



Civil Air Patrol

National Flight Academy Powered
Middle East Region

Flight Instruction Syllabus

COMPLETION LEVEL KEY

- LEVEL 1** Student is able to participate in the maneuver as it is demonstrated by the flight instructor.
- LEVEL 2** Student is able to perform the assigned maneuver with explanation, and minimum assistance from the flight instructor.
- LEVEL 3** Student is able to perform the assigned maneuver with a minimum of explanation, and with no assistance from the flight instructor.
- LEVEL 4** Student is able to perform the assigned maneuver to the level of competence necessary for safe, solo flight, with no explanation or assistance from the flight instructor.

LESSON 1 - DUAL FLIGHT

The first lesson consists of familiarization with the airplane and its operating procedures, the sensations of flight, local flight areas, and the use of flight controls and instruments. A one-hour round-trip flight to the practice area or nearby airport is effective in stimulating a new student's interest.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Airplane Familiarization <ul style="list-style-type: none"> • Pre-flight inspection - use checklist • Cockpit familiarization • A/C flight manual • A/C certificates and documents 	Level 1	Approx .5 hr this lesson
2. Engine Start <ul style="list-style-type: none"> • Use of checklist • Safety precautions • Clearing area 	Level 1	
3. Radio Operation <ul style="list-style-type: none"> • Audio panel & switches • Squelch operation 	Level 1	
4. Taxiing <ul style="list-style-type: none"> • Use of throttles & brakes • Control position for windy conditions 	Level 1	
5. Pre-takeoff Check <ul style="list-style-type: none"> • Use checklist 	Level 1	
6. Takeoff. Traffic Pattern & Climb out <ul style="list-style-type: none"> • Area familiarization 	Level 1	Stress good traffic scan right from the start.
7. Flight Controls - Four Fundamentals <ul style="list-style-type: none"> • Control effects & Usage • Stability • Trim • Straight & Level Pitch & bank control • Turns - medium bank (approx. 30 degrees) • Effects of power (turning tendencies) • Leveling off from climbs & descents • Climbs & descents (straight & turning) • Use of flaps 	Level 1	Do by visual reference (VR) & instrument reference (IR). Do not use hood, but show all instrument reactions. Demonstrate adverse yaw. Correct way first, and then un-coordinated.
8. Traffic Pattern, Approach. Landing & Parking	Level 1	Stress correct landing attitude on each landing.
9. Post-Flight Discussion		"Good flight" - ALWAYS!
10. Preview Next Lesson <ul style="list-style-type: none"> • Review straight & level, turns, climbs & descents. Introduce steep turns. slow-flight & power-off stalls 		Most students can climb, descend & turn at end of lesson 1.

LESSON 2 - DUAL FLIGHT

At the end of the second lesson, the student should be able to perform the four basic maneuvers (straight & level, turns, climbs, and descents) with minimum assistance and slow-flight and power-off stalls under the direction of the instructor.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-Flight Discussion		Limit all IR training to a time permitting basis.
2. Pre-Flight Inspection	Level 2	
3. Engine Start	Level 2	
4. Radio Operation	Level 2	
5. Taxiing	Level 2	
6. Pre- Takeoff Check	Level 2	
7. Takeoff and Departure <ul style="list-style-type: none"> • Departure & level off procedures 	Level 2	Re-emphasize good traffic scan techniques.
8. Climbing Turns	Level 2	VR & IR to predetermined altitude
9. Straight & Level	Level 2	VR&IR
10. Medium Turns	Level 2	VR&IR
11 Steep Turns	Level 1	Warm-up with 45 degree of bank, then 50 - 60 degrees.
12. Airspeed & Configuration Changes	Level 1	Use this to lead into MCA & stalls.
13 Slow Flight/Minimum Controllable Airspeed (MCA)	Level 1	Without flaps at first, then with different flap settings up to full flaps.
14. Power-Off Stalls	Level 1	Start with recoveries without power, and then show how power reduces the altitude lost.
15. Descents & Gliding Turns	Level 2	
16. Traffic Pattern, Approach, Landing & Parking	Level 2	Stress the correct landing attitude on every landing.
17. Post-Flight Discussion		
18. Preview Next Lesson <ul style="list-style-type: none"> • Review previous maneuvers. • Introduce approach/landing stalls. 		

LESSON 3 - DUAL FLIGHT

At the completion of this lesson, the student should perform the four basic flight maneuvers with a reasonable degree of proficiency, and should accomplish slow-flight and power-off stalls with minimum assistance from the instructor. The student should be responsible for pre-flight inspection, starting procedures, radio communication, taxiing, and parking without direction from the instructor, except in unusual or unfamiliar situations.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Preflight Discussion		Limit all IR training to a time permitting basis.
2. Preflight, Starting Engine, & Taxiing	Level 3	
3. Takeoff & Departure	Level 2	
4. Climbs & Climbing Turns	Level 2	
5. Level-off from Climbs and Descents	Level 3	
6. Straight & Level, Medium-bank Turns	Level 3	
7. Airspeed & Configuration Changes	Level 2	Re-emphasize good traffic scan techniques.
8. Minimum Controllable Airspeed	Level 2	VR & IR to predetermined altitude.
9. Power-off Stalls	Level 2	VR&IR
10. Approach/Landing Stalls	Level 1	VR&IR
11. Descents & Descending Turns	Level 3	Warm-up with 45 degree of bank. then 50 - 60 degrees.
12. Traffic Pattern, Approach, Landing & Parking	Level 2	Use this to lead into MCA & stalls.
13. Post-flight Discussion		Without flaps at first, then with different flap settings up to full flaps.
14. Preview Next Lesson Power-on Stalls		Start with recoveries without power, and then show how power reduces the altitude lost.
<ul style="list-style-type: none"> • Ground Reference Maneuvers • Landing Approaches • Forced Landings & Emergencies 		

LESSON 4 - DUAL FLIGHT

Upon completion of this lesson the student should have the ability to recognize and recover from stalls with little or no assistance from the instructor, fly prescribed patterns by ground references, and execute a traffic pattern and landing approach with the instructor's direction.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-flight Discussion		Emphasize the need for good altitude, heading & airspeed control during all maneuvers.
2. Preflight Inspection, Starting Engine, & Taxiing	Level 3	
3. Takeoff (Normal & X-wind) & Departure	Level 2	
4. Straight & Level, Med. Turns, Climbs, & Descents	Level 3	VR&IR
5. Steep Turns	Level 2	Use 45 degrees of bank.
6. Minimum Controllable Airspeed	Level 3	
7. Approach/Landing Stalls	Level 2	
8. Power-on Stalls	Level 2	Use power-on stalls to intro, takeoff//departure stalls.
9. Takeoff/Departure Stalls	Level 1	Emphasize minimum altitude loss during recovery.
10. Emergency Procedures <ul style="list-style-type: none"> • Forced Landings • System Emergencies 	Level 1	Use memorized, "immediate action" checklist, and printed checklists.
11. Ground Reference Maneuvers <ul style="list-style-type: none"> • Parallel Track (road or section line) • Rectangular Course • S-turns Across a Road 	Level 2	Instructor demo if needed. Show effects of wind on ground track and turn radius.
12. Traffic Pattern, Approach, Landing, Parking	Level 2	
13. Post-flight Discussion		
14. Preview Next Lesson <ul style="list-style-type: none"> • Traffic Pattern • Takeoffs & Landings • Emergency Procedures 		

LESSON 5 - DUAL FLIGHT

This lesson is a review of the flight maneuvers and procedures already covered in preparation for concentrated work on traffic patterns, takeoffs, and landings. Reasonable proficiency in coordination, airspeed control, and ground reference maneuvers should be achieved prior to the completion of this lesson.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-flight Discussion		
2. Pre-flight Inspection, Starting Engine	Level 4	
3. Takeoff (Normal & X-wind) & Departure	Level 3	
4. Straight & Level, Med. Turns, Climbs, Descents	Level 4	VR& IR
5. Steep Turns	Level 3	
6. Minimum Controllable Airspeed	Level 3	VR & IR Relate recovery technique to go-around
7. Approach/Landing Stalls	Level 3	Imminent and full stalls
8. Ground Reference Maneuvers <ul style="list-style-type: none"> • Crabs and Slips 	Level 3	Demonstrate crab then slip. Explain differences, and uses.
9. Takeoff/Departure Stalls	Level 2	
10. Emergency Procedures <ul style="list-style-type: none"> • Forced Landings • System Emergencies 	Level 2	Re-emphasize pitch vs. airspeed. Do at various flap and approach power settings.
11. Glides & Descents	Level 4	
12. Traffic Pattern, Approach, & Landing	Level 2	1 or 2 times as time permits.
13. Parking and Shutdown	Level 4	
14. Post-flight Discussion		
15. Preview Next Lesson <ul style="list-style-type: none"> • Takeoffs & Landings (Normal & X-wind) • Accelerated Stalls • Go-Arounds • Wake Turbulence Avoidance 		

LESSON 6 - DUAL FLIGHT

- The first half of this lesson is a review of previous flight maneuvers, and accelerated stalls are introduced. Concentrated takeoffs and landings should begin in the second half of this lesson.
- At the completion of this lesson the student should demonstrate a high degree of proficiency in all flight maneuvers, and be able to make takeoffs and landings with minimal assistance from the instructor.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-flight Discussion		Emphasize precision in airspeed & altitude control.
2. Takeoff (Normal & X-wind) & Departure	Level 4	
3. Steep Turns	Level 4	
4. Minimum Controllable Airspeed & Approach/Landing Stalls	Level 4	Do Approach/Landing. Stalls out of MCA.
5. Ground Reference Maneuvers <ul style="list-style-type: none"> • Rectangular Course 	Level 4	Relate rectangular course to the traffic pattern.
6. Takeoff/Departure Stalls	Level 3	Imminent and full stalls.
7. Accelerated Stalls	Level 2	
8. Emergency Procedures <ul style="list-style-type: none"> • Forced Landings 	Level 3	Simulated in the traffic pattern.
9. Traffic Pattern	Level 3	Emphasize communications and traffic vigilance.
10. Wake Turbulence Avoidance	Level 3	
11. Approach & Landing (Normal & X-wind)	Level 3	
12. Go-Arounds & Balked Landing	Level 4	
13. Post-flight Discussion		
14. Preview Next Lesson <ul style="list-style-type: none"> • Slips to landings • Emergency Procedures 		

LESSON 7 - DUAL FLIGHT

At the completion of this lesson the student should be able to make unassisted takeoffs and landings (even in light crosswinds), and accurately fly the traffic pattern. A short review of previous flight maneuvers is introduced to break up the monotony of traffic pattern flying.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-flight Discussion		
2. Takeoffs (Normal & X-wind)	Level 4	
3. Approach/Landing Stalls	Level 4	
4. Accelerated Stalls	Level 3	
5. Emergency Procedures	Level 4	
• Partial Power Loss		
• Complete Power Loss		
• Electrical Failure		
• Aborted Takeoffs		
6. Forward Slips to Landing	Level 3	During no-flap landings simulating electrical failure.
7. Takeoffs & Landings	Level 4	Beware of student fatigue.
8. Wake Turbulence Avoidance	Level 4	
9. Post-flight Discussion		Critique this flight with first solo in mind for next lesson.
10. Preview Next Lesson		
• Accelerated Stalls		
• Forward Slips to Landing		
• Emergency Procedures		

LESSON 8 - DUAL AND SOLO FLIGHT

At the conclusion of the dual portion of this lesson, the student should have achieved a reasonably high degree of proficiency in all flight training maneuvers, and be able to make consistent, safe takeoffs and landings without instructor assistance or direction. Student should also be capable of recovering from poor approaches and bad bounces during landing. He/she should have demonstrated the ability to solve all ordinary problems encountered during local flights.

<u>OPERATION</u>	<u>COMPLETION LEVEL</u>	<u>COMMENTS</u>
1. Pre-flight Discussion		
2. Takeoffs (Normal & X-wind)	Level 4	
3. Accelerated Stalls	Level 4	
4. Emergency Procedures	Level 4	
• Forced Landings		
5. Takeoffs & Landings	Level 4	
6. Forward Slips to Landing	Level 4	During no-flap landings only.
7. SOLO FLIGHT		CONGRATULATIONS!
8. Post-Flight Discussion		Student rests. Instructor critiques student's performance, encouraging continued flight instruction towards private certificate.

FLIGHT INSTRUCTION LOG

STUDENT:														
	INSTRUCTOR:													
Flight #	1	2	3	4	5	6	7	8	9	10	11	12	13	14
LESSON #														
Pre-flight Inspection														
Engine start, Taxi and Run-up														
Radio Operations and Communications														
Takeoff (Normal)														
Crosswind Takeoff														
Climbs and Level-off														
Straight and Level														
Turns (Shallow and Medium)														
Steep Turns (50-60 degrees of bank)														
Descents (Glides) and Level-off														
Slow Flight and Minimum Controllable Airspeed														
Power-off Stalls and Approach/Landing Stalls														
Power-on Stalls and Takeoff/Departure Stalls														
Accelerated Stalls														
Emergency Procedures and Forced Landings														
Ground Reference Maneuvers														
Landings (Normal)														
Crosswind Landings														
Go-Arounds and Balked Landing Recovery														
Slips (side-slips and Forward slips) to Landing														
Use of Flaps														
Basic Instrument Flight														
Parking, Shutdown and Securing Aircraft														
Vigilance, collision & wake turbulence avoidance														
Judgment														
Use of Checklists														
Flight Time (This Flight)														
Total Flight Time														

Fill in the completion level the student has attained for each maneuver. A lesson is not completed until the required completion level for each maneuver in that lesson has been attained.

Flight #	INSTRUCTORS COMMENTS	OBJECTIVES FOR NEXT FLIGHT *	Instructor's Signature
			Student's Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

* Include the number of the lesson to be flown and/or specific maneuvers to be accomplished in continuation of the same lesson.