating to the stakeholder theory as well as examining the related respondents towards measuring the collective perspectives of the klia2 airport terminal project.

- iii. Schaar, D., & Sherry, L. (2010, May). Analysis of airport stakeholders. In *2010 Integrated Communications, Navigation, and Surveillance Conference Proceedings* (pp. J4-1). IEEE.

This paper identifies (1) Airport stakeholders and their objectives for the airport (2) The relationships between the stakeholders (3) Conceptual boundaries around the airport at which comprehensive and comparative benchmarking could be performed (4) Reinforcing loops through the airport stakeholder relationships (5) That the airport is a complex, collaborative service environment, and that some stakeholders have objectives for the airport whose fulfillment is not fully under the control of airport management

4. Online Resources and Links:

- i. Hartsfield Jackson Atlanta Airport: <https://www.youtube.com/watch?v=7k0vNqLzah0>
An interesting and informative video to give students the idea of the overall operations of an airport.
- ii. FAA Airport Markings and Signs: <https://www.youtube.com/watch?v=ElzNigOEKA8>
An informative video including visual description of runway, taxiway markings and signs.
- iii. The Expanding Airport - Mobile Lounges at Washington Dulles International Airport: <https://www.youtube.com/watch?v=FL-mjc1sgX4>
This is an animation clarifying the concept of mobile lounges. This explains the benefits associated with the concept and why this idea is ultimately became obsolete.
- iv. <https://timesofindia.indiatimes.com/city/delhi/over-1km-long-wall-to-deflect-noise-at-igi/articleshow/69604706.cms>
This brief article describes a 1km-long wall to deflect noise at Delhi's IGI.
- v. <https://www.caapakistan.com.pk/Search.aspx?Para=ANO>
This is a useful link to find Air Navigation Orders (ANO) issued by Pakistan Civil Aviation Authority (PCAA)
- vi. Airport Markings And Signs: <https://www.youtube.com/watch?v=9r4WZNLd8pU>
This is an animated video showing the airside marking and signs.

Schedule:

Week	Course Contents	Text Book/Article Ref. Chapter(s)	Reference of CLO
1	<ul style="list-style-type: none">• Airport Glossary• Classification of Airports	Chapter 6, Airport Planning and Management	CLO1

2	Components of the Airport	Chapter 4, Airport Planning and Management	CLO1
3	Airport Marking and Signs Quiz No. 1	FAA, Airport Sign And Marking – Quick Reference Guide Chapter 7, Practical Airport Operations, Safety, and Emergency Management	CLO1
4	National Airport System Assignment No. 1	PCAA website	CLO2
5	Airport Activities (aeronautical and non-aeronautical)	Chapter 1, 1.3, 1.5 – Airport Operations	CLO3
6	Airport Regulations and Standards Quiz No. 2	<ul style="list-style-type: none"> • ICAO Annex 14, Aerodromes, Volume I Aerodrome Design and Operations Seventh Edition, July 2016) • PCAA website • Chapter 1- Airport Design and Operations 	CLO2
7	Environmental Impact of Airports	Chapter 18, Airport Operations	CLO2
8	(MID TERM- Time 1:30hrs)		
9	Airport Baggage Handling Assignment No. 2	Chapter 7, Airport Operations	CLO3
10	Airport Cargo Operations	Chapter 10, Airport Operations	CLO3
11	Airport Passenger Terminals Quiz No. 3	Chapter 8, Airport Operations	CLO3
12	Airport Emergencies	Chapter 12, Practical Airport Operations, Safety, and Emergency Management	CLO3
13	Airport Stakeholders Assignment No. 3	(Schaar, D., & Sherry, L. 2010)	CLO2

14	Presentation		
15	Revision Quiz No. 4		

Assessments:

Assessment	Weightage	Detail	Due
Quiz-1	4%	Topics Covered: <ul style="list-style-type: none"> • Airport Glossary • Classification of airports • Components of the airport 	3 rd session
Quiz-2	4%	Topics Covered: <ul style="list-style-type: none"> • Airport marking and signs • National airport system • Airport Activities (aeronautical and non-aeronautical) 	6 th session
Quiz-3	4%	Topics Covered: <ul style="list-style-type: none"> • Airport regulations and standards • Environmental impact of airports • Airport baggage handling • Airport cargo operations 	11 th session
Quiz-4	4%	Topics Covered: <ul style="list-style-type: none"> • Airport passenger processing • Airport emergencies • Airport stakeholders 	15 th session
Quiz-5 (Unannounced)	2%	-	It may be at the end of a discussion or lecture or video
Quiz-6 (Unannounced)	2%	-	It may be at the end of a discussion or lecture or video

Assignment-1 (Research)	4%	Modern-day airports	4 th session
Assignment-2 (Activity)	4%	Identify the type of terminal using real world examples	9 th session
Assignment-3 (Ethics)	4%	Gatwick Airport – Case Analysis	13 th session
Presentation	4%	Design an airport	14 th session
Mid Exam (Written)	25%	All topics covered (MCQs and/or Short Essay Questions and/or Case Study)	8 th session
Final Exam (Written)	35%	All topics covered (MCQs and/or Short Essay Questions and/or Case Study)	As per Controller Exams

Quizzes:

There will be a total of six quizzes. The topics for each quiz are listed above.

Assignment 1 (Research):

Topic A: Modern-day airports

Purpose:

- To give students the opportunity to explore new trends related to the airport.
- To increase students' understanding of airport system and procedures.

Directions:

- Student can choose any one of the following aspects related to airports:
 - Passenger handling
 - Baggage handling
 - Cargo handling
 - Airport emergency process and planning
 - Reducing airports' environmental impact – modern solutions
 - Any other topic related to modern day airports
- Each student should do an independent research on the topic of his/her choice and must include the real time examples of modern practices, technology and/or design etc. used at the airports. Discuss in detail.

Structure of Report

- Use Times New Roman 12 font size with line spacing of 1.5 and justify from both sides.
- Maximum word limit: 2000

Marking Guide/Rubric: Attached

Topic B: Case Analysis of Hong Kong International Airport (HKIA)

Purpose:

- Students will be able to analyze one of the world's best airports
- Students will be able to know about various practices, procedures and technologies related to the airport.

Directions:

- Do a detailed research on HKIA keeping in mind the following:
 1. Briefly discuss the components of this airport
 2. Discuss about its passenger handling
 3. Talk about its baggage handling facilities/processes
 4. Talk about its cargo handling facilities/processes

Structure of Report

- Use Times New Roman 12 font size with line spacing of 1.5 and justify from both sides.
- Maximum word limit: 2000

Marking Guide/Rubric: Attached

Assignment 2 (Activity):

Topic: Identify the type of terminal using real world examples

Purpose:

- To give students the opportunity to identify and discuss various terminal designs in the class room.
- To develop and polish speaking skills of students.
- To practice their knowledge in the classroom.

Directions:

- Layouts of different airport terminal designs will be shown to the students one by one using the slide show.
- The slide show will be random.
- Each student will be given at least one example of terminal design which he/she has to identify and discuss the pros and cons of it.
- Time allowed: 02 Minutes

Marking Guide/Rubric: Attached

Assignment 3 (Ethics):

Topic: Gatwick Airport – Case Analysis

Purpose: To give student a real-world case to analyze. It is designed to enhance students’ knowledge of the subject while highlighting the importance of practicing ethics in the workplace.

Directions:

- Go through the following links before writing your report:
 - Inside Gatwick Series 1 - Ep 5 Runway Pt1
<https://www.youtube.com/watch?v=qq3WpseqXHE>
 - Inside Gatwick Series 1 - Ep 5 Runway Pt2
<https://www.youtube.com/watch?v=4DO2h4ekvz0>
 - Inside Gatwick Series 1 - Ep 2 Terminal Life Part 1
<https://www.youtube.com/watch?v=PZdzkAnjY2k>
 - Inside Gatwick Series 1 - Ep 2 Terminal Life Part 2
<https://www.youtube.com/watch?v=4h-lM6VnFKM>
- While analyzing the case, keep the ethical consideration in mind. Identify the instances where you see honesty, integrity, righteousness, empathy, fairness or responsibility of the airport management or staff.
- Identify all the activities going on at the airport (in these documentaries) and briefly describe them in your own words.
- Briefly describe all the issues faced at the airport and how the airport responded to each issue.
- Discuss the impact of the airport operations on surrounding community.
- Discuss the airport’s expansion plan and the community pressure regarding this. What solution would you propose in this scenario?

Structure of Report

- Use Times New Roman 12 font size with line spacing of 1.5 and justify from both sides.

- Word limit: 1500

Marking Guide/Rubric: Attached

Presentation (Group):

Topic: Design an airport.

Directions:

- You must decide the type of your airport (Commercial Service, Reliever, General Aviation or Cargo Service).
- Students are required to prepare the layout of an airport keeping in mind the following:
 - Include all the components of the airport required for the type of airport you selected.
 - Justify the presence and placement of these components in the layout of the airport.
 - Include airfield marking and signs.
 - Classify your airport and justify
 - List the activities at the airport and justify according to the type of the airport.
 - Include at least few good ideas in your layout for smooth and efficient functioning of your airport.

Instructions:

- Time Allowed: 15 minutes
- Group Members: 4

Marking Guide/Rubric: Attached

Mid Exam:

Mid Exam will comprise of MCQs and/or Short Essay type questions

Final Exam:

Final Exam will comprise of MCQs and/or Essay type questions/short case with associated questions. If the option is for the case, the case will be distributed one week before the exam along with some practice questions from the case.

Final Grade:

Students need to obtain an overall 50% mark to pass this course.

Academic Integrity:

All students are required to uphold the highest levels of academic integrity while participating in this course.

Academic integrity is about: honesty, trust, fairness, respect and responsibility in all work and is vital for any research/scholarship. We need to give proper credit to those who do the work and acknowledge their intellectual contribution. All students enrolled in IAS are to adhere to academic integrity while completing each assessment task.

Dishonesty in assessment can lead to a requirement to undertake additional work, failure in a unit or in a part of it, suspension from the University or even permanent expulsion from the University.

Plagiarism (a form of dishonesty) constitutes using the work of another without indicating by referencing (and by quotation marks when exact phrases or passages are borrowed) that the ideas expressed are not one's own.

CLASS POLICY

STUDENTS ARE REQUIRED TO READ AND UNDERSTAND ALL ITEMS OUTLINED IN THE PARTICIPANT HANDBOOK

CLASS ATTENDANCE: Students need to be in class at the assigned time.

TURN OFF MOBILE PHONE: It is unprofessional to be texting or otherwise.

READ EMAILS: Participants should regularly check their university emails accounts regularly and respond accordingly. Students would be responsible if they miss a deadline because of not reading the emails.

CLASS ATTENDANCE POLICY: A minimum of 80% attendance is required for a participant to be eligible to sit in the final examination. Being sick and going to weddings is absence and will not be counted as present. Participants with less than 80% of attendance in a course will not be allowed to take end term exams. International students who will be leaving for visa during semester should not use any days off except for visa trip to avoid reaching short attendance.

MOODLE: UMT –LMS (Moodle) is an Open Source Course Management System (CMS), also known as a learning Management System (LMS). Participants should regularly visit the

course website on MOODLE Course Management system, and fully benefit from its capabilities. In case of any problem while using MOODLE, visit <http://oit.umt.edu.pk/moodle>. For queries email moodle@umt.edu.pk

HARASSMENT POLICY: Sexual or any other harassment is prohibited and is constituted as punishable offence. Sexual or any other harassment of any participant will not be tolerated. All actions categorized as sexual or any other harassment when done physically or verbally would also be considered as sexual harassment when done using electronic media such as computers, mobiles, internet, emails etc.

USE OF UNFAIR MEANS/ HONESTY POLICY: Any participant found using unfair means or assisting another participant during a class test/quiz, assignments or examination would be liable to disciplinary action.

PLAGIARISM POLICY: All students are required to attach a “Turnitin” report on every assignment, big or small. Any student who attempts to bypass “Turnitin” will receive “F” grade which will count towards the CGPA. The participants submit the plagiarism report to the resource person with every assignment, report, project, thesis etc. If student attempts to cheat Turnitin, a second “F” will be awarded that will count towards the CGPA. There are special rules on plagiarism for final reports etc. all outlined in your handbook.

COURSE WITHDRAWAL POLICY: Students may withdraw from a course till the end of the 12th week of the semester. Consequently, grade ‘W’ will be awarded to the student which shall have no impact on the calculation of the GPA of the student. A Student withdrawing after the 12th week shall be automatically awarded “F” grade which shall count in the GPA.

COMMUNICATION OF RESULTS: The results of quizzes and assignments are communicated to the participants during the semester and answer books are returned. It is the responsibility of the course instructor to keep the participants informed about his/her progress during the semester. The course instructor will inform a participant at least one week before the final examination related to his or her performance in the course.