



Course Outline	
Institute	Institute of Aviation Studies (IAS)
Program	BS Aviation Management
Course code	AM411
Course Title	Aviation Security
Credit Hours	03
Duration	16 Weeks
Prerequisites	AM301
Resource Person	Muhammad Nawaz Gill
Counseling Hours	Monday to Thursday 0900-1100
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Faculty Signature _____

Date _____

PH/COD/HOD Signature _____

Date _____

Dean's Signature _____

Date _____

Continuous Improvement			
Major Changes	Updated By	Document No.	Date
Development of course outline	Muhammad Nawaz Gill	AM411-V1.0-F2025	30 Sep 2025

About BS Aviation Management

Mission

Education with purpose, Development of professional skills, Global readiness, and Excellence to prepare students for success in aviation.

Program Educational Objectives (PEOs)

- **PEO 1: Industry Focus**
Graduate is working in aviation industry, demonstrating competence to perform effectively in diverse professional roles while adapting to evolving industry practices.
- **PEO 2: Business Management**
Graduate is taking on professional roles in business management, applying their skills to analyze, plan, and execute organizational functions effectively.
- **PEO 3: Research and Advance Studies**
Graduate is engaging in research and advanced studies broadening their academic and professional horizons.

Program Learning Outcomes (PLOs)

- **PLO1: Analytical Thinking and Decision Making**
Ability to interpret and analyze aviation industry problems, applying critical thinking and quantitative methods to develop solutions and make effective decisions.
- **PLO2: Effective Communication Skills**
Ability to prepare, present, and convey ideas clearly through verbal and non-verbal communication effectively in professional contexts.
- **PLO3: Regulations, Compliance and Ethics**
Ability to understand and evaluate regulatory frameworks, standards and safety/security practices to ensure that the operations remain ethical and compliant with national and international regulations.
- **PLO4: Business Knowledge and Entrepreneurship**
Ability to understand the interrelated functional areas of business and use this knowledge to enhance organizational performance.
- **PLO5: Service Operations**
Ability to run, analyze, and optimize day-to-day aviation service operations and manage related infrastructure to achieve operational excellence.
- **PLO6: Technology Integration**

Ability to use digital tools, software applications, and information systems to support aviation operations and manage business processes.

- **PLO7: Corporate Social Responsibility**

Ability to understand and evaluate the impact of aviation business on economic, social, and environmental aspects of society.

- **PLO8: Organizational Behavior, Leadership and Teamwork**

Ability to evaluate organizational conflict, politics, power, and culture, while applying leadership and teamwork skills to achieve collective goals.

1. Course Description

Stringent & effective security of man, material and operational functions in aviation industry can only be achieved when one's mind glows with a sense of security, ability of anticipation and timely response before it is too late. This unique course which integrates security concepts will help you in understanding the key requirements and skills necessary to successfully and effectively manage of security needs keeping in view prevailing threats and risks confronted to flight operations, passengers, crew and ground staff, in brief entire aviation industry. It also aims at imparting a knowledge of security threats & risks, its elimination or mitigation, passenger & cargo security, intelligence, crisis management, contingency planning and post-incident recovery. Security Management for the flight operations, airlines and airports also forms an integral part of this course. Understanding of ICAO'S Aviation Security Manuals and various Standard Operating Procedures (SOPs) should help towards your professional career.

2. Learning Methodology

The course will be delivered through a series of lectures, workshops and activity-based. This course is unique in the sense that it incorporates three assignments, one is a research assignment and the others activity-based assignment. These two assignments should help develop a research insight, fast creativity and critical thinking and above all create more interest in the course. Besides spontaneous class activities aimed to keep the participants engaged making it a useful learning source

3. Course Learning Outcomes (CLOs)			
Sr.	Upon successful completion of this course, the student will be able to...	PLO Mapping	Learning Domain & level
1	Explain how regulatory frameworks, compliance standards, and governance structures shape the planning and management of airports to ensure safe, secure, and ethical operations.	3	C1
2	Apply airport planning principles to design strategies that support sustainable growth while addressing environmental and community responsibilities.	7	C3
3	Evaluate airport infrastructure, including airside, terminal, and ground access functions, to judge its effectiveness in meeting capacity demands and delivering high-quality passenger services.	5	C5

4. CLO – PLO Mapping								
CLOs	Program Learning Outcomes (PLOs)							
	Analytical Thinking and Decision Making	Effective Communication Skills	Regulations, Compliance and Ethics	Business Knowledge and Entrepreneurship	Service Operations	Technology Integration	Corporate Social Responsibility	Organizational Behavior, Leadership and Teamwork
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8
1			✓					
2							✓	
3					✓			

5. Resources

- ICAO Aviation Security Manual. Doc. 8973 (Safe Guarding International Civil Aviation Against Unlawful Interference)
- ICAO Annexure-17
- World-wide Security-related air & ground incidents/accidents in aviation industry
- Practical Aviation Security, Predicting and Preventing Future Threats
- Aviation Security Management
- Aviation Security Law
- History of Terrorism
- The Terrorism-An Introduction
- Aviation Terrorism
- Anti-Terrorism
- Terrorism and Counter Terrorism
- Airport & Aviation Security
- Perimeter Security
- Security Manual (General)
- Emergency and Security Lighting
- Effective Physical Security
- Security Manager's Guide to Disasters.
- Complete Security Survey
- Manual of Cargo Handling
- Criminal Acts Against Civil Aviation
- Biometric Identification- Finger Prints
- Manual-Security of Smaller Airports

6. Course Schedule

Week	Topics	Readings	Assessment	Ref of CLO
1	1.Difference between Safety & Security in general. 2.Significance of Safety &Security & their role in aviation.	Chapter 1& 2	Class discussion	1,2
2	Basic concept of security under perception & analysis of various threats to aviation industry. Components of crime & terrorism. Factors of offender`s & defender`s success. Risk assessment through its probabilities & severity.	Chapter 2	Class activity	1.2
3	Role of ICAO through Annex-17 and its recommended practices in aviation security of signatory countries.	Chapter -3	Quiz 1	1
4	Principles of Security and modus operandi of its implementation. Types of security barriers. Security channels and security status of different areas at an international airport. (Assignment-1discussions: Research work on Security)	Chapter 4	Assignment 1	1
5	Inspection, search & screening of passengers, accompanied & unaccompanied baggage and cargo by introducing various devices and technology prohibited items. Kinds of personal search. Airport entry permits and biometric identification system.	Ch-4	Class activity2 Quiz 2	2
6	Pre-flight precautions & in- flight vigilance procedures. Actions (Questioning guidelines) by the recipient of a bomb threat telephone call.	Ch 6	VIVA of assignment 1	1,2
7	Response to bomb threat against an aircraft, terminal building, car parking (Airside &	Ch-7	Class activity 3	1,2

	land side.) Baggage identification drill in case of missing passenger.		Assignment 2	
8	Mid – Term			
9	Safety need & impact over aviation operational activities. The hazards & risks evaluation in safety thinking and trilogy, a concept of accident causation. Potential outcome(s) of hazard. Hazard identification and analysis. Operational issues and prevailing safety culture. Risk Management, Management dilemma.	Ch-8,9	Quiz 3	1,2
10	Impact over the components of an organization on consequences due to safety issues. “Eight Building Block” in Safety management Safety v/s Reliability. Designation of risk probability & severity.	Ch 10	Class activity 4	2,3
11	Role and Implementation of safety under ICAO and its recommended practices through: 1. Transportation of dangerous goods by air. Annexure-18 Safety Management System.	Ch11	Assignment 3	1,
12	Safety tasks, fields of hazards. Three possible organizational safety cultures. Main goals of Aviation Safety Management System. Risk management and assessment. Effective safety reporting. “Five Basic Traits”. Types of Human Error and impact over safety.	Ch12	Quiz 4 Assignment 4	1

13	Air & Ground Communication, Bird Strike. Runway incursion, excursion and directional control in safety. Controlled Flight into Terrain, Airworthiness, Fire Smoke and Fumes.	Ch13	Class activity 6 Viva assignment 2	2
14	Sterile cockpit. Cockpit Voice Recorder (CVR) & Flight Data Recorder (FDR). Human factors in Safety. Aircraft load & trim.	Ch14	Quiz 5	2
15	Undershoot & overshoot landing on runway. Airspace infringement. Control flight into terrain. Runway visual perspective. Airworthiness. Level bust. Loss of separation. Loss of control. Communication, airside vehicle. Ground operation. FODs. Refueling & de-fueling. Taxi, runway lighting and marking.	Ch15	Presentation Viva assignment 3	3
16	Presentations/Viva	Assigned topics	Viva assignment 4	3
17	Final	Assigned syllabus		2&3

7. Assessments

Assessment	Weightage	Detail	Due
Quiz-1	15%	Covers Topics: book.1, Chapter1,2,3	3 rd session
Quiz-2		Covers Topics: Aviation and sustainable development by ICAO	6th session
Quiz-3		Covers Topics: Loss of control -I	9th session
Quiz-4		Covers Topics: Aviation and sustainable development by ICAO	12th session
Quiz 5			14th session
Presentation	5%	On, as assigned topics	
Assignments	10%	As assigned	As assigned
Class activity total 6	10%	Research Assignment, out of the topics provided below Assignment. CA ON GIVEN topics Case study with ethical Dilemma (in-class activity) Presentation, On bellow topics	4 th session 5th session 7th session 10 th session 15 th session
Mid Exam (Written)	25%	MCQs and/or Short Essay Qs	9 th session
Final Exam (written)	35 %	MCQ, short questions & case study	As per schedule

8. Course Assessments	
Assessment Details	Target CLOs
A. Activities	
Intentionally left blank. Contact resource person for this section.	
B. Assignments (Rubric is attached in Appendix B)	
Intentionally left blank. Contact resource person for this section.	
C. Project/Presentation (Rubric is attached in Appendix C)	
Intentionally left blank. Contact resource person for this section.	

9. Mapping of Assessments with CLOs												
CLOs	Assessments											
	Quiz 1	Quiz 2	Quiz 3	Class Activity 1	Class Activity 2	Class Activity 3	Assignment 1	Assignment 2	Assignment 3	Project/ Presentation	Mid Term	Final Term
1	✓			✓			✓			✓	✓	✓
2		✓			✓			✓		✓	✓	✓
3			✓			✓			✓	✓	✓	✓

10. 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. After **10 minutes** past the assigned time, the students will be marked absent.

Turn-off Mobile Phone: It is unprofessional and unethical to be texting or calling during the class.

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 **75% attendance** is required for a participant to be eligible to sit in the final examination. 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.

UMT-LMS: Participants should regularly visit the LMS and fully benefit from its capabilities. If you face any issue regarding this, contact the resource person or email your query to lms.support@umt.edu.pk for assistance.

Anti-harassment Policy: Sexual or any other harassment is prohibited and is constituted as punishable offence. All actions categorized under this policy when done physically or verbally would also be considered as harassment even by 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: Similarity report on every assignment either big or small will be checked and only 19% overall and 5% from a single source is allowed. Any student who attempts to bypass this will receive negative marking which will count towards the CGPA.

Use of Generative AI Policy: Use of Generative AI tools is permitted up to 5% for language enhancement only. Each report must include the following declaration:

“During the preparation of this work, the author(s) used [Gen AI Tool Name] to [purpose: e.g., improve language, format references, generate ideas]. The content has been reviewed, edited, and verified by the author(s), who take full responsibility for the submitted material.”

In case of violation, penalties include (1) First-time failure to disclose Gen AI usage: verbal warning and resubmission, (2) Full AI-generated submissions may face grade penalty and/or disciplinary hearing, (3) Repeated misconduct may lead to the suspension from academic activities for one or more semesters, revocation of degree (after investigation), or listing of student name on the HEC/UMT academic misconduct records page.

Course Withdrawal Policy: Students may withdraw from a course till the end of the 15th 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.

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 participants about their performance in a particular assessment within a week of conducting that assessment.

Appendix A

Cover Page for Assignment

Assignment Title

Assignment Number

Student Names:

Students IDs:

Subject Name:

Section:

Name of Resource Person:

Due Date:

BS. Aviation Management

Institute of Aviation Studies (IAS)

University of Management & Technology (UMT), Lahore

Appendix B

Rubric for Assignment

Dimensions/ Weight	Does Not Meet Expectations (0-1 points)	Meets Expectations (2-3 points)	Exceeds Expectations (4-5 points)	Score
1. Understanding of Core Concepts	Demonstrates minimal understanding of airport planning and management principles; major inaccuracies present.	Demonstrates adequate understanding; some minor inaccuracies or incomplete explanations.	Demonstrates strong conceptual clarity and critical understanding with relevant and accurate examples.	/5
2. Application and Analysis	Limited or no application of course concepts; analysis lacks depth or logical flow.	Applies course concepts correctly to some extent; analysis is sound but lacks depth or innovation.	Effectively applies and analyzes airport management principles in a clear, logical, and insightful manner.	/5
3. Organization, Structure, and Clarity	Disorganized, lacks logical flow, poor formatting, and unclear writing.	Organized and generally coherent; writing is mostly clear with some structural issues.	Well-organized, coherent, and polished writing; excellent flow and logical argumentation.	/5
4. Research and Referencing	Few or no credible sources; referencing is incomplete or inconsistent; lacks citation format.	Adequate use of credible sources; mostly consistent referencing in acceptable format (APA or Harvard).	Extensive use of credible and current sources; accurate and consistent referencing throughout.	/5
5. Originality and Compliance with Academic Integrity	Similarity >19% overall or >5% from a single source; evidence of plagiarism or attempts to bypass similarity check.	Similarity ≤19% overall and ≤5% per source; properly paraphrased and referenced.	Similarity ≤10% overall; clear originality and paraphrasing; reflects authentic independent work.	/5
6. Responsible Use of Generative AI	AI use exceeds 5% or declaration missing; evidence of full AI-generated work.	AI use ≤5% for language enhancement only; declaration included.	Minimal or no AI use; clear evidence of student-authored content; declaration properly added.	/5
Total 100%	Content Criteria			30

Appendix C

Rubric for Presentation

Dimensions	Requirement	Individual Score					Average Score
		1	2	3	4	5	
Delivery	Speed, eye contact, clarity, audibility, tone	/10	/10	/10	/10	/10	
Content	Sets out relevant topics, confident with material, aids understanding	/10	/10	/10	/10	/10	
Structure	Logical, easy to follow, provides headings, each section relates to overall purpose	/10	/10	/10	/10	/10	
Use of visual aids	Uses of other visual aids, relevant to content.	/10	/10	/10	/10	/10	
Individual Viva	Answer to the questions	/10	/10	/10	/10	/10	
Total Score		/50	/50	/50	/50	/50	