Department of Aviation and Technology Introduction to Aviation - Aviation 02

Fall Semester 2016

Class Days & Hours: AVIA 2-01 (Class Number (44111)

Class Room: Industrial Studies Building, Second Floor, in room IS-216

Days: Class meets on Mondays & Wednesdays 1:30 - 2:45 p.m.

Instructor: Glynn Falcon, JD, CFIA&I ASMEL, AGI, IGI

1st E-Mail: <u>ProfFalcon@aol.com</u>

2nd E-mail: Glynn.Falcon@SJSU.edu

Instructor's Office: IS-133C

Office Hours: Mondays and Wednesdays from 11:30 a.m. to 12 noon. in my Industrial Studies office, IS-133C near the Flight Sim Lab at IS-131. I am available by email and phone on all other days and *reasonable* times. Phone: Office: 408-924-3203; cell: 650-400-1523.

<u>Catalog Description:</u> Concepts, responsibilities, and professional ethics of an aviation professional. History of aviation, FAA certification, qualifications and privileges of aviation professionals. Career opportunities, career paths and progression.

Course Objectives: This is the foundational course for all of your future aviation studies. For the novice, it may not be an easy course, as we must rapidly review a large spectrum of aviation knowledge. Read constantly, and you will do well in this course, which will lead to success in your other aviation courses. The course is designed to introduce you to many of the basics of aviation, briefly covering subjects such as aerodynamics, basic laws of physics, aviation weather, aircraft and engine performance, pilot limitations, and safety of flight. Related subjects will include air traffic control systems, the National Airspace System, weight and balance, air regulations, and the role of the NTSB. The student will be introduced to navigation techniques such as pilotage, dead reckoning, radio navigation and technically advanced aircraft systems. Throughout the course, aviation history, issues pertaining to the aviation professional, and career planning will be discussed. You will also be given the opportunity to fly some of the Department's flight simulators.

Course Content Learning Outcomes: Upon successful completion of this course, you will be able to:

- 1. Pass the FAA Private Pilot Written Exam for Airplanes with a 70% score or better.
- 2. Understand the fundamental forces and principles of flight.
- 3. Identify the major systems, structures, and performance parameters of an airplane.
- 4. Understand the importance of weather and identify local weather phenomena that impact aviation.
- 5. Use resources in pre-flight planning and calculate weight and balance, and route and weather planning.
- 6. Learn to recognize the human factors & limitations that affect pilot aviation safety for safe decision-making.

Required Texts & Materials:

- **1. Private Pilot Test Prep 2017** by ASA available online thru Amazon for about \$15. This will guide you thru quizzes and tests. Buy online
- 2. San Francisco Sectional Chart. \$8.00. Buy online
- 3. E6B Flight Computer. About \$10 for cardboard version. Buy online

The following are free and will be made available on Canvas.



- 2. Aeronautical Information Manual. This is the pilot's primary reference for flight info and procedures.
- 3. Federal Air Regulations (FARs) Parts 1, 60, 67, 91 The rules of the air, medical, certifications, currency.
- 4. Aviation Weather. Greater in-depth exploration of the nasty's of weather.





- 5. Advanced Avionics Handbook. Latest how-to use the "glass cockpit" displays and avionics.
- 6. Aeronautical Chart Users Guide. This explains all of the terms and symbols used on flight maps.
- 7. Weight & Balance Handbook. How to measure and keep the airplane within safe W&B limits.
- 8. Aviation Weather Services. How to get briefed for weather and TFRs, and what's available.

Suggested Reading

- A. Airplane Flying Handbook. This is how to fly the airplane, why things are done, safety protocols.
- B. NTSB rules The National Transportation Safety Board oversees aviation safety and investigations.
- C. Private Pilot Airplane Certification Standards. This is the oral and flight performance requirements to pass the Private checkride.
- D. AOPA Safety Briefs, Reports and Advisor. Lessons learned by other pilots.
- E. FAA Advisory Circulars. Detailed reading on various aspects of flight.
- F. Risk Management Handbook. Eliminate and manage the know risks of flight - especially you!
- G. Instrument Flying Handbook. Once you get your "visual" license, you'll need to get your IFR rating.
- H. Instrument Procedures Handbook. How things are done, and why, while flying instruments.
- I. Flying Light Twins Safely. Helps to get you ready to fly multi-engine aircraft.
- J. Aviation Instructors Handbook. How to properly teach flight lessons.
- K. Skyvector.com
- L. AirNav.com
- M. VFRmap.com

Prerequisites: None.

Final Exam Date & Time: Thursday, December 15 from 12:15 pm to 2:30 pm in IS-216

Laptop or iPad (fully charged) is required for the final exam.

<u>eCanvas</u>: I will utilize SJSU's (MySJSU) eCanvas on-line classroom for Aviation 2 for announcements, assignments, grading, some of the quizzes and tests, and communications.

HOW TO PASS THIS CLASS

(Get an iPad with GPS - it is replacing just about all other non-certified flight bags.)

Grading Basis: To pass this course, you must complete all reading assignments ("lessons") listed on the reading schedule, pass the on-line quizzes, and pass both of the on-line Exams (Midterms), and the Comprehensive Final Exam.

<u>WARNING</u>: There is no make-up allowed for quizzes. Make-up of a Midterm is permitted only with a written, verifiable, excuse from your doctor, attorney or praole officer, setting forth good cause. C- grade or better is needed in all courses required for the Aviation major.

Midterms on Chapters 1 - 10 of PHAK		(objective)	20%
Weather Comprehensive Exam		(objective)	20%
Quizzes (best 10 results)		(objective)	30%
Comprehensive Final Exam *	Score of 70% required	(objective)	30%

<u>FAA Written Test:</u> * (If you receive a 70% or better score on my Final Exam, then within 30 days of your request, I can sign a permission slip allowing you to take the FAA Private Pilot Written Exam.)

<u>Safety Courses:</u> Some students have utilized the Aircraft Owners and Pilots Association's (**AOPA**) Air Safety Foundation (**ASF**) Safety Courses that are located on the website below. Free student AOPA memberships are available into AOPA. All safety courses can be found in the AOPA's web site at http://www.aopa.org/asf/online_courses/

Quizzes: The quizzes will coincide with the weekly reading assignments, lectures, and on-line course material. If an on-line quiz is given, then you must take the on-line quizzes during the specific "window" period allocated for that quiz. I will monitor your weekly progress to determine whether you are keeping up with the lessons. Quiz materials are located within the Canvas "Files" for this course.

University, College, or Department Policy Information

Classroom Protocol

<u>Please arrive to class on time</u>, because class updates will be announced at the beginning of class. Class participation – by asking questions and in-class group practice assignments – is encouraged. Cell phone use and texting are not permitted; if you have a cell phone with you, please turn the ringer off during class.

Dropping and Adding

Last day to Drop a Class without a "W" grade is Tuesday, Sept. 6.

Last day to Add a Class is Tuesday, Sept. 13.

Last day to submit Audit option is Tuesday, Sept. 13.

Last day to submit Credit/No Credit grading option is Tuesday, Sept. 13.

Last day to submit Instructor Drops is Tuesday, Sept. 13.

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc. Refer to the current semester's Catalog Policies section at: http://info.sjsu.edu/static/catalog/policies.html. Add/drop deadlines can be found on the current academic calendar web page located at: http://www.sjsu.edu/academic programs/calendars/academic calendar/.

The <u>Late Drop Policy</u> is available at: http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes. Information about the latest changes and news is available at the <u>Advising Hub</u> at http://www.sjsu.edu/advising/

Consent for Recording of Class and Public Sharing of Instructor Material

<u>University Policy S12-7</u>, http://www.sjsu.edu/senate/docs/S12-7.pdf, requires students to obtain instructor's permission to record the course.

"Common courtesy and professional behavior dictate that you notify someone when you are recording him/her. You must obtain the instructor's permission to make audio or video recordings in this class. Such permission allows the recordings to be used for your private, study purposes only. The recordings are the intellectual property of the instructor; you have not been given any rights to reproduce or distribute the material."

"Course material developed by the instructor is the intellectual property of the instructor and cannot be shared publicly without his/her approval. You may not publicly share or upload instructor generated material for this course such as exam questions, lecture notes, or homework solutions without instructor consent."

Academic Integrity

Your commitment as a student to learning is evidenced by your enrollment at San Jose State University. The <u>University Academic Integrity Policy S07-2</u> at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The <u>Student Conduct and Ethical Development website</u> is available at http://www.sjsu.edu/studentconduct/.

Instances of academic dishonesty will not be tolerated. Cheating on exams or plagiarism (presenting the work of another as your own, or the use of another person's ideas without giving proper credit) will result in a failing grade and sanctions by the University. For this class, all assignments are to be completed by the individual student unless otherwise specified. If you would like to include your assignment or any material you have submitted, or plan to submit for another class, please note that SJSU's Academic Integrity Policy S07-2 requires approval of instructors.

Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at http://www.sjsu.edu/aec to establish a record of their disability.

In 2013, the Disability Resource Center changed its name to be known as the Accessible Education Center, to incorporate a philosophy of accessible education for students with disabilities. The new name change reflects the broad scope of attention and support to SJSU students with disabilities and the University's continued advocacy and commitment to increasing accessibility and inclusivity on campus.

Student Technology Resources

Computer labs for student use are available in the Academic Success Center located on the 1st floor of Clark Hall and on the 2nd floor of the Student Union. Additional computer labs may be available in your department/college. Computers are also available in the Martin Luther King Library.

A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include digital and VHS camcorders, VHS and Beta video players, 16 mm, slide, overhead, DVD, CD, and audiotape players, sound systems, wireless microphones, projection screens and monitors.

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