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PRIVATE PILOT SYLLABUS

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Student name _____

Study Materials

Gleim Private Pilot Test Guide

Pilot's Handbook of Aeronautical Knowledge (AC61-23C)

Airplane Flying Handbook (FAA-H-8083-3)

FAR/AIM

Socata TB10 1988 revision Pilot Operating Handbook

STAGE 1 SYLLABUS: PRE-SOLO STUDENTS

Self Study

Gleim private Pilot

Chapter 1 *Airplanes and Aerodynamics*

Pilot's Handbook

Chapter 1 *Principles of Flight*

Chapter 3 *Flight instruments*

Airplane Flying Handbook

Chapter 1 *Introduction To Flight Training*

Chapter 2 *Preflight, Postflight, And Ground Operations*

Chapter 3 *Takeoffs And Climbs*

Ground Item Grouping 1 (3 hours)

- 1) Wings and the creation of lift
 - a) Venturi effect
 - b) Angle of Attack & stalls
 - c) Stall speed vs critical AOA
 - d) Spins & recovery
- 2) Induced vs parasite drag
- 3) Left turn tendencies
- 4) Basic Visual Attitude
- 5) Pitch vs power for altitude or airspeed
- 6) The cockpit and the instrument panel

Flight Task Grouping 1 (1 Flight)

- 1) Preflight (demo)
- 2) Taxi demo and (practice)
- 3) Run up (challenge and response guided practice)
- 4) Normal Takeoff (demo)
- 5) 15 and 30 degree bank turns (demo and practice)
- 6) Slow flight at low approach speed and partial flap configuration, (demo and practice)
- 7) Pattern entry, and approach (demo)

Self Study

Gleim Private Pilot

Chapter 3 *Airports ATC, and Airspace*
Pilot's Handbook of Aeronautical Knowledge
Chapter 6 *Airport Operations*
Airplane Flying Handbook
Chapter 4 *Basic Flight Maneuvers*

Ground Item Grouping 2 (3 hours) **Total 6**

- 1) Patterns
 - a) Controlled
 - b) Uncontrolled field
- 2) Airport information
 - a) Airport facility directories
 - b) Sectional information
- 3) General theory of navigation
 - a) Navaid types
 - b) Basic navigation equipment use
 - c) Mental dead reckoning
- 4) Basic Airspace

Self Study

Pilot's Handbook of Aeronautical Knowledge
Chapter 5 *Weather*
Gleim Private Pilot
Chapter 7 *Aviation Weather*
Chapter 8 *Aviation Weather Services*

Ground Item Grouping 3 (3 hours) **Total 9**

- 1) Getting a weather briefing
 - a) Services & products
 - b) Notams
 - c) Filing plans
- 2) Weather hazards

Self Study

Pilots handbook of Aeronautical knowledge
Chapter 4 *Weight and Balance and Airplane Performance*
Gleim Private Pilot
Chapter 5 *Weight and Balance*
Airplane Flying Handbook
Chapter 5 *Slow Flight, Stalls, And Spins*

Ground Item Grouping 4 (2 hours 30 min) **Total 11.5**

- 1) How to do weight and balance
- 2) Using POH performance graphs
- 3) Managing load factor
- 4) Density altitude
- 5) Compliance
 - a) Inspections
 - b) Documentation
 - c) Minimum equipment

Flight Task Grouping 2 (1-3 Flights)

- 1) Intro brief
 - a) Stall recovery & go around procedures
 - b) Pilotage

- 2) Departure (guided practice)
- 3) 30/45 degree bank turns (demo& practice)
- 4) Slow flight all configurations (demo & practice)
- 5) Power off stalls
 - a) Incipient (demo & practice)
 - b) Full stalls (demo & practice)
- 6) Power on stall (demo)
- 7) Pilotage transition through practice area (guided practice)
- 8) Arrival (guided practice)

Self Study

Pilot's Handbook of Aeronautical Knowledge

Airplanes and Engines

Gleim Private Pilot

Chapter 2 *Airplane Instruments, Engines, and Systems*

Chapter 4 *Federal Aviation Regulations*

Airplane Flying Handbook

Chapter 4 *Ground Reference Maneuvers and Performance Manuevers*

Ground Item Grouping 5 (3:00) Total 14.5

- 1) Mechanics and malfunctions
 - a) Engine
 - b) Electrical
 - c) Fuel
 - d) Flight Controls
 - e) Hydraulics
- 2) Emergency procedures

Flight Task Grouping 3 (1-3 Flights)

- 1) Intro brief
 - a) Simulated Engine out drill
 - b) Slips
 - c) Power on stall
- 2) 45 degree bank turns (practice)
- 3) Slow flight, dirty (practice)
- 4) Power off stall (practice)
- 5) Power on stall
 - a) Incipient (demo and practice)
 - b) Full (demo and practice)
- 6) Slips (demo and practice)
- 7) Simulated engine out, in practice area (demo and practice)
- 8) Pilotage transition (practice)
- 9) Arrival (guided practice)

Flight Task Grouping 4 (1 Flight/or added to other flight)

- 1) Intro brief
 - a) Wind drift corrections
 - b) Rate and radius of turn vs air and ground speeds
- 2) Departure (practice)
- 3) Rectangular pattern (demo and practice)
- 4) Turns on a point (demo and practice)
- 5) S turns across a road (demo and practice)
- 6) Radio Naviagation (Practice)

Self Study

- Gleim private Pilot
 - Chapter 10 *Navigation Systems*
- Airplane Flying Handbook
 - Chapter 7 *Airport traffic Patterns, Approaches, And Landings*
 - Chapter 8 *Faulty Approaches And Landings*
- Airplane Flying Handbook
 - Chapter 12 *Emergency Operations*

Flight Task Grouping 5 (1-3 Flights)

- 1) Intro brief touch and goes
- 2) Steep turns (practice)
- 3) Slow flight (practice)
- 4) Power off straight stalls (practice)
- 5) Power on straight stalls (practice)
- 6) Simulated engine out (practice)
- 7) Pilotage transition (practice)
- 8) Arrival (practice)
- 9) Touch and goes (guided practice)

Flight Task Grouping 6 (4-12 Flights)

- 1) Intro brief simulated engine out in pattern
- 2) Touch and goes (practice)
- 3) Go around (practice)
- 4) Simulated engine out in pattern (practice)

Self Study

- Pilot's Handbook of Aeronautical Knowledge
 - Chapter 8 *Navigation*
 - Chapter 9 *Aeromedical Information*
- Gleim Private Pilot
 - Chapter 6 *Aeromedical Factors*
- Airplane Flying Handbook
 - Chapter 18 *Aeronautical Decision making*

Ground Item Grouping 6 (1 hour) Total 15.5

- 1) Aeromedical
- 2) Solo privileges and restrictions

Flight Task Grouping 7 (1-2 Flights)

- 1) Touch and goes (practice)
- 2) Simulated engine out in pattern all corners (practice)
- 3) Go around (practice)

Self Study

- Federal Aviation Regulations part 91,
 - Subpart A #.1/3/5/7/9/11/13/15/17/19/21
 - Subpart B: all FARs from #101 to #159
 - Subpart C: #201/205/207/209/211/213/215/

Completion of take home pre-solo written test

Ground Review & Oral examination (2 hours) Total 17.5

- 1) Stalls and spins
- 2) Left turn tendencies
- 3) Load factor

- 4) Drag
- 5) Performance graphs
- 6) Weight and balance
- 7) Airplane specs and speeds
- 8) Airplane systems and malfunctions
- 9) FAR Compliance
- 10) General navigation methods
- 11) Basic airspace
- 12) Aeromedical
- 13) Solo privileges and restrictions
- 14) Weather briefings
- 15) Weather hazards

Pre-solo Phase Check (1 Flight)

Sign offs!

Supervised Solo (1-5 Flights)

STAGE TWO SYLLABUS: CROSS COUNTRY STUDENT

Self Study

Gleim Private Pilot

Chapter 9 *Navigation Charts, publications, and Flight Computers*

Chapter 11 *Cross Country Flight Planning*

Airplane Flying Handbook

Chapter 9 *Flight By Reference To Instruments*

Chapter 10 *Night Operations*

Chapter 11 *Navigation Systems*

Ground Item Grouping 7 (1 Hour 30) total 19:00

- 1) Intro Brief Short and soft take offs and landings
- 2) BAI theory
 - a) Pitch, power, and bank
 - b) Primary, supporting
 - c) Control, performance
 - d) FOE
- 3) VOR intercept and track
- 4) Unusual attitudes
- 5) Night operations and regulations

Home Simulator (recommended)

- 1) Climbs descents turns, cruise (guided practice)
- 2) Intercepting and tracking radials (guided practice)
- 3) ILS descent (guided practice)
- 4) Unusual attitudes (guided practice)

Self Study

Gleim Practice Written Test

Flight Task Grouping 8 (1-4 Flights)

- 1) Short and soft take offs and landings (demo and practice)
- 2) Hood work
 - a) Climbs, descents, turns, cruise (practice)

- b) Intercepting and tracking radials (practice)
- c) ILS descent (practice)
- d) Unusual attitudes (practice)

Ground Item Grouping 8 (4 hours) total 23:00

- 1) Definitions hdgs, courses, altitudes, speeds
- 2) E6B use
 - a) Time/distance, WCA
 - b) Fuel burn and endurance
 - c) Density altitude & pressure altitude
 - d) Off course heading corrections
- 3) Cross country planning
 - a) Selecting points
 - b) Filling out a planning form
- 4) Lost procedures diversions
- 5) Light gun signals
- 6) Advanced airspace procedures
- 7) Minimum weather
- 8) Tower operations
- 9) Flight following
- 10) AFDs
- 11) Sectional/TAC symbology
- 12) LAHSO

**Flight Task Grouping 9 (1 Flight)
Night Take offs and landings**

**Flight Task 10 (1 Flight)
Night Cross country
Pilotage/dead reckoning/radio navigation with flight following**

**Flight Task Grouping 11 (2-4 Flights)
VFR day cross country FME to any of SBY, ILG, LNS, CXY, MDT, MRB and back.**

- 1) Tower operations
- 2) Pilotage
- 3) Calculator dead reckoning
- 4) Mental deadreckoning
- 5) Radio navigation
- 6) Lost procedures & diversion
- 7) Flight following

Ground Item Grouping 9 (Review) (1hour 45) 24:45

- 1) Airspace procedures
- 2) Sectional symbology
- 3) Weather hazards and services
- 4) Lost procedures
- 5) Light guns
- 6) Wx mins
- 7) FARS/Compliance
- 8) En route emergencies ie: roughness, electrical problems carb ice

***Phase Check and Flight Demonstration
Sigh Offs***

Solo Cross Countries

**FME – MRB –FDK – FME
FME – LNS – DMW – FME
FME – SBY – ESN - FME**

STAGE 3 SYLLABUS PRE-PRIVATE PILOT SYLLABUS

Ground Item Grouping 10 (General Review All previous material) (4 hours) 28:45

Flight Task Grouping 12 (Comprehensive review) (3-6 flights)

- 1) Steep turns
- 2) Slow flight
- 3) Stalls, power on & off
- 4) Simulated Engine out in and out of the pattern
- 5) Go arounds
- 6) Touch and goes
- 7) Ground reference maneuvers
- 8) Hood work
- 9) Unusual attitudes
- 10) Lost procedures and diversion
- 11) Short and soft operation

***Pre-private check ride phase check
Sign offs***