SOUTHERN ILLINOIS UNIVERSITY  
DEPARTMENT OF AVIATION MANAGEMENT AND FLIGHT  

Spring 2014 Course Syllabus  

AF211 – Aviation Weather  

FACULTY:  

Mrs. Lorelei Ruiz  
TEC Room 286L  
618-453-9265  
lruiz@aviation.siu.edu  
Office Hours: TRF 1:00 pm to 3:00 pm (or by appointment)  

TIME AND LOCATION:  

MW 1:00 p.m. – 2:15 p.m., TEC 182  

COURSE DESCRIPTION:  

The course will provide both understanding and application of weather theory in relation to commercial flight operations. This course includes regulations issued by the Federal Aviation Administration relating to weather and safe flight. Problem-based learning situations and presentations in the classroom on the adverse effects of weather are presented to increase hazardous weather awareness for pilots.  

COURSE PREREQUISITES:  

N/A  

REQUIRED MATERIALS:  


REFERENCES:  


COURSE OBJECTIVES:

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

1. identify the organizations/offices responsible for collecting/interpreting/forecasting aviation weather data.
2. identify and explain how to access sources of aviation weather information available both before and during flight.
3. explain basic atmospheric circulation processes.
4. explain specific flight hazards associated with various weather phenomena, including thunderstorms, heavy rain, icing, windshear, and turbulence.
5. interpret the various text and charted aviation weather products required by the Practical Test Standards for Private, Instrument, and Commercial Pilots.
6. using their knowledge of weather processes, analyze current and forecast weather information to identify flight options available and make a suitable go/no-go decision.

ATTENDANCE POLICY:

Attendance will be taken for record keeping purposes only. You must be on time, however. Students arriving late to class will lose 5 points per occurrence.

The Course Schedule will be referred to for information regarding when Test days will be. Alterations to this schedule will be communicated through announcements made in class or on the AF211 course pages on SIUOnline. Five unannounced quizzes will be given throughout the semester. Students missing the tests and quizzes will not ordinarily be allowed to make them up.

Opportunities to make up missed TESTS will ONLY be considered in the case of school-sponsored activities, military orders, and emergency circumstances WITH PROPER DOCUMENTATION. Emergency circumstances must be dealt with on a case by case basis. Problems with boyfriends/girlfriends or other non-immediate family members will NOT constitute an emergency.

COURSE FORMAT AND GRADING:

This course is comprised of five pop quizzes, four tests, one project, one presentation, and the mid-term and final exams. For the presentation, students will be expected to research an aviation accident involving weather and present this accident to the class. The presentation will include an oral synopsis and analysis of the accident and associated weather, as well as recommendations on how to better avoid additional accidents arising from the weather condition involved in the report. A grading rubric and specific format for the presentation will be distributed no later than 3 weeks before the presentation is due. A breakdown of possible points for this course follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop quizzes</td>
<td>100 pts (5 quizzes at 20 points each)</td>
</tr>
<tr>
<td>Test 1</td>
<td>100 pts</td>
</tr>
<tr>
<td>Test 2</td>
<td>100 pts</td>
</tr>
<tr>
<td>Test 3</td>
<td>100 pts</td>
</tr>
<tr>
<td>Test 4</td>
<td>100 pts</td>
</tr>
<tr>
<td>Project</td>
<td>100 pts</td>
</tr>
<tr>
<td>Presentation</td>
<td>50 pts</td>
</tr>
<tr>
<td>Mid-term Exam</td>
<td>100 pts</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200 pts</td>
</tr>
<tr>
<td>Total</td>
<td>950 pts</td>
</tr>
</tbody>
</table>
Grading scale:

855-950 = A    570-664.99 = D
760-844.99 = B    0-569.99 = F
665-759.99 = C

Extra Credit

Opportunities for extra credit may or may not exist in this course. If any opportunity for extra credit is given, it will be at the discretion of the instructor. Guidelines for the extra credit work will be clearly explained and possible points to be earned will be outlined. All extra credit opportunities will be offered to the entire class.

CLASS SPECIFIC POLICIES:

Cell phone usage (text, voice, or otherwise) is not allowed during class times. Students are required to silence/turn off cell phones prior to coming to class. Habitual interruptions will result in loss of attendance points for the day.

Information regarding AF211 is available on SIUOnline at https://online.siu.edu/. Please refer to this site regularly, as announcements will be posted there as needed. Additionally, copies of the lecture powerpoints and self-assessment exercises related to various topics will be posted there for your use.

ACADEMIC DISHONESTY POLICY:

Per the SIUC Student Conduct Code, academic dishonesty includes such prohibited acts as plagiarism, cheating, preparing someone else’s work for them that will be turned in under their name, falsifying or manufacturing scientific or educational data, providing false information regarding academic matters, and any act to conceal, aid, or attempt any of the above. Sanctions for acts of academic dishonesty include, but are not limited to, failure of an assignment, quiz, test, examination or paper; failure in a course; revocation of a degree; suspension; or expulsion from the university. You are required to do your own work in this class. Violations of the Student Conduct Code will be dealt with according to University policy. For more information, please refer to the SIUC Student Conduct Code, available at http://policies.siu.edu/documents/StudentConductCodeFINALMay32011.pdf
## COURSE SCHEDULE:

<table>
<thead>
<tr>
<th>Date</th>
<th>Lesson</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 13</td>
<td>Syllabus/Pre-Test</td>
<td></td>
</tr>
<tr>
<td>January 15</td>
<td>Intro to Aviation Weather</td>
<td></td>
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<tr>
<td>January 20</td>
<td>MLK BIRTHDAY—No Class</td>
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<tr>
<td>January 22</td>
<td>Weather Theory Basics</td>
<td>AW Ch. 1 &amp; 2</td>
</tr>
<tr>
<td>January 27</td>
<td>Moisture &amp; Precipitation</td>
<td>AW Ch. 5, 7, &amp; 12</td>
</tr>
<tr>
<td>January 29</td>
<td>Air Circulation</td>
<td>AW Ch. 4</td>
</tr>
<tr>
<td>February 3</td>
<td>Test 1</td>
<td></td>
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<tr>
<td>February 5</td>
<td>Frontal Weather</td>
<td>AW Ch. 3 &amp; 8</td>
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<tr>
<td>February 10</td>
<td>Wind</td>
<td>AW Ch. 4</td>
</tr>
<tr>
<td>February 12</td>
<td>Turbulence and Wind Shear</td>
<td>AW Ch. 4 &amp; 10 (AIM 7-1-23)</td>
</tr>
<tr>
<td>February 17</td>
<td>Test 2</td>
<td></td>
</tr>
<tr>
<td>February 19</td>
<td>Dropping Temps, Rising Concerns</td>
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<tr>
<td>February 24</td>
<td>Icing &amp; Snow, Ground Icing (videos)</td>
<td>AW Ch. 10 (AIM 7-1-21)</td>
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<tr>
<td>February 26</td>
<td>Thunderstorms I</td>
<td>AW Ch. 11,</td>
</tr>
<tr>
<td>March 3</td>
<td>Thunderstorms II</td>
<td>AIM 7-1-23 thru 7-1-29</td>
</tr>
<tr>
<td>March 5</td>
<td>Mid-term Exam (distribute Project Info)</td>
<td></td>
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<tr>
<td>March 10</td>
<td>SPRING BREAK-No Class</td>
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<tr>
<td>March 12</td>
<td>SPRING BREAK-No Class</td>
<td></td>
</tr>
<tr>
<td>March 17</td>
<td>How to Obtain Aviation Weather Information</td>
<td>AWS Ch. 1 &amp; 2</td>
</tr>
<tr>
<td>March 19</td>
<td>METAR/SPECI</td>
<td>AWS Ch. 3.1</td>
</tr>
<tr>
<td>March 24</td>
<td>METAR/SPECI</td>
<td>&quot;</td>
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<tr>
<td>March 26</td>
<td>TAF's/PIREPS</td>
<td>AWS Ch. 3.2 &amp; 7.2</td>
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<tr>
<td>March 31</td>
<td>Test 3</td>
<td></td>
</tr>
<tr>
<td>April 2*</td>
<td>Area Forecast/Winds Aloft</td>
<td>AWS Ch. 7.1</td>
</tr>
<tr>
<td>April 7</td>
<td>AIRMETS/SIGMETS/Convective SIGMETS &amp; Center Weather Advisories</td>
<td>AWS Ch. 6.1-6.4</td>
</tr>
<tr>
<td>April 9</td>
<td>Weather Charts I</td>
<td>AWS Ch. 5 &amp; 8</td>
</tr>
<tr>
<td>April 14</td>
<td>Weather Charts II</td>
<td>AWS Ch. 9</td>
</tr>
<tr>
<td>April 16</td>
<td>Radar and Satellite Imagery</td>
<td>AWS Ch. 4</td>
</tr>
<tr>
<td>April 21</td>
<td>Test 4 (Project due)</td>
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<tr>
<td>April 23</td>
<td>Presentations</td>
<td></td>
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<tr>
<td>April 28</td>
<td>Presentations</td>
<td></td>
</tr>
<tr>
<td>April 30</td>
<td>Presentations and REVIEW</td>
<td></td>
</tr>
<tr>
<td>May 8</td>
<td>Final Examination, Thursday, 12:50 - 2:50</td>
<td>COMPREHENSIVE</td>
</tr>
</tbody>
</table>

AW = Aviation Weather – AC 00-6A  
AWS = Aviation Weather Services – AC 00-45G  
AIM = Airman’s Information Manual

* Deadline to advise instructor of NTSB report choice
VERIFICATION OF INFORMATION:

I certify that I have received a copy of the *AF211 – Aviation Weather Course Syllabus*. I have read and understand the policies and grading as they pertain to class requirements. I understand that I must attend each class throughout the semester. I understand that I must be prepared through prior study for each class period. I agree to abide by the policies in the *AF211 – Aviation Weather Course Syllabus*, and understand that I will be graded according to this document and its contents. I will consult the instructor with any questions.

Please print your name, sign, and enter date below:

_______________________________________________
Print Name

_______________________________________________
Signature                          Date

Detach lower half and return to instructor.

I certify that I have received a copy of the *AF211 – Aviation Weather Course Syllabus*. I have read and understand the policies and grading as they pertain to class requirements. I understand that I must attend each class throughout the semester. I understand that I must be prepared through prior study for each class period. I agree to abide by the policies in the *AF211 – Aviation Weather Course Syllabus*, and understand that I will be graded according to this document and its contents. I will consult the instructor with any questions.

Please print your name, sign, and enter date below:

_______________________________________________
Print Name

_______________________________________________
Signature                          Date
IMPORTANT DATES *
Semester Class Begins ............................................. 01/13/2014
Last day to add a class (without instructor permission) ............................................. 01/24/2014
Last day to withdraw completely and receive a 100% refund: ............................................. 01/26/2014
Last day to drop a course using SalukiNet: ............................................................ 03/23/2014
Last day to file diploma application (for name to appear in Commencement program): ................................................................. 03/28/2014
Final examinations: .................................................. 05/5 – 5/9/2014

* Note: For outreach, online, and short course drop/add dates, visit Registrar’s Academic webpage. http://registrar.siu.edu/

SPRING SEMESTER HOLIDAYS
Martin Luther King, Jr.’s Birthday 01/20/2014
Spring Vacation 03/08—03/16/2014

WITHDRAWAL POLICY – Undergraduate only
Students who officially register for a session may not withdraw merely by the stopping of attendance. An official withdrawal form needs to be initiated by the student and processed by the University. For the proper procedures to follow when dropping courses and when withdrawing from the University, please visit http://registrar.siu.edu/pdf/ugradcatalog1314.pdf

INCOMPLETE POLICY ~ Undergraduate only
An INC is assigned when, for reasons beyond their control, students engaged in passing work are unable to complete all class assignments. An INC must be changed to a completed grade within one semester following the term in which the course was taken, or graduation, whichever occurs first. Should the student fail to complete the course within the time period designated, that is, by no later than the end of the semester following the term in which the course was taken, or graduation, whichever occurs first, the incomplete will be converted to a grade of F and the grade will be computed in the student’s grade point average. For more information please visit: http://registrar.siu.edu/grades/incomplete.html

REPEAT POLICY
An undergraduate student may, for the purpose of raising a grade, enroll in a course for credit no more than two times (two total enrollments) unless otherwise noted in the course description. For students receiving a letter grade of A,B,C,D, or F, the course repetition must occur at Southern Illinois University Carbondale. Only the most recent (last) grade will be calculated in the overall GPA and count toward hours earned. See full policy at http://registrar.siu.edu/pdf/ugradcatalog1314.pdf

GRADUATE POLICIES
Graduate policies often vary from Undergraduate policies. To view the applicable policies for graduate students, please visit http://gradschool.siu.edu/about-us/grad-catalog/index.html

DISABILITY POLICY
Disability Support Services provides the required academic and programmatic support services to students with permanent and temporary disabilities. DSS provides centralized coordination and referral services. To utilize DSS services, students must come to the DSS to open cases. The process involves interviews, reviews of student-supplied documentation, and completion of Disability Accommodation Agreements. http://disabilityservices.siu.edu/

STUDENT CONDUCT CODE
http://policies.siu.edu/other_policies/chapter3/conduct.html

SALUKI CARES
The purpose of Saluki Cares is to develop, facilitate and coordinate a university-wide program of care and support for students in any type of distress—physical, emotional, financial, or personal. By working closely with faculty, staff, students and their families, SIU will continue to display a culture of care and demonstrate to our students and their families that they are an important part of the community. For Information on Saluki Cares: (618) 453-5714, or siucares@siu.edu, http://salukicares.siu.edu/index.html

EMERGENCY PROCEDURES
Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. We ask that you become familiar with the SIU Emergency Response Plan and Building Emergency Response Team (BERT) programs. Emergency response information is available on posters in buildings on campus, available on BERT’s website at www.bert.siu.edu, Department of Safety’s website at www.dps.siu.edu (disaster drop down) and the Emergency Response Guideline pamphlet. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency.

INCLUSIVE EXCELLENCE
SIU contains people from all walks of life, from many different cultures, and representing all strata of society, nationalities, ethnicities, lifestyles, and affiliations. Learning from and working with people who differ is an important part of education as well an essential preparation for any career. For more information please visit: http://www.inclusiveexcellence.siu.edu/

MORRIS LIBRARY HOURS
http://www.lib.siu.edu/about

LEARNING AND SUPPORT SERVICES
Help is within reach. Learning support services offers free tutoring on campus and math labs. To find more information please visit the Center for Learning and Support Services website:
Tutoring : http://tutoring.siu.edu/
Math Labs http://tutoring.siu.edu/math_tutoring/index.html

WRITING CENTER
The Writing Center offers free tutoring services to all SIU students and faculty. To find a Center or Schedule an appointment please visit http://write.siu.edu/

AFFIRMATIVE ACTION & EQUAL OPPORTUNITY
Our office’s main focus is to ensure that the university complies with federal and state equity policies and handles reporting and investigating of discrimination cases. For more information visit: http://diversity.siu.edu/#

Additional Resources Available:

SALUKINET: https://salukinet.siu.edu/cp/home/displayLogin

ADVISEMENT: http://advisement.siu.edu/

PROVOST & VICE CHANCELLOR: http://pvcaa.siu.edu/

SIU ONLINE: http://online.siu.edu/