

AFS Private Pilot Stage One Syllabus

Study Materials Referenced in Syllabus

AC (xx-xxx)	FAA Advisory Circulars (Specific document sited)
ACS (x.x)	FAA-S-ACS-6B Private Pilot Airplane (Area of Operation.Task)
AFH(x)	FAA-H-8083-3B Airplane Flying Handbook (Chapter)
CT (x)	The Compleat Taildragger Pilot by Plourde (Chapter)
EMT (x)	Emergency Maneuver Training by Stowell (Chapter)
FM (x)	Gleim Private Pilot Flight Maneuvers (Study Unit)
IFH (x)	FAA-H-8083-15B Instrument Flying Handbook (Chapter)
PH (x)	Gleim Pilot Handbook (Study Unit)
PHAK (x)	FAA-H-8083-25B Pilot's Handbook of Aeronautical Knowledge (Chapter)
OEG	Gleim ACS and Oral Exam Guide
SA (x)	Say Again, Please: Guide to Radio Communications by Gardner

General

- Use of checklists - ACS I.G...; FM 12; POH 4; AFH 1; PHAK 2; AC 60-22
- Aeronautical Decision Making - PHAK 2; AC 60-22
 - DECIDE model
 - PPP model
- Collision and obstacle avoidance and scanning - FM 17; AFH 1; PHAK 14
- Wake turbulence avoidance - ACS II.F...; PH 3; PHAK 5; AC 90-23G
- Wind shear avoidance PHAK 12,13; AC 00-54

Preflight Preparation

- Pilot qualifications - ACS I.A; FM 3; PHAK 1; AC 68-1
- Airplane logbooks - ACS I.B; FM 4; PHAK 9; CFI
- Airworthiness requirements - ACS I.B; FM 4; AFH 2;
 - AROW checklist
- Operation of airplane systems - ACS I.G; FM 9; POH 7; CFI; PHAK 7
- Human factors - ACS I.H; FM 10; PHAK 17; AC 60-22
 - IMSAFE checklist

Preflight Procedures

- Preflight assessment - ACS II.A; FM 11; POH 4; PHAK 2; AC 60-22
 - PAVE checklist
- Flight deck management - ACS II.B; FM 12;
 - SAFETY checklist

- Engine starting - ACS II.C; FM 13; POH 4; AFH 2
- Taxiing - ACS II.D; FM 14; POH 4; AFH 2; CT 4
- Before takeoff check - ACS II.F; FM 15; POH 4; AFH 2
 - CIGARS checklist

Airport Operations

- Radio communication - ACS VIII.F...; FM 16; PH 3; PHAK 14; SA
 - Non-towered operations - AC 60-66B
- Airport markings and signs - ACS II.D; PH 3; PHAK 14
- Runway incursion avoidance - ACS II.D...; FM 14; PH 3; AFH 1; PHAK 14;
- Airport traffic patterns - ACS III.B; FM 17; PH 3; AFH 7; PHAK 14; AC 90-66B
 - Pattern entries
 - Pattern departures
 - BCGUMPS checklist

Postflight Procedures

- After landing procedures - ACS XII.A; FM 47; POH 4; AFH 2
- Parking and securing the airplane - ACS XII.A; FM 47; POH 4; AFH 2

Four Fundamentals of Flight

- Effect and use of primary flight controls and trim - PH 1; AFH 3; PHAK 6; CFI
- Straight and level flight - FM Appendix C; AFH 3; PHAK 5;
- Coordination exercise (in and out slip/skid 360s) - CFI
- Rolls on a point (Dutch rolls) - CFI
- Torque effects - ACS IV.C; PH 1; PHAK 5; CT 3,5
- Climbs and climbing turns - FM Appendix C; POH 4; AFH 3; PHAK 5
 - Cruise climb
 - Best rate of climb
 - Best angle of climb
- Turns to headings - FM Appendix C;
- Descents and descending turns - FM appendix C; POH 4; AFH 3; PHAK 5
 - Cruise descent
 - Traffic pattern descent
 - Power-off glide
- Level off from climbs and descents - FM Appendix C; AFH 3;

Ground Reference Maneuvers

- PARC checklist
- Practice area familiarization - CFI
- Rectangular course - ACS V.B; FM 27
- S-turns - ACS V.B; FM 27
- Turns around a point - ACS V.B; FM 27

Slow Flight and Stalls

- PARC checklist
- Maneuvering during slow flight - ACS VII.A; FM 32; PH 1; AFH 4; PHAK 5
- Power-off stalls from straight flight and turns - ACS VII.B; FM 33; PH 1; AFH 4; PHAK 5
- Power-on stalls from straight flight and turns - ACS VII.C; FM 34; PH 1; AFH 4; PHAK 5
- Rudder stalls (falling leaf) - CFI demo
- Elevator trim stall - CFI demo
- Secondary stall - CFI demo
- Accelerated maneuver stall - CFI demo
- Cross-controlled stalls - CFI demo
- Spin awareness - ACS VII.D; FM 35; PH 1; POH 4; AFH 4; PHAK 5; AC 61-67C
 - PARE

Takeoffs and Landings

- Taxiing in a crosswind - ACS II.D; FM 14; POH 4; AFH 2,13; CT
- High speed runway taxi (tail up, tail down) - CFI
- Low approaches for runway alignment (calm and crosswinds) - CFI
- Go-around and rejected landing - ACS IV.N; FM 25; POH 4; AFH 8, PHAK 14
- Normal crosswind takeoff and climb - ACS IV.A; FM 18; POH 4; AFH 5,13; CT 5,7
- Normal and crosswind approach and landing - ACS IV.B; FM 19; POH 4; AFH 8,13; CT

6-7

- Recovery from bouncing and ballooning during landing - FM 19; AFH 8
- Wheel landings - AFH 13; CT 6,7
- Forward slip to a landing - ACS IV.M; FM 24; AFH 8; PHAK 5

Performance Maneuvers

- PARC checklist
- Steep turns - ACS V.A; FM 26

Emergency Operations

- ABCDEFG checklist
- Emergency descent - ACS IX.A; FM 42; POH 3; AFH 16
 - PARC checklist
- Emergency approach and landing - ACS IX.B; FM 43; POH 3; AFH 16
- Emergency engine failure after takeoff - ACS IX.B; FM 43; AFH 16
- Systems and equipment malfunctions - ACS IX.C; FM 44; POH 3; AFH 16
- Emergency equipment and survival gear - ACS IX.D; FM 45
- Recovery from spirals (Power, push, roll) - CFI; EMT 8
- Control failures - CFI; EMT 9

Presolo Review

- Use of checklists
- Flight deck management
- Radio communications
- Normal and crosswind takeoff and climb
- Wake turbulence avoidance
- Collision and obstacle avoidance and scanning
- Wind shear avoidance
- Emergency descent
- Emergency approach and landing
- Systems and equipment malfunctions
- S-turns
- Turns around a point
- Slow flight
- Power-off stalls
- Power-on stalls
- Steep turns
- Traffic patterns
- Normal and crosswind approach and landing
- Forward slip to landing
- Go-around rejected landing
- After landing procedures

First Solo

Dual portion:

- Presolo knowledge exam and endorsements complete
- Radio communication
- Wake turbulence avoidance
- Normal and crosswind takeoff and climb
- Traffic patterns
- Normal and crosswind approach and landing
- Go-around/rejected landing

Solo portion:

- Radio communication
- Traffic patterns
- Normal and crosswind takeoff and climb (3)
- Normal and crosswind approach and landing to a full stop (3)

Stage One Check

- Operation of airplane systems
- Preflight assessment
- Flight deck management
- Engine starting
- Radio communication
- Taxiing
- Runway incursion avoidance
- Before takeoff check
- Wake turbulence avoidance
- Normal and crosswind takeoff and climb
- Collision and obstacle avoidance and scanning
- Wind shear avoidance
- Flight by reference to instruments
- Maneuvering during slow flight
- Power-off stalls
- Power-on stalls
- Systems and equipment malfunctions
- Emergency descent
- Emergency approach and landing
- Traffic patterns

- Normal and crosswind approach and landing
- Go-around/rejected landing
- After landing, parking, and securing procedures

AFS Private Pilot Stage Two Syllabus

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Second Solo

Dual portion:

- Presolo knowledge exam and endorsements complete
- Radio communication
- Wake turbulence avoidance
- Normal and crosswind takeoff and climb
- Traffic patterns
- Normal and crosswind approach and landing
- Go-around/rejected landing

Solo portion:

- Radio communication
- Traffic patterns
- Normal and crosswind takeoff and climb (3)
- Normal and crosswind approach and landing to a full stop (3)

Basic Instrument Maneuvers

Three hours of dual training required

- Attitude instrument flying - FM 36; IFH 6;
- Straight and level flight by Instrument Reference - ACS VIII.A; FM 36; IFH 7
- Constant airspeed climbs by instrument reference - ACS VIII.B; FM 37; IFH 7
- Constant airspeed descents by instrument reference - ACS VIII.C; FM 38; IFH 7
- Turns to headings by instrument reference - ACS VIII.D; FM 39
- Recovery from unusual attitudes - ACS VIII.E; FM 40; AFH 16; IFH 7

Short-Field and Soft-Field Takeoffs and Landing

- Soft-field takeoff and climb - ACS IV.C; FM20; POH 4; AFH 5; CT 5
- Soft-field approach and landing - ACS IV.D; FM21; POH 4; AFH 5; CT 6
- Short-field takeoff and maximum performance climb - ACS IV.E; FM 22; POH 4; AFH 5;

CT 5

- Short-field approach and landing - ACS IV.F; FM 23; POH 4; AFH 5; CT 6

Cross-Country Preflight Preparation (ground training/review with CFI)

- Performance and Limitations - ACS I.F; FM 8; POH 2,5; PH 5; PHAK 11
 - Takeoff, landing, climb, cruise and fuel
- Weight and balance computations - ACS I.F; FM 8; PH 5; POH 6; PHAK 10
- Aeronautical Charts - ACS I.D; PH 9; PHAK 16;
- Chart supplement, NOTAMs, etc - ACS I.D; PH 9; PHAK 16
- National Airspace System - ACS 1.E; FM 7; PH 3; PHAK 15; AC 91-63D
 - Airspace classes with weather, equipment and communication requirements
 - Special use Airspace using MCPRAWN, TFRs and SFRA
- Obtaining weather information - ACS I.C; FM 5; PH 8; PHAK 13; SA
 - Preflight and online sources - 1800WXBRIEF, AviationWeather.gov; ForeFlight
 - Enroute sources - FSS, HIWAS

Cross-Country Flight Planning (ground training/review with CFI)

- Cross-country flight planning - ACS 1.D; FM 6; PH 11; PHAK 16
 - Route selection
 - Navigation log
 - Filing a VFR flight plan

Navigation and Radar Services (ground training/review with CFI)

- Navigation using pilotage, dead-reckoning - ACS VI.A; FM 28; PH 16;
- GPS orientation and tracking - ACS VI.B; FM 29; PH 10; PHAK 16
- VOR orientation and tracking - ACS VI.B; FM 29; PH 10; PHAK 16
- ATC radio communications and radar services - ACS VI.B; FM 16, 29; 41; PHAK 14; SA
 - Class D operations including light signals
 - Class C operations
 - Class B operations
 - Flight following

Diversion and Lost Procedures (ground training/review with CFI)

- Diversion - ACS VI.C; FM 30; PH 11;
- Lost Procedures - ACS VI.D; FM 31; PH 11;
 - 5 Cs checklist

Dual Flights to Unfamiliar Local Area Airports

- Review flight plan, materials and organization
- Navigate using pilotage and dead reckoning and GPS
- Obtain weather updates using enroute sources
- Obtain and use flight following
- Diversion practice
- Lost procedure practice
 - 5 Cs checklist
- Approach, land and depart unfamiliar airports
- Class D operations
- Class C operations
- Aircraft servicing

Dual Cross-Country (Part 61)

Three hours of dual training required

- Review flight plan, materials and organization
- File and open VFR flight plan for at least one segment
- Make use of navigation log
- Navigate using pilotage, dead-reckoning and GPS
- Update briefing using enroute sources
- Obtain and use flight following

- Approach, land and depart unfamiliar airports
- Diversion practice
- Lost procedure practice
 - 5 Cs checklist
- Close VFR flight plan

Solo Cross-Country (Part 61)

Five hours of solo cross-country time with at least one flight of at least 150 nm including one straight line segment of at least 50 nm and landings at three or more points

- Review flight plan, materials and organization
- File and open VFR flight plan
- Use and record navigation log
- Navigate using pilotage, dead-reckoning and GPS
- Obtain update briefing using enroute sources
- Obtain and use flight following
- Approach, land and depart unfamiliar airports
- Close VFR flight plan
- Post-flight brief

Night Flight - Local

Three hours of night flight required including at least 10 landings in the traffic pattern

- Human factors at night - ACS XI.A; AFH 10; PH 6; PHAK 17
- Airport lighting - ACS XI.A; PH 3; AFH 10; PHAK 14
- Airplane equipment and lighting requirements - ACS XI.A; FM 46; AFH 10
- Personal equipment and preparation - ACS XI.A; FM 46; AFH 10
- Emergency procedures at night - ACS XI.A; FM 46; AFH 10
- Night pre-flight assessment - ACS XI.A; FM 46; AFH 10
- Non-towered operations
- Towered operations

Night Dual Cross-Country

100 nm dual cross-country required

- Review flight plan, materials and organization
- File and open VFR flight plan for at least one segment
- Make use of navigation log
- Navigate using pilotage, dead-reckoning and GPS

- Update briefing using enroute sources
- Obtain and use flight following
- Approach, land and depart unfamiliar airports
- Diversion practice
- Lost procedure practice
 - 5 Cs checklist
- Close VFR flight plan

Maneuvers Review

- Turns around a point
- S-turns
- Maneuvering during slow flight
- Power-off stalls in straight flight and turns
- Power-on stalls in straight flight and turns
- Steep turns
- Spin awareness
- Emergency descent
- Emergency approach and landing
- Straight and level flight by Instrument Reference
- Constant airspeed climbs by instrument reference
- Constant airspeed descents by instrument reference
- Turns to headings by instrument reference
- Recovery from unusual attitudes
- Traffic patterns departures and entries
- Radio communications and GPS navigation
- Rejected takeoff
- Go-around/rejected landing
- Normal and crosswind takeoff
- Normal and crosswind landing
- Forward slip to landing
- Soft field takeoff
- Soft field landing
- Short field takeoff and high performance climb
- Short field landing
- Wheel landing

Solo Practice

Total solo time must exceed 10 hours (including solo cross-country time) and include at least 3 takeoffs and landings to a full stop at an airport with an operating control tower

- Maneuvers assigned by the instructor

Mock Check Ride (ground oral and in-flight review with CFI)

- Simulated exam using both knowledge and flight topics - ACS FAA-S-ACS-6B; OEG
- Simulated check ride - ACS FAA-S-ACS-6B; OEG