LGAV 4100: Airport and Infrastructure Planning & Control
Spring 2024, MW 2:00 PM – 3:30 PM, BLB 050

Instructor:	Dr. Clinton Purtell
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Phone:	469-964-9753 (please only text during business hours, 8am to 5p, Mon – Fri)
Office Hours:	Virtual – by appointment
By appointment:	24 hours in advance preferred.
	Monday and Wednesday, 12:30p to 2:00p
E-mail:	**PLEASE USE CANVAS EMAIL FOR ALL EMAIL COMMUNICATION**

Course Description

A comprehensive inquiry into the management of airport operations. Topics include the history of airports, the roles of government agencies, hinterland development, and the impact of deregulation and wide-bodied aircraft on airports. Particular attention is given to the management of the airport planning process, including the general Federal Aviation Regulations about airport management and the role of government airport planning and development. This Capstone course is to be taken during the last term/semester of course work. Prerequisite(s): LGAV 2100, LGAV 3130, LGAV 3140.

Primary Text and required reading

Primary Text: Seth B. Young and Alexander T. Wells, *Airport Planning & Management*, 7th Edition. McGraw-Hill: New York, NY. ISBN-10: 1260143325, ISBN-13: 978-1260143324.

Required Reading: See Canvas for a link to Harvard Business Review and IMD cases to download these cases. These will be Group case projects.
1. *Perfect Storm over Zurich Airport (A)*, Harvard Business Case 9-408-023
2. *BAE Automated Systems (A): Denver International Airport Baggage-Handling System*, Harvard Business Case 9-396-311

Core Curriculum

This course is a critical component of UNT's Core Curriculum. This course is related to the category of Social and Behavioral Sciences and will focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. The foundations of history, economics, and public policy are required and management in the National Transportation System. This course examines several topics that promote the common good as students examine the relationship between the economic activity (jobs, investment, and businesses growth), social benefits (safety and cultural connections, and the environmental costs of aviation (air/ noise pollution and traffic congestion).

Core Objectives

As an integral part of the core curriculum, while engaging in this course, students will develop and demonstrate the core objectives of Critical Thinking, Communication Skills, Empirical and Quantitative Skills, and Social Responsibility.

Critical Thinking Skills includes creative thinking, innovation, inquiry, and analysis, evaluation, and synthesis of information. This course draws heavily on thinking as driven by the mathematics and composition elements of the core curriculum. Through the case analyses, students will integrate concepts and develop critical thinking skills to synthesize information, analyze complex problems, and evaluate alternatives as they gain a better understanding of airport operations in the National Transportation System.

Communication Skills include effective development, interpretation, and expression of ideas through written, oral, and visual communication. Through the case analyses, students will develop communication skills as they interpret and translate data into information so that their ideas are expressed in a manner useful to decision-makers. In certain instances, group work will be required. You must agree to, sign, and abide by a Group contract. Peer reviews will be factored into your final individual grade.

Empirical and Quantitative Skills include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. Through the case analyses, students will integrate concepts and analyze data and observable

facts to solve complex aviation problems. The students will examine the relationship between economic and social benefits and the environmental costs of aviation to make fact-based and data-driven conclusions.

Social Responsibility includes intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities. This course examines several topics that promote the common good. The behavior and interactions among individuals, groups, institutions, and events are explored, to include their impact on the individuals, society, and culture. Through the case analyses, students will investigate the civil role that public and private aviation organizations have in local, national, and global communities. Students will consider the influences of U.S. and international law and cultural ethics on aviation and their impact on public and private airport organizations, individuals, and the community in meeting multiple and sometimes conflicting goals.

1. Provide the basic principles of airport planning and management.
2. Examine the historical and legislative foundations of the National Airport System.
3. Understand the components and interoperability of an airport and its functions.
4. Understand the public administration of airport systems, including the regulatory, environmental, and social issues with airport planning and management.
5. Demonstrate an understanding of the integration of business, logistics, and aviation concepts to solve complex problems facing the airport: Case analysis, gate allocation, and scheduling, congestion costs, runway occupancy time, and airspace management.
6. Exposure to international customs, regulations, and conventions as they relate to global aviation.
7. Develop information-gathering and communication skills through written assignments.
8. Demonstrate a contextual understanding of the economic, social, and environmental costs and benefits of aviation.
9. Learn data analytics and presentation skills.
10. Demonstrate group participation, communication, presentation, and leadership skills.

Optional Reading
American Association of Airport Executives, Certified Member Program Modules. These are available on the Canvas course site.
1. Finance and Administration
2. Legislative Affairs: Marketing, Communications, and Air Service Development
3. Airport Operations: Security and Maintenance
4. Planning, Construction, and Environmental

Course Materials
Canvas: Course materials, slide presentations, assignments, quizzes, case studies, graded work, and outside readings will be available on the course web page via Canvas. Students should refer to Canvas often throughout the course to remain current. Students can access the course web page through the UNT course management system. The site is password-protected. You can learn more about Canvas by reviewing the online student manuals.

Outside Reading: Additional readings may be assigned throughout the course as determined by the professor.

Software: Course materials, assignments, and some quizzes will be distributed via Canvas. You are responsible for accessing Canvas to obtain all course materials. Additionally, many of the printed materials for this course are in PowerPoint.ppt and/or Adobe pdf format (Adobe Acrobat). Adobe Acrobat Reader is required to open and read the pdf files. Acrobat Reader is available free from the Adobe website, www.adobe.com. At least one assignment will require Solver, an add-in to Microsoft Excel. If you do not have access to Excel, ensure you have a comparable tool that can solve a linear program. If you do not have Microsoft Office software, please contact the professor to ensure your file can be opened and read for grading purposes.

Course Format
This course is conducted through a combination of lectures, in-class discussions, case studies, quizzes, and exams. The lectures will cover foundational material for each assigned topic, but may not necessarily cover all the material as presented in the text and outside readings. Students are still responsible for all material assigned.

Expectations
Some assignments in this course will integrate material from previous courses in the Aviation Logistics Program. You are expected to pull material from your previous courses, as needed to complete the assignments. You are expected to

attend all classes and be prepared to discuss and/or apply the assigned reading. Students will be called upon to discuss the topics/concepts in class.

Grading
Grading will be based on your performance on the following graded element:

Graded element	Percent of Total Grade
A. Resume and Student Acknowledgement and Acceptance	5%
B. Professional Development	5%
C. Attendance and In-Class Participation	10%
D. Airport Case Studies and Presentations (individual and group)	20%
E. Airport Analysis Project: data collection, data presentation), final report and presentation	20%
F. Chapter Readiness Quizzes and Online/Canvas Assignments	15%
G. Speaker RAQs and Guest Speaker Assignments	5%
G. Exams (Mid-term exam; Final exam)	20%
Total	**100.00%**

Note: Students **may not be allowed** to retake or resubmit graded material, to include assignments, quizzes, homework, projects, and exams. See the section on grade disputes in this syllabus if you have questions about your grade. LATE WORK IS NOT ALLOWED, ESPECIALLY IF YOU MISS ASSIGNMENT DEADLINES AND COMMUNICATE WITH ME AFTER THE FACT. IF YOU NEED ACCOMMODATIONS, PLEASE CONTACT THE OFFICE OF THE DEAN OF STUDENTS.

Grading Scale
The grading scale is guaranteed. You will receive no less than the grade listed within the appropriate interval and (or) class attendance based on the attendance sheet in Canvas. Numerical Grades will not be rounded up to the next higher letter grade. However, I may adjust the grading scale for the class, if warranted. I will not post final grades beyond what is available on Canvas. If you provide reasonable reason with official evidence for your absence, which needs approval IN ADVANCE, it may be recognizable.

Grade	Numerical Range (%) (Primary)	Condition	Class Attendance [1] (Secondary)
A	90 - 100	and	>= 80%
B	80 - <90	and	>= 75%
C	70 - <80	and	>= 70%
D	60 - <70	and	>= 65%
F	<60	or	=< 50%

Opportunities for Extra Credit Available to Entire Class: No extra credit will be available unless it is offered to the entire class. There will be limited opportunities for extra credit.

Submitting Assignments and Due Dates: Assignments are due on the date identified in the course schedule and must be uploaded to Canvas by 2359 hours (11:59pm CST) on the **Canvas due date**, unless otherwise indicated. **I will not accept hard copies of assignments.** As a general rule, I will not accept homework that is emailed.

Correct spelling, grammar, and punctuation are expected on all graded material. All assignments will be typed (25%-

point penalty, if not) unless otherwise indicated. I will penalize up to one letter grade (10% of the assignment score) if you have poor grammar, poor spelling, etc.

The acceptable assignment formats include jpg, .jpeg, .pdf, .doc, .docx, .ppt, .pptx, .xls, .xlsx. The professor must approve exceptions to file format. Please see me if you want to use an alternate presentation software, such as Canva.

File Naming Convention: Ensure all files uploaded to Canvas include your last name and assignment title (e.g., Hong_Abstract1Part1.doc). Do not use apostrophes or commas in the file name since the file cannot be read in Canvas.

Use of Artificial Intelligence
<u>Students are prohibited from using any generative AI tools such as ChatGPT, Bing AI, or Bard when completing course assignments. Use of these tools, or other similar generative AI tools, will not be tolerated and will be considered plagiarism and could result in the student failing the course. Any incident detected will be addressed through the university's academic integrity procedures.</u>

Quizzes and Exams: There are no Make-Up Exams nor quizzes in this course, except for bona fide emergencies, as noted below.

The late penalty (late assignments and late quizzes) may be waived with a valid reason beyond the control of the student and with PRIOR approval from the professor. The professor may require documentation to waive the late penalty.

In the event of a bona fide emergency beyond the control of the student, the student should contact the professor as soon as possible PRIOR TO THE EXAM DUE DATE. Documentation to support the emergent situation is required before the professor will consider a make-up exam. Illnesses or COVID related issues that occur more than one class will require contact to the Office of the Dean of Students (email, with cc: to Dr Purtell).

Preparation for Professional Engagement/Internships or Careers
    A. Resume Assignment
Continued refinement of your resume is a habit you should develop and implement throughout your career. As your career objectives and skills change, so should your resume. It is also important, particularly as you prepare for internships and job interviews to have your resume "ready to send." To help in this process, your first assignment is 1) if you have not already done so, meet with the UNT Career Center, and 2) then **submit your resume and release authorization form electronically** via Canvas per the class schedule.

The logistics faculty will use this resume to send to companies that may contact us throughout the semester. Please note there is no guarantee that companies will contact us, or that your resume will be considered. No resume updates will be accepted during the semester after the initial submission; no exception. Make sure it is your best, no excuses. Do it right the first time! You have the right to request your resume not be distributed to potential employees. If you request "no distribution" we will not release your resume to prospective employers upon their request

To receive full points for your resume assignment:
1. Name your RESUME using the following convention:
   Example: Instructor or StudentLastName_Semester_Year (see Attachment 1)
2. Upload your resume to Canvas by the due date.
3. Complete and sign the release authorization form attached to this syllabus. This form is used to indicate whether we may release your resume.
4. Scan a copy of the signed release form and upload to Canvas, with your resume, by the due date.
5. Comply with expectations in the grading rubric.
6. **<u>In order to be visible to employers, you must submit your resume</u>** via Eagle Careers powered by Handshake http://studentaffairs.unt.edu/career-center/eagle-careers. You need to have a profile created as well. A Student User Guide will be provided to you with instructions on how to submit your resumé. The UNT Career center can assist you with this if needed.
7. **<u>Once you have your resume ready to upload into Handshake you must do the following:</u>**
   a. Under 'Personal Goals', you need to select either, 'I want a job' or 'I want an internship,' then click 'Done.'
   b. Now, you need to choose in the 'Other' dropdown 'Has Public Resume' If you want to have recruiters see your resumes.

B. Resume: Student Acknowledgement and Acceptance

Read attachment 2 for student acknowledgment and acceptance and submit it with your signature, date, and printed name by the due date (see the due date on pages 10 and 11).

C. Professional Development

The UNT's professional program in Logistics is very proud of its close relationship with the industry and its emphasis on professionalism. The Center for Logistics & Supply Chain Management offers many opportunities for students to connect with business experts and executives to acquire useful insights beyond the classroom. You are required to participate in **two categories of professional development** (PD).

1. **Logistics Executive Lecture Series** speaker events will be held on Fridays from 12:00 noon to 1:00 p.m. and will be presented both in-person and virtually. Dates, times, and presenting speaker information will be posted on the registration webpage:
   https://cob.unt.edu/logistics-center/executive-lecture/speakers
2. **Student Onboarding Program** speaker events will also be held on Fridays from 12:00 noon to 1:00 p.m. and will be presented both in-person and virtually. There are only four of these specific speaker events each semester. After completing all four of these speaker events students will receive a Logistics Soft Skills Certificate which is a great addition to their resume! Dates, times, and presenting speaker information will be posted on the registration webpage:
   https://cob.unt.edu/logistics-center/onboarding-program/speakers
3. **The Business of Intermodal Continues Program,** hosted and managed by IANA, offers various webinars throughout the semester. Dates, times, and presenting speaker information will be posted on the registration webpage:
   https://cob.unt.edu/logistics-center/business-of-intermodal-continues/speakers
4. **Group Tours** with local logistics companies are scheduled throughout the semester. Attendees will be responsible for securing their own ride to and from the tour locations; transportation will not be provided. Dates, times, and locations will be posted on the registration website:
   https://cob.unt.edu/logistics-center/group-tours

For all events, registration is required. Registration closes at 12:00 noon on the day before the event takes place. Virtual meetings will be recorded and post-event attendance reports will be sent to professors after each event. Attendance reports include a list of registered participants, and the arrival and departure times of each attendee. **You must notify me by email and in Canvas to confirm with events you will attend, and/or have attended.**

The deadline to register for any event is 12:00 noon on the day before the event. Immediately after registering, students will receive an email confirmation to the email address provided on the registration form. Students will choose which class to receive Professional Development attendance credit for by selecting the course number on the registration form. Students have the ability to change the course number for a registered event by logging in and clicking 'edit' in the event they have registered for. Students also have the ability to cancel registration by logging in and clicking 'cancel' in the event they have registered for. If a student has registered for an event and is not able to attend, they should cancel their registration no later than 24 hours before the start time of the event. The registration system will allow students to register for an event until capacity restrictions have been met. Students should register early in the semester as events fill up very quickly!

For UNT speaker events, the in-person classroom location and the link to the virtual event will be sent to the same email address used during registration one day before the event. For IANA speaker events, reminder emails are sent to the same email address used during registration one week before the event. For Group Tours, it is important to retain a copy of the registration confirmation email to present to the tour guide if requested upon arrival at the facility. Without registration, participants will not receive attendance credit for participating in the tour.

Students need to abide by all the following policies to receive attendance credit for speaker events and group tours. Participation in any event will count toward only one class, selected by the student during registration. Students receive attendance credit for registering, arriving on time, and staying for the duration of the event. Failure to register, validated from the attendance report generated after the event, will prevent students from receiving attendance credit. **Failure to participate for at least 75% of the duration of the event will prevent students from receiving attendance credit.** Failure to attend an event, after prior confirmed registration, will lead to loss of points from the student's final accumulated credit, unless the student cancels the registration at least 24 hours before the start time of the event. Such loss of points may not be recovered by participating in other Professional Development events.

For Logistics Executive Lecture Series, Student Onboarding Program, The Business of Intermodal Continues Program, and Group Tours questions not answered by content found on the Center for Logistics & Supply Chain Management website please send an email to:

Chris Peavy (chris.peavy@unt.edu, [she-her-hers]), Associate Director, Center for Logistics & Supply Chain Management. CHRIS PEAVY IS YOUR PRIMARY POINT OF CONTACT FOR ALL QUESTIONS RELATIVE TO PROFESSIONAL DEVELOPMENT ACTIVITIES!

Students are expected to Participate in at least two PD events during the semester (each event earns 20 points, for a total of 40 points). To receive full credit:

1. Register designating LGAV4100.
2. If you cannot attend two of these events due to work or class schedule conflicts, contact your instructor about attending alternative events, which is subject to approval before attending the event. For example, attendance at LogSA (Logistics Support Activity of US Army) or ISM (Institute for Supply Management) meetings with a senior guest speaker, attendance at the local CSCMP (Council of Supply Chain Management Professionals) roundtable meetings, etc. may be approved by the instructor.
3. If you have other activities that you believe qualify for consideration for professional development credit, please seek approval from the instructor before attending the event or meeting. Many of the opportunities are space-limited, so plan early! Note that you will need to attend two unique events for each logistics class that you enroll in.
4. In cases 2, and 3, you should turn a half-page summary in within one week to the Canvas Portal after the event. **The half-page summary should include:**
   a. Your name and class identifier (LGAV 4100)
   b. The ***Date*** when you participated,
   c. A summary of the topic,
   d. Who was a lecturer/speaker/event presenter
   e. Why the topic is interesting or important to you, how it added value (or not), how it might help you for information in your career, etc..

With prior approval from the professor (such as continued work conflicts), I may allow another method to get PD: Choose one video from attachment 4 (References-YouTube Video), summarize it in one page with single space with 12 fonts using Times new roman, and turn it in through my CANVAS email before mid-term exam. You could choose a video other than the list with my consent in advance. Only one is allowable, no more than two.

Or, choose one (for one PD) or two (for two PDs) of following articles and summarize it in one page for one PD with single space with 12 fonts using Times new roman font, and turn it in to Canvas using the assignment portals by the deadline posted.

Hong, S.-J., Najmi, H., 2022, Impact of High-Speed Rail on Air Travel Demand Between Dallas and Houston applying Monte Carlo simulation, *Journal of Air Transport Management* 102, 102222.

Hong, S.-J., Choi, D., Chae, J., 2020. Empirical Study on Servicescape, Convenience, and Services at International Airport Passenger Terminals. *Journal of Retailing and Consumer Services* 52. 101917.

Hong, S.-J., Jeon, M., 2019. The Technical Efficiency of French Regional Airports and Low-Cost Carrier Terminals, *Sustainability* 11(18). 5107.

Hong, S.-J., Lee, K. S., Seol, E. S., Young, S., 2016. Safety perceptions of training pilots based on training institution and experiences, *Journal of Air Transport Management* 55. 213-221.

D. Case Study Analysis (See attachment 6)

This course aims to develop critical thinking skills by analyzing and solving applied problems. Several case studies are incorporated into the course addressing different aspects of Airport Systems and Airport Management (see the list below). The case studies may require integrating material learned in the business core classes and prior logistics/aviation logistics courses. The case study analyses are individual efforts using recommended files uploaded in CANVAS and are due on the date listed in the class schedule, with a minimum of ten slides in PowerPoint, a cover page, an executive summary, and your comments and suggestions. The executive summary, or management summary, is a short document or section of a document produced for business purposes, which summarizes a more extended report or proposal or a group of related reports in such a way that readers can rapidly become acquainted with a large body of material without having to read it all. It usually contains a brief statement of the problem or proposal covered

in the necessary document(s), background information, concise analysis, and principal conclusions. It is intended as an aid to decision-making by managers and has been described as an essential part of a business plan. Each case is different, with different expectations. These expectations are included in the instructions for each case. Choose one of the following cases 1 to 17 (150 points - PowerPoint slides: 70 points and presentation 80 points), and **choose a case to avoid duplicates with other students**.

Case 1: Mina O'Reilly at Logan Airport's TSA
Case 2: Airside Expansion at Lambert Field: The Blues in St. Louis
Case 3: JetBlue Airways: Deicing at Logan Airport
Case 4: Lobbying for Love? Southwest Airlines and the Wright Amendment
Case 5: Leveraging the runway capacity shortage in South East England
Case 6: Berlin Brandenburg International Airport
Case 7: Privatizing the Albany County Airport
Case 8: Airport privatization
Case 9: A note on the North American airline and airport industry
Case 10: Airport service transformation: The case of Delhi International airport
Case 11: Bengaluru Airport: Crisis Leadership through a Pandemic
Case 12: Airport retailing at Mondelez: The launch of Toblerone crunchy almond in Asia
Case 13: Operations Management Challenges at Heathrow Airport (Part A and B)
Case 14: Orlando International Airport: Landing International Airline Business
Case 15: The Public-Private Partnership Hurdle Race: The Case of Delhi International Airport
Case 16: Rio de Janeiro Galeao International Airport Concession
Case 17: San Francisco International Airport and Quantum Secure's SAFE for Aviation System

Format: The preferred format is Microsoft PowerPoint. Microsoft Excel may also be used for cases requiring more complex problem-solving.

E. Airport Data and Strategy Analysis Project (See attachment 7)

This case examines airport business models that you choose from an airport located in North America, South America, Asia-Pacific, Europe, Middle East, Africa, etc. The case is to develop the strategies and policy of your chosen airport, including the various aspects of airport operations with a financial statement, mission, vision, and duties analysis.

F. Quizzes

This course includes numerous quizzes that will be administered via Canvas. You should expect approximately one quiz each week covering the assigned material. Exceptions to the weekly quiz will be noted in the syllabus, or announced in class and/or Canvas. All assigned material (text, lecture slides, outside reading) and classroom discussions are fair game for each quiz. All quizzes are "open notes/open book." Quizzes will include a combination of multiple choice, true/false, and short answers.

Online Quizzes: Once you begin taking the quiz on Canvas, you will have a limited time (**50 seconds per question**) with which to complete the quiz. Therefore, you should be familiar with the material before attempting the quiz. The quizzes are designed to prepare you for the course exams. Therefore, you will see similar questions on the exams. There will be approximately 9 quizzes in this course. All quizzes will count toward your final grade.

All quizzes will count toward your final grade.

G. Examination & Preparation

This course will include two in-class exams. The exams will consist of questions drawn from the textbook, outside readings, lectures, discussions, and out-of-class assignments. You are responsible for the material even if is not emphasized or covered during the lecture. Your exams are comprehensive, although each exam will weigh more heavily on the material since the last exam. The exams will be closed notes/closed book. No external reference material may be used on the exams. Exams will include a combination of multiple choices, true/false, and short answer. There are **No Make-Up exams** except in extraordinary situations (see the "Lateness" section of this syllabus).

Final Exam: The final exam is comprehensive, but does place more emphasis on tested material.

Exam Preparation: I strongly recommend reviewing the **chapter** learning objective, text and slide materials and attempt to answer the review questions for each assigned chapter at the end of each chapter. Students that keep up with the reading, pay attention in class, and study for the quizzes tend to perform better on the in-class exams.

The written requirements for this course consist of your resume, case study analyses, and any short answer/essay questions on the exams. Your written assignments and exam responses should be neat, clear and concise. Electronic files of your assignments are required in Microsoft Word or PDF format. All written assignments must be typed (25%-point penalty if not typed) unless otherwise noted.

Oral Communication Skills
The oral communication skills are developed through daily class discussion, participation, and presentations. Students are expected to provide well-reasoned and concise discussion or arguments, contributing to the in-class discussion. Your participation is expected every live class, and you will be graded on your participation level. **PLEASE CONTRIBUTE TO DISCUSSIONS AND QUESTIONS!**

Participation, Attendance & Tardiness
Class attendance is required to fully understand the material and prepare for the homework and exams. Missing these opportunities could adversely influence your grade. Attendance and participation is graded with both live roll call and RAQs (see below).

Students are responsible for all material covered in class, including changes to the syllabus, course schedule, and course materials. I will not supplement missed lecture material, even with excused absences. If you miss a class, you should arrange with your classmates for any supplementary material or class notes. You are expected to read all chapter materials and review lecture slides BEFORE class. Class is reviewed for practical application and discussion; there will be less lecture and more discussion. Thus, you must be prepared!

READINESS ASSESSMENT QUIZZES (RAQs) may be used in preparation for guest speakers, or in preparation for learning new Chapter materials. RAQs may be used 1) to prepare for a guest speaker, 2) to ensure you have read the materials and are ready for in-class discussions, and 3) if administered on a class day, will begin at the registered start time of class and end promptly 10 minutes after class begins. (There are no make-up RAQs, so you will receive a zero for attendance if not completed on time); thus, it ensures you arrive on time and are ready to engage in scheduled class!

When we have **guest speakers**, you are *HIGHLY ENCOURAGED* to dress in business casual attire, and represent yourself professionally. Be prepared to ask questions, and "lean in" to the guest speaker opportunity. All guest speakers are highly networked, and many may be in positions to refer you, or even hire you, at some point in the future. Make a good impression! Dress professionally and SHOW UP ON TIME!

PEER EVALUATIONS (Scored as part of your 10% of your total grade towards Peer Reviews, BUT CAN SIGNIFICANTLY IMPACT YOUR FINAL GROUP PROJECT SCORE):
(This is important because it can significantly affect your overall individual grade)

Your involvement and interaction in team activities and contribution to assignments will be evaluated by your peers using a Peer Evaluation process and following the team contract. Team member assessments will be based on, a) Your ability to foster team spirit and display initiative while working on the project, b) Your timely attendance at scheduled meetings (likely virtual meetings), c) Your participation in group discussions, and d) Your completion of assigned work and contribution to project completion (content quality and timeliness).

Peer evaluations will be completed at the end of EACH TEAM PROJECT. The peer evaluation will include the evaluation of the student's own contribution and that of every other team member. Each student will simultaneously email their evaluation to the team lead as well as submit a copy into Canvas. The team lead will then calculate an average of the peer evaluation scores for each category for each team member and submit a copy of the average scores into a different portal in Canvas. The average scores per team member will be used to adjust individual grades, if necessary. The collective team peer evaluations will be due **the same day** that the assignment is due. Team grades will not be posted until the peer evaluations have been submitted.

HOW TEAM MEMBER PEER EVALUATIONS CAN AFFECT YOUR INDIVIDUAL GRADE:

If your peers award you 100% on all the evaluation metrics, you will receive the full grade for the assignment awarded to the team. However, if your peers award you a lower percentage, **that percentage is multiplied by the team grade to reflect your own grade portion for that specific team assignment.**

Example: Assume the team grade is 100 points. You're awarded 100% by your peers. Your grade is 100 points.

Assume the team grade is 100, but you are awarded 75% by your peers. Your grade is only 75 points

NOTE: Any team member may request that the instructor arbitrate team ratings. If arbitration is requested, it will only be conducted when all relevant team members are available to meet by phone or Zoom, and the decision of the instructor will be final.

IMPORTANT: (SUGGESTIONS FOR YOUR TEAMS) SOME TEAMS REQUIRE STRUCTURE, PLANNED MEETINGS, REGULAR COMMUNICATION AND ORGANIZATION. IN FACT, HIGH PERFORMING TEAMS IN THIS CLASS ARE THOSE WHO 1) SET REGULAR WEEKLY MEETINGS, 2) DO NOT PROCRASTINATE OR WAIT UNTIL DEADLINES TO DO WORK, 3) SET ROLES AND RESPONSIBILITIES FOR ASSIGNMENTS AND TRACK ACCOUNTABILITY OF EACH TEAM MEMBER, AND 4) GRADE EACH OTHER FAIRLY BUT CRITICALLY ON PEER REVIEW ASSESSMENTS. FINAL SCORES SHOULD NOT BE SURPRISES, AND SHOULD BE UNDERSTOOD BY THE TEAM LEAD BEFORE FINAL SUBMISSION. SET GROUND RULES AND AGREE WHAT EARNS A FULL-100 POINT PEER REVIEW, OR WHAT DOES NOT.

MANY STUDENTS WILL TRY TO AVOID CONFLICT AND GIVE ALL TEAM MEMBERS 100 POINTS ON PEER REVIEWS. THIS IS NOT ADVISED. SIMILAR TO THE REAL-WORLD, YOU ARE REINFORCING THE BEHAVIOR YOU SCORE 100 POINTS FOR AS "PERFECT BEHAVIOR." IN OTHER WORDS, IF A TEAM MEMBER DOES NOT DO THEIR WORK, IS DISRUPTIVE, OR DOES NOT HOLD THEMSELVES ACCOUNTABLE AND YOU GIVE THAT PERSON A 100 POINT RATING, YOU ARE TELLING THEM THEIR BEHAVIOR IS COMPLETELY FINE!!

WORKING OUT PROBLEMS WITH TEAM DYNAMICS: It is very important that you communicate openly with your teammates during the peer review process and try to resolve problems before you give someone else a lower score. These scores can ***significantly*** affect someone's grade, so do not take this responsibility lightly. Lower peer scores should only be given if the situation has not been resolved and further efforts need to be taken to raise awareness that changes in behavior are needed. If teams cannot work out behavioral problems by themselves, then they should contact the instructor for a final resolution. But be aware that the instructor reserves the right to ask one or more of the team members to leave the team and be responsible for a different case study from scratch by him or herself. This is a very difficult and time-consuming path that a student will not want to pursue, so we highly suggest you learn how to maintain good and harmonious team interactions.

Academic Integrity
Cheating, plagiarism or other inappropriate assistance on examinations, quizzes, and all graded assignments will be treated with zero tolerance and will result in a grade of "F" for the course. Any work on the graded material (quizzes, case study, presentation, etc.) is to be treated identically to an in-class exam: the work must be entirely your own with absolutely no outside help or assistance. When working on the assignments, you must not discuss your work with anyone (other faculty or other students) unless specifically approved by me. Copying or using material from assignments previously submitted by other students (at UNT or other learning institutions) or downloaded from the internet is considered plagiarism and will not be tolerated.

Written work must be written in your works. Borrow ideas and summaries of portions of the articles should also be in your word and must be fully cited. Any idea, concept, or material that was not generated by you should be fully documented with citations. All sources may be cited using numbered footnotes/endnotes or using the in-line (author year) format. Footnotes and endnotes should include the full bibliographic information. If you prefer the (author year) format, a full bibliography, in alphabetical order, should be included at the end of the written assignment. If you quote material, you must also include your source through proper citations. Large-scale "cutting and pasting" from other sources, even when properly cited, does not meet the criterion of submitting your work and will result in a failing grade. To maintain a culture of integrity and respect, generative AI tools (ChatGPD, Bard, or other tools) **should not be used in the completion of course assignments** to generate responses or narrative

content, unless the instructor specifically authorizes its use for an assignment. The use of generative AI for generating responses or answers for assignments in this class will constitute Academic Integrity Violations, and the instructor has the sole discretion and right to penalize grades, assign zero (0) scores, or report violations for repeat offenders.

The use of headphones is prohibited during exams.

Americans with Disabilities Act: The College of Business Administration complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with a disability. If you have an established disability as defined in the Ace and would like to request an accommodation, please see me as soon as possible. I can be contacted at the location and phone number shown in this syllabus. Please note: University policy requires that students notify their instructor within the first week of class that an accommodation will be needed. Please do not hesitate to contact me now or in the future if you have any questions or if I can be of assistance.

Course Grade Appeals, Withdrawals, & Incompletes: Please refer to the UNT Undergraduate Catalog for policies governing these actions. If you have any questions, please contact me for clarification. Please note: I only use an incomplete for extraordinary circumstances. An incomplete grade will not be used simply to provide more time to complete the course requirements.

Exam & Assignment Grade Appeals: If you disagree with how any assignment or examination was graded, you must submit a written appeal by email or letter within one week after the grade was awarded or the graded work was returned. The written appeal should include your concern or question about your grade, an explanation about why you believe your answer is correct, AND documentation or evidence supporting your belief. Appropriate documentation includes references from the text, course lecture slides, or outside reading from the course syllabus. Appeals without supporting rational and specific reference(s) to the course will be returned without consideration. Under no circumstances will grades be lowered.

Course Disclaimer: The schedule, policies, and assignments contained in the course syllabus are subject to change in the event of extenuating circumstances, to accommodate class progress, to provide a more in-depth focus or discussion where warranted, to take advantage of a guest speaker, or by agreement between the instructor and students. All changes will be announced in class before the change and posted on Canvas.

Cell Phones: All cellular or digital phones and pagers are to be turned off during class.

Laptops: Laptops and other devices (e.g., iPad) in the classroom may not be used for web browsing, email, or activity not directly related to the course content for the day.

Class Schedule Required Reading, & Assignments
The schedule, policies, and assignments contained in the course syllabus are subject to change in the event of extenuating circumstances, to accommodate class progress, to provide a more in-depth focus or discussion where warranted, to take advantage of a guest speaker, or by agreement between the instructor and students. **All changes will be announced in class before the change and posted on Canvas.**

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan	27-Jan
*Syllabus Quiz Due **Group Contract Due (individually sign and upload) ***Atachment 2 - Syllabus Acknowledgement Due	Chapter 1 Overview *Be sure to select your individual case!* Canvas RAQ Ch 1 and Identifiers (Starts at 2pm, must be in class!)		Chapter 2 Overview Chapter 3 Overview Canvas RAQ Chapter 2 and 3 Due (Starts at 2P, must be in class!)			
28-Jan	29-Jan	30-Jan	31-Jan	1-Feb	2-Feb	3-Feb
Resume Release Form and Assignment Due ***Guest Speaker RAQ Due Chosen Case Selections Due	Guest Speaker, Doug Wood, OAC In Class Discussion		See Canvas for Video Assignment No Class - work onn Chosen Case, and Airport Data Assignment!!			
4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	9-Feb	10-Feb
***Guest Speaker RAQ Due	Guest Speaker - Jason Williams, FAA In Class Discussions		See Canvas for Video Assignment No Class - work onn Chosen Case, and Airport Data Assignment!!			
11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb	17-Feb
	Chapter 4 Overview Canvas RAQ Chapter 4 Due (2PM, in class!)	***Guest Speaker RAQ Due	Guest Speaker - Jodi Brinkerhoff, VP DFW Innovation In Class Discussion			
18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb	24-Feb
	NO CLASS Watch Big, Bigger, Biggest Airports Video Finish RAQ Video Assignment (due by 11:59PM)	*BAE Group Case Presentation upload is Due (Group)*	Chapter 5 Overview Canvas RAQ Chapter 5 Due (2PM, in class!) *Group Present BAE Case (Random Group Selection)*	Possible On-site at FAA (Extra Credit, Career/ Networking, and PD!)		
25-Feb	26-Feb	27-Feb	28-Feb	29-Feb	1-Mar	2-Mar
Initial Due Date for Airport Data Collection (Round 1) ***Guest Speaker RAQ Due	Guest Speaker - Ernest Huffman, NCTCOG In Class Discussion		No class, work on your airport data presentations and Case studies Choose 3 Videos (Cannot include videos already viewed or discused): See attachment 4 of Syllabus (Must total at least 60 minutes, but can be more!). Post the video titles you watched in Canvas with a brief discussion. See Canvas for other assignments		Mid-Term Exam Deadline! (Closed Notes, Lockdown Browser)	
3-Mar	4-Mar	5-Mar	6-Mar	7-Mar	8-Mar	9-Mar
	Chapter 6 Overview Canvas RAQ Chapter 6 Due (Starts at 2P, must be in class!) *Students provides an overview of their chosen case (1-2 slides, 5 min)*		No Live Class Mid-Term Exam Due (Closed Notes) Take Exam Remote During Class Hours		Deadline for first PD Assignment Completion	
10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar	16-Mar
	Spring Break - NO CLASSES THIS WEEK		Spring Break - NO CLASSES THIS WEEK			
17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar	23-Mar
***Guest Speaker RAQ Due	Guest Speaker - Jonathan Stanton, Cirrus Aviation In Class Discussion		Chapter 7 Overview Canvas RAQ Chapter 7 Due (Starts at 2P, must be in class!)			
24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar	30-Mar
Zurich Case Presentation upload is Due (Group)	Chapter 10 Overview Canvas RAQ Chapter 7 Due (Starts at 2PM, must be in class!) *Group Presents Zurich case in class*		No class, work on your airport data presentations and Chosen Case studies Choose 3 Videos (Cannot include videos already viewed or discused): See attachment 4 of Syllabus (Must total at least 60 minutes, but can be more!). Post the video titles you watched in Canvas with a brief discussion. See Canvas for other assignments			
31-Mar	1-Apr	2-Apr	3-Apr	4-Apr	5-Apr	6-Apr
***Guest Speaker RAQ Due	Guest Speaker - Doug Turlip, SWA MRO and Supply Chain Ops In Class Discussions	***Guest Speaker RAQ Due	Guest Speaker - Michael Hill Consultant and UAV/Advanced Mobilty Expert In Class Discussions *Presentation on AAM, AVs and future Technology*			
7-Apr	8-Apr	9-Apr	10-Apr	11-Apr	12-Apr	13-Apr
***Guest Speaker RAQ Due Final Due Date for Airport Data Collection (R2)	Guest Speaker - Justin Artis, SWA Network Planning In Class Discussions	*Read Article: Construction Plans for La Guardia Airport (Canvas).*	Chapter 11 Overview Canvas RAQ Chapter 11 & La Guardia Article Due (Starts at 2PM, must be in class!) In class discussion on article			
14-Apr	15-Apr	16-Apr	17-Apr	18-Apr	19-Apr	20-Apr
	Chapter 12 Overview Canvas RAQ Chapter 12 Due (Starts at 2PM, must be in class!)		Chosen Case Presentations			
21-Apr	22-Apr	23-Apr	24-Apr	25-Apr	26-Apr	27-Apr
	Chosen Case Presentations		*Airport Project Presentations*			
28-Apr	29-Apr	30-Apr	1-May	2-May	3-May	4-May
	Airport Project Presentations		*Final Review - Future of the industry*		Second PD Assignment Must be Completed	
5-May	6-May	7-May	8-May	9-May	10-May	11-May
	ONLINE (Lockdown Browser) Final Exam Due (Closed Notes) Take Exam Remote During Class Hours					

Final Exam: Online (Lockdown Browser), no notes/closed book (ethics and integrity are important!), Monday, May 6, 2:00 to 3:30 pm

Thanks in advance for your participation! Have a great semester

Attachment 1: Resume Assignment

So, you attend a professional meeting tonight and chat with a vice president with a 3PL. "Looking for an exceptional UNT graduate highly capable of doing great things for your company?" you ask. She replies, "Send me your resume by Noon tomorrow."

Now is the time to get your resume in shape. If you haven't already done so, visit the UNT Career Center and establish you resume (or update it). Then, complete the attached resume cover sheet and post in the Assignments module within Canvas. To avoid a reduction in participation points, name your resume file using your last name and the term and year of your graduation. For example:

<div align="center">

StudentLastName_LGAV4100_Semester_Year
Example: **PURTELL_LGAV4100_SPRING_2024**

</div>

Failure to properly name your file will result in a penalty of participation points (10% of the assignment grade). Late submissions will receive a 10% point reduction in their final grade. The logistics faculty will use this resume to send to companies that contact us throughout the semester so make sure it is your very best, no excuses. You have the right to request your resume not be distributed to potential employees.

You must complete the form on the following page, turn-in a signed copy as a scanned pdf or Word document (cut and paste out of the syllabus), and post your resume in Canvas no later than the due date.

**Aviation Logistics and Supply Chain Management
Resume Posting Authorization Form**

Name your resume file as follows:

StudentLastName_LGAV4100_Semester_Year
Example: **PURTELL_LGAV4100_SPRING_2024**

Student name: _____

ID Number: _____

Submit Date: _____

Please check the appropriate responses:

A Logistics intern position for:
- o Spring 2024
- o Summer 2024
- o Fall 2024
- o I am not interested in a Logistics related internship

A part-time position in Logistics:
- o Spring 2024
- o Summer 2024
- o Fall 2024
- o I am not interested in part-time employment in Logistics

Post-graduation permanent professional employment:
- o Spring 2024
- o Summer 2024
- o Fall 2024
- o I will not be seeking jobs in the logistics field

Release my resume:
- o The University of North Texas has permission to distribute my resume to prospective employers.
- o Please do not release my resume. It is submitted for a class requirement only.

Signed: _____

Date: _____

Resume Rubric

Learning Outcome	Exceeds Expectations ≥ 90%	Meets Expectations ≥ 80%	Approaches Expectations ≥ 70%	Below Expectations ≤ 70%	Awarded/ Possible Points
Presentation Format & Compliance with Syllabus	- Typed (.doc or .pdf) - Eye appeal with balanced margins - Format highlights strengths and information - Varied and professional fonts and point size - File names comply with syllabus - Signed Resume Release Form complies with the syllabus **(5 –4.5 points)**	- Typed (.doc or .pdf) - Balanced margins - Format identifies strengths and information - Appropriate fonts and point size - File names comply with syllabus - Signed Resume Released Form complies with the syllabus **(4 points)**	- Typed (.doc or .pdf) - Somewhat balanced margins - Format identifies strengths and information - No variation in fonts and/or point size - File names do not comply with syllabus - Missing or incomplete Resume Release Form **(3.5 points)**	- Typed (.doc or .pdf) - Unbalanced margins - Format identifies strengths and information - Fonts distract from readability - File names do not comply with syllabus - Missing or incomplete Resume Release Form **(< 3.5 points)**	**/5**
Job Specific Information	- All power/action phrases used to describe duties and skills - Information demonstrates ability to perform the job - Professional terminology used when describing skills **(7.5 –6.75 points)**	- 1-2 duties/skills lack action phrases - Information demonstrates ability to perform the job - Some professional terminology used when describing skills **(6.70 –6 points)**	- 3-4 duties/skills lack action phrases - Some information demonstrates ability to perform the job **(5.99 –5.25 points)**	- 5-6 duties/skills lack action phrases - Information does not clearly demonstrate ability to perform the job **(< 5.25 points)**	**/7.5**
Resume Content	-Header, Objective, Education, Skills, Experience covered in detail -Name, address, phone #, email -Extra information was given to enhance resume **(7.5 –6.75 points)**	-Header, Objective, Education, Skills, Experience covered in some detail -Name, address, phone #, email -Extra information was given to enhance resume **(6.70 –6 points)**	-Header, Objective, Education, Skills, Experience covered with little detail -Name, address, phone #, email -Minimal extra information was given to enhance resume **(5.99 –5.25 points)**	-Missing one of the following: Header, Objective, Education, Skills, Experience -Name, address, phone #, email -No extra information was given to enhance resume **(< 5.25 points)**	**/7.5**
Spelling & Grammar	- No spelling errors - No grammar errors **(5 –4.5 points)**	- 1-2 spelling errors - 1-2 grammar errors **(4 points)**	- 3-4 spelling errors - 3-4 grammar errors **(3.5 points)**	- 5-6 spelling errors - 5-6 grammar errors **(< 3.5 points)**	**/5**
				Total Score:	**/25**

* If you do not submit "Resume Posting Authorization (see the syllabus page 12)," you could get 0 points out of 25 points. When you submit "Resume Posting Authorization," please use the form in the syllabus on page 13. It will not be acceptable to use other classes' forms.

Attachment 2: Student Acknowledgement and Acceptance

I have received and read the LGAV 4100 course syllabus and understand all of the requirements stipulated therein. I am aware of the course information and requirements regarding:

- UNT College of Business Student Ethics Statement
- Plagiarism and penalties
- Individual effort on homework assignments
- Requirement to contribute on airport research project and case study
- Class attendance, business casual attire, and arrive on-time for every class (especially for guest speakers!)
- Professional development requirements
- Executive lecturer and on-boarding program attendance
- Grading and graded elements
- Use of Canvas
- Group contract and peer reviews
- Preparation for guest speakers, dressing in business casual attire, and engaging in Q&A

_____
Signature

_____
Date

_____
Printed Name

Attachment 3: UNT College of Business Student Ethics Statement

As a student at the UNT College of Business, I will abide by all applicable policies of the University of North Texas, including the Student Standards of Academic Integrity, the Code of Student Conduct and Discipline and the Computer Use Policy. I understand that I am responsible for reviewing the policies as provided by the link below before participation in this course. I understand that I may be sanctioned for violations of any of these policies by procedures as defined in each policy.

I will not engage in any acts of academic dishonesty as defined in the Student Standards of Academic Integrity, including but not limited to using another's thoughts or words without proper attribution (plagiarism) or using works in violation of copyright laws. I agree that all assignments I submit to the instructor and all tests I take shall be performed solely by me, except where my instructor requires participation in a group project, in which case I will abide by the specific directives of the instructor regarding group participation.

While engaged in on-line coursework, I will respect the privacy of other students taking online courses and the integrity of the computer systems and other users' data. I will comply with the copyright protection of licensed computer software. I will not intentionally obstruct, disrupt, or interfere with the teaching and learning that occurs on the website dedicated to this course through computer "hacking" or in any other manner.

I will not use the university information technology system in any manner that violates the UNT nondiscrimination and anti-sexual harassment policies. Further, I will not use the university information technology system to engage in verbal abuse, make threats intimidate, harass, coerce, and stalk or in any other manner which threatens or endangers the health, safety or welfare of any person. Speech protected by the First Amendment of the U.S. Constitution is not a violation of this provision, though fighting words and statements that reasonably threaten or endanger the health and safety of any person are not protected speech.

Use of Artificial Intelligence
Students are prohibited from using any generative AI tools such as ChatGPT, Bing AI, or Bard when completing course assignments. Use of these tools, or other similar generative AI tools, will not be tolerated and will be considered plagiarism and could result in the student failing the course. Any incident detected will be addressed through the university's academic integrity procedures.

Students Standards of Academic Integrity
http://policy.unt.edu/sites/default/files/untpolicy/pdf/7-Student Affairs-Academic Integrity.pdf

Code of Student Conduct Discipline
http://conduct.unt.deu/sites/default/files/pdf/code of student conduct.pdf

Computer Use Policy
http://policy.unt.edu/policy/3-10

Attachment 4: References-YouTube video

Airport related videos
1. This Airport Has Its Own Island | Super Structures | Spark (51 min 40):
   https://www.youtube.com/watch?v=ETLVqETJAFQ
2. What to Expect When You Fly in the Future | WSJ (7 min 13):
   https://www.youtube.com/watch?v=pK_hZmBOmfk
3. Places - Lost in Time: Kai Tak International Airport (23 min 42):
   https://www.youtube.com/watch?v=bprGbmSM2UQ
4. Hong Kong International Airport Master Plan 2030 (9 min 30): https://www.youtube.com/watch?v=Qylm5kptZ5c
5. Ultimate Airport Dubai Season 1 Episode 1 Dubai Airport Full Episodes (44 min 44):
   https://www.youtube.com/watch?v=i0hIduHJYOM
6. Ultimate Airport Dubai, Season-01, Episode-03 (42 min 57):
   https://www.youtube.com/watch?v=liQBijWOV0I&list=PL795uGupArFYmQYEssW5PW9h4Wsv0YRpX
7. Ultimate Airport Dubai - Season 2 Episode 4 (31 min 40):
   https://www.youtube.com/watch?v=pG2B0HHoalk&list=PL795uGupArFYmQYEssW5PW9h4Wsv0YRpX&index=2
8. Car Parking in Abu Dhabi NEW AIRPORT (1 min 33): https://www.youtube.com/watch?v=bTGx7ACyNsw
9. Inside Terminal 4: Terminal of Tomorrow (44 min 25):
   https://www.youtube.com/watch?v=llh52RktRxU
10. Navigating the Airport of Tomorrow (5 min 57)
    https://www.youtube.com/watch?v=0LNgoBUAYMU
11. Fly to the World's HIGHEST Airport - Daocheng Yading (16 min 11):
    https://www.youtube.com/watch?v=2Jm6fRYwPoY
12. Inside China's New $17 Billion Mega Airport - Beijing Daxing (15 min 49):
    https://www.youtube.com/watch?v=gBmr4pvivjs
13. Why US Airports Are So Bad (12 min 22): https://www.youtube.com/watch?v=5lL-Y-rgNr4&t=93s

Airport security
14. Airport of the Future (2 min 59): https://www.youtube.com/watch?v=m5axxLN1LYM
    Airports across the world are busier than ever. NEC has a vision of how facial recognition biometric technology, artificial intelligence and big data analytics can enhance and personalize the customer experience. Using NEC's facial recognition technology, travelers can significantly reduce boarding times and streamline operations at various touchpoints throughout the airport, including check-in, bag drop, customs and immigration.
15. What Are TSA Agents Looking for At the Airports? (5 min 6):
    https://www.youtube.com/watch?v=1MxMbwZwGWo
16. The Science of Airport Security (4 min 7): https://www.youtube.com/watch?v=bXNbe_jsoMg
17. Why airport security is so slow and how the TSA and airlines are trying to fix it (14 min 42):
    https://www.youtube.com/watch?v=LYiHQlDcH_g&t=601s

Heathrow Britain's Busiest Airport Season 1 to 6
Season 1 Episode 1 to 9
18. (E1) When Armed Police Are Called to Heathrow (46 min 07)
19. (E2) There's A Homeless Man Living in An Airport (46 min 11)
20. (E3) The Secret Behind Keeping Heathrow Running (46 min 32)
21. (E4) How Do They Run Britain's Busiest Airport? (45 min 09)
22. (E5) How to Build A Commercial Airplane in An Airport (45 min 52)
23. (E6) Inside Heathrow's Air Traffic Control (45 min 28)
24. (E7) A Passenger Is Charged with Assault in Heathrow Airport (45 min 35)
25. (E8) How Many Passengers Go Through Heathrow Every Day (45 min 36)
26. (E9) How Heathrow Deals with Large Cargo (45 min 18)

Airport cargo terminal related videos
27. Vision of the World's Best Cargo Terminal (4 min 44): https://www.youtube.com/watch?v=1r2slr7Ojec
28. Cargo Handling Systems (2 min 36): https://www.youtube.com/watch?v=0kyPXHarMIk

Airport passenger terminal and passenger handling related videos
29. How airports can adapt to the me-centric passenger (1 min 57): https://www.youtube.com/watch?v=PHagpEJCFsc

30. Mobile devices for travel: not a buzz word -a step change (2 min 54):
    https://www.youtube.com/watch?v=idKklawinjw
31. Dubai airport travel with IRIS and Biometric Scan, No passport control control (2 min 24):
    https://www.youtube.com/watch?v=og-6sDfG--Q
32. The better way to board an airplane (2 min 35): https://www.youtube.com/watch?v=cMgarcFkXz4
33. Series 1 Type 1 Auto Bag Drop at Heathrow T5 (1 min 31): https://www.youtube.com/watch?v=2BRCZeXZUiI

Airport baggage handling system related videos
34. ICS Baggage Handling at San Francisco International Airport (3 min 28):
    https://www.youtube.com/watch?v=LVesQ07GrRY

Air traffic control related videos
35. The Birth of Air Traffic Control (2 min 33):
    https://www.youtube.com/watch?time_continue=5&v=Bah9txcZXrY&feature=emb_title
36. Is air traffic control the most stressful job in the world? (3 min 21) :
    https://www.youtube.com/watch?v=DljVJRiJe4U&feature=emb_rel_end
37. Going beyond digital towers - this is the digital airport (1 min 39):
    https://www.youtube.com/watch?v=6YyQSZBReIw&feature=emb_rel_end
38. 70 years of UK air traffic (3 min 10): https://www.youtube.com/watch?v=ZytXSawjFVU&feature=emb_rel_end
39. How Air Traffic Control Works (15 min 57): https://www.youtube.com/watch?v=C1f2GwWLB3k

COVID-19 and airport management related
40. What to Expect When You Fly in the Future (7 min 13):
    https://www.youtube.com/watch?v=pK_hZmBOmfk&feature=youtu.be

If you choose YouTube videos for your PDs: Choose one of YouTube videos **from 1 to 40** from the above list, summarize it at least one page with 12 fonts and single line spacing and submit it to me through CANVAS email before the due date (see CANVAS for the due date). You could get one PD. If you choose 1, 3, 5, 6, 7, 9, and 18 to 26 with at least two summary pages, it will be two PDs.

(Note) If the videos are not working, please let me know. However, if you type the title in the syllabus of the video, which is not working, you could get the video sometimes. For the other videos except for the above list, you could search any video-related airport and notify me in advance for your PD use.

Attachment 5: Abbreviations

ACI	Airports Council International
ACM	Airport Certification Manual
ACIP	Airport Capital Improvement Plan
ADAP	Airport Development Aid Program
ADS-A	Automated Dependent Surveillance Address
ADS-B	Automated Dependent Surveillance-Broadcast
AGL	Air Ground Level
AIP	Airport Improvement Plan
ALS	Airport Lighting System
AMA	Aircraft Movement Area
AOCNet	Airline Operations Center Network
AOA	Air Operations Area
AOPA	Aircraft Owners and Pilots Association
ARFF	Aircraft Rescue and Fire Fighting
ARS	Airport Radar Service Areas
ARTCC	Air Route Traffic Control Centers
ARTS	Automated Radar Traffic System
ASC	Aviation Safety Council, Republic of China
ASDE-X	Airport Surface Detection Equipment
ASRS	Automated Storage and Retrieval System
ATC	Air Traffic Control
ATCSCC	Air Traffic Control System Command Center
ATCT	Air Traffic Control Towers
ATM	Air Traffic Management
BAA	British Airport Authority
CAA	Civil Aeronautics Authority
CAB	Civil Aeronautics Board
CAPPS	Computer Assisted Passenger Pre-Screening System
CDM	Collaborative Decision Making
CIP	Capital Improvement Program
CTAS	Center Terminal Radar Approach Control
CUPPS	Common Use Passenger Process Systems
CUTE	Common Use Terminal Equipment
DCS	Departure Control System
DLAND	Development of Landing Areas for National Defense
DME	Distance Measuring Equipment
DWL	Deadweight Loss
ETD	Explosive Trace Detection
ETMS	Enhanced Traffic Management System
ETOPS	Extended Two-Engines Operations
eVTOL	electric Vertical Takeoff and Landing
FAA	Federal Aviation Administration
FAD	Final Agency Decision
FAAP	Federal Aid Airport Program
FANS	Future Air Navigation System
FBO	Fixed Base Operators
FERA	Federal Emergency Relief Administration
FSM	Flight Schedule Monitor
GARB	General Airport Revenue Bonds
GOB	General Obligation Bonds
GPS	Global Positioning System
IATA	International Air Transport Association
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LAAS	Local Area Augmentation System
LEED	Leadership in Energy & Environmental Design

MaaS	Mobility as a Service
MSL	Mean Sea Level
NAP	National Airport Plan
NAS	National Airspace System
NASP	National Airspace System Plan
NexCOM	Next-Generation Air-to-Ground Communication
NOTAMs	Notice to Airmen
NPIAS	National Plan of Integrated Airport System
NTSB	National Transportation Safety Board
NVOCC	Non-Vessel Owning Common Carrier
PAPI	Precision Approach Path Indicator
PAR	Precision Approach Radar
PFC	Passenger Facility Charges
PFD	Primary Flight Display
PFIC	Public Facility Improvement Corporation
PGP	Planning Grant Program
PVD	Para Visual Display
RAPCON	Radar Approach Control
REIL	Runway End Identifier Lights
RNAV	Area Navigation (Random Navigation)
RVSM	Reduced Vertical Separation Minimum
SES II+	Single European Sky second package plus
SESAR	Single European Sky ATM Research
SIDA	Security Identification Display Area
SITA	Société Internationale de Télécommunications Aéronautiques
SOEC	Substantial Ownership and Effective Control
SoIP	Service over Internet Protocol
TCAS	Traffic Alert and Collison Avoidance System
TRACON	Terminal Radar Approach Control
TRIP	Terminal Renewal and Improvement Program
TRSA	Terminal Radar Service Areas
TSA	Transportation Security Administration
TWIC	Transportation Worker Identification Credential
VASI	Visual Approach Glideslope Indicator
VDL	VHF Digital Link
VFR	Visual Flight Rules
VoIP	Voice into Data Packets
VOR	VHF Omnidirectional Range
WAAS	Wide Area Augmentation System
WECPNL	Weighted Equivalent Continuous Perceived Noise Level

Airport Codes

AMS	Amsterdam Airport Schiphol, The Netherlands
ANC	Ted Stevens Anchorage International Airport
ATL	Hartsfield-Jackson Atlanta International Airport
AFW	Fort Worth Alliance Airport
AUS	Austin-Bergstrom International Airport
BHX	Birmingham Airport, UK
BLI	Bellingham International Airport
BOS	Boston Logan International Airport
BRS	Bristol Airport, UK
BRU	Brussels Airport, Belgium
BUF	Buffalo Niagara International Airport
BWI	Baltimore/Washington International Thurgood Marshall Airport
DAB	Daytona Beach International Airport
DAL	Dallas Love Field Airport
DCA	Ronald Reagan Washington National Airport
DEN	Denver International Airport
DFW	Dallas/Fort Worth International Airport

DTW	Detroit Metropolitan Wayne County Airport
DXB	Dubai International Airport
EWR	Newark Liberty International Airport
FTW	Fort Worth Meacham International Airport
GUM	Antonio B. Won Pat International Airport in Guam
HKG	Hong Kong International Airport
HOU	Houston Hobby airport
HSV	Huntsville International Airport
IAH	George Bush Intercontinental Airport in Houston, Texas
ICN	Incheon International Airport
JFK	New York John F. Kennedy International Airport
LAP	La Paz International Airport, Mexico
LAX	Los Angeles International Airport
LCY	London City Airport
LGA	New York LaGuardia Airport
LGW	London Gatwick Airport, UK
LHR	London Heathrow Airport, UK
LTN	London Luton Airport, UK
LTO	Loreto International Airport, Mexico
LUX	Luxembourg Airport
MAN	Manchester Airport
MCO	Orlando International Airport
MCT	Muscat International Airport, Oman
MDW	Chicago Midway International Airport
MIA	Miami International Airport
MSP	Minneapolis−Saint Paul International Airport
MSY	New Orleans International Airport
MXP	Milan International Airport, Milan, Italy
NRT	Narita International Airport
ONT	Ontario International Airport
ORD	Chicago O'Hare International Airport
PDX	Portland International Airport
SAN	San Diego International Airport
SAT	San Antonio International Airport
SEA	Seattle-Tacoma International Airport
SFO	San Francisco International Airport
SMF	Sacramento International Airport
STN	London Stansted Airport
ZUR	Zurich Airport

Attachment 6: Airport Case Studies

Choose one of the Cases from 1 to 17. Once you choose the case from the list, download the file from the CANVAS, and refer to the following writing guidelines and the rubric.

Case Guidelines:

Case write-up: While each case is different, your case write-up should follow a logical progression and explain your position or thought process.

1. A case analysis is NOT a summary of events from the case. Rather, it is an interpretation and analysis of a problem or key issue(s). You may need to include some background information to put the problem in perspective or to emphasize a point.
2. Length: There is no page limit; your case analysis should be as long as the need to address each point. However, you can expect your analysis to be 3-4 pages, single-spaced including an executive summary (highlights, key takeaways, assumptions, conclusions, and summary of reasoning/logic).
3. What to include in your case write-up? Your case write-up should answer the questions in the instructions above. As a minimum, you should include the following sections. You may include other sections if needed.
   a. Problem Statement
   b. Key Issues
   c. Alternatives
   d. Decision Criteria
   e. Recommendation(s)

Executive Summary Presentation: The Executive Summary is a challenge if you have not written one before. The executive summary should be written after you have completed the case write-up, even though it is the second page of your report (with the first page being the cover page). Why do you write the executive summary last? Because it is a brief and concise summary of your case analysis. A decision-maker should be able to read the executive summary and have enough information to understand the problem, issues, alternatives, the recommendation(s), and the reasons for your recommendation(s). If needed, the decision-maker can refer to your analysis for more details, but it should not be necessary.

1. What makes a *good* Executive Summary?
   a. It does not exceed ONE PAGE.
   b. It is a stand-along document.
   c. It includes a summary of all the information.
   d. The reader or decision-maker should be able to completely understand the issue or problem being considered, the factors that impact the decision, the alternatives available for consideration, your recommendation(s), and the criteria used to arrive at your recommendation (this is your rationale).

2. What makes a *bad* Executive Summary?
   a. It is too long.
   b. It is simply an introduction to the issue or problem.
   c. It does not give the decision-maker sufficient information to make an informed decision.
   d. It does not make a recommendation.
   e. It does not explain why the recommendation is the preferred outcome.

Writing (for handouts) and Slide Formatting Guidelines: Technical writing is a method of writing that synthesizes complex information in a concise manner for a specific audience. The following guidelines will help improve your technical writing skills. More information on technical writing can be found at Blackboard Learn - "Logistics Resources."

1. Conciseness and Clarity: Technical writing is direct and to-the-point. Avoid lengthy and vague descriptions. Avoid obscure vocabulary and complicated discussions. Use headings and sub-headings to separate different parts of your report.
2. Audience: Are you writing a report and preparing a presentation for your boss, to an outside agency or group, or for general public consumption? The audience should shape the tone and wording. It is better to lean toward more formal tones, even for your boss. That way, you will not have to re-write if your boss wants to forward your report outside the organization.

3. Grammar and Spelling: Always important. There are many reference websites that explain the most common mistakes in grammar and spelling. A report riddled with grammar and spelling errors is unprofessional.
4. Tone: Professional and technical writing is formal. This includes word choices. We generally do not speak using proper grammar. That does not mean our writing should follow suit. You should avoid colloquialisms and slang. For example, instead of saying "the project did not work out so well," write "the project failed because..." or "the project was not successful."
5. Vague Pronouns: Do not be ambiguous with your pronouns. Do not use "it" or "they" unless it is very clear to what or to whom you are referring.
6. Verb tense: Most often, you will be writing in the past tense when writing about events that occurred in the past. When evaluating a current project, it is acceptable to use present or even future tense.
7. Headings and Sub-headings: Use headings to separate the main topics and organize your document. Heading such as Executive Summary, Alternatives, Analysis, Lessons Learned, Conclusions, Recommendations, etcetera.
8. Modifiers: Use proper modifiers: Instead of using "the biggest problem," which implies the size, use "the main problem" or "the most significant problem" which implies priority or level of importance.
9. Use of presentation slide space (landscape): Ensure you are optimizing use of slide space, not including too much verbiage (too many words) or charts/figures that cannot be easily seen. Make your slides easy to read and not distracting. They should SUPPORT YOUR PRESENTATION, but not be distracting to it. *Remember, pictures and graphs can tell "1,000 words", but short videos or trended information (statistical, such as forecasts) can be a "novel".*

Deliverables: Graded Components (See rubric on the next page for presentation slides and see the presentation guidelines):
1. The cover page and "story line key takeaways" including a summary of what the case is about – assume no one knows anything (but you), so set the setting as a "narrator". You are setting up the problem statement here. (Min of 4 slides, professionally formatted with key takeaways).
2. The executive summary (min of 5 slides single-spaced, professionally formatted with key takeaways).
    a. The executive summary should address your analysis and overall recommendation, supported with facts from your analysis.
    b. Include analytics and your assumptions. Don't just talk theory, include quantitative reasoning. This may require you to use outside sources!!

3. A professionally delivered presentation summarizing the case and your findings as if you were presenting to an executive committee. 12-15 minutes maximum time. Make sure your slides work, and you are prepared!!

    a. Includes the following:
        i. Answer each question above if the case asks you to answer.
        ii. Summary of the case, ensuring your audience understands the situation, and that you understand the case as a confident expert (minimum nine slides).
        iii. Include your recommendation based on your knowledge of the airport or related topics.

DO NOT READ FROM A SCRIPT AND DO NOT READ FROM YOUR SLIDES. If you "read" your presentation to the class, you will automatically lose one (1) letter grade, or 10% of your project grade.

Case Study Analysis for PowerPoint slides Rubric

Learning Outcome	Exceeds Expectations	Meets Expectations	Approaches Expectations	Below Expectations	Awarded/ Possible Points
	≥ 90%	≥ 80%	≥ 70%	< 70%	

Executive Summary	Problem, issues, and recommendation included; short and concise; decision can be based on executive summary alone; recommendation clearly stated with supporting cost/decision data	Problem and recommendation clearly stated; summarizes analysis; recommendation identifies costs; decision would require review of supporting material contained in write-up	Problem and recommendation stated; executive summary not well-organized; summarizes material presented in case rather than analysis performed; recommendation not supported with cost/decision data	Provides problem and recommendation; summary repeats material contained in case; limited support for recommendation; no cost/decision data provided	/5
	(5-4.5 points)	**(4 points)**	**(3.5 points)**	**(< 3.5 points)**	
Problem Statement	Problem explicitly and concisely stated; factors driving the problem identified; identifies root problem; explains the significance of the problem, links the underlying problem to any "symptoms" visible to management or other stakeholders, and makes compelling argument as to why this problem requires action	Problem clearly stated but little discussion of factors driving the problem in the case. Case write-up identifies root problem and explains the significance of the problem. Linkage to symptoms not clearly developed. The argument for action present but may not be a compelling "call to action."	Problem not well stated or unclear; little to no discussion of factors driving the case problem. Case write-up tangentially addresses root problem--symptoms rather than root problem receiving attention. Some explanation present of how problem is linked to symptoms or outward manifestations, but focus on symptoms precludes clear linkage	Problem not well stated or missing; driving factors not identified or simply listed without explanation. Case fails to identify root problem and addresses obvious "symptoms" or manifestations of the problem. No linkage of underlying problem to other problems or symptoms. No argument made for action	/10
	(10 - 9 points)	**(8 points)**	**(7 points)**	**(< 7 points)**	

Learning Outcome	Exceeds Expectations ≥ 90%	Meets Expectations ≥ 80%	Approaches Expectations ≥ 70%	Below Expectations < 70%	Awarded/ Possible Points
Analysis and Critical Thinking: Problem Set (20 points each). **Analysis of Cost/Decision Variables**	Each problem set is addressed. Quantitative values, cost and decision variables are thoroughly evaluated. Very limited to no errors present in any calculations. The case goes beyond the information contained in the case and incorporates other course material or introduces outside materials when performing the analysis.	All problems are addressed but do not go into significant depth. Cost or decision variables are not fully evaluated. Some outside material used to support analysis. Eighty percent of the appropriate calculations properly performed.	The analysis is superficial and does not move beyond obvious points. No material outside case used to support analysis. Errors in calculations detract from the accuracy of the analysis.	Analysis not clearly organized. Analysis lacks depth and addresses only obvious issues or symptoms in the case. Half of the calculations correctly performed. Minimal information from the case used to support analysis.	/50
	(50 - 45 points)	(44 - 40 points)	(39 - 35 points)	(< 35 points)	
Writing and Critical Thinking: Stating and Justifying Recommendation with confidence and overall professionalism	Recommendation clearly and concisely stated; results obtained through analysis and comparisons used to support final recommendation; cost and other statistical information used to support the recommendation and to draw a compelling conclusion. Effect on stakeholders, service, and performance clearly discussed and integrated into justification.	Recommendation clearly stated; analysis linked to recommendation but little to no comparison of alternatives-- including costs, other statistical data, or performance; effect on stakeholders identified but not explained; minimal use of numeric or statistical data used in supporting the recommendation.	Recommendation stated but not well-justified or defended; analysis used only to support recommendation; no comparison of alternatives; effect on stakeholders receives an only cursory mention; use of numerical or statistical data missing, not well explained, or not successfully integrated into the recommendation.	The recommendation not clearly stated or missing; little to no support provided for the final recommendation; comparison between alternatives missing or superficial; analysis not used to support recommendation; effect on stakeholders missing or lacking depth.	/10
	(10 – 9 points)	(8 points)	(7 points)	(< 7 points)	
				Total Score	/75

Attachment 7: Airport Data and Strategy Analysis Project

Learning Objectives
1. To explore the airport business model with operational and financial statistics.
2. To identify the core competencies of the airport and compare them with competitors.
3. To understand airport management, organization, and strategy.
4. To understand airports and neighboring cities.
5. To find out the concept of an airport city.
6. To analyze the airport strategy using SWOT analysis.
7. To learn data analytics and presentation skills.

Description: This case study is an individual effort. This project examines airport activities and business models with the choice of an airport located in North America, South America, Asia-Pacific, Europe, Middle East, Africa, etc. (Please avoid duplicates with other students). The case has two parts; (1) data collection and presentation, (2) updating the data collection and doing a SWOT analysis. The project requires you to develop the strategies and policy of the chosen airport, including the various aspects of airport operations, with an operational /financial data analysis and strategies analysis.

When you select an airport, please check below.
1) Choose the airport based on how you could get enough data for the analysis! Does it mean that the airport opens enough materials for the data collection? (US airports are generally easier to study based on available data).
2) Choose an airport that avoid duplication with other students (such as an airport that you choose already in your airport case study, although this isn't required).
3) If you choose a foreign airport, check the language of the materials to confirm you can read them. Double check the level of detail the airport shares with the public.

A. **Instructions for the data collection [100 points, including 25 points for the initial data collection, 25 points for the final data collection (in the format of presentation slides using PowerPoint), and 50 for the presentation]**: The case analysis should answer the following questions using **at least seven years** of data for operational and financial data:

- *Initial data submission is following 1, 2, and 5.

    1. ***Operational data and analysis**: Make tables and draw graphs of the passenger, cargo and aircraft movement at least for the past seven years with annual growth rate (CARG) and seven years average growth rate.
    2. *For **operational data**, collect domestic, international and combined domestic and international.
    3. Explain the **traffic trends** using operational data using make your own tables and graphs as well as statistical method.
    4. **List of carriers** who are flying to the airport and what kind of aircraft the air carriers use and analyze the carriers with market share rate.
    5. ***Financial data**: Analyze financial statements (Income statement and balance sheet) with total revenue, operating income and net income (net position) from income statement with operating income margin and net income margin; Total assets, current assets, total liabilities, and current liabilities from balance sheet at least for the past seven years with current ratio (=Current assets over current liabilities).
    6. Analyze **major expenses and major revenue** with aeronautical, non-aeronautical revenues, and real estate revenue.
    7. Airline charging system (how revenues are collected).
    8. (Optional) Calculate financial performance such as ROA, ROI, C2C, etc. (at least for the past seven years). Incorporate graphs and charts. *This can result in additional points awarded!*
    9. (Optional) EPS (Earning per share), accounts receivable, and accounts payable from balance sheet. Incorporate graphs and charts. *This can result in additional points awarded!*
    10. For further information for data collection: See below…
    - **Do not copy and paste the source material make your own tables.**
    - **Do not use generative AI (i.e. ChatGPT, Bard, etc) for any aspect of this project, or any other project in this course.**
    - **Make the report using PowerPoint with data analysis and upload to CANVAS.**
    - The initial data submission is for discussion in class for more detail's analysis of the airport and next submission.

Deliverables for initial data collection (presentation slides): Submit separately for airport data for last seven years using PowerPoint slides and Excel files. PowerPoint slides are the primary, and Excel files will be the secondary to grade. Graded Components (See the rubric for specific guidelines):
1. Cover Page: Include your name, course name, airport name, and date.
2. Executive Summary on data analysis, key takeaways and conclusions.
3. Data slides with tables and figures;
   - One slide for passenger data (international, domestic and total),
   - One slide for cargo data (international, domestic and total),
   - One slide for aircraft movement data (international, domestic and total),
   - One slide for income statement data (Total revenue, operating revenue, and net income),
   - One slide for balance sheet data (Total asset, current asset, total liability and current liability)
4. References (cite on every slide using footnotes and a final reference bibliography)

Deliverables for final data collection (presentation slide): Submitted separately from airport data using PowerPoint slides and Excel files (although you can incorporate data from the data collection). PowerPoint slides are the primary component, and Excel files will be the secondary to grade. Graded Components (See the rubric for specific guidelines):
1. Cover Page: Include your name, course name, airport name, and date.
2. Executive Summary on data analysis
3. Data slides with table and figure;
   - One slide for passenger data,
   - One slide for cargo data
   - One slide for aircraft movement data
   - Traffic trends (analysis of passenger, cargo, and aircraft movement data)
   - One slide for the list of dominant carriers with market share
   - One slide for the dominant aircraft type in operations at the airport, with market share
   - One slide for income statement data including operating and net income margin rate,
   - One slide for balance sheet data
   - One slide for expenses (labor, depreciation & amortization, interest and etc.)
   - One slide for revenues (aeronautical-, non-aeronautical-, and real estate-revenue)
   - One slide for the airline charging system (revenue collection)
4. Conclusion
5. References

B. Instructions of the report for SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of the airport [160 points including 60 points for the presentation slide and 100 for the presentation]: This case study is an individual effort. This part requires doing SWOT analysis and answering the following questions using financial statements in the annual report, master plan airport economic impact study.

1. Update operational, financial data adding trend lines and other statistical methods/visuals.
2. Analyze the data you presented using statistical methods, such as forecasting the traffic using regression analysis.
3. Do the SWOT analysis, at a MINIMUM addressing the following information.
   o Airport strategies include routes (domestic/international routes, cities, countries) with photos (or maps) including top ten (or five) busiest international, domestic, and cargo routes.
   o Infrastructure developments plan.
   o Discuss the airport's vision, mission, business goals, key results of recent years, etc.
   o Explain airport category based on NPIAS classification for U.S. airports or ACI classification for European and Asian airports
   o Explain on an organization chart the executive and board structure (who appoints the board member).
   o Explain the ownership of the airport.
   o Describe general aspects of the airport airside and landside, including runway and boarding gate numbers, runways and terminal shape (structure), access roads, public transportation access, etc.
4. Airport floor chart (or map).
5. Explain commercial development in the area.
6. How to develop an airport's surrounding area (hinterland or airport city)?
7. What kind is an airline ratemaking methodology applied? Airport charges and fees.

8. Explain airport innovation activities, including autonomous vehicles at airside or landside, eVTOL (electric vertical take-off and landing), etc.

Refer to these references for your example and search the latest materials on any airport you choose:
Atlanta International Airport
  https://www.atl.com/business-information/investor-relations/
  http://www.atl.com/about-atl/
  http://www.atl.com/about-atl/atl-factsheet/
  https://atltransit.ga.gov/wp-content/uploads/2021/07/ATL-Annual-Report-and-Audit-2020.pdf
  http://www.atl.com/wp-content/uploads/2020/02/ATL-Traffic-Report-Dec-2019.pdf
  http://www.atl.com/docs/BusinessInformation/Reports/2012%20Comprehensive%20Annual%20Financial%20Report%20(CAFR).pdf
  http://www.atl.com/wp-content/uploads/2020/01/FY19-Comprehensive-Annual-Financial-Report.pdf
  http://www.atl.com/docs/BusinessInformation/Reports/FY15_Comprehensive_Annual_Financial_Report.pdf
DFW (2018). *Dallas-Fort Worth International Comprehensive Annual Financial Report: For the Fiscal Year Ended Sep. 30, 2018* (https://www.dfwairport.com/cs/groups/webcontent/documents/webasset/p3_106747.pdf).
DFW ESG report (2020) https://online.fliphtml5.com/rfyxe/fdvb/#p=1
MAC (2017). 2017 Annual Report, Metropolitan Airports Commission (https://www.metroairports.org/Metroairports/media/Media/Documents/Annual-Report-2017.pdf).
MSP (2017). Minneapolis-St. Paul International Airport: Economic Impact of its Operation 2016 (https://www.mspairport.com/sites/default/files/2017-09/MSP%20Economic%20Impact%20Study%202016%20FINAL%20DRAFT%20REPORT%20(14Sep2017).pdf).
Tampa International Airport
  https://www.tampaairport.com/investor-relations
  http://www.tampaairport.com/facts-statistics-financials
Miami International Airport
  https://www.miami-airport.com/annual_report.asp

Deliverables for the report (presentation slide): Submitted separately for airport data using PowerPoint slides and Excel files. PowerPoint slides are the primary element, and Excel files will be the secondary to grade. See the graded Components for PowerPoint slide and presentation herein.
  1. Cover Page: Include your name, course name, airport name, and date.
  2. Executive Summary
  3. Case write-up including data

For this project, you could get related data, reports, and academic articles through Google using keywords, such as airport name (ex. Fort Worth Alliance airport), annual report (ex. DFW annual report, MSP annual report), economic impact (ex. New Jersey airport economic impact study).

DO NOT READ FROM A SCRIPT AND DO NOT READ FROM YOUR SLIDES. If you "read" your presentation to the class, you will automatically lose one (1) letter grade, or 10% of your project grade.

Due date: See class schedule in syllabus, or as adjusted on Canvas (at the discretion of the professor if needed for gust speakers, weather, or other events).

Checklist for the presentation and slide submission of the airport data collection.

For your data collection, please check the followings.
1. Did you collect the last seven years' annual airport report for data collection?
2. Are you checking the financial statements from the airport's annual reports?
3. Are you collecting and reading the airport master plan?
4. Have you checked Wikipedia and Google about the airport?
5. Are you checking other acquirable materials for the airport, such as resources from the library?

Once you collect the materials, please prepare the PowerPoint.
1. Are you collecting the last seven years' passenger data?
   1. Are you collecting the passenger data for domestic, international, and total (domestic + international)?
   2. Are annual year-over-year (YoY) changes on percent and seven- or six-year average YoY?
   3. When you calculate the average YoY changes, you should have calculated it with geometric mean instead of arithmetic mean. The excel function key for geometric mean is "GEOMEAN," for example, "geomean (numbers or cell range)." The equation for the geomean is $GM_{\bar{y}} = \sqrt[n]{y_1 y_2 y_3 \dots y_n}$.
   4. Please see the web link to calculate YoY and Geomean in Excel
      YoY: https://www.patriotsoftware.com/blog/accounting/year-year-growth-calculate/).
      Geomean: https://exceljet.net/functions/geomean-function.
2. Are you collecting the last seven years' cargo data with a unit (tonnage or pound)?
3. Are you collecting the passenger data for domestic, international, and total (domestic + international)?
4. What are annual year-over-year (YoY) changes on percent (%) and seven- or six-year average YoY?
5. Are you collecting the last seven years' aircraft movement data?
6. Are you collecting the passenger data for domestic, international, and total (domestic + international)?
7. Are you calculating annual year-over-year (YoY) changes on percent (%) and seven- or six-year average YoY?
8. Are you collecting the top five or ten airlines at the airport?
9. Top five (or ten) airlines in terms of passengers (domestic, international, and total)
10. Top five (or ten) airlines in terms of cargo (domestic, international, and total)
11. Are you collecting which aircraft are dominant at the airport?
12. Are you collecting the last seven years' revenues?
13. What are significant revenues?
14. What is the ratio of aeronautical, non-aeronautical, and other revenues?
15. Are you calculating annual year-over-year (YoY) changes on percent and seven- or six-year average YoY for I and ii?
16. Are you collecting the last seven years' expenses?
17. What kind of expenses (labor, depreciation, etc.)?
18. What is the ratio of aeronautical, non-aeronautical, and other revenues?
19. Are you calculating annual year-over-year (YoY) changes on percent and seven- or six-year average YoY for i and ii?
20. Are you calculating or collecting the operating and net income with the ratio (%)?
21. Is the airport loose to earn money? How much? Why earn or lose?
22. Are you collect the last seven years' assets, current assets, liability, and current liability?
23. Are any specific changes, such as sudden increases or decreases, except COViD-19 impacts in 2020 and 2021? If so, why?
24. Are you capturing and using the citations for all of your data collection?
25. Did you include the cover page with your name, this class name, and the professor's name?
26. Are you placing the executive summary on the first page (after the cover page)? The executive summary explains your data collection briefly.
27. Are you putting the references at the end of your PowerPoint presentation?

Checklist for the final presentation and submission of the airport research project.

For your final presentation, please check the followings.
1. Do you refer to the checklist about data collection mentioned on the previous page?
2. Do you have the annual report and master plan of your airport?

Once you collect the materials, please prepare the PowerPoint.

1. Are you updating operational and financial data adding trend lines and other statistical methods?
2. Analyze the data you presented using statistical methods, such as forecasting the traffic using regression analysis.
3. Do the SWOT analysis of your airport.
4. Who are the owners and board members of the airport?
5. Who nominates the board member?
6. What is the airport category based on NPIAS classification for U.S. airports or ACI classification for European and Asian airports?
7. Are you include the airport organization chart?
8. Are you including the airport's vision, mission, business goal, key operational results of recent years, etc.?
9. Are you have the photos of the airport?
10. Do you include runway configuration with a photo that adds direction, length, and width?
11. Are you putting the airport airside and landside information, including boarding gate numbers, runways and terminal shape (structure), access roads, public transportation access, etc.?
12. Are you have a piece of information on commercial development in the airport's surrounding area (hinterland or airport city) with photos?
13. Are you have an airport floor chart (or map)?
14. Include the airport network (domestic/international routes, cities, countries) with photos (or maps)?
15. Are you include the top ten (or five) busiest international, domestic, and cargo routes?
16. Are you have an infrastructure development plan?
17. What kind is an airline ratemaking methodology applied? Airport charges?
18. Are you have a piece of information on airport innovation activities, including autonomous vehicles at the airside or landside, eVTOL (electric vertical take-off and landing), etc.?

Airport Project Presentation Rubric

Learning Outcome	Exceeds Expectations ≥90%	Meets Expectations ≥80%	Approaches Expectations ≥70%	Below Expectations <70%	Awarded/Possible Points
Delivery	Holds attention of entire audience with the use of direct eye contact, seldom looking at notes. Does not read from a script or from slides. Speaks with in fluctuation in volume and inflection to maintain audience interest and emphasize key points. **(20-18 points)**	Consistent use of direct eye contact with audience, but still returns to notes. Speaks with satisfactory variation of volume and inflection. **(17-16 points)**	Displays minimal eye contact with audience, while reading mostly from the notes. Speaks in uneven volume with little or no inflection. **(15-14 points)**	Holds no eye contact with audience, as entire report is read from notes. Speaks in low volume and/ or monotonous tone, which causes audience to disengage. **(< 13 points)**	**/20 (20% of total score)**
Content/ Organization	Demonstrates full knowledge by answering all class questions with explanations and elaboration. Provides clear purpose and subject; pertinent examples, facts, and/or statistics; supports conclusions/ideas with evidence. **(30-27 points)**	Is at ease with expected answers to all questions, without elaboration. Has somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; includes some data or evidence that supports conclusions. **(26-24 points)**	Is uncomfortable with information and is able to answer only rudimentary questions. Attempts to define purpose and subject; provides weak examples, facts, and/ or statistics, which do not adequately support the subject; includes very thin data or evidence. **(23-21 points)**	Does not have grasp of information and cannot answer questions about subject. Does not clearly define subject and purpose; provides weak or no support of subject; gives insufficient support for ideas or conclusions. **(< 20 points)**	**/30 (30%)**
Enthusiasm/ Audience awareness	Demonstrates strong enthusiasm about topic during entire presentation. Significantly increases audience understanding and knowledge of topic; convinces an audience to recognize the validity and importance of the subject. **(30-27 points)**	Shows some enthusiastic feelings about topic. Raises audience understanding and awareness of most points. **(26-24 points)**	Shows little or mixed feelings about the topic being presented. Raises audience understanding and knowledge of some points. **(23-21 points)**	Shows no interest in topic presented. Fails to increase audience understanding of knowledge of topic. **(< 20 points)**	**/30 (30%)**
Handling of questions	Questions answer with evidence obtained from the research of the topic. **(10 points)**	Questions are answered, but may not be fully supported with evidence obtained from the research. **(9 points)**	Questions are not fully answered. **(8 points)**	No effort is attempted to answer questions. **(< 7 points)**	**/10 (10%)**
Good Use of Time	Just the right amount of information is included	The presentation is within ± 5 minutes of	The presentation is within ± 5 minutes of	The presentation is within ± more than	**/10 (10%)**

in the presentation to take full advantage of the time allotted for the presentation. The presentation is neither too fast nor too slow.	the allotted time. The presentation is neither too fast nor too slow.	the allotted time. The presentation is either too fast, and too much information was attempted for the allotted time. Alternatively, too little information was presented.	10 minutes of the allotted time.	
(10 points)	**(9 points)**	**(8 points)**	**(< 7 points)**	
			Total Score	**/100 (100%)**

Financial Measures to use for Data Collection

Financial Measure	Focus	Calculations	Example: Li & Fung Ltd (2011) - Millions of USD
Revenue growth	Percentage growth in revenue	Change in revenue / previous years revenue	(20030.3-15912.2) / 15912.2 = 0.2588 or 25.9%
% of cost goods sold	Percentage of revenue absorbed by cost of goods sold	Cost of goods sold / revenue	17043.9 / 20030.3 = 0.8509 or 85.1%
Gross profit margin	Percentage of gross profit per unit of revenue	(Revenue – cost of goods sold) / revenue	2986.3 / 20030.3 = 14.9%
% Selling, general & administrative (%SG&A)	Percentage of revenue absorbed by SG&A	(Selling, general & administrative) / revenue	2192.1 / 20030.3 = 10.9%
Operating income margin	Percentage of operating income per dollar of revenue	Operating income / revenue	830.2 / 20030.3 = 4.1%
Days sales outstanding or average collection period	Number of days it takes to collect credit revenue from the time of revenue	Account receivable / (revenue/365 days)	2004.5 / (20030.3 / 365) = 36.53 days
Days in inventory (related inventory turnover)	Number of days of operations held in inventory	Inventory / (cost of goods sold/365 days)	1035.8 / (17043.9 / 365) = 22.18 days
Days purchase outstanding	Number of days a company takes to pay trade creditors	Account payable / (cost of goods sold/365 days)	2337.0 / (17043.9 / 365) = 22.18 days = 50.05 days
Cash operating cycle	Number of net days from this time a dollar is invested in inventory to the time it is converted back to cash with profit (hopefully)	Days in inventory + Days in sales outstanding – days purchase outstanding	36.53 + 22.18 – 50.05 = 8.66 days
Fixed assets to revenue	Amount invested in fixed assets per dollar of revenue	Fixed asset / revenue	10920.4 / 20030.3 = $0.55
Revenue to capital	Dollars of revenues generated for each dollar in capital	Revenue / capital	20030.3 / 7408.1 = $2.70
Economic profit	Profits from operations after paying total cost	Net operating profit after tax-capital charge	681.2 – (7408.1 * 0.11) = -$133.69
Return on investment (capital)	Percent return on employed capital	Net operating profit after tax / capital	681.2 / 7408.1 = 9.2%
Return on asset	Company's efficiency	Net earnings / total asset	681.2 / 10920.4 = 6.24%
Gross Margin Return on Working Capital	To explore their inventory investment and the return on that investment in relationship to their Cash Conversion Cycle.	①Calculate Working Capital Turnover=365/C2C ②Calculate GMROWC= Working Capital Turnover x GM%	①42.15 Turnover ②42.15 x 14.9=628.035

Attachment 8. In-class Group Cases and Presentations

This will be assigned in class. Groups will work on both cases and turn in summaries, but will only be assigned to present one of the two.

1. *Perfect Storm over Zurich Airport (A)*, Harvard Business Case 9-408-023
2. *BAE Automated Systems (A): Denver International Airport Baggage-Handling System*, Harvard Business Case 9-396-311

Both groups will complete both cases and turn in their presentation slides. The slides must speak for themselves! Similar to Attachment 8, you will be graded based on the following:

<u>**Case Guidelines**</u>:
<u>Case write-up</u>: While each case is different, your case write-up should follow a logical progression and explain your position or thought process.

4. A case analysis is NOT a summary of events from the case. Rather, it is an interpretation and analysis of a problem or key issue(s). You may need to include some background information to put the problem in perspective or to emphasize a point.
5. Length: There is no page limit; your case analysis should be as long as the need to address each point. However, you can expect your analysis to be 3-4 pages, single-spaced including an executive summary (highlights, key takeaways, assumptions, conclusions, and summary of reasoning/logic).
6. What to include in your case write-up? Your case write-up should answer the questions in the instructions above. As a minimum, you should include the following sections. You may include other sections if needed.
    f. Problem Statement
    g. Key Issues
    h. Alternatives
    i. Decision Criteria
    j. Recommendation(s)

<u>Executive Summary Presentation</u>: The Executive Summary is a challenge if you have not written one before. The executive summary should be written after you have completed the case write-up, even though it is the second page of your report (with the first page being the cover page). Why do you write the executive summary last? Because it is a brief and concise summary of your case analysis. A decision-maker should be able to read the executive summary and have enough information to understand the problem, issues, alternatives, the recommendation(s), and the reasons for your recommendation(s). If needed, the decision-maker can refer to your analysis for more details, but it should not be necessary.

4. What makes a *good* Executive Summary?
    e. It does not exceed ONE PAGE.
    f. It is a stand-along document.
    g. It includes a summary of all the information.
    h. The reader or decision-maker should be able to completely understand the issue or problem being considered, the factors that impact the decision, the alternatives available for consideration, your recommendation(s), and the criteria used to arrive at your recommendation (this is your rationale).

5. What makes a *bad* Executive Summary?
    a. It is too long.
    b. It is simply an introduction to the issue or problem.
    c. It does not give the decision-maker sufficient information to make an informed decision.
    d. It does not make a recommendation.
    e. It does not explain why the recommendation is the preferred outcome.

<u>**Writing (for handouts) and Slide Formatting Guidelines**</u>: Technical writing is a method of writing that synthesizes complex information in a concise manner for a specific audience. The following guidelines will help improve your technical writing skills. More information on technical writing can be found at Blackboard Learn - "Logistics Resources."

10. Conciseness and Clarity: Technical writing is direct and to-the-point. Avoid lengthy and vague descriptions. Avoid obscure vocabulary and complicated discussions. Use headings and sub-headings to separate different parts of your report.
11. Audience: Are you writing a report and preparing a presentation for your boss, to an outside agency or group, or for general public consumption? The audience should shape the tone and wording. It is better to lean

toward more formal tones, even for your boss. That way, you will not have to re-write if your boss wants to forward your report outside the organization.

12. Grammar and Spelling: Always important. There are many reference websites that explain the most common mistakes in grammar and spelling. A report riddled with grammar and spelling errors is unprofessional.

13. Tone: Professional and technical writing is formal. This includes word choices. We generally do not speak using proper grammar. That does not mean our writing should follow suit. You should avoid colloquialisms and slang. For example, instead of saying "the project did not work out so well," write "the project failed because..." or "the project was not successful."

14. Vague Pronouns: Do not be ambiguous with your pronouns. Do not use "it" or "they" unless it is very clear to what or to whom you are referring.

15. Verb tense: Most often, you will be writing in the past tense when writing about events that occurred in the past. When evaluating a current project, it is acceptable to use present or even future tense.

16. Headings and Sub-headings: Use headings to separate the main topics and organize your document. Heading such as Executive Summary, Alternatives, Analysis, Lessons Learned, Conclusions, Recommendations, etcetera.

17. Modifiers: Use proper modifiers: Instead of using "the biggest problem," which implies the size, use "the main problem" or "the most significant problem" which implies priority or level of importance.

18. *Use of presentation slide space (landscape):* Ensure you are optimizing use of slide space, not including too much verbiage (too many words) or charts/figures that cannot be easily seen. Make your slides easy to read and not distracting. They should SUPPORT YOUR PRESENTATION, but not be distracting to it. *Remember, pictures and graphs can tell "1,000 words", but short videos or trended information (statistical, such as forecasts) can be a "novel".*

Deliverables: Graded Components (See rubric from Airport Case Studies, Attachment 6):

1. The cover page and "storyline key takeaways" including a summary of what the case is about – assume no one knows anything (but you), so set the setting as a "narrator". You are setting up the problem statement here. (Min of 4 slides, professionally formatted with key takeaways).

2. The executive summary (min of 5 slides single-spaced, professionally formatted with key takeaways).
   a. The executive summary should address your analysis and overall recommendation, supported with facts from your analysis.
   b. Include analytics and your assumptions. Don't just talk theory, include quantitative reasoning. This may require you to use outside sources!!

6. A professionally delivered presentation summarizing the case and your findings as if you were presenting to an executive committee. 12-15 minutes maximum time. Make sure your slides work, and you are prepared!!

   a. Includes the following:
      i. Answer each question above if the case asks you to answer.
      ii. Summary of the case, ensuring your audience understands the situation, and that you understand the case as a confident expert (minimum nine slides).
      iii. Include your recommendation based on your knowledge of the airport or related topics.

**DO NOT READ FROM A SCRIPT AND DO NOT READ FROM YOUR SLIDES. If you "read" your presentation to the class, you will automatically lose one (1) letter grade, or 10% of your project grade.