Course Title: Flight Management Systems
Course Number: AVT 405-3
Course Date: Spring 2016
Course Location: Room 117 Lecture
Room 138 Simulator Lab.
Course Time: Lecture – Monday 1:00 PM - 2:50 PM
Lab- 001 Monday 3:00 PM – 4:50 PM
Lab- 002 Wednesday 1:00 PM – 2:50 PM
Instructor: Keven Mitchell
Office Phone 453-9203
Cell/text 618-303-0539
Email mitchell@siu.edu
Office Location Transportation Education Center, Room 226F
Office hours
Tuesday 9 AM till noon
Thursday 9 AM till noon
Course Description: Software familiarization training will include but not limited to Flight Management Systems found in today’s modern aircraft. Some of the systems covered will be the Garmin GNS430, Avidyne Entegra, Flight Max 5000, Garmin G1000 system, and Collins FMS-4200. Supporting systems such as weather, traffic, terrain and satellite systems will be discussed during lecture.
Prerequisite:
Aviation Technologies students: AVT 205
Aviation Flight students: AFT 207 or departmental consent.
Learning Outcomes:

1. To become familiar with avionics flight systems used in today’s modern aircraft.

2. Successfully navigate pre-determined flight plans, while managing communications and navigation frequencies.

3. Select appropriate actions for information displayed while using the various flight simulations; weather, traffic, and terrain.

4. Research a modern system available to today’s pilots and maintenance technicians.
   a. Write a seven page APA formatted paper explaining operation and benefits to pilots and/or the aviation industry.
      i. Cite at least three references
   b. Present a 20 minute presentation outlining research findings and viewpoints.

Textbook and Equipment:

No textbook will be required; however, Pilots Manuals and checklists are available in lab or print on the internet and maybe required during the course.

Students will be required to furnish computer headphones/ear buds for use during all simulator flight training sessions.

Assignment of Course Grade:

The letter grade issued at the completion of the course will be based on the following grading scale:

100 - 90 A, 89 - 80 B, 79 - 70 C, 69 - 60 D, <60 F

The final grade you receive in this course is calculated based upon your performance in the following four areas:
Lecture

30% of course grade.

Objective assessment: 20%
Written test/quiz questions will require the student to recall facts and solve problems related to aviation flight systems, covered in readings, simulators and in class.

Subjective assessment: 10%
Class participation based on the instructor’s subjective assessment of the student’s participation in lecture throughout the semester. Factors positively affecting this grade include asking the instructor questions and answering questions posed by the instructor. Factors negatively affecting this grade assessment include the student’s inability to answer questions based on reading/simulator assignments or giving the impression that the student is sleeping in class, whether they are or not. Repeated incidents of giving the impression that one is sleeping in class will result in a class participation grade of zero.

Important Note: The lecture portion of the course must be completed with a minimum grade of “C” (70) to receive a passing grade for the AVT 405-3 course.

Laboratory/Simulators

30% of course grade.

The lab/simulator grade has both objective and subjective components, with the total amount of points earned determined by the instructor. In addition to timely completion of lab assignments, the number of points awarded for a lab projects is a subjective assessment based on the following criteria:

- Flight checks on system simulators
- The degree of professionalism demonstrated while in the simulator laboratory.

Final Exam

No final exam. However, your research paper and presentation will account for 40% of final grade.

APA Format 25 points
Research Paper 75 points
KEY DATES FOR RESEARCH PAPER:

<table>
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<tr>
<th>Topic due</th>
<th>February 1st</th>
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<tbody>
<tr>
<td>Outline due</td>
<td>February 15th</td>
</tr>
<tr>
<td>Drafts due</td>
<td>February 29th</td>
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<tr>
<td>Final papers due before</td>
<td>March 14th</td>
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Any due dates missed will lower your Research paper’s score by 5 points per calendar day.

PRESENTATIONS:

Presentations are scheduled starting March 21st (first week back after Spring Break). Each presentation should be kept within 20 minutes +/- 5 minutes

Presentations are scored on the following criteria:

1. Professionalism of the presentation 25 points-
2. The ability to express logical points of view to audience 25 points-
3. Visual aids used 30 points-
4. Two quiz questions (if you remember anything about the presentation remember this…) 10 points-
5. Time management 10 points-
6. Total 100 points

SAFETY:

All students must setup properly while using chairs in Simulator lab. The desk chairs are on wheels and if not correctly used may rollout, causing a fall and possible injuries.

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 the BERT’s website at www.bert.siu.edu, Department of Public Safety’s website www.dps.siu.edu (disaster drop down) and in the Emergency Response Guidelines pamphlet. Know how to respond to each type 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.
ADA STATEMENT

Students with disabilities who may need accommodations, special arrangements in the event of evacuation, or who have any emergency medical information the instructor should know need to make an appointment with the instructor as early as possible, but no later than the first week of the term. Students also need to contact the SIUC Disabilities Support Services Office in Woody Hall B-150. Phone 4535738

TOPICAL OUTLINE

The following is the basic outline and addition material will be added during the course. The structure of the course will support Lab assignments and will change accordingly as materials and equipment is available.

GPS operation/WAAS Operation
Basic Navigation
Garmin GNS 430
Avidyne Entegra system/Flight Max system
Garmin G1000 system
Weather
Traffic
Satellite systems
Terrain
Collin FMS 4200

TESTING GUIDELINES

The following guidelines apply during all lecture and laboratory tests, and quizzes. They are also the basis for all work associated with laboratory simulator projects.

TEST DOCUMENT The test document and any additional handouts or scratch paper, regardless of source, is the property of the course instructor. Do not remove the staple from the test.

ANSWERS You must place all of your answers on the test. All answers which require anything more than circling a provided answer must be printed legibly. Cursive (handwriting) will not be accepted and the answer will be marked incorrect.

SCANTRON ANSWER SHEETS Scantron answer sheets may be used. When a Scantron answer sheet is used you must still place all of your answers on the test document. When you have completed the test, transfer your answers for multiple choice and true false questions to the Scantron sheet. Be sure to leave the response on the Scantron sheet blank for any questions that were fill in the blank or required you to provide an illustration on the test document. Be sure to use a number two pencil (which you must supply) and fill in the dot completely.
CALCULATIONS  Show all calculations necessary to derive the answer to mathematical questions. Correct answers without necessary calculations will not be accepted. It is your responsibility to bring a calculator to class with you. Calculators cannot be shared or exchanged during a test.

ROUNDING  Maintain as many digits of precision as possible (whatever the calculator will carry) while working through the problem. Your final answer should be rounded, as necessary, to the hundredths decimal place, or to the precision required by the question.

QUESTIONS  Any questions you may have about a test item should be held until shortly before the end of the testing period. The instructor will let you know when questions may be asked, usually near the end of the testing period.

PROPERTY  Do not exchange any materials with any other student during the testing period.

REMAIN SEATED  Do not leave your seat unless you have completed the test. If you have a problem such as a broken pencil or dead batteries in your calculator, raise your hand until you draw the instructors’ attention.

COMPLETION  Turn in the document and the Scantron answer sheet when you finish.

SILENCE  Please maintain silence during the testing period.

CHEATING  No form of academic dishonesty will be tolerated. (see SIU Student Conduct Code, Division IV).

ATTENDANCE  There is a direct correlation between attendance and performance in a course. Students who are absent can expect their performance on projects and tests to suffer. Makeup instruction will only be provided if the instructor considers an absence to be an excused absence.

ABSENCE DEFINITION  Absence will be classified as excused or unexcused. An absence will be classified as excused only if the absence was due to a significant mental or physical problem, or circumstances outside the control of the student. Determination of "significance" or validity of "circumstance" will be made by the instructor, based upon verbal explanation by the student and any pertinent written documentation (i.e. written statement from a medical doctor or psychologist, court document or summons, or military orders). It is the student’s responsibility to provide the instructor with this information prior to the class that will be missed, when possible, or in the case of illness, immediately upon his/her return to class. For consideration as an "excused absence, illness will always require supporting documentation from the SIU Student Health Service or a private physician indicating date and time of appointment.

Any absence which does not meet the preceding criteria for "excused absence" is considered an "unexcused absence" and will result in a grade reduction (see progressive grade reduction) Missed tests can only be made up if the absence is determined to be an excused absence. Unexcused absence missed tests will be assigned a grade of zero.
If you are not present when attendance is taken you will be marked absent. If you arrive late, but less than 10 minutes late, it is your responsibility to approach the instructor upon your arrival or in lecture, at the end of the period to have your "absence" changed to a "late" in the instructor's attendance journal. Failure of the student to approach the instructor upon arrival or at the end of a lecture period will result in the absence as recorded.
Syllabus Attachment

Spring

http://pvcaa.siu.edu

IMPORTANT DATES*
Semester Class Begins ........................................01/19/2016
Last day to add a class (without instructor permission): ..........01/24/2016
Last day to withdraw completely and receive a 100% refund ..........01/31/2016
Last day to drop a course using SalukiNet: ..................04/03/2016
Last day to file diploma application (for name to appear in Commencement program): ..............................02/12/2016
Final examinations: .............................................05/09/05/13/2016

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

SPRING SEMESTER HOLIDAYS
Martin Luther King, Jr. ’s Birthday Holiday 01/18/2016
Spring Break 03/12—03/20/2016

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/catalog/undergraduatecatalog.html

INCOMPLETE POLICY – Undergraduate only
An INC is assigned when, for reasons beyond their control, students engaged in course repetition must occur at Southern Illinois University Carbondale. Only the course description. For students receiving a letter grade of A,B,C,D, or F, 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/catalog/undergraduatecatalog.html

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/

PLAGIARISM
Student Conduct Code http://svr.siu.edu/student_conduct_code/

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

SAFETY AWARENESS FACTS AND EDUCATION
Title IX makes it clear that violence and harassment based on sex and gender is a Civil Rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, etc. If you or someone you know has been harassed or assaulted, you can find the appropriate resources here: http://safe.siu.edu

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
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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/

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://math.siu.edu/courses/course-help.php

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/