Course Outline	
Institute	Institute of Aviation Studies (IAS)
Program	BS Aviation Management
Course code	AM425
Course Title	Aviation Practicum and Thesis
Credit Hours	03
Duration	16 Weeks
Prerequisites	Aviation Research Methods
Resource Person	Mr. Shahid Mahmood
Counseling Hours	Wed: 0900-1100 Thursday: 0900-1100 Mon: 0900-1100 Tuesday: 0900-1100
Contact Details	**Email:** shahid-mahmood@umt.edu.pk
Website	www.ias.umt.edu.pk

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	Mr. Shahid Mahmood	AM425-V1.0-F2025	10 Oct 2025

About BS Aviation Management

Mission

Education with purpose, **D**evelopment of professional skills, **G**lobal readiness, and **E**xcellence 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

The Aviation Practicum and Thesis course enables students to conduct an independent research project addressing real-world issues in aviation management. Students work under faculty supervision to identify a research problem, review literature, design research methodology, collect and analyze data, and prepare a thesis report. The course strengthens students' research skills, analytical thinking, academic writing ability, and professional presentation skills required for careers in aviation management, airlines, airports, and aviation policy organizations.

2. Learning Methodology

The course follows supervised research learning approach, including:

- Topic identification and supervisor consultation
- Literature review and research framework development
- Data collection and analysis
- Thesis writing workshops
- Individual supervision meetings
- Final presentation and viva

Students will also utilize research databases, academic journals, and industry reports.

3. Course Learning Outcomes (CLOs)

Sr.	Upon successful completion of this course, the student will be able to	PLO Mapping	Learning Domain and level
CLO1	Formulate aviation research problems and objectives	PLO1	C3
CLO2	Conduct systematic literature review in aviation research	PLO2	C4
CLO3	Apply research methodology and analyze empirical data	PLO8	C5
CLO4	Prepare and present a structured aviation thesis	PLO2	C4

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								✓
4		✓						

5. Resources

A. Text Books

- Creswell, J. W. (2024). *Research design: Qualitative, quantitative and mixed methods approaches.*
- Sekaran, U., & Bougie, R. (2023). *Research methods for business.*
- Saunders, M., Lewis, P., & Thornhill, A. (2024). *Research methods for business students.*

B. Journal Articles

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM).* Long Range Planning, 55(5), 102124. https://doi.org/10.1016/j.lrp.2021.102124

- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2024). *Common method bias in behavioral research: A review of procedural and statistical remedies.* Journal of Applied Psychology, 109(1), 1–35. https://doi.org/10.1037/apl0001046

- Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students: Current developments and future directions.* The International Journal of Management Education, 21(2), 100725. https://doi.org/10.1016/j.ijme.2023.100725

- Ali, F., Rasoolimanesh, S. M., Sarstedt, M., Ringle, C. M., & Ryu, K. (2023). *An assessment of the use of partial least squares structural equation modeling in hospitality research.* International Journal of Contemporary Hospitality Management, 35(2), 561–583. https://doi.org/10.1108/IJCHM-09-2022-1164

- Kock, N. (2023). *Common method bias in PLS-SEM: A full collinearity assessment approach.* International Journal of e-Collaboration, 19(1), 1–10. https://doi.org/10.4018/IJeC.2023010101

- Fornell, C., & Larcker, D. F. (1981). *Evaluating structural equation models with unobservable variables and measurement error.* Journal of Marketing Research, 18(1), 39–50. https://doi.org/10.1177/002224378101800104

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). *A new criterion for assessing discriminant validity in variance-based structural equation modeling.* Journal of the Academy of Marketing Science, 43(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

D. Web Links

- International Journal of Qualitative Methods
  https://journals.sagepub.com/home/ijq
- Psychological Methods https://www.apa.org/pubs/journals/met
- Methodology – European Journal of Research Methods
  https://meth.psychopen.eu
- Methods, Data, Analyses (MDA) https://mda.gesis.org
- Journal of Official Statistics:https://journals.sagepub.com/home/jos
- Directory of Open Access Journals (DOAJ)
  https://doaj.org
- Google Scholar
  https://scholar.google.com
- SAGE Research Methods
  https://methods.sagepub.com
- ResearchGate
  https://www.researchgate.net
- UMT Library Research Support and Thesis Templates
  https://library.umt.edu.pk/Research-Support/Thesis-Templates.aspx

E. Diplomas, Short Courses & Certifications

- Research Methodology Certificate – Coursera
  https://www.coursera.org/learn/research-methodologies
- Qualitative Research Methods Certificate – Coursera
  https://www.coursera.org/learn/qualitative-research-methods
- Understanding Research Methods Certificate – Coursera
  https://www.coursera.org/learn/research-methods
- Data Analysis for Social Scientists Certificate – edX
  https://www.edx.org/learn/data-analysis
- Statistical Thinking for Data Science and Analytics Certificate – edX
  https://www.edx.org/learn/statistics
- Research Methods Diploma – Alison
  https://alison.com/course/research-methods
- Diploma in Data Analytics – Alison
  https://alison.com/course/diploma-in-data-analytics
- SPSS Statistics Essential Training – LinkedIn Learning
  https://www.linkedin.com/learning/spss-statistics-essential-training
- SmartPLS Structural Equation Modeling Training
  https://www.smartpls.com/learning
- Academic Research Writing Certificate – Elsevier Researcher Academy
  https://researcheracademy.elsevier.com

Weeks	Course Content	Reference
1–2	Topic finalization and topic registration through prescribed form	FYP Handbook
3–4	Literature review and research article analysis	Online tutorials
5–6	Data collection planning and approval letter from supervisor	Research methods
7–8	Writing manuscript: Abstract and Introduction	Research writing guidelines
9–10	Writing manuscript: Literature Review and conceptual framework	Academic journals
11–12	Writing manuscript: Methodology (population, sampling, instrument reliability, hypothesis testing)	Research methods
13–14	Writing manuscript: Discussion, conclusion, implications and limitations	Research writing
15–16	Thesis formatting according to APA 7th edition and final presentation	UMT LRC

7. Evaluation Criteria and Weightages Tentative			
Assessments	**Assessments**	**Weightages (%)**	**Details**
Topic Approval	1	5	Students will finalize and register their research topic with supervisor approval.
Literature Review	1	10	Students will submit a structured literature review based on relevant research articles.
Data Collection Progress	1	10	Students will demonstrate progress in questionnaire design, sampling and data collection.
Midterm Thesis Draft	1	15	Students will submit a draft including introduction, literature review and methodology.
Final Thesis	1	40	Final thesis including data analysis, discussion, conclusion and recommendations submitted in APA 7th edition format.

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			
	Topic Selection	**Mid Term**	**Project/ Presentation**	**Conference and Publication**
1	✓	✓	✓	✓
2	✓	✓	✓	✓
3	✓	✓	✓	✓
4	✓	✓	✓	✓

10. Class Policy

Students are required to read and understand all items outlined in the participant handbook

Class Attendance: Students need to be in meetings 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: Although the minimum of **75% attendance** is required for a participant to be eligible to sit in the final examination. In this subject student attend all the meeting regularly.

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 Research / Thesis

Dimensions / Weight	Does Not Meet Expectations (0–1 points)	Meets Expectations (2–3 points)	Exceeds Expectations (4–5 points)	Score
1. Understanding of Research Concepts	Demonstrates minimal understanding of research methodology, variables, and statistical concepts; major inaccuracies present.	Demonstrates adequate understanding of research concepts with minor inaccuracies or incomplete explanations.	Demonstrates strong conceptual clarity of research methodology, constructs, and statistical interpretation.	/5
2. Data Analysis and Application	Data analysis is incorrect or incomplete; statistical tools not properly applied; results unclear.	Appropriate statistical techniques applied (SPSS/SmartPLS); results presented with some limitations.	Accurate and effective use of statistical tools; results clearly analyzed and interpreted.	/5
3. Interpretation of Results	Findings are poorly interpreted or not linked with research objectives and hypotheses.	Results interpreted adequately with some connection to research objectives.	Clear, logical, and insightful interpretation of findings aligned with research objectives and hypotheses.	/5
4. Discussion and Link with Literature	Results not compared with previous research; limited academic discussion.	Some comparison with previous studies; discussion present but lacks depth.	Strong integration of findings with previous literature and theoretical framework.	/5
5. Organization, Structure, and Clarity	Disorganized structure, unclear explanation, poor formatting of tables/figures.	Reasonably organized with acceptable clarity and formatting.	Well-structured, clearly written, with properly formatted tables, figures, and explanations.	/5
6. Research Integrity and Referencing	Few or no credible sources; referencing inconsistent or plagiarism concerns.	Adequate sources used with mostly correct APA referencing.	Extensive use of credible sources with accurate and consistent APA referencing.	/5
7. Originality and Academic Integrity	Similarity >19% overall or >5% from one source; potential plagiarism detected.	Similarity ≤19% overall and ≤5% per source with appropriate paraphrasing.	Similarity ≤10% overall with strong evidence of original work.	/5
8. Responsible Use of Generative AI	AI use exceeds allowed limit or declaration missing.	AI used minimally for grammar or language support; declaration included.	Minimal or no AI use; clear evidence of independent student work.	/5

Appendix C

Rubric for Presentation

	Criteria	Rubrics				
		Marks	Level*			
Preparation	Proper attire Readiness of presentation equipment and material Proper introduction of participants Timely completion	0-5 Unacceptable 6-10 Marginal 11-15 Acceptable 16-**20** Exceptional				
Presentation Skills	Ability to express himself/herself confidently and clearly Eye contact and body language Clarity of content and logical flow Visual aids are clear, attractive and interactive Figures / charts / tables are informative and presented well Presentation covers the key aspects of the project	0-5 Unacceptable 6-13 Marginal 14-21 Acceptable 22-**30** Exceptional				
Technical Content	Background introduction - aims and objectives are clearly mentioned Well-structured project outlines, flow charts, block diagrams & schematics Clear and concise with the correct use of technical terms, calculations and descriptions Identification of solution to broad engineering technology problem Discussion of results	0-5 Unacceptable 6-13 Marginal 14-21 Acceptable 22-**30** Exceptional				
Questions & Answers	He / she answers and responds correctly to the questions and comments Keeps his / her countenance with good answering techniques Willing to answer Questions	0-5 Unacceptable 6-10 Marginal 11-15 Acceptable 16-**20** Exceptional				
		TOTAL	**100**			

COMMENTS:

Date: **Signatures:**