COURSE SYLLABUS

AVM 377
AVIATION SAFETY MANAGEMENT

Spring 2014

Jose R. Ruiz, Ph.D.
Professor
Aviation Management and Flight
Transportation Education Center
Southern Illinois University at Carbondale
Murphysboro, Illinois 62901-6623
E-Mail Address: jruiz@aviation.siu.edu
Website: saluki.aviation.siu.edu
(618) 453-8898

Office Hours: Tues - Thurs 1300-1500
**COURSE DESCRIPTION**

This course will examine various aspects of aviation flight and ground safety program management. Aviation safety program development, aviation human factors issues, aviation accident causation models, Safety Management Systems (SMS) and other areas relevant to aviation safety will be discussed. Case studies derived from actual National Transportation Safety Board Aviation Accident Reports will be examined.

**COURSE OBJECTIVES**

Objective #1:

Demonstrate knowledge of basic aviation safety principles.

Objective #2:

Demonstrate knowledge of aviation accident causation factors.

Objective #3:

Demonstrate knowledge of aviation safety program development.

Objective #4:

Demonstrate knowledge of human factors and crew resource management principles.

Objective #5:

Perform analysis of NTSB Accident Reports.

**ASSESSMENT**

1. Oral question and answer sessions led by the instructor.

2. Written examination directed by the instructor.

3. Presentation performance evaluation performed by instructor.

4. Evaluation of written activities.
TOPICAL OUTLINE

1. Aviation Safety Program Management 25%
   a. Accident Prevention Concepts
   b. Management Concepts and Methods
   c. Safety Program Organization
   d. Reporting and Information Systems
   e. Safety Committees
   f. Safety Inspections and Audits
   g. Safety Management Systems (SMS)

2. Flight Safety 15%
   a. Issues Related to Flight Safety
   b. ATC Safety

3. Ground Safety 15%
   a. Aviation Maintenance Safety
   b. Ground Safety

4. Human Factors 25%
   a. Communication
   b. Stress
   c. Situational Awareness
   d. Hazardous Attitudes
   e. Crew Resource Management
   f. Leadership
   g. Teamwork

5. Aircraft Accidents 20%
   a. Accident Investigation Procedures
   b. Accident Causation Models

GRADING SCALE

A  92.00 - 100%
B  84.00 - 91.99%
C  76.00 - 83.99%
D  68.00 - 75.99%
F  67.99% or less
ASSESSMENT COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Mid-Term Exam</td>
<td>25%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
</tr>
<tr>
<td>NTSB Reporter Analysis</td>
<td>10%</td>
</tr>
<tr>
<td>Presentation/Film</td>
<td>15%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

TEXTBOOK


Course materials will be provided by the professor.

All coursework (including homework) shall be typed; hand-written submissions will not be accepted.

CURRENT EVENTS

Knowledge of current industry events is the responsibility of all aviation professionals. Therefore, all students will provide an oral summation of the previous week’s aviation news. Failure to participate in this activity, if assigned, will result in a 3 point penalty.

E-MAIL ETIQUETTE

If you contact me via e-mail: place the course abbreviation you are referring to e.g. AVM 360, AVM 377, etc. in the subject line. I am not going to research which class you are in! In the body of the e-mail, tell me who you are, and how I can help. If you do not comply with these instructions, I will immediately delete your message. I do not open the message or attachments of students who do not identify themselves. No point penalty will be assessed, but your message will be deleted and any message or assignment you are forwarding will NOT be read or graded.

IDENTIFICATION

If a student fails to provide his/her name on an exam or assignment, he/she will forfeit 3 points of their exam or assignment score.

ASSIGNMENTS

All assignments are due at the beginning of the class period on the day a deadline has been established. Late submissions will not be accepted.
THE GROUP PRESENTATION/FILM

The group presentation is a formal presentation involving the analysis of an NTSB aircraft accident case study. The presentation will be developed using PowerPoint presentation media. Students will be provided all analytical data relevant to the accident and will be charged with presenting in 4 major areas: Accident Synopsis, Probable Causes, Recommendations to the FAA and Personal Lessons Learned. This is a group project - all group members are expected to contribute/participate in the development and delivery of the presentation. Group peer evaluations are a component of the grading process. Group members control 25% of each other’s total grade for the presentation. Group members grade other members of the group on a scale of 0-25. I then take the average peer evaluation score and add it to the score I issue for presentation delivery - a maximum of 75 points. The sum of both scores determines the final presentation score. If I note significant variances in peer evaluation scores, I will mediate any discrepancy and serve as the final authority for such scores. All members must present material for at least five minutes. Presentations will be at least 20 minutes long and are limited to 30 minutes in duration.

Students also have the option of producing of an aviation safety related short film (4-10 minutes in duration) or two films of at least 2 minutes in duration in lieu of the previously mentioned NTSB group presentation. The film(s) can address any aviation safety topic, but must be approved by the professor in advance. Following the film presentation, presenters will discuss the relevance of the film as it relates to aviation safety. Film productions will be graded on creativity, relevance to aviation safety, the quality of the production, adherence to time criteria and ensuing discussion. Film productions, like the NTSB group presentations, are valued at 75 possible points and 25 points for peer evaluation, as described in the previous paragraph. The group presentation/film assignment represents 15% of the final grade.

NTSB REPORTER ANALYSIS

Students will provide three two to three page analysis of an NTSB Reporter Case Study (not to exceed three pages). The NTSB Reporter is available in the Howell Library. The case study you choose cannot be the same NTSB report you will be presenting on. You will discuss four major areas and three sub-components:

1. Accident Summary
2. Discussion
   - Latent error
   - Active Error
   - Other Contributing Factors
3. Recommendations to the FAA
4. Personal Lessons Learned

The reports will be written in strict compliance with the format provided. Reports will be evaluated on grammatical correctness, proper analysis, readability, thoroughness, originality of
thought, and format. **Reports that do not meet these standards will be penalized a maximum of 29 points.** The first and second reports are valued at 33 points - the third report is valued at 34 points. **The summed point total of the three reports will be used in determining 10% of the student's final grade.** Students who do not turn in reports when they are picked up at the beginning of class on the due date will receive a **score of zero** for that individual review. **Late submissions will not be accepted!**

**COURSE EXAMS**

Students will be required to complete three course exams - an initial, mid term and final exam. The initial exam is valued at 20% of the final grade; the mid term exam is valued at 25% of the final grade and the comprehensive final exam is valued at 30% of the final grade.

**FINAL EXAM DATE**

The course final exam will be conducted on Monday, May 5, 2014 at 0750 in TEC Classroom 180.

**PLAGIARISM**

Plagiarism is defined as the unauthorized use or close imitation of the language and thoughts of another author and the representation of the theme as one’s own original work, as by not crediting the author, i.e. direct copying and pasting from the internet or any other source without giving credit to the original author. Paraphrasing is acceptable, but the original work must still be cited. **If you are uncertain - check with the professor.**

Don’t try it! Plagiarism of material will not be tolerated. It will result in a score of zero for the class and possible suspension from the university (see below).

In an effort to identify and reduce the number of offenses involving plagiarism, the following service is provided to SIUC faculty. **Turnitin.com** is a Web-based plagiarism detection service available to SIUC faculty who are currently teaching or support teaching activities at SIUC. The service is useful to instructors who suspect a paper submitted to them contains plagiarized text. **Turnitin.com** allows the instructor to upload a paper into its database, where software uses algorithms to create "digital fingerprints" that has the ability to identify similar patterns in text. The paper is then matched to billions of web pages, paper mill essays, and student papers submitted online. In an hour or less, **Turnitin.com** creates an "originality report" that highlights any passages from the paper that may not be authentic, and lists web sites and other resources with content that matches that in the paper.
EMERGENCY PROCEDURES

Southern Illinois University Carbondale is committed to providing a safe and healthy environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. 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 www.dps.siu.edu (disaster drop down) and in Emergency Response Guideline pamphlet. Know how to respond to each of emergency.

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. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

COURSE MANAGEMENT:

1. All penalty points (except absenteeism) and/or extra credit points will be assessed toward or against the student’s mid term exam score.

2. All unexcused absences will result in the loss of 2 overall final grade percentage points. Penalized percentage points will be assessed against a student’s final class score/grade. Discuss any anticipated absences with me immediately, otherwise, do not expect me to make any concessions.

   For example, if you are absent, a final grade score of 92 (A) becomes a score of 90 (B). Discuss any anticipated absences with me as quickly as possible – not at your convenience!

3. Please be on time. Tardiness is disruptive and not tolerated. Unless coordinated and approved by myself, late class attendance, will result in a 3-point penalty. If you are 1 hour, or more, late for class you will be noted as absent. If you leave class early, without consulting and gaining approval from the professor before leaving, you will be penalized 3 points for every 30 minutes of missed class time. Coordinate any anticipated late arrivals/early departures with me as quickly as possible. Otherwise, do not expect me to make any concessions.

4. If you are a flight student, be aware that stage checks and check rides do not take precedence over this class. This class is held every Tuesday at 0935 - I do not have the luxury of re-scheduling classes. If you choose to be late or absent (you do have a choice) you will be penalized as outlined in this syllabus.
5. **Make-up tests are not conducted.** If you are not in attendance for a quiz or presentation, you will receive a grade of zero. Quizzes are administered at the beginning of a class session. If you are late to class on the day a quiz is conducted, you may be allowed to take the quiz (at the professor’s discretion), but will forfeit at least **10 points of your exam score.**

If you believe you will not be present for a quiz, it is your responsibility to coordinate with me immediately, not at your convenience. If coordinated and excused, it is your responsibility to follow-up with me immediately after the event you were excused for is completed.

6. **Cell phones, pagers, etc. must be placed in silent/vibrate mode during class.** **Cell phones shall not** be accessed for ANY purpose during class. If you are caught texting, checking your e-mail, surfing the internet, etc. **10 points will be deducted from your final exam score.** Laptops, Tablets, or similar devices may be used for note taking or other class-related activities. However, if they are used for playing games, performing homework related to other classes, surfing the internet or other purposes the professor considers inappropriate, the student shall be **penalized 10 points and banned from using his or her tablet/laptop/similar device during class the rest of the semester.** If you even appear to be violating any of the abovementioned mandates - I will bring it to your attention. Both transgressions are **rude and disrespectful** – I am intolerant of both!

7. The professor maintains the right to penalize students whatever number of points he believes is warranted for disruptive, inappropriate or rude classroom behavior not addressed in the syllabus.

8. **Notify me immediately** of any circumstances that may affect your ability to meet course requirements. **I will not make concessions for you if you do not discuss your circumstances with me in a timely fashion.** It is your responsibility to coordinate any difficulties/problems with me immediately, not at your convenience, e.g., group assignment, exams, absences, etc.

9. If a student is never late or absent from class, and their final score is .5 or less points from the next letter grade - I will round the student’s score to the next letter grade. However, if you are late or absent for one or more classes (excused or unexcused) you will no longer qualify to have your grade will not be rounded up. I will determine if your circumstance warrants a deviation from this policy on a case-by-case basis.

10. I strive to facilitate a classroom environment that is informative, interesting, and relaxed - but I do not tolerate nonsense!
IMPORTANT DATES *

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 sub-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/