A&AE 490A/AT490B Flight Testing

1. Instructors
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3. Alternate Text: *Introduction to Aircraft Flight Test Engineering*, by Hubert C. Smith, reprinted as JS312647C by Jeppesen Sanderson, Inc., 1988, available by special order at amazon.com or the bookstore. (This text is more understandable but less comprehensive then the other.)

4. Seating: Starting next class, keep the same seat throughout the semester.

5. Grading
   7/9 of grade is based on homework and 7 flight experiments
   2/9 of grade is based on team project.

6. I reserve the right to raise or lower your grade by as much as one letter grade based on my judgment of your knowledge of the material in this course.


8. Class attendance is strongly recommended. You are responsible for obtaining notes and assignments on days you miss.

9. We will cover all chapters 3-15, 18, and 19 of the text.
A&AE 490A/AT490 Bibliography


AGARD, *Introduction to Flight Test Engineering*, AGARDograph No. 300, Volume 14 of AGARD Flight Test Techniques Series, 1995 (all the volumes in this series are useful).


USAF Test Pilot School, *Flight Test Handbook. Flying Qualities: Theory (Vol. 1) and Flight Test Techniques (Vol. 2)*, AFFTC-TIH-79-2, 1979 (I don’t yet have this).

**Homework Policy**

1. Homework is collected, graded, and returned.
2. NO LATE HOMEWORK IS ACCEPTED (unless your excuse makes me laugh or cry).
3. Cooperation on homework can be helpful in learning. Copying someone's homework will not be tolerated.
4. In reading assignments you are responsible for all material whether it is covered in class or not.
5. Homework Format:
   a. Staple multiple pages together.
   b. Every answer must contain physical units. (e.g. feet, seconds, slugs, etc.)
   c. All answers and physical units must be enclosed in a box.
   d. Answers should generally contain three significant digits (i.e. 2.15, 3.24x10^{-4}).
   e. Do not hand in a paper pulled from a spiral binder.
   f. Sketches defining coordinate directions, axis system, etc. are almost always required.

**NOTES ON NOTE TAKING**

1. Date all notes. This indicates the start and end of a lecture for comparison with other notes.
2. Copy everything written on board.
3. Learn to take notes verbally without waiting for the notes to be written by the professor.
4. Take notes on material not written on the board as well. At least jot down key ideas. Fill in the explanation at home.
5. Review, correct and copy over all notes shortly after class. Use the text to help. Any questions which result should be resolved. After this process the copied over notes should contain no errors and you should understand them thoroughly. Notes should be as thorough as a book.

**Remarks**

Step 5 is important if the class is being taught without a textbook.
My Responsibilities in this Course

1. Facilitate your learning the material of this course.

2. Help you develop into mature, confident, competent, ethical engineers and citizens. This involves material not found in the book or course description.

3. Evaluate your level of skill (assign a grade to your work).

Your responsibilities

1. Learn the material in this course.

2. Conduct yourself in an ethical manner regarding homework and tests and your relationships with colleagues and Purdue University.

3. Achieve the level of skill you are capable of.

4. Learn to speak and write effectively.

5. Survive till tomorrow.

Necessary Student Skills

1. Note taking from lectures.

2. Note taking from book.

3. Time management skills including regular reading, regular homework, and regular review of notes.

4. Learn to perform well in time restricted situations, e.g., quizzes and tests.
Useful Web Sites Relating to Flight Testing

US Navy  
http://flighttest.navair.navy.mil/  

USAF Edwards Air Force Base  
http://www.edwards.af.mil/  
http://afftc.edwards.af.mil/  

NASA  
http://www.dfrc.nasa.gov  
http://www.dfrc.nasa.gov/trc/ftintro/index.html  

Society of Flight Test Engineers  
http://www.sfte.org/  

Society of Experimental Test Pilots  
http://www.netport.com/setp/  

Calspan  
http://www.calspan.com/flight.html  

National Test Pilot School  
http://www.ntps.com/  

International Test and Evaluation Association (ITEA)  
http://www.itea.org/  

Experimental Aircraft Association  
http://www.eaa.org/  

FEDERAL AVIATION ADMINISTRATION  
http://www.faa.gov/  
http://www.lockheedmartin.com/  
http://www.boeing.com/  

Federal Aviation Regulations  
http://www.faa.gov/avr/AFS/FARS/far_index.htm  

Private Pilot Training  
http://lights.chtm.unm.edu/~sarangan/aviation/training/training.html  

Jeppesen  
http://www.jeppesen