

****Disclaimer****

This syllabus is to be used as a guideline only. The information provided is a summary of topics to be covered in the class. Information contained in this document such as assignments, grading scales, due dates, office hours, required books and materials may be from a previous semester and are subject to change. Please refer to your instructor for the most recent version of the syllabus.

**AMT 220
Aviation Meteorology**

Semester: Fall 2019, 08/22/2019 - 12/06/2019

Instructor: James Hartman

Office/Room #: TBD

Telephone #: 480-540-6016

Email: james.hartman@asu.edu

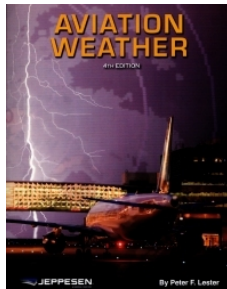
Office Hours: By appointment, contact me via phone or email to schedule meeting

Course: 73649

Credit Hours: 3

Delivery Method: Online (Internet/Blackboard) and in classroom instruction

Required Course Materials:



Lester, P. (2013). *Aviation Weather (4 ed.)*. Englewood, CO: Jeppesen.

Paperback ISBN: 10001850-004

Hardcover ISBN: 9780884875949



Federal Aviation Administration. (FAA). (2017). *Aviation Weather Services*.

(Advisory Circular 00-45H). Washington, DC: Author.

-Download the current version (AC 00-45H)

https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_00-45H_Chg_1.pdf



Federal Aviation Administration. (FAA). (2018). *FAA Aviation Safety Information Analysis and Sharing (ASIAS)*. Washington, DC: Author.

<https://www.asias.faa.gov/apex/f?p=100:12:::NO::>



National Transportation Safety Board. (NTSB). (2018). *Accident Database and Synopses*. Washington, DC: Author.

https://www.nts.gov/_layouts/ntsb.aviation/index.aspx

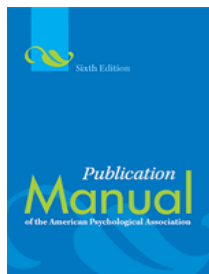


National Aeronautics and Space Administration. (NASA). (2018). *Aviation Safety Reporting System (ASRS)*. Washington, DC: Author.

<https://asrs.arc.nasa.gov/search/database.html>

*This syllabus was developed by James Hartman for use in AMT 220 - Aviation Meteorology - Arizona State University
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Last updated: 08/2019*

Suggested Supplemental Materials



American Psychological Association. (2010). Publication manual of the American Psychological Association (6th ed.). Washington, DC: Author.

Paperback	ISBN:	978-1-4338-0561-5
Hardcover	ISBN:	978-1-4338-0559-2
Ebook	ISBN:	978-1-433805615

Course Description

The course will cover basic weather information that will provide concepts and vocabulary necessary to understand aviation weather applications. It will also deal with a variety of atmospheric circulation systems, their causes, behavior, and their related aviation weather, as well as the weather hazards associated with these circulation systems. This course will stress practical application of weather knowledge during aviation operations, including understanding the weather forecast process and interpreting weather information.

Prerequisites: AMT 182 - Private Pilot Ground School

Course Goals

Upon successful completion of this course, students will be able to:

1. Define basic meteorology concepts and vocabulary
2. Identify atmospheric circulation systems, their causes, behavior and related aviation weather
3. Describe the weather collection and forecast processes
4. Interpret aviation weather briefings, weather reports, forecasts and charts
5. Conduct research on a weather-related topic and prepare a 12-page written report on the results of that research
6. Prepare a Power Point presentation on an aviation related weather incident or accident

Learning Outcomes (LO)

Upon successful completion of this course, the student will be able to:

1. Utilize aviation meteorology techniques, skills, and technology necessary for professional practice
2. Develop an understanding of weather phenomenon with an emphasis on aviation application
3. Evaluate, analyze, and interpret the development of atmospheric weather phenomena and practice skills associated with applying weather situations to flight operations

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4. Assess standard formats for gathering weather information
5. Apply meteorological data to specific aviation weather scenarios
6. Apply pertinent aviation weather knowledge in identifying and solving meteorological problems in flight
7. Apply weather knowledge to practical flight scenarios
8. Identify weather hazards and discuss ways to minimize or avoid the effects of these hazards in flight
9. Conduct and communicate research on an aviation meteorology-related incident or accident topic

Assessments

Each assessment will be evaluated using a standard rubric based on a scale of 0 to 100. The course grade will be based on the weighted categories (refer to tables below).

Weighted Evaluations		% Course Grade
PowerPoint Weather Related Incident/Accident		15%
Research Paper on Approved Weather Topic		15%
Density Altitude Assignment		5%
Exams		40%
Exam 1	10%	
Exam 2	10%	
Exam 3	10%	
Exam 4	10%	
Final Exam		15%
Discussion Board Participation		10%
Total		100%

Course Grading Scale	Letter Grade Equivalent
90 – 100%	A
80 – 89%	B
70 – 79%	C
60 – 69%	D
0 – 59%	E

Coursework

Power Point Presentation on Weather Related Incident or Accident (15%)

Everyone will prepare and submit a 5 to 7 slide power point presentation on a weather-related aviation incident or accident. Instructions will be given during the semester through the announcements section of the on-line course. An example of the Power Point will also be given on-line under the course documents section in Blackboard.

Use PowerPoint for your presentation. If you don't know how to use PowerPoint, ask me. A visit to the learning lab, assistance from a fellow student or a few minutes with the instructor can usually get you out from behind the power curve.

The following 4 categories will be used to grade your presentation (15% of course grade):

1. Did you prepare or are you faking it? I can tell. (4%)
2. Use of Current Power Point Software? (3.5%)
3. Comprehension - do you understand your topic? (4%)
4. Organization - is there a logical flow through your topic? (3.5%)

Research Paper on Approved Weather Topic (15%)

Write a 12-page research paper on a weather topic from the list below. This list is not exclusive. If you would like to select a topic that is not on the list, please email me your request for approval. The 12-page requirement includes a title and references page. This assignment is to be turned in to my email address (james.hartman@asu.edu) using Microsoft Word no later than midnight on the Final Exam date.

It is recommended that the APA (American Psychological Association) writing style is used for the research paper (see APA textbook information on page 1 of the syllabus). APA is the writing style most often used in our discipline. You may also use any other established writing style including Chicago, Turabian, or MLA (Modern Language Association) for your research paper. The formatting and style resources can be found in the library, the bookstore or online.

The suggested aviation weather research paper topics are as follows:

1. Airmets (AIRman's METeorological Information)
2. Airport Surveillance Radar (ASR-9)
3. Alaska Aviation Weather Briefing System (AAWBS)
4. Alaska Weather Camera Program
5. Automated Flight Service Station (AFSS)
6. Automated Surface Observing System (ASOS)
7. Automated Surface Weather Observing Network (ASWON)
8. Automated Weather Observing System (AWOS) Data Acquisition System (ADAS)
9. Aviation Weather and Night Flying
10. Aviation Weather and NOTAM System (AWANS)
11. Aviation Weather Research Program (AWRP)
12. Aviation Weather Systems
13. Center Weather Service Unit (CWSU)
14. Coastal Flying
15. Contract Weather Observers (CWOs)
16. Convective Sigmets (Significant Meteorological Information)
17. Corridor Integrated Weather System (CIWS)
18. Density Altitude and Flying

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Suggested aviation weather research paper topics (continued):

19. Desert Weather
20. Digital Aviation Weather Network (DAWN)
21. Direct User Access Terminal (DUATS) and Weather
22. Flight Service Graphic Weather Display System
23. Hazardous Aviation Weather
24. Hazardous Inflight Weather Advisory Service (HIWAS)
25. Integrated Terminal Weather System (ITWS)
26. Juneau Airport Wind System (JAWS)
27. Light Detection and Ranging (LIDAR)
28. Low-Level Wind Shear Alert System (LLWAS)
29. Mountain Flying: weather in the vertical terrain
30. National Center for Atmospheric Research (NCAR)
31. National Volcanic Ash Operations Plan for Aviation
32. National Weather Service (NWS)
33. Navigating Summer's Worst Weather
34. Navigating Winter's Worst Weather
35. Next Generation Weather Radar (NEXRAD)
36. NextGen Surveillance and Weather Radar Capability (NSWRC)
37. NextGen Weather Processor (NWP)
38. Pilotage: Weather guessing
39. Reduce Weather Impact (RWI)
40. Running the Numbers: Of all weather phenomena, strong winds beget the most accidents
41. Shades of Gray: VFR-into-Instrument Meteorological Condition's slippery slope
42. Sigmets (Significant Meteorological Information)
43. Space Weather
44. Spark Detectors: What to expect of a Strike finder or Storm scope (Lightning)
45. Storm Warnings: Thunderstorm avoidance strategies for low and high time pilots
46. Summer Weather Flying Radar Realities: Why and when radar can be a friend or foe
47. System Wide Information Management (SWIM) Common Support Services (CSS-Wx (Weather))
48. Terminal Doppler Weather Radar (TDWR)
49. The NextGen 4-Dimensional Weather Data Cube and Single Authoritative Source
50. The NextGen Network Enabled Weather Program (NNEW)
51. Transcribed Weather Broadcast (TWEB)
52. Understanding Weather Reports, Forecasts and Charts
53. Visual Meteorological Conditions (VMC) verses Instrument Meteorological Conditions (IMC)
54. Weather and Radar Processor (WARP)
55. Weather Artistry: How air parcels of relatively different temperatures move in relation to each other
56. Weather Briefing
57. Weather Forecast Improvements (WFI)
58. Weather Fronts: Frontal Flying
59. Weather Message Switching Center Replacement (WMSCR)
60. Weather Observation Improvements (WOI)
61. Weather on the Web
62. Weather Patterns
63. Weather Sensors
64. Weather Technology in the Cockpit (WTIC) Program
65. Weather Wisdom: the weather related decision-making process – “go or no-go!”

Suggested aviation weather research paper topics (continued):

66. Wind Shear Detection Services (WSDS)

67. Winter Weather Traps

68. World Area Forecast System (WAFS)

If something here doesn't strike your fancy, ask!

Density Altitude Assignment (5%)

Understanding the concept of density altitude is of vital importance in order to conduct safe flight operations. In this assignment, you will select an aircraft incident or accident that occurred due to density altitude and write a 3 to 5 page paper (excluding references) utilizing APA describing the concept of density altitude and the role that it played in the incident or accident. You should include in your paper the who, what, when, where, why, and how utilizing an introduction, body, and conclusion format. There are very useful resources available through the ASU Library, format guides, and online describing the basic outline of a research paper. You are required to use at least three additional scholarly references in writing your paper with proper APA citations and a references page. The density altitude aircraft incident or accident can be obtained by searching for the term 'density altitude' through the following databases:

1. The Federal Aviation Administration (FAA) Aviation Safety Information Analysis and Sharing (ASIAS):
<https://www.asias.faa.gov/apex/f?p=100:12:::NO::>

2. The National Transportation Safety Board (NTSB) Aviation Accident Database & Synopses:
https://www.nts.gov/_layouts/nts.gov/aviation/index.aspx

3. The National Aeronautics and Space Administration (NASA) Aviation Safety Reporting System (ASRS):
<https://asrs.arc.nasa.gov/search/database.html>

Exams (40%)

There will be 4 exams. These examinations could include multiple choice, short answer, definitions, true/false, and/or essay.

Final Exam (15%)

There will be 1 Final Exam. This examination could include multiple choice, short answer, definitions, true/false, and/or essay.

Discussion Board Participation (10%)

There will be discussion board posts throughout the semester. Roughly one half of a percentage point will be deducted from the final grade for each discussion board post that is missed. There will be a discussion board item for each of the chapters in the text. Students will be required to post their individual comments to each of these posts and respond to at least two other students' responses. This is an all or none deal. There will be no partial credit given for partial participation so make sure that you fulfill the discussion board participation requirements given above. Your grade for each of the discussion board posts will be given as "complete" or "incomplete" in the Tools >> My Grades section of the AMT220 course website. A total of roughly 10 percent of your final grade can be deducted for lack of discussion board participation.

In each of my discussion board posts, I have setup a forum on a particularly important topic in the chapter. You will maintain your 100% participation by posting a substantive response about the readings and/or videos and by providing a substantive response to two other classmate's substantive responses. Thus you will earn zero or maintain your participation percentage points for each of the discussion forums; depending on the quality, timeliness and accuracy of your participation in it.

"Quality" means "substantive." A "substantive" response (i.e. question or answer) is one that pertains specifically to some 'piece' of course material you have either read (in one of the readings) or seen (in one of the videos). Example of a substantive question: You post a question in which you ask for help understanding the difference between two concepts from a particular chapter. Example of a substantive answer: Your opinion accompanied by an explanation of the basis of your opinion.

A non-substantive question or answer is a general comment, question or response to a question that has no apparent connection to any 'piece' of course material. Non-substantive questions and answers will get you a score of zero. Examples of non-substantive questions include I don't understand? or What do you think the instructor is looking for here? or What do you think? Examples of non-substantive answers include Yes or No response or I don't know or I don't agree.

"Timeliness" means no later than the specified deadline. If you miss the deadline in any forum, your score for that forum will be zero.

"Accuracy" means posting in the correct forum for the responses you are giving. If you post in a forum other than the one to which your post was intended then that/those post(s) will not be graded and your participation score for them will be zero.

Course Policies

Students are expected to participate in the educational process and not be a disruptive element with regard to the learning of others. Safety, self-discipline and respect for others are necessary elements in the educational processes employed in this course.

All students should be familiar with the Student Code of Conduct, which can be found at the following universal resource locator (URL):
<https://eoss.asu.edu/dos/srr/codeofconduct>

Students are expected to execute all course assignments and activities in accordance with the University's Student Academic Integrity Policy located at the Following URL: <https://provost.asu.edu/index.php?q=academicintegrity>

The Americans with Disabilities Act (ADA) is a Federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. If you believe you have a disability requiring an accommodation please contact the Disability Resource Center at ASU Polytechnic located in Sutton Hall, room 240 or call 480-727-1039 / TTY: 480-727-1009. Eligibility and documentation policies are online at the following URL:
<https://eoss.asu.edu/drc>

If you have any concerns, anxieties, or requests, please let me know as soon as possible.

Use of pagers, cell phones, and recording devices are not permitted during classroom instruction. If needed, please leave the room to use these devices.

Academic Integrity

Students in this class must adhere to ASU's academic integrity policy, which can be found at <https://provost.asu.edu/academic-integrity/policy>). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the ASU Academic Integrity Honor Code and the Fulton Schools of Engineering Honor Code. All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). The AIO maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

Copyright

Course content, including lectures, are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304-06, "Commercial Note Taking Services" and ABOR Policy 5-308 F.14 for more information).

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Course Policies - continued

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services. Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

Suitable accommodations will be made for students having disabilities. Students needing accommodations must register with the ASU disabilities resource Center and provide documentation of that registration to the instructor. Students should communicate the need for an accommodation in sufficient time for it to be properly arranged.

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>.

Mandated sexual harassment reporter: As an employee of the University I am considered a mandated reporter and therefore obligated to report any information regarding alleged acts of sexual discrimination that I am informed of or have a reasonable basis to believe occurred. ASU Counseling Services, <https://eoss.asu.edu/counseling>, is available if you wish to discuss any concerns confidentially and privately.

Syllabus changes: Any information in this syllabus (other than grading and absence policies) may be subject to change with reasonable advance notice.

How Long Students Should Wait for an Absent Instructor: In the event the instructor fails to indicate a time obligation, the time obligation will be 15 minutes for class sessions lasting 90 minutes or less, and 30 minutes for class sessions lasting more than 90 minutes. Students may be directed to wait longer by someone from the academic unit if they know the instructor will arrive shortly.

AMT 220 Course Schedule - The deadline to complete and submit assignments will be midnight on the date before the next chapter is scheduled to begin (unless otherwise specified in the schedule below)

DATE	CLASS #	TOPIC	Reference
8/22	1	Intro/Discussion, Course Outline	
8/29	2	Atmosphere	Chapter 1
9/5	3	Atmospheric Energy and Temperature	Chapter 2
9/12	4	Pressure, Altitude, and Density	Chapter 3
		* Density Altitude Assignment Due	
9/19	5	Wind, METAR, Surface Analysis and Weather Depiction Charts	Chapter 4
9/26	6	Vertical Motion and Stability	Chapter 5
9/26	7	Atmospheric Moisture	Chapter 6
		* Turn in research paper and power point presentation topics	
9/26	8	Exam # 1: Classes 1 through 7 topics	
10/3	9	Scales of Atmospheric Circulations	Chapter 7
10/10	10	Air masses, Fronts and Cyclones	Chapter 8
10/17	11	Radar Summary/Constant Pressure Analysis	
10/24	12	Thunderstorms	Chapter 9
10/31	13	Local Winds	Chapter 10
10/31	14	Exam #2: Classes 9 through 13 topics	
10/31	15	Wind Shear	Chapter 11
11/7	16	Turbulence	Chapter 12
11/14	17	Icing	Chapter 13
11/21	18	Instrument Meteorological Conditions (IMC)	Chapter 14
11/21	19	Additional Weather Hazards	Chapter 15
11/21	20	Exam #3: Classes 15 through 19	
11/21	21	Aviation Weather Resources	Chapter 16
11/21	22	Weather Evaluation for Flight	Chapter 17
12/5	23	Exam #4: Classes 21 and 22 topics	
12/7-12/8	24	Study Days	
12/9-12/14	25	Final Exam – Comprehensive Chapters 1-17	
12/14	26	*Research Papers & Power Point Presentations Due	
		**Turn in research paper and power point presentation via email at james.hartman@asu.edu no later than midnight on the evening of 12/14/2019	

AMT 220 Course Schedule

Module: Title / Topics	Activities	LOs
Chapter 1: Atmosphere Atmospheric Composition, Properties, and Structure	1.1 Reading: Atmosphere, Lester (2013)	2, 6
	1.2 Discussion Board: Atmosphere, Regional and Local Weather Types, Characteristics, and Structures: Maritime, Continental, Polar, Tropical Coastal, Mountainous, Island, and Plains	1, 3, 5, 7, 8
	1.3 Research: Consider Weather Topic for Paper	9
		9
Chapter 2: Atmospheric Energy and Temperature Energy Transfer and Temperature	2.1 Reading: Atm. Energy/Temp, Lester (2013)	2, 6
	2.2 Discussion Board: Atm. Energy/Temp	1, 3, 5, 7, 8
	2.3 Research: Continue Weather Topic Selection	9
Chapter 3: Pressure, Altitude and Density Atmospheric Pressure, Charting Atmospheric Pressure, Pressure Altimeter, and Density	3.1 Reading: Press., Alt., Density, Lester (2013)	2, 6
	3.2 Discussion Board: Press., Alt., Density	1, 3, 5, 7, 8
	3.3 Research: Density Altitude Assignment Due	1,2,3,5,6,7,8,9
	3.4 Research: Continue Weather Topic Selection	9
Chapter 4: Wind Wind Terminology, Friction, Measurements, Causes of Wind, Pressure Gradient and Coriolis Forces, Geostrophic Balance	4.1 Reading: Wind, Lester (2013)	2, 6
	4.2 Discussion Board: Wind	1, 3, 5, 7, 8
	4.3 Research: Continue Weather Topic Selection	9
	4.4 METAR, Surf. Anal., Weath. Depict. Charts	4
	4.5 Decoding METARs and TAFs	4
Chapter 5: Vertical Motion and Stability Stability, Vertical Motions and impacts	5.1 Reading: Vertical Motion/Stability, Lester (2013)	2, 6
	5.2 Discussion Board: Vertical Motion/Stability	1, 3, 5, 7, 8
	5.3 Research: Continue Weather Topic Selection	9
Chapter 6: Atmospheric Moisture Moisture Characteristics, Clouds, Precipitation	6.1 Reading: Atmospheric Moisture, Lester (2013)	2, 6
	6.2 Discussion Board: Atmospheric Moisture	1, 3, 5, 7, 8
	6.3 Research: Turn in Paper/Powerpoint Topics	9
	6.4 Exam 1: Chapter 1 - Chapter 6	2, 5

Note. LOs = Learning Outcomes.

Module: Title / Topics	Activities	LOs
Chapter 7: Scales of Atmospheric Circulations Largest Scale Circulation Systems, and Global Circulation Systems	7.1 Reading: Scales Atm. Circ., Lester (2013)	2, 6
	7.2 Discussion Board: Scales Atm. Circ.	1,3,5,7,8
	7.3 Research: Paper/Powerpoint Preparation	9
Chapter 8: Air masses, fronts and cyclones Extratropical Cyclones, Tropical Cyclones, and Hurricanes	8.1 Reading: Airmas., Frnt., Cyc., Lester (2013)	2, 6
	8.2 Discussion Board: Airmas., Frnt., Cyc.	1,3,5,7,8
	8.3 Research: Paper/Powerpoint Preparation	9
Chapter 9: Thunderstorms Dry and Cloudy Convection, Weather Radar, Thunderstorm Structures, and Environment	9.1 Reading: Thunderstorms, Lester (2013)	2, 6
	9.2 Discussion Board: Thunderstorms	1,3,5,7,8
	9.3 Research: Paper/Powerpoint Preparation	9
	9.4 Radar Summary, Const. Pres. Anal. Charts	4
Chapter 10: Local Winds Thermally and Externally Driven Local Winds Mountain Lee Waves and Warm Downslope Winds	10.1 Readings: Local Winds, Lester (2013)	2, 6
	10.2 Discussion Board: Local Winds	1,3,5,7,8
	10.3 Research: Paper/Powerpoint Preparation	9
	10.4 Exam 2: Chapter 7 - Chapter 10	2, 5
Chapter 11: Wind Shear Wind Shear Defined, and Causes of Wind Shear	11.1 Reading: Wind Shear, Lester et al (2013)	2, 6
	11.2 Discussion Board: Wind Shear	1,3,5,7,8
	11.3 Research: Paper/Powerpoint Preparation	9
Chapter 12: Turbulence Definition, Causes and Types	12.1 Reading: Turbulence, Lester et al (2013)	2, 6
	12.2 Discussion Board: Turbulence	1,3,5,7,8
	12.3 Research: Paper/Powerpoint Preparation	9

Note. LOs = Learning Outcomes.

Module: Title / Topics	Activities	LOs
Chapter 13: Icing Aircraft Icing Hazards, Structural Icing, Microscale Icing, Weather Patterns, Minimizing Icing Encounters	13.1 Reading: Icing, Lester (2013)	2, 6
	13.2 Discussion Board: Icing	1,3,5,7,8
	13.3 Research: Paper/Powerpoint Preparation	9
Chapter 14: Instrument Meteorological Conditions (IMC) Background, Causes of IMC, and Climatology	14.1 Reading: IMC, Lester (2013)	2, 6
	14.2 Discussion Board: IMC	1,3,5,7,8
	14.3 Research: Paper/Powerpoint Presentation	9
Chapter 15: Additional Weather Hazards Atmospheric Electricity, Stratospheric Ozone, Volcanic Ash, Space Weather, Runway, and Cold Climate Hazards	15.1 Reading: Add. Weather Haz., Lester (2013)	2, 6
	15.2 Discussion Board: Add. Weather Haz.	1,3,5,7,8
	15.3 Research: Paper/Powerpoint Presentation	9
	15.4 Exam 3: Chapter 11 - Chapter 15	2, 5
Chapter 16: Aviation Weather Resources Forecasting Process, Products, and Information Sources	16.1 Readings: Av. Weather Res., Lester (2013)	2, 6
	16.2 Discussion Board: Av. Weather Res.	1,3,5,7,8
	16.3 Research: Paper/Powerpoint Presentation	9
Chapter 17: Weather Evaluation for Flight Self-Briefing Procedure and Weather Evaluation Process	17.1 Reading: Weath Eval for Flight, Lester (2013)	2, 6
	17.2 Discussion Board: Weather Eval for Flight	1,3,5,7,8
	17.3 Research: Paper/Powerpoint Presentation	9
	17.4 Exam 4: Chapter 16 - Chapter 17	2, 5
	17.5 Final Exam: Chapter 1 - Chapter 17	2, 5
	17.6 Turn in Reserch Paper/Powerpoint Pres.	9

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