

FLORIDA STATE COLLEGE AT JACKSONVILLE
COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: ATT 1120

COURSE TITLE: Instrument Rating Ground School

PREREQUISITE(S): ATT 1100

COREQUISITE(S): None

CREDIT HOURS: 4

CONTACT HOURS/WEEK: 4

CONTACT HOUR BREAKDOWN:

Lecture/Discussion:	3
Laboratory:	1
Other _____:	

FACULTY WORKLOAD POINTS: 4

STANDARDIZED CLASS SIZE ALLOCATION: 30

CATALOG COURSE DESCRIPTION: This course prepares the student for instrument flight training and the FAA Instrument-Airplane Computer Based Knowledge Test. Topics include aircraft flight instruments, flight by instrument reference, flight physiology, IFR aircraft operations and procedures, aircraft performance, the Air Traffic Control system, radar use and terminology, radio navigation and charts including standard departure procedures (DPs), enroute (L-charts), standard terminal arrival routes (STARs), and instrument approach procedures (IAPs), IFR flight planning, IFR regulations, aviation weather, aviation weather charts, and acquisition of aviation weather. The FAA Instrument-Airplane Computer-Based Knowledge Test will be offered as an option immediately following the course.

SUGGESTED TEXT(S):

Instrument/Commercial Textbook: Jeppesen
ISBN: 0-88487-387-0

Gleim: Instrument Rating FAA Written Test

Instrument Flying Handbook: Department of Transportation,
FAA US Government Printing Office

IMPLEMENTATION DATE: October 8, 1984

REVIEW OR MODIFICATION DATE: Winter Term, 1992 (922)
Fall Term, 2002 (20031)
Summer Term, 2007 (20073)
Fall Term, 2008 (20091) - Outline Review 2007

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. Flight Planning	3
II. Fundamentals of Weather	3
III. Navigation and Use of Low Altitude Enroute Charts	3
IV. Performance Problems and Operation of Navigation Computer	3
V. ATC Clearances and Communications	2
VI. Preflight Instrument Checks	2
VII. Departure Procedures and SIDs	2
VIII. Lost Communications/Emergencies	2
IX. Arrival Procedures and STARS	2
X. Holding Procedures	3
XI. Instrument Approaches	7
XII. Interpreting Instruments	5
XIII. General Knowledge	8.5
XIV. Controlled Airspace	2.5
XV. Simulator Lab	6
XVI. Examinations	6
Total	60

PROGRAM TITLE: Professional Pilot Technology
 COURSE TITLE: Instrument Rating Ground School
 CIP NUMBER: 0649.010200

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

- 02.0 DEMONSTRATE AN UNDERSTANDING OF FUNDAMENTALS OF FLIGHT -- The student will be able to:
- 02.06 Describe and explain how pitot/static, vacuum, pressure and engine instruments work.
 - 02.07 Explain the aircraft design performance and operation.
- 03.0 UNDERSTAND AND EXPLAIN FEDERAL AVIATION ADMINISTRATION REGULATIONS - The student will be able to:
- 03.01 Explain major portion of Parts 1, 61, 67, 91 of the Federal Aviation Regulation and the reporting requirement of NTSB 830.
- 04.0 DEMONSTRATE UNDERSTANDING OF METEOROLOGY-- The student will be able to:
- 04.01 Describe the composition, circulation and stability of the atmosphere.
 - 04.02 Demonstrate an understanding of air mass development, the movement of fronts and their effect on aviation.
 - 04.03 Demonstrate an awareness of weather hazards to aviation and an understanding of how to avoid them.
 - 04.04 Demonstrate the ability to access weather information prior to and during flights through a variety of media.
 - 04.05 Interpret printed reports, forecasts and graphic weather products.
- 05.0 DEMONSTRATE KNOWLEDGE OF AIRCRAFT COMMUNICATION EQUIPMENT-- The student will be able to:
- 05.01 Use and explain aircraft voice communication equipment.
 - 05.02 Explain function and use of ELT's, voice recorders, and other emergency communication systems.
 - 05.03 Demonstrate use of proper phraseology in ATC communications.
 - 05.04 Discuss uses and limitations of portable transceivers.
 - 05.05 Demonstrate use of phonetic alphabet.
- 07.0 DEMONSTRATE AN UNDERSTANDING OF NAVIGATION SYSTEMS AND PROCEDURES-- The student will be able to:
- 07.01 Define radio navigation.
 - 07.02 Explain the magnetic compass.
 - 07.03 Describe and demonstrate VOR navigation.
 - 07.04 Describe and demonstrate the ADF equipment.
 - 07.05 Explain DME and RNAV principles.

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

- 07.06 Demonstrate usage of magnetic coordinates.
- 07.07 Demonstrate and explain the flight computer.
- 07.08 Explain sectional charts and their use.
- 07.09 Explain enroute and terminal charts and approach plate.
- 07.10 Explain lost communications emergency procedures VFR and IFR.
- 07.11 Read and interpret aircraft performance charts.
- 07.12 Plot and explain a cross country course.
- 07.13 Describe the FAA national airspace system.
- 07.14 Define SID's and STAR's.

08.0 DEMONSTRATE FLIGHT PLANNING SKILLS-- The student will be able to:

- 08.01 Explain major portions of Parts 1, 61, 67, 91 and 830 of the Federal Aviation Rules and Regulations.
- 08.02 Define weight and balance.
- 08.03 Define center of gravity, moment, datum line, CF envelope basic empty weight and gross weight.
- 08.04 Solve given weight and balance problems.
- 08.05 Determine route of flight.
- 08.06 Demonstrate acquisition of appropriate weather data.
- 08.07 Demonstrate proper selection of destination/enroute/alternate airports.
- 08.08 Explain fuel requirements.
- 08.09 Calculate and compute weight/balance.
- 08.10 Calculate aircraft performance.
- 08.13 Demonstrate and explain a flight log

