

FLORIDA STATE COLLEGE AT JACKSONVILLE
COLLEGE CREDIT OUTLINE COURSE

COURSE NUMBER:	ATT 1100
COURSE TITLE:	Private Pilot Ground School
PREREQUISITE(S):	None
COREQUISITE(S):	None
CREDIT HOURS:	3
CONTACT HOURS/WEEK:	3
CONTACT HOUR BREAKDOWN:	
Lecture/Discussion:	3
Laboratory:	
Other _____:	
FACULTY WORKLOAD POINTS:	3
STANDARDIZED CLASS SIZE ALLOCATION:	30
<p>CATALOG COURSE DESCRIPTION: This introductory level course provides the classroom instruction in preparation for initial flight training, and the FAA Private Pilot-Airplane Computer Based Knowledge Test. Topics include the science of flight, airplane systems and instruments, weight and balance, aircraft performance, meteorology, physiology of flight, basic navigation techniques, radio navigation, the Air Traffic Control system, radio communications, the Aeronautical Information Manual, and the Federal Aviation Regulations. The FAA Private Pilot-Airplane Computer Based Knowledge Test will be offered as an option in lieu of the course final exam immediately following the course.</p>	
SUGGESTED TEXT(S):	<p>Jeppesen Sanderson, <u>Private Pilot Manual</u></p> <p>Jeppesen Sanderson, <u>Private Pilot Test Guide</u></p> <p>ASA, Jeppesen, or USDOT: <u>FAR/AIM</u></p> <p>Gleim: <u>Private Pilot & Recreational Pilot FAA Knowledge Test Guide</u></p> <p>Gleim: Pilot Handbook</p>
IMPLEMENTATION DATE:	May 14, 1984
REVIEW OR MODIFICATION DATE:	<p>Fall Term, 2002 (20031)</p> <p>Summer Term, 2007 (20073)</p> <p>Fall Term, 2008 (20091) - Outline Review 2007</p>

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. Federal Aviation Regulations	3
II. Flight Information Publications	3
III. Weather	6
IV. Sectional Charts	1
V. The Flight Computer	9
VI. Very High Frequency Omni Directional Range (VOR)	6
VII. Automatic Direction Finder (ADF)	3
VIII. Aerodynamics	1
IX. Aircraft Engines	1
X. Aircraft/Engine Performance	1
XI. Weight and Balance	2
XII. Flight Instruments and Systems	2
XIII. Wake Turbulence	1
XIV. Examinations	6
Total	45

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

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

- 01.0 DEMONSTRATE AN UNDERSTANDING OF SAFE AND EFFICIENT WORK PRACTICES -- The student will be able to:
- 01.01 Demonstrate an awareness and understanding of health and safety hazards, prevention and correction of environmental problems and know the solutions unique to the industry.
 - 01.02 Demonstrate an awareness and understanding of fueling operations.
 - 01.03 Demonstrate an understanding of situation awareness.
 - 01.04 Demonstrate an awareness and understanding of fire hazards and the ability to control and extinguish fires.
- 02.0 DEMONSTRATE AN UNDERSTANDING OF FUNDAMENTALS OF FLIGHT -- The student will be able to:
- 02.01 State and give examples of Newton's three laws of motion.
 - 02.02 Name and compare the four forces of flight.
 - 02.03 Describe an airfoil.
 - 02.04 Tell how lift is produced.
 - 02.05 Discuss how and why an airplane stalls and spins.
 - 02.06 Describe and explain how pilot/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 portions of Parts 1, 61, 67, 91, 135 of the Federal Aviation Regulations and the organization, function and reporting procedures of the NTSB.
- 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 an ability to access weather information prior and during flights through a variety of media.
 - 04.05 Interpret printed reports, forecasts and graphic weather products.

LIST PERFORMANCE STANDARD ADDRESSED: (CONTINUED)

NUMBER(S): TITLES(S):

- 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 uses 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.
- 06.0 DEMONSTRATE KNOWLEDGE AND UNDERSTANDING OF AIRCRAFT PROPULSION AND ASSOCIATED SYSTEMS -- The student will be able to:
- 06.01 Describe and identify reciprocating and turbine engine components.
 - 06.02 Describe a typical cooling system.
 - 06.03 Describe and sketch a basic float type carburetor.
 - 06.04 Describe the advantages of a fuel injected engine.
 - 06.05 Describe a typical lubrication system.
 - 06.06 Describe a typical magneto ignition system including proper magneto checks.
 - 06.07 Describe the difference between a normally aspirated engine and one that is supercharged or turbocharged.
 - 06.08 Demonstrate basic operation of an aircraft engine including proper interpretation of instruments and operation of throttle, mixture control, carburetor heat control and prop control.
- 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.
 - 07.06 Demonstrate usage of the magnetic coordinates.
 - 07.07 Demonstrate the use of a flight computer.
 - 07.08 Explain sectional charts and their use.
 - 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.

PROGRAM TITLE: Aviation Maintenance Management
COURSE TITLE: Private Pilot Ground School
CIP NUMBER: 1649.010401

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

06.0 PERFORM GROUND OPERATIONS AND SERVICING DUTIES—The student will be able to:

- 06.01 Start, ground operate, move, service, and secure aircraft.
- 06.02 Identify and select fuels.
- 06.03 Comply with prescribed shop and personal safety procedures.

11.0 DEMONSTRATE THE USE OF MAINTENANCE PUBLICATIONS—The student will be able to:

- 11.01 Select and use FAA and manufacturer's aircraft maintenance specifications and related regulations.
- 11.02 Read technical data.
- 11.03 Retrieve data from maintenance data banks.
- 11.04 Identify suspected unapproved parts in accordance with FAA procedures.

16.0 MAINTAIN ENGINE INSTRUMENT SYSTEMS—The student will be able to:

- 16.01 Troubleshoot, service, and repair fluid rate-of-flow indicating systems.
- 16.02 Inspect, check, service, troubleshoot, and repair engine temperature, pressure, and rpm indicating systems.

37.0 MAINTAIN AIRCRAFT INSTRUMENT SYSTEMS—The student will be able to:

- 37.01 Remove and install electrical, mechanical and pneumatic instruments.
- 37.02 Inspect and repair heading, speed, altitude, attitude and position systems.

38.0 MAINTAIN COMMUNICATION AND NAVIGATION SYSTEMS—The student will be able to:

- 38.01 Inspect, check and service auto-pilot and approach control systems.
- 38.02 Inspect, check and service electronic communication and navigation systems.
- 38.03 Inspect and repair antenna and electronic equipment installations.
- 38.04 Identify and utilize special electronic tools and equipment.
- 38.05 Inspect and repair data buses and associated systems, including fiber optic systems.

PROGRAM TITLE: Aviation Operations

COURSE TITLE: Private Pilot Ground School

CIP NUMBER: 1649.010400

LIST PERFORMANCE STANDARD ADDRESSED:
 NUMBER(S): TITLES(S):

01.0 DEMONSTRATE AN UNDERSTANDING OF SAFE AND EFFICIENT WORK PRACTICES—The student will be able to:

- 01.01 Demonstrate an awareness and understanding of health and safety hazards, prevention and correction of ecological problems and know the solutions unique to the industry.
- 01.02 Demonstrate an awareness and understanding of fueling hazards.
- 01.03 Demonstrate an awareness and understanding of physical hazards.
- 01.04 Demonstrate an awareness and understanding of fire hazards.
- 01.05 Demonstrate an awareness of and the ability to control and extinguish fires.
- 01.06 Demonstrate an awareness and understanding of the need for safety devices, controls, guards and equipment.
- 01.07 Demonstrate awareness, understanding and use of personal safety devices such as goggles, masks, helmets, hearing protectors, air respirators and protective clothing.

02.0 DEMONSTRATE UNDERSTANDING OF FEDERAL AND STATE SECURITY PROCEDURES—The student will be able to:

- 02.01 Describe passenger security systems in use.
- 02.02 Describe and define federal security laws.
- 02.03 Identify local law enforcement agencies.
- 02.04 List known security risk features.
- 02.05 Describe cargo theft precautions in use at facility.
- 02.06 Describe the International Air Transport Association.
- 02.07 List the more common labels found in the Restricted Articles Regulations: as published in bulletins by IATA.

04.0 DEMONSTRATE UNDERSTANDING OF FEDERAL AVIATION ADMINISTRATION, STATE AND OTHER GOVERNMENTAL LAWS, RULES AND POLICIES—The student will be able to:

- 04.01 Describe the economic, social and political importance of commercial aviation, general aviation and aircraft manufacturing in the United States.
- 04.02 Describe the function, basic organization and responsibility of the National Transportation Safety Board.
- 04.03 Explain major portions of Parts 1, 61, 67, 77, 91, 830 and FAR Parts 108 and 139 of the Federal Aviation Regulations.
- 04.04 List and describe the federal statutes pertaining to the economic regulation of the airline industry.
- 04.05 List and describe the major federal statutes pertaining to the regulation of aviation safety.
- 04.06 Describe the historical and current relationship between the U.S. Post Office and the aviation industry.
- 04.07 List and describe six categories of general aviation.
- 04.08 Describe the development of aviation laws and their analogy to the Law of the Sea.
- 04.09 Explain the Department of Transportation, State of Florida, and its structure as relates to the aircraft industry.



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1 COURSE PREFIX AND NUMBER: <u>ATT 1100</u>	SEMESTER CREDIT HOURS: <u>3</u>
COURSE TITLE: <u>Private Pilot Ground School</u>	

Section 2
 TYPE OF COURSE: (Click on the box to check all that apply)

<input type="checkbox"/> AA Elective	<input checked="" type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input checked="" type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input type="checkbox"/> Other _____		
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

Section 3 (If applicable)
 INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

Section 4
 INTELLECTUAL COMPETENCIES:

<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input checked="" type="checkbox"/> Quantitative Skills	<input type="checkbox"/> Scientific Method of Inquiry
<input checked="" type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input type="checkbox"/> Information Literacy	<input type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively

	LEARNING OUTCOMES	METHOD OF ASSESSMENT
•	Demonstrate the knowledge required to operate an aircraft in the national airspace system.	Written Testing
•	Demonstrate a basic understanding of aircraft performance and weight and balance computations.	Written Testing
•	Demonstrate an understanding of aircraft systems and methods of navigation.	Written Testing
•	Demonstrate an understanding of basic aerodynamics and the effects of atmospheric conditions on aircraft performance.	Written Testing
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Section 6
 Name of Person Completing This Form: David Dagenais Date: 2-12-2007