2023

PRIVATE PILOT SYLLABUS

FLY 8MA

FLIGHT TRAINING DONE RIGHT

FLY8MA PRIVATE PILOT SYLLABUS

Record of Revisions

Revision No.	*Revision Date*	*Online Date*	*Change Description*
Ver. 1.0	11 MAR 2022	11 MAR 2022	ORIGINAL

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Created and edited by FLY8MA's Jon Kotwicki and Bailey Hill.

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STAGE 1

Page	Lessons	Ground	Dual Flight Training					Solo Flight	
			Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
10, 11	**1:** PPL Certificate & Flight Fundamentals	1.0	1.2	-	-	-	-	-	-
12, 13	**2**: Aircraft Control & Configuration Changes	1.0	1.5	-	-	-	-	-	-
14, 15	**3**: Energy Management	1.0	1.5	-	-	-	0.2	-	-
16, 17	**4**: Stalls & Wind Correction	1.0	1.5	-	-	-	-	-	-
18, 19	**5**: Ground Reference & Multitasking	1.0	1.7	-	-	-	-	-	-
20, 21	**6**: Instrument Flight & Emergency Procedures	1.0	1.7	-	-	-	0.3	-	-
22, 23	**7**: Preflight Planning & Towered Airports	1.0	1.7	-	-	-	-	-	-
24, 25	**8**: Flight Environment & Emergency Procedures	1.0	1.5	-	-	-	-	-	-
26, 27	**9**: Energy Management in the Traffic Pattern	1.0	1.3	-	-	-	-	-	-
28, 29	**10**: Advanced Traffic Pattern	1.0	1.5	-	-	-	-	-	-
30, 31	**11**: Traffic Pattern EPs	1.0	1.3	-	-	-	-	-	-
32, 33	**12**: Performance Takeoffs & Landings	1.0	1.5	-	-	-	-	-	-
34, 35	**13**: Simulated Instrument & Unusual Attitudes	1.0	1.2	-	-	-	0.5	-	-
36, 37	**14**: Day-to-Night Transition	1.0	0.2	-	1.2	-	-	-	-
38, 39	**15**: Stage 1 Check	1.0	1.5	-	-	-	0.2	-	-
	Stage 1 Hour Totals:	**15.0**	**20.8**	**-**	**1.2**	**-**	**1.2**	**-**	**-**

NOTES:
- The Stage 1 Check must be completed prior to SP solo flight.
- The IP reserves ability to repeat lessons if a student needs more time to aid progression.
- The Fly8MA Private Pilot Syllabus prepares a student for checkride in 60 hours (incl. 10 hours solo, 3.0 night (of which 1.8 is XC), 4.1 dual cross country, 5.0 solo cross country and 3.0 simulated instrument).
- "Floater Ground Lessons" are located within the last few pages (Pg. 90, 91, 92) of this syllabus. If weather or maintenance strikes a flight down, refer to these ground lessons instead of cancelling all together! These can be completed at any time.

*Hours marked with an " * " are optional, and are not included in *Syllabi Hour Totals.*

SP's Actual Totals:

Lesson No.	Ground	Dual Flight Training					Solo Flight	
		Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
1	1.0 / ____	1.2 / ____	-	-	-	-	-	-
2	1.0 / ____	1.5 / ____	-	-	-	-	-	-
3	1.0 / ____	1.5 / ____	-	-	-	0.2 / ____	-	-
4	1.0 / ____	1.5 / ____	-	-	-	-	-	-
5	1.0 / ____	1.7 / ____	-	-	-	-	-	-
6	1.0 / ____	1.7 / ____	-	-	-	0.3 / ____	-	-
7	1.0 / ____	1.7 / ____	-	-	-	-	-	-
8	1.0 / ____	1.5 / ____	-	-	-	-	-	-
9	1.0 / ____	1.3 / ____	-	-	-	-	-	-
10	1.0 / ____	1.5 / ____	-	-	-	-	-	-
11	1.0 / ____	1.3 / ____	-	-	-	-	-	-
12	1.0 / ____	1.5 / ____	-	-	-	-	-	-
13	1.0 / ____	1.2 / ____	-	-	-	0.5 / ____	-	-
14	1.0 / ____	0.2 / ____	-	1.2 / ____	-	-	-	-
15	1.0 / ____	1.5 / ____	-	-	-	0.2 / ____	-	-
TOTALS:	**15.0 / ____**	**20.8 / ____**	-	**1.2 / ____**	-	**1.2 / ____**	-	-

STAGE 2

Page	Lessons	Ground	Dual Flight Training					Solo Flight	
			Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
40, 41	**16:** First Solo—Pattern	2.0	0.7	-	-	-	-	0.5	-
42, 43	**17**: Second Solo (Pattern) + Maneuver Review	2.0	1.0	-	-	-	-	0.5	-
44, 45	**18**: Unaccompanied Pattern Solo	2.0	-	-	-	-	-	1.0	-
46, 47	**19**: Local Area Solo	2.0	0.7	-	-	-	-	1.0	-
48, 49	**20**: Principles of Navigation	1.0	1.3	-	-	-	-	-	-
50, 51	**21**: XC Flight Emergency Procedures	1.0	1.3	-	-	-	-	-	-
52, 53	**22**: XC Flight Planning	1.0	1.8	-	-	-	-	-	-
54, 55	**23**: VORs + Maneuver Review	1.0	1.5	-	-	-	-	-	-
56, 57	**24**: Local Area Solo	2.0	-	-	-	-	-	1.0	-
58, 59	**25**: Advanced Navigational Systems	1.0	1.5	-	-	-	0.3	-	-
60, 61	**26**: Local Area or Pattern Solo *<u>OPTIONAL</u>*	*2.0**	-	-	-	-	-	*1.0**	-
62, 63	**27**: First Dual XC Flight	1.5	-	1.8	-	-	0.4	-	-
64, 65	**28**: Unfamiliar Airport Traffic Pattern Ops	1.0	1.7	-	-	-	-	-	-
66, 67	**29**: Local Area Solo *<u>OPTIONAL</u>*	*2.0**	-	-	-	-	-	*1.0**	-
68, 69	**30**: Night XC Flight	1.5	-	-	-	1.8	-	-	-
70, 71	**31**: Long Dual XC Flight	1.5	-	2.3	-	-	0.4	-	-
72, 73	**32**: Stage 2 Check	1.5	2.0	-	-	-	0.3	-	-
	Stage 2 Hour Totals:	**22.0**	**13.5**	**4.1**	**-**	**1.8**	**1.4**	**4.0**	**-**

NOTES:
- The Stage 2 Check must be completed prior to SP solo flight.
- The IP reserves ability to repeat lessons if a student needs more time to aid progression.
- The Fly8MA Private Pilot Syllabus prepares a student for checkride in 60 hours (incl. 10 hours solo, 3.0 night (of which 1.8 is XC), 4.1 dual cross country, 5.0 solo cross country and 3.0 simulated instrument).
- "Floater Ground Lessons" are located within the last few pages (Pg. 90, 91, 92) of this syllabus. If weather or maintenance strikes a flight down, refer to these ground lessons instead of cancelling all together! These can be completed at any time.

*Hours marked with an " * " are optional, and are not included in *Stage 2 Hour Totals* or *Syllabi Hour Totals*.

SP's Actual Totals:

Lesson No.	Ground	Dual Flight Training					Solo Flight	
		Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
16	2.0 / ____	0.7 / ____	-	-	-	-	0.5 / ____	-
17	2.0 / ____	1.0 / ____	-	-	-	-	0.5 / ____	-
18	2.0 / ____	-	-	-	-	-	1.0 / ____	-
19	2.0 / ____	0.7 / ____	-	-	-	-	1.0 / ____	-
20	1.0 / ____	1.3 / ____	-	-	-	-	-	-
21	1.0 / ____	1.3 / ____	-	-	-	-	-	-
22	1.0 / ____	1.8 / ____	-	-	-	-	-	-
23	1.0 / ____	1.5 / ____	-	-	-	-	-	-
24	2.0 / ____	-	-	-	-	-	1.0 / ____	-
25	1.0 / ____	1.5 / ____	-	-	-	0.3 / ____	-	-
26*	*2.0** / ____	-	-	-	-	-	*1.0** / ____	-
27	1.5 / ____	-	1.8 / ____	-	-	0.4 / ____	-	-
28	1.0 / ____	1.7 / ____	-	-	-	-	-	-
29*	*2.0** / ____	-	-	-	-	-	*1.0** / ____	-
30	1.5 / ____	-	-	-	1.8 / ____	-	-	-
31	1.5 / ____	-	2.3 / ____	-	-	0.4 / ____	-	-
32	1.5 / ____	2.0 / ____	-	-	-	0.3 / ____		
STAGE 2:	**22.0** / ____	**13.5** / ____	**4.1** / ____	**-**	**1.8** / ____	**1.4** / ____	**4.0** / ____	**-**
+STAGE 1:	**15.0** / ____	**20.8** / ____	**-**	**1.2** / ____	**-**	**1.2** / ____	**-**	**-**
STAGE 1+2 TOTALS:	**37.0** / ____	**34.3** / ____	**4.1** / ____	**1.2** / ____	**1.8** / ____	**2.6** / ____	**4.0** / ____	**-**

STAGE 3

Page	Lessons	Ground	Dual Flight Training					Solo Flight	
			Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
74, 75	**33:** First Solo XC Flight	2.0	-	-	-	-	-	-	2.0
76, 77	**34**: Emergency Procedures & Pattern Work	1.0	1.5	-	-	-	-	-	-
78, 79	**35**: Second Solo XC Flight	2.0	-	-	-	-	-	-	3.0
80, 81	**36**: Maneuver Review	1.0	1.5	-	-	-	-	-	-
82, 83	**37**: Mock PPL Checkride	1.5	1.8	-	-	-	0.2	-	-
84, 85	**38**: Local Area Solo	2.0	-	-	-	-	-	1.0	-
86, 87	**39**: Student Progress Evaluation	1.0	1.8	-	-	-	-	-	-
88, 89	**40**: Stage 3 Check	1.5	2.0	-	-	-	0.2	-	-
	Stage 3 Hour Totals:	**12.0**	**8.6**	**-**	**-**	**-**	**0.4**	**1.0**	**5.0**

NOTES:
- The Stage 3 Check must be completed prior to SP solo flight.
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- "Floater Ground Lessons" are located within the last few pages (Pg. 90, 91, 92) of this syllabus. If weather or maintenance strikes a flight down, refer to these ground lessons instead of cancelling all together! These can be completed at any time.

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REQUIREMENTS

14 CFR § 61.109

TOTAL: 40 hrs, incl. the following...

WITH INSTRUCTOR ("DUAL"): 20 hrs, incl. the following...

- **3 hrs** practical test prep (within preceding 2 months of checkride)
- **3 hrs** night flight, incl. one XC of +100NM total distance & 10 TO/LDs (full-stop)
- **3 hrs** cross country flight training
- **3 hrs** instrument flight training

SOLO FLIGHT: 10 hrs, incl. the following...

- **5 hrs** solo XC time (+ one solo XC flight of 150NM total distance, full-stop LDs at three points, and one segment of +50NM between TO and LD)
- **3 TO/LDs** to full-stop (each landing involving a flight in the traffic pattern at airport w/operating control tower)

SP's Actual Totals:

Lesson No.	Ground	Dual Flight Training					Solo Flight	
		Day Local	Day XC	Night Local	Night XC	Instrument	Day Local	Day XC
33	2.0 / ____	-	-	-	-	-	-	2.0 / ____
34	1.0 / ____	1.5 / ____	-	-	-	-	-	-
35	2.0 / ____	-	-	-	-	-	-	3.0 / ____
36	1.0 / ____	1.5 / ____	-	-	-	-	-	-
37	1.5 / ____	1.8 / ____	-	-	-	0.2 / ____	-	-
38	2.0 / ____	-	-	-	-	-	1.0 / ____	-
39	1.0 / ____	1.8 / ____	-	-	-	-	-	-
40	1.5 / ____	2.0 / ____	-	-	-	0.2 / ____	-	-
STAGE 3:	**12.0 / ____**	**8.6 / ____**	**-**	**-**	**-**	**0.4 / ____**	**1.0 / ____**	**5.0 / ____**
+STAGES 1 & 2:	**37.0 / ____**	**34.3 / ____**	**4.1 / ____**	**1.2 / ____**	**1.8 / ____**	**2.6 / ____**	**4.0 / ____**	-
PROGRAM TOTAL:	**49.0 / ____**	**42.9 / ____**	**4.1 / ____**	**1.2 / ____**	**1.8 / ____**	**3.0 / ____**	**5.0 / ____**	**5.0 / ____**

LESSON 1

PPL Certificate & Flight Fundamentals
Ground Lesson 1.0 / Flight Lesson 1.2

Lesson Objective(s)

During this introduction, the student will perform the preflight risk assessment, including a self-assessment and aircraft inspection. The student will become familiar with the training airplane, its systems, and fundamental flight principles. Using their flight controls, the student will maintain specific attitudes in-air and directional control during taxi procedures.

Student Actions

- Review FLY8MA PPL Course Lesson 1: All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Preparations & Expectations Pursuing PPL
- ○○○ Aviation Terminology
- ○○○ Risk Mitigation & Safety Procedures
- ○○○ Flying Fundamentals & Flight Controls
- ○○○ Basic Engine Controls
- ○○○ Aircraft Familiarization & Walkaround

Common Errors

- Failing to prepare adequately with pre-study for the lesson.
- Disorientation and inadequate aircraft control when focusing inside the cockpit instead of outside.
- Becoming overwhelmed by the completely new environment and aircraft operations.
- Inability to ask questions, or record them for later discussion with your instructor.

Flight Tasks

- ○○○ Checklist Usage
- ○○○ Engine Operation
- ○○○ Positive Exchange of Controls
- ○○○ Taxi & RWY Incursion Avoidance Procedures
- ○○○ Collision Avoidance
- ○○○ Takeoff & Departure Procedures
- ○○○ Area Familiarization (Landmark Navigation)
- ○○○ Straight-and-Level Flight
- ○○○ Turns (Both Directions)
- ○○○ Climbs & Descents
- ○○○ Approach & Landing Procedures
- ○○○ Parking & Securing Aircraft

Completion Standards

The student shows an understanding of proper flight control use to achieve specific attitudes. The student can conduct pre/postflight procedures and maintain aircraft control (in flight and taxi ops).

Altitude +/-200 feet • Airspeed +/-20 Knots
Bank +/- 10 degrees • Heading +/- 20 degrees

Tips

- Think of each lesson **One Stage of Flight at a Time** to avoid becoming overwhelmed.
- Whether you're in-flight or on the ground, **Ask Questions** when they come up (or write them down for postflight discussion with your instructor).
- Diligently **Studying Before/After Flights** will save you time, money and a mass of confusion later.

Homework

Listen to and Review the FLY8MA course Lesson 2: All Topics, and **Review** Lesson 2 – FLY8MA PPL Syllabus.

The 4 W's of Radio Communication

- **W**ho you're calling
- **W**ho you are (tail number)
- **W**here you are
- **W**hat you want (request)

Debrief Questions

1. What purpose does the FAA serve in aviation?
2. You want to turn left in-flight. How do you accomplish this, and which flight controls move? What about turning left during taxi on flat ground (zero slope)?
3. What documents are required to be on-board the aircraft during flight?
4. How do you assess risk prior to a flight?
5. How do you maintain straight-and-level flight without flight instrument aid?
6. What kind of fuel do we use in our aircraft? What color is it? Will water float to the top or sink to the bottom of a sump when sampling fuel?
7. During preflight, you see a screw in the landing light casing is loose. What is your next action?
8. You need to descend 200' (straight ahead). How do you accomplish this?
9. If you wanted to accelerate, the aircraft's _____ would have to be greater than its _____ (Four Forces of Flight).

LESSON 2

Aircraft Control & Configuration Changes
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

During this lesson, the student will gain comfortability with the aircraft using configuration changes and enhanced fundamental maneuvers. Using their knowledge of preflight procedures, the student will assess risk prior to the flight using local conditions and the provided scenario.

Student Actions

- Review FLY8MA PPL Course Lesson 2: All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Weather Reports
- ◯◯◯ Risk Mitigation & Safety Procedures
- ◯◯◯ Rudder Usage
- ◯◯◯ Traffic Pattern (+ APP/DEP Procedures)
- ◯◯◯ Taxi Procedures (+ CW Corrections)
- ◯◯◯ Pilot's Control of Lift
- ◯◯◯ Secondary Flight Controls
- ◯◯◯ Aircraft's Instrument Panel

Common Errors

- Speaking quietly or unclearly over the radio.
- Disorientation and inadequate aircraft control when focusing inside the cockpit instead of outside.
- Applying rudder in aggressive fashion (we are looking for progressive movements).

Flight Tasks

- ◯◯◯ Checklist Usage & Cockpit Management
- ◯◯◯ Engine Operation
- ◯◯◯ Positive Exchange of Controls
- ◯◯◯ Radio Communications
- ◯◯◯ Taxi & RWY Incursion Avoidance Procedures
- ◯◯◯ Pre-Takeoff Brief
- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Collision Avoidance
- ◯◯◯ Area Familiarization (Landmark Navigation)
- ◯◯◯ Straight-and-Level Flight
- ◯◯◯ Airspeed & Configuration Changes
- ◯◯◯ Trim Usage
- ◯◯◯ Rudder Usage
- ◯◯◯ Turns to HDG
- ◯◯◯ Climbs & Descents
- ◯◯◯ Approach & Landing Procedures
- ◯◯◯ Parking & Securing Aircraft

Completion Standards

The student shows an understanding of using pitch, power and other control inputs to maintain/enter/exit fundamental maneuvers. SP also competently completes pre/post-flight procedures.

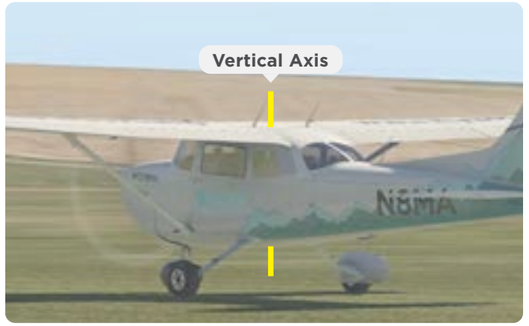
Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 15 degrees

Tips

- Pressing the Push-to-Talk (PTT) button can be daunting. But, if no one can understand you because you're talking too quietly or mumbling, you'll have to do it all over again! Think of it as **having a conversation with someone**. We suggest practicing with someone at home, or listening to frequency recordings in the background while doing chores. [There are several real-time apps out there, too.] The more comfortable you are, the easier it'll become.
- Your aircraft panel most likely has a million things to look at. To avoid fixation, remind yourself to scan for traffic. This helps you **keep your eyes outside 90% of the time, and inside 10% of the time** (verifying with your instruments).
- When applying any control movement (especially rudder), the goal is to **move in a progressive fashion**. This allows you to make smaller corrections instead of aggressive, upsetting inputs.

Homework

Listen to and Review the FLY8MA course Lesson 2: Slow Flight, Lesson 3: topics 1-3, and **Review** Lesson 3 – FLY8MA PPL Syllabus.



Scenario:

Your friend is in town and would like to go on a short scenic flight.

Home Airport METAR: SPECI KLSE 160312Z AUTO 03007KT 10SM -RA OVC030 16/11 A3008

Home Airport TAF: 160000Z 1600/1706 03010G15KT 9999 VCSH FEW030 BKN080 A2998 TEMPO 1602/1604 9000 -SHRA

Debrief Questions

1. During your preflight risk assessment, you notice a nearby airport's METAR shows +SHRA and 5000 VIS. Your home airport's METAR shows beautiful weather, but the TAF reports similar conditions (BECMG VCSH, 8000 VIS) in two hours. Is this acceptable risk?
2. What is the difference between Vr and Vy?
3. During takeoff/climbout, the turn coordinator is "asking" for more right rudder. Why?
4. While taxiing, you have a right-quartering headwind. How do you apply crosswind correction?
5. You request a taxi clearance from Ground, but their reply is "stepped on" by another pilot. What do you do?
6. How often is your home airport's ATIS/AWOS/ASOS updated?

LESSON 3

Energy Management
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

The SP will develop energy management skills while employing basic flight maneuvers in real-world scenarios. SP also becomes familiar with the recognition of and recovery from stalls, and how they may be instigated in different phases of flight.

Student Actions

- Arrive early to review local weather and complete aircraft preflight.
- Review FLY8MA PPL Course Lesson 3: Topics 1-3
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Risk Mitigation & Safety Procedures
- ○○○ Weight & Balance
- ○○○ ENG Run-ups
- ○○○ Airport Signs/Markings/Lighting
- ○○○ Traffic Pattern (+ APP/DEP Procedures)
- ○○○ Uncontrolled Field Operations
- ○○○ Right-of-Way Rules
- ○○○ Standard Rate [Turns/Climbs/Descents]
- ○○○ Effects of Flaps
- ○○○ Slow Flight
- ○○○ Stall Characteristics

Common Errors

- Struggling to maintain altitude during turns.
- Failure to adequately clear training area.
- Fixation on flight instruments.
- Too little or too much back pressure while reducing power (entering slow flight), resulting in altitude

Flight Tasks

- ○○○ Checklist Usage & Cockpit Management
- ○○○ Engine Operation
- ○○○ Radio Communications
- ○○○ Taxi & RWY Incursion Avoidance Procedures
- ○○○ Pre-Takeoff Brief
- ○○○ Takeoff & Departure Procedures
- ○○○ Collision Avoidance
- ○○○ Wind Correction In-Flight
- ○○○ Straight-and-Level Flight
- ○○○ Airspeed & Configuration Changes
- ○○○ Trim Usage
- ○○○ Rudder Usage
- ○○○ Turns to HDG
- ○○○ Climbs & Descents
- ○○○ Slow Flight
- ○○○ Power Off Stall
- ○○○ Approach & Landing Procedures
- ○○○ Go-Around
- ○○○ Parking & Securing Aircraft

Completion Standards

The student employs energy management skills while changing aircraft airspeed and configurations. SP also gains deeper comfortability with takeoff procedures and understanding of wind correction.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 15 degrees

Tips

- When entering a turn (especially a prolonged turn with shallow to medium bank), don't forget to add sufficient **back pressure to maintain altitude**! If you do find yourself in a descent, try 1) decreasing bank angle, 2) raising pitch to level attitude, referencing horizon line, and 3) resume desired bank angle while maintaining sufficient back pressure.
- **Practice your maneuver flows** while chair flying before your lessons as a warm-up. Bonus points if you are looking at a picture of your aircraft panel!
- Slow flight is a gentle, but deliberate maneuver. Your control movements should be exactly the same—**gentle, but deliberate**. This will help avoid unwanted attitude changes, overcorrecting, and correcting for the overcorrecting. Yikes.

Homework

Listen to and Review the FLY8MA course Lesson 3+4: All Topics , and **Review** Lesson 4 – FLY8MA PPL Syllabus.

Slow Flight

Low airspeed, high AoA, high PWR setting, constant ALT

Scenario:

You are a realtor, and a potential client wants you to sell their property (located outside a nearby town). Luckily, this town has an uncontrolled airport with a courtesy car. While enroute, you'll survey their property from above before landing to meet them. After discussing terms and conditions, you'll return to your home airport.

Debrief Questions

1. Per the scenario, you are flying to a nearby airport to meet with a client. That airport has one RWY (36-18), and its latest METAR reports winds at 05010KT. Which RWY is in use?
2. The airport you're flying to (ref. Question 1) doesn't have a TAF. How else can you obtain future weather info?
3. On your return trip, you will full-stop at your home [towered] airport. As expected, Tower says, "Cleared to land." However, your final approach is getting pretty low. Can you initiate a go-around?
4. What is a NOTAM?
5. What is the purpose of an ENG run-up?
6. Flaps increase drag, which makes sense. But, how do they increase lift?
7. While in the pattern of an uncontrolled airport (downwind leg), another aircraft radios they're on a four-mile final. It's the governor's personal Gulfstream. Who has the right-of-way?
8. While practicing slow flight, you input 10° of flaps roughly 30 kts above Vfe. Describe this action's risk.

LESSON 4

Stalls & Wind Correction
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

Throughout this lesson, the student learns to recognize warning signs of stalls and spins. Using their familiarity of primary controls, they maintain directional control throughout all maneuvers. The student also develops a better feel for wind correction from takeoff to cruise.

Student Actions

- Arrive early to review weather and NOTAMs. Complete weight + balance and aircraft preflight.
- Review FLY8MA PPL Course Lesson 3+4: All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ SRM & Risk Mitigation
- ○○○ Performance Calculations
- ○○○ Aircraft Powerplant
- ○○○ Taxi Procedures
- ○○○ Crosswind Takeoff/Landing Procedures
- ○○○ Wake Turbulence Avoidance
- ○○○ Stalls

Common Errors

- Struggling to maintain altitude during turns.
- Failure to adequately clear training area.
- Fixation on flight instruments.
- Too little or too much back pressure while reducing power (entering slow flight), resulting in altitude fluctuation.

Flight Tasks

- ○○○ Checklist Usage & Cockpit Management
- ○○○ Radio Communications
- ○○○ Taxi Procedures
- ○○○ Takeoff & Departure Procedures
- ○○○ Wind Correction In-Flight
- ○○○ Coordination Rolls
- ○○○ Slow Flight
- ○○○ Power Off Stall
- ○○○ Power On Stall
- ○○○ Spin Awareness
- ○○○ Approach & Landing Procedures
- ○○○ Go-Around

Completion Standards

The student recognizes and recovers correctly from stalls. Throughout the flight (and varying wind conditions), the SP also maintains directional control using all primary controls.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 15 degrees

Tips

- When entering a turn (especially a prolonged turn with shallow to medium bank), don't forget to add sufficient **back pressure to maintain altitude**! If you do find yourself in a descent, try 1) decreasing bank angle, 2) raising pitch to level attitude, referencing horizon line, and 3) resume desired bank angle while maintaining sufficient back pressure.
- **Practice your maneuver flows** while chair flying before your lessons as a warm-up. Bonus points if you are looking at a picture of your aircraft panel!
- Slow flight is a gentle, but deliberate maneuver. Your control movements should be exactly the same—**gentle, but deliberate**. This will help avoid unwanted attitude changes, overcorrecting, and correcting for the overcorrecting. Yikes.

Homework

Listen to and Review the FLY8MA course Lesson 4: All Topics, Lesson 12: Topic 1 and **Review** Lesson 5 – FLY8MA PPL Syllabus.

Scenario:

You are planning to depart from a 2,500' long runway with a 50' treeline at the departure end. Ensure you are below gross weight, and the airplane will clear the treeline on takeoff.

Debrief Questions

1. Using the scenario's RWY parameters and current conditions at your airport, calculate what your takeoff ground roll & total distance will be. Will you make it?
2. You just bought a plane, and want to take a pilot buddy on a sunrise flight. Once you arrive to the airport (early morning), you realize a thick overcast layer has settled in around 1,800'. This is below your personal minimum of 2,000' for local flights. Your pilot buddy says, "Ah, nothing will happen to us. I've skimmed the tree tops a million times. Plus, I've got way more hours than you!." What hazardous attitude is this? How do you respond?
3. What is your AC's max demonstrated CW component? Can you exceed it?
4. You arrive at an unfamiliar airport, and need taxi instructions to the FBO. Although you have an airport diagram, you're still confused. What do you do?
5. What is the Critical AoA?
6. If one of our magnetos fails, will our engine completely quit on us?
7. You are #2 to land, behind a Metroliner cargo plane. You are both executing full-stop landings. How do you avoid their wake turbulence?

LESSON 5

Ground Reference & Multitasking
Ground Lesson 1.0 / Flight Lesson 1.7

Lesson Objective(s)

The SP's situational awareness will grow exponentially throughout this lesson. They will also adopt more comfortability with the aircraft's stability and relation to the wind.

Student Actions

- Arrive early to review weather and NOTAMs. Complete weight + balance and aircraft preflight.
- Review FLY8MA PPL Course Lesson 5: All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Preflight Planning
- ○○○ Cockpit Management
- ○○○ Radio Procedures
- ○○○ CFIT Awareness
- ○○○ Stalls
- ○○○ Ground Reference Maneuvers
- ○○○ Forward Slip to Landing
- ○○○ New Terminology

Common Errors

- Failure to adequately clear training area.
- Making aggressive control inputs while entering/exiting stalls.
- Fixation on flight instruments.
- Becoming overwhelmed within the traffic pattern (radio calls, traffic, configuring the aircraft, maintaining situational awareness of terrain/wind).

Flight Tasks

- ○○○ Cockpit Management
- ○○○ Radio Communications
- ○○○ Takeoff & Departure Procedures
- ○○○ Power Off Stall
- ○○○ Power On Stall
- ○○○ Spin Awareness
- ○○○ Turns around a Point
- ○○○ Rectangular Course
- ○○○ S-Turns
- ○○○ Approach & Landing Procedures
- ○○○ Go-Around
- ○○○ Forward Slip to Landing

Completion Standards

The SP gains greater comfortability with completing maneuvers on-request, and with minimal IP assistance. While in the traffic pattern, the SP can also manage several tasks at once and employ new departure/approach techniques.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 15 degrees

Tips

- During the entry/exit of a maneuver, you're manipulating the aircraft in many ways (power, pitch, trim, etc.). But when you're changing all of those variables at once, we don't want belligerent movements. Think of it as riding a horse—if you react aggressively (jamming your heel into its side) they will, too! When you recover from a stall, don't push the nose down into a negative-G kind of situation—just release back pressure. **Progressive, but deliberate** motions.
- **Practice your maneuver flows** while chair flying before your lessons as a warm-up. Bonus points if you are looking at a picture of your aircraft panel!
- Continue to **practice radio familiarity** by listening to frequencies in the background at home. We suggest picking a tail number on frequency and mimick the calls as if they are your own. This will help you become less overwhelmed with traffic pattern tasks.

Homework

Listen to and Review the FLY8MA course Lesson 6: All Topics, and **Review** Lesson 6 – FLY8MA PPL Syllabus.

Scenario:

You want to take two friends to a county fair a couple towns over. They also want you to show them their houses from above, so they can take pictures.

Debrief Questions

1. Refer to the Scenario: If you did take all three relatives, and your airplane exceeded MTOW, what would happen if you departed anyway?
2. Refer to the Scenario: It is two days before the planned flight. What kind of Weather Briefing do you request?
3. Which section of the FAR/AIM would I find a student pilot's limitations?
4. As a VFR aircraft (squawk 1200), you enter a controlled airport's airspace. There are several other VFR aircraft nearby. Tower tells you to "IDENT." What does this mean?
5. You request a landing clearance from this same airport. They reply, "N8MA, Merrill TWR, Winds 300 at 04, RWY 34, Cleared to Land." What is your response?
6. While turning on-course for a cross country trip, you notice your GS drops to 70KT while your IAS is 100KT. What does this mean?
7. Why do you bank into the wind during a forward slip?

LESSON 6

Instrument Flight & Emergency Procedures
Ground Lesson 1.0 / Flight Lesson 1.7

Lesson Objective(s)

The SP will become familiar with flying an approach to a landing area during simulated ENG failure/ malfunction. While reviewing visual maneuvers, the SP also gains proficiency in managing control inputs and airspeed.

Student Actions

- Arrive early to obtain a local weather briefing and review NOTAMs. Complete weight + balance, performance calculations and aircraft preflight.
- Review FLY8MA PPL Course Lesson 6: All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Traffic Pattern Operations
- ○○○ Load Factor
- ○○○ Windshear, Gusts & Turbulence
- ○○○ Stability
- ○○○ Emergency Procedures

Common Errors

- Rushing into a maneuver without clearing the area or selecting an appropriate altitude.
- Fixating on one instrument versus employing an efficient scan during simulated instrument time.
- Head-down during simulated emergency procedures (focusing on checklist rather than checking outside).

Flight Tasks

- ○○○ Radio Communications
- ○○○ Takeoff & Departure Procedures
- ○○○ Slow Flight
- ○○○ Power Off Stall
- ○○○ Power On Stall
- ○○○ Turns around a Point
- ○○○ Rectangular Course
- ○○○ S-Turns
- ○○○ Simulated Instrument Maneuvers
- ○○○ Lost Procedures
- ○○○ ENG-Out Approach
- ○○○ Approach & Landing Procedures
- ○○○ Forward Slip to Landing

Completion Standards

The SP demonstrates timely reactions and judgement during simulated emergency scenarios. They also employ proficient directional control during maneuver reviews.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Before entering a maneuver, **take a moment**—check whether you're at the right starting altitude & configuration, and if you've cleared the area.
- **Practice instrument scans** while chair flying (at-home simulator practice) or in cruise flight! This will help train your eyes to continuously move (while still absorbing information) instead of fixating on one.
- **Fly the airplane first!** Especially during emergency procedures, the ground can come up very fast. Troubleshooting with your checklist, head-down, won't do you any good if you crash-land somewhere!

Homework

Listen to and Review the FLY8MA course lesson: "Aiming Points and Go Arrounds", and **Review** Lesson 7 – FLY8MA PPL Syllabus.

Scenario:

You are flying to a busier Class C airport to pick up a friend who just arrived to town via an airline. You will have to contend with LAHSO, Wake Turbulence, and potential holding in the traffic pattern for inbound traffic.

Debrief Questions

1. You calculated a ground roll of 990' during takeoff, with a total RWY distance of 1,600'. After 900', you realize the RPMs aren't even at maximum power and airspeed is 10KT below Vr. What's your next move? What could have caused this?
2. At what altitude (AGL) must you recover by while conducting a power off stall?
3. How many degrees per second will you turn if at a standard rate? How long will it take you to turn from N to E?
4. If you become lost after getting turned around with several maneuvers in our practice area, what frequency should you contact for assistance?
5. Who monitors the emergency frequency, Gaurd (121.5)?
6. While on final approach, you see three white and one red light to the left of the RWY. What kind of approach path lighting system is it? Are you high or low?
7. If your aiming point is the "thousand foot markers," will you touchdown on, before or after the markings?

LESSON 7

Preflight Planning & Towered Airports
Ground Lesson 1.0 / Flight Lesson 1.7

Lesson Objective(s)

The SP demonstrates proficiency in airport operations, SRM skills, normal takeoffs and landings. During emergency procedure practice, the student also increases confidence in troubleshooting/recovering in a timely manner.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 7 All Topics
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Sectional Charts
- ◯◯◯ Preflight Planning
- ◯◯◯ Airspace

Common Errors

- Head-down during simulated emergency procedures (focusing on checklist rather than checking outside).
- Failure to clear maneuver area.
- Unable to maintain altitude and exceeding Va while demonstrating steep turns.

Flight Tasks

- ◯◯◯ Checklist Usage
- ◯◯◯ Radio Communications
- ◯◯◯ Equipment & Systems Malfunctions
- ◯◯◯ ENG-Out Approach
- ◯◯◯ Towered Airport Operations
- ◯◯◯ Steep Turns
- ◯◯◯ Approach & Landing Procedures

Completion Standards

The SP demonstrates efficient checklist usage and good judgement during simulated emergency scenarios. While in an unfamiliar airport environment, SP is able to utilize SRM skills for orientation and task management.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- ***Memorize* memory items and practice chair flying** emergency procedure flows before a lesson as a warm-up. Doing so will prevent you from getting too overwhelmed or freezing up during the dreaded simulated ENG failure!
- Before you initiate a maneuver, take a breather. **Check inside and outside** to ensure everything is set up for you to succeed (power, altitude, trim, airspeed, and an area clear of traffic).

Homework

Listen to and Review the FLY8MA course lesson: "Class D Airspace", and **Review** Lesson 8 – FLY8MA PPL Syllabus.

Scenario:

A friend of yours just moved to a nearby city, and you want to meet them for lunch. The closest airport to them is towered and very busy. As you haven't flown to this area before, you're unfamiliar with the local procedures.

Debrief Questions

1. Refer to Scenario: If you had a real ENG failure or other emergency along your route, but a Restricted airstrip was within gliding distance, could you land there?
2. Where do you find the contact information of an airfield's FBO, or if they have maintenance available on the field?
3. When would a Special VFR Clearance be used? What kind of airports can issue one?
4. Is an aircraft still steerable if its ailerons are jammed?
5. If you encounter an emergency scenario in the middle of nowhere (outside of reception to all known airports), who else can you contact?
6. Just before touching down, you get distracted from a passenger saying something—you forget to flare. The nosewheel touches first, and you get sprung in to a "porpoise." What is your next move?
7. Does load factor increase or decrease as you enter a steep turn? What is the maximum amount of positive Gs your aircraft can theoretically withstand (normal vs. utility vs. aerobatic category)?

LESSON 8

Flight Environment & Emergency Procedures
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

The student will gain proficiency in wind correction and altitude/bank management during visual maneuvers. While practicing emergency procedures in multiple environments, the SP will also become increasingly familiar with the checklist and flows.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 8
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Sectional Charts
- ○○○ Airspace
- ○○○ ATC Services
- ○○○ Aircraft Required Equipment
- ○○○ Aircraft Required Inspections
- ○○○ Flight Instrument Systems & Failures
- ○○○ Electrical System & Failures
- ○○○ Ground Emergency Procedures

Common Errors

- Failure to clear maneuver area.
- Head-down during simulated emergency procedures (focusing on checklist rather than checking outside).
- Unable to maintain altitude and exceeding Va while demonstrating steep turns.
- Not managing airspeed throughout traffic pattern.

Flight Tasks

- ○○○ Turns around a Point
- ○○○ Rectangular Course
- ○○○ S-Turns
- ○○○ Steep Turns
- ○○○ Basic Instrument Maneuvers
- ○○○ Equipment & Systems Malfunctions
- ○○○ Approach & Landing Procedures

Completion Standards

The SP completes all visual maneuvers with proficient aircraft control and situational awareness (especially of the wind). Demonstrating efficient checklist usage & judgement, the SP completes simulated emergency scenarios adequately.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- We've said it a million times, but will say it a million more: **chair fly to practice your flows**. This becomes exponentially important with emergency procedures.
- You've learnt a proper instrument scan. But are you actually *looking*, or just going through the motions? While in the pattern, **take a second to absorb a flight instrument's information before moving on** to the next one. This will help you avoid becoming slow or exceeding safe approach speeds!

Homework

Apply for your Student Pilot Certificate with your instructor on iacra.faa.gov.

Listen to and Review the FLY8MA course lesson 6: "Building Good Landings", and **Review** Lesson 9 – FLY8MA PPL Syllabus.

Scenario:

You are thinking of buying an old Piper Cub. Its only equipped with an ASI, VSI, Turn & Slip Indicator and Altimeter. There is also no engine-driven electrical system (only a battery) or ADS-B Out [14 CFR 91.225(e)]. Can you fly VFR legally, or will you need to add more instruments to the panel? Is there anywhere you can't fly?

Debrief Questions

1. You're flying at 18,000' MSL over a Class D airport (elev. 124' MSL). What airspace are you flying in?
2. Over the local foothills, you're flying at 12,500' indicated, and 700' AGL in Class G airspace. What is the minimum visibility you must maintain, legally, during the day?
3. Do you need to be ADS-B Out-equipped to fly in to a Class D airport?
4. If your pitot tube becomes blocked, which instrument(s) will become affected, and how?
5. During a short XC flight, your alternator fails. How can you tell, and what power source is your panel running off right now?
6. It's a very cold day outside, and your airplane was housed in an uninsulated hangar. You decide to give it three pumps of primer instead of the normal two. What is the risk of doing this?
7. You're on final for a very skinny RWY (not like the ones you're used to). As you are starting to roundout, you realize you're already too close to the ground. The nosewheel hits first, and you end up in a porpoise. What is your next move?

LESSON 9

Energy Management in the Traffic Pattern
Ground Lesson 1.0 / Flight Lesson 1.3

Lesson Objective(s)

Using high-speed taxi practice, and refreshed knowledge of aircraft performance, the student becomes extensively familiar with the landing environment and how to manage the AC's energy.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 6 and 9
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Aircraft Performance
- ○○○ Solo Requirements, Privileges & Limitations
- ○○○ Aircraft Logbooks
- ○○○ Basic Navigation Systems
- ○○○ Mental Math for Pilots

Common Errors

- Failure to keep up with checklists in the traffic pattern; letting the airplane get "ahead" of you.
- Fixating on a flight instrument instead of completing a thorough instrument scan.
- Merely glancing at instruments through scan (going through the motions) instead of absorbing its info.
- Not looking through the Lindbergh Reference or down the RWY to gauge roundout/flare, thereby flaring too high or not at all.

Flight Tasks

- ○○○ RWY Incursion Avoidance
- ○○○ Taxi Procedures
- ○○○ Takeoff & Departure Procedures
- ○○○ Checklist Usage
- ○○○ Approach & Landing Procedures

Completion Standards

The student effectively employs techniques learned during high-speed taxi (power and airspeed manipulation, pitch management and looking outside) to touch and goes.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- Let us say it again: **chair fly**. Conducting touch and goes in the pattern can happen in a flash, forcing the pilot to constantly run checklist flows to keep up. For example: You enter the downwind and your mind goes blank for a minute... "What is my next step?" You quickly realize you're past the abeam-touchdown point and have yet to configure for landing. Now you're rushed, and potentially too far out with lower-than-comfortable altitude. Let's try to avoid this at all costs!
- You've learnt a proper instrument scan. But are you actually *looking*, or just going through the motions? While in the pattern, **take a second to absorb a flight instrument's information before moving on** to the next one. This will help you avoid becoming slow or exceeding safe approach speeds!

Homework

Listen to and Review the FLY8MA course lesson 10: "Soft and Short Field Landings", and **Review** Lesson 10 – FLY8MA PPL Syllabus.

Scenario:

Your little sibling is graduating from college in a town about an hour away (by plane). Unfortunately, the route is pretty barren of visual checkpoints for navigational use (no main roads, rivers, etc.). A fellow pilot says, "Just to be safe, you should back up your visual route with a victor airway."

Debrief Questions

1. Refer to Scenario: What is a victor airway, and how do you use it?
2. Refer to Scenario: If you are cruising at 5,500' (with 120kt GS) and the destination airport's TPA is 1,300', when do you have to start your descent?
3. When calculating your weight and balance, the CG ends up very forward (but not outside of limits). What kind of implications does this have?
4. Can a solo student pilot take her brother up for a flight?
5. Why does the aircraft have several logbooks (aircraft, engine, prop)? What kind of information is written in each?
6. You try to tune and ID a VOR along your route, but hear nothing on the NAV radio. What would this silence indicate?
7. As you are flying through a mountain range, you try to use a VOR on the other side of the pass. Even though you are only 10 miles from the VOR, you can't intercept its signal. Why?

LESSON 10

Advanced Traffic Pattern
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

The student will demonstrate proficiency in airport operations, radio communications, takeoffs and landings. With the student's takeoff/landing experience from previous lessons, they will also be able to recognize the need to perform go-arounds or adjust their pattern for risk mitigation.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 10
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ New Terminology
- ○○○ Traffic Pattern Operations
- ○○○ Crosswind Procedures

Common Errors

- Failure to keep up with checklists and radio communications in the traffic pattern; letting the airplane get "ahead" of you.
- Drifting from the RWY centerline while conducting low approaches.
- Overcorrecting based on PAPI/VASI indication.

Flight Tasks

- ○○○ Taxi Procedures
- ○○○ Takeoff & Departure Procedures
- ○○○ Traffic Pattern Operations
- ○○○ Radio Communications
- ○○○ Approach & Landing Procedures
- ○○○ Go-Arounds

Completion Standards

The student maintains a standard rectangular course (with wind correction) throughout the entire pattern. With use of checklists and SRM, the student conducts safe traffic pattern operations.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- Take the traffic pattern **one leg at a time**. Practice chair flying your tasks per leg with flows to show up better prepared.
- If you are off glideslope, **make small corrections**. If you *overcorrect*, you'll not only blow past the glideslop again but make your approach "unstable." The best thing to do in this scenario is to go-around and try again next lap.

Homework

Listen to and Review the FLY8MA course lesson 11: "Start Your Engines, Systems, and Instruments", and **Review** Lesson 11 – FLY8MA PPL Syllabus.

Scenario:

You are practicing touch and goes at your local airport. Over the CTAF, a Citation jet reports 5 mile final, inbound on the local ILS. You are currently midfield downwind.

Debrief Questions

1. Refer to Scenario: What is your next move?
2. Refer to Scenario: This scenario is now taking place at a controlled field. Tower says to you, "N8MA, extend downwind. I'll call your base." What do you do? Should you continue your descent?
3. Refer to Scenario: Tower then says, "N8MA, turn base to follow Citation, #2, cleared to land RWY 22." As you are now landing behind the Citation, how will you avoid its wake turbulence?
4. If an airport's TPA is 2,000', when should you turn Crosswind when on-the-go?
5. If Tower clears you to enter left-closed traffic, does this also give you permission to land or do you need to request it?
6. Why does Ground Effect minimize an aircraft's induced drag?
7. On final, you transition over a blacktop parking lot. The thermals rising from the lot send you into a 500fpm climb rate. How do you combat this to stay on glideslope?

LESSON 11

Traffic Pattern EPs
Ground Lesson 1.0 / Flight Lesson 1.3

Lesson Objective(s)

The student will put all of their traffic pattern skills to the test while managing touch and goes + emergency procedures. They will employ SRM skills during real-life scenarios in a fast-paced environment, ultimately learning how and when to divide their attention.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 11
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Traffic Pattern Operations +
- ○○○ Airspace +
- ○○○ EPs within the Traffic Pattern

Common Errors

- Failure to keep up with checklists and radio communications in the traffic pattern; letting the airplane get "ahead" of you.
- Not conducting a thorough pre-takeoff brief, (i.e. addressing locations for ENG-Out landings).
- Becoming distracted with an emergency and not "flying the airplane" first.

Flight Tasks

- ○○○ Takeoff & Departure Procedures +
- ○○○ Traffic Pattern Operations +
- ○○○ Equipment & Systems Malfunctions +
- ○○○ ENG-Out Approach +
- ○○○ Approach & Landing Procedures +
- ○○○ Go-Arounds +

Completion Standards

The student showcases a thorough understanding of pitch and power usage to maintain airspeed/altitude. During simulated emergency procedures, SP demonstrates proficient checklist usage.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- Take the traffic pattern **one leg at a time**. Use the aircraft's checklist to your advantage (studying outside of lessons). It literally gives you step-by-step instructions for all kinds of scenarios!
- Before taking off, be sure to **conduct a thorough pre-takeoff brief** even if you're alone. [These are tailored to the RWY-in-use and terrain around its departure end.] Doing so forces you to focus more on your environment, maintaining situational awareness.
- **Aviate - Navigate - Communicate**. Follow these priorities, even when in emergency scenarios (real or simulated)! Fly the airplane first. To use your checklist while maintaining safe flight attitudes, hold it up to the dashboard so you can easily switch between inside and outside views.

Homework

Listen to and Review the FLY8MA course lesson 10: "Soft and Short Field TO's and Landings", and **Review** Lesson 12 – FLY8MA PPL Course "Weight and Balance".

Scenario:

You're checking the NOTAMs before a morning flight, and notice a helicopter will be spraying for mosquitos within 3NM of the airport and 800' AGL (200' below TPA). The NOTAM will last all morning. You want to stay in the pattern for touch and go practice. The AWOS is reporting 7SM visibility and BKN015.

Debrief Questions

1. Refer to Scenario: If the helicopter is monitoring CTAF, is your risk eliminated?
2. Refer to Scenario: Based on the other factors present, what is your plan?
3. You think your aircraft is experiencing carburetor icing, so you turn on carb heat. The engine begins running extremely rough, and RPMs start to drop. What is happening?
4. While in the pattern, your trim is stuck in a nose-high position. What do you do?
5. After leveling out from a climb, you realize your throttle linkage has snapped. The engine is stuck at full power. There is an uncontrolled airport within 5NM, and a Class D with emergency services within 10NM. What do you do?

LESSON 12

Performance Takeoffs & Landings
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

SP will learn the procedures for short and soft field takeoffs, departures, approaches and landings. The student will also ensure proficiency in forward slips to landing and aborted takeoffs/landings.

Student Actions

- Arrive early to complete preflight items (check weather, NOTAMs, weight + balance, performance calculations and aircraft preflight/"walkaround").
- Review FLY8MA PPL Course Lesson: 12 "Weight and Balance Topic"
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Short Field TO/LD Procedures
- ◯◯◯ Soft Field TO/LD Procedures
- ◯◯◯ Performance Calculations

Common Errors

- Failure to remain in ground effect during soft field takeoffs while accelerating to Vx/Vy.
- Forgetting to retract flaps after takeoff.

Flight Tasks

- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Short Field TO/LD
- ◯◯◯ Soft Field TO/LD
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Approach & Landing Procedures
- ◯◯◯ Go-Arounds

Completion Standards

The student showcases a thorough understanding of pitch and power usage to maintain airspeed/altitude. SP also uses proper control application to perform short/soft field TO/LDs and forward slips.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- The first time you conduct a soft field takeoff, it feels very strange to stay in ground effect. However, let the aircraft **accelerate to Vx or Vy before climbing**. Otherwise, you will be entering a stall scenario if you try to depart without substantial airspeed.
- Don't forget to **run your climb checklists**! This will remind you to retract flaps (once you have substantial airspeed and altitude) after takeoff.

Homework

Listen to and Review the FLY8MA course lesson 12: "Weighing and Balancing Act", Lesson 9: "Flying Blind Topic", and **Review** Lesson 13 – FLY8MA PPL Syllabus.

Scenario:

Your friend just bought a house within an airpark community and has invited you to a housewarming party. They only have one RWY (1,500' sod strip). Unfortunately, this RWY almost always has a strong crosswind. The arrival end has no obstacles, but there are 40' tall trees next to the departure end.

Debrief Questions

1. Refer to Scenario: What actions will you take to ensure a stabilized approach and safe landing?
2. Refer to Scenario: What is your plan for the takeoff?
3. Which performance takeoff requires you to apply full throttle while on the brakes, wait for power to stabilize at maximum RPM, then release brakes for ground roll?
4. Trying "cushion" your soft field landing, you apply too much power during the flare and balloon. The stall warning horn starts to blare. What do you do?
5. You plan to fly to a gravel RWY on a neighbor's farm. However, you know they got a lot of rain last night. What kind of landing will you prepare for?

LESSON 13

Simulated Instrument & Unusual Attitudes
Ground Lesson 1.0 / Flight Lesson 1.2

Lesson Objective(s)

The student will gain proficiency in using radio communications, ATC services and navigational systems while flying solely by reference to instruments.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA PPL Course Lesson: 13 and Lesson 9 “Flying Blind” Topic
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Flight Categories (WX)
- ○○○ Emergency Procedures
- ○○○ Unusual Attitudes
- ○○○ Aeromedical Factors

Common Errors

- Fixating on one flight instrument instead of completing a thorough scan.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Short Field TO/LD
- ○○○ Soft Field TO/LD
- ○○○ Basic Instrument Maneuvers
- ○○○ Unusual Attitudes
- ○○○ Approach & Landing Procedures

Completion Standards

The student correctly executes short and soft field operations while managing pitch, power and airspeed. SP recognizes unusual flight attitudes solely by reference to instruments, correctly applying flight controls for recovery.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- Are you actually *looking* at your instruments, or just going through the motions? Before recovering from an unusual attitude, **complete a thorough instrument scan** before initiating recovery steps. This will prevent you from freezing up at the controls or initiating the incorrect recovery!

Homework

Complete the Pre-Solo Written Exam before the next lesson. Minimum passing score is 80%. The test will be corrected to 100% with your IP.

Listen to and Review the FLY8MA course lesson 18: “Flying at Night”, and **Review** Lesson 14 – FLY8MA PPL Syllabus.

Scenario:

While holding short, waiting for departure, you see a fog bank rolling over the coastal area towards you. You think you can beat it by taking off now. As you depart, light rain starts to speckle your windshield. Your visibility starts to progressively decrease, until you find yourself in inadvertent IMC.

Debrief Questions

1. Refer to Scenario: What kind of hazardous attitude were you exhibiting? How could you have better handled this scenario?
2. Refer to Scenario: If this is taking place at a controlled airport, what is your next move?
3. Refer to Scenario: If you’re at an uncontrolled airport, what do you do next?
4. Refer to Scenario: [Controlled Airport] TWR offers to give you vectors to a nearby inland airport with VMC conditions. What are vectors?
5. Refer to Scenario: [Controlled Airport] TWR instructs you to “turn right, HDG 080.” You are currently tracking HDG 350. Using a standard rate turn, how long will it take you to reach HDG 080?
6. While in low visibility conditions, you enter a standard rate turn 170° to the left. You level out once on your intended HDG. Suddenly, it feels like you are banking to the right, even though you just leveled out… What illusion is described, and how should you react?

LESSON 14

Day-to-Night Transition
Ground Lesson 1.0 / Flight Lesson 1.4

Lesson Objective(s)

The student becomes familiar with night operations, including local area navigation and takeoffs, departures, approaches and landings. SP also learns about their body's physical limitations and anatomy that impact night flight.

Student Actions

- Arrive early to grade your Pre-Solo Written Exam with your IP, and complete preflight items.
- Review FLY8MA PPL Course Lesson: 18
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Nighttime Definitions
- ○○○ Aircraft Required Equipment
- ○○○ Airport Operations
- ○○○ Nighttime Flight Environment
- ○○○ Aeromedical Factors
- ○○○ Cockpit Management

Common Errors

- Looking inside (staring at panel) more than outside.
- Scanning for traffic incorrectly (i.e. straight-on instead of using peripherals).
- Initiating roundout and flare too early/high.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Night Operations
- ○○○ Approach & Landing Procedures

Completion Standards

The student can explain night flight considerations, incl. aeromedical factors, weather, collision avoidance and navigation procedures. SP also completes 5 night TO/LDs to full-stop.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 5 degrees • Heading +/- 10 degrees

Tips

- **Dim all electronics and instrument lights inside** the cockpit to encourage yourself to look outside more!
- Use your **peripherals to scan for traffic**. This utilizes your eyes' rods (more dominant during night) rather than cones.
- During night, you lose multiple visual cues (incl. depth perception) that help us land during the day. Try **referencing the tire marks on your RWY** as cues to initiate your roundout/flare. The darker and clearer they get, the closer you are to the RWY. You can take a peak at those markings through the Lindbergh Reference during your descent.

Homework

Print and sign your temporary student pilot certificate, and store where you won't lose it (along with your FAA Medical).

Listen to and Review the FLY8MA course lesson 13: "Luck with Weather", and **Review** Lesson 15 – FLY8MA PPL Syllabus.

Scenario:

You have decided to take your significant other on a special date! The plan is to take off at civil twilight, fly over the local park where you had your first date, then continue to a nearby down for dinner. On the way back, they will have a beautiful moonlit view. The TAF shows VFR conditions with few clouds around 6,000' for the night.

Debrief Questions

1. Refer to Scenario: You are taking off at civil twilight. When can you start logging night hours?
2. Refer to Scenario: You are renting a 1995 C-172 for tonight's flight. Unfortunately, it looks like the rotating beacon is burnt out. Can you legally fly at night without changing the bulb?
3. Refer to Scenario: After the dinner, you fly home. Off in the distance, you spot a steady red light moving from right to left. What is it?
4. Refer to Scenario: On the return trip, you finally spot your home town. The town's lights angle seemingly upwards at a slant, and you align to the lights as opposed to the actual horizon. What illusion are you subject to?
5. Refer to Scenario: Your home airport is categorized as Class D. The Tower closes at 2100, and it is currently 2130. Do you still need permission to land there?
6. Refer to Scenario: If the light near the windsock is burnt out on the field, how do you know which RWY to use?

LESSON 15

Stage 1 Check
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

SP prepares for their first solo flight by demonstrating proficiency in performing basic flight maneuvers, traffic pattern work and emergency procedures. They will also showcase complete comfortability with airport operations, and the ability to adapt to unfamiliar situations using SRM.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA PPL Course Lesson: 13 and 14
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Certificates & Documents
- ◯◯◯ SRM & Risk Mitigation
- ◯◯◯ WX Reports
- ◯◯◯ Weight & Balance
- ◯◯◯ Performance Calculations
- ◯◯◯ Aircraft Preflight

Common Errors

- Letting your less-than-perfect performance on one maneuver get into your head, thereby snowballing into another maneuver.

Flight Tasks

- ◯◯◯ Checklist Usage
- ◯◯◯ Operation of Systems
- ◯◯◯ Taxi & RWY Incursion Avoidance Procedures
- ◯◯◯ Airport Signs/Markings/Lighting
- ◯◯◯ Pre-Takeoff Brief
- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Radio Communications
- ◯◯◯ Turns around a Point
- ◯◯◯ Rectangular Course
- ◯◯◯ S-Turns
- ◯◯◯ Slow Flight
- ◯◯◯ Power Off Stall
- ◯◯◯ Power On Stall
- ◯◯◯ Steep Turns
- ◯◯◯ Emergency Procedures
- ◯◯◯ Approach & Landing Procedures
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Go-Around
- ◯◯◯ Parking & Securing Aircraft

Completion Standards

SP can competently perform all duties, procedures and maneuvers necessary for safe solo flight.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- We aren't expecting perfection on this flight. Although a little stress doesn't hurt, try not to put that level of pressure on yourself. We just want you to know how to correct mistakes, recognize and mitigate risk, and perform safe operations in all flight environments. **Give it your best go, and remember: if you didn't do amazing on that last maneuver, you will on the next one.** Good luck!

Homework

Listen to and Review the FLY8MA course lesson 14: "Your First Solo", and **Review** Lesson 16 – FLY8MA PPL Syllabus.

Debrief Questions

**IP will discuss with the SP how the flight went. The instructor will formulate 5-8 debrief questions of their own, based on the student's performance.*

1. Who determines if an aircraft is safe to fly/ airworthy?
2. As you turn from crosswind to downwind you notice another airplane directly in front of you (1/2NM away and same altitude). You haven't heard any radio calls from this aircraft. What do you do?
3. Before your first solo flight, your instructor requests one last look at your student pilot certificate and medical. There's just one thing...you forgot the student pilot certificate at home, and you live 30 minutes away. Can you legally solo?
4. You request to enter a Class D airspace. TWR replies, "Aircraft calling from the NE, standby." Does this count as two-way radio communication?
5. You realize the landing light is burnt out during your preflight walkaround. Can you fly Day VFR?

LESSON 16

First Solo — Pattern
Ground Lesson 2.0 / Dual 0.7 / Solo 0.5

Lesson Objective(s)

The student increases proficiency and confidence in reviewing procedures (incl. takeoffs, landings, airport operations, aborted takeoff/landing recoveries) before performing first solo flight.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA PPL Course Lesson: 14
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Certificates & Documents +
- ○○○ SRM & Risk Mitigation +
- ○○○ Preflight Planning +
- ○○○ Solo Limitations

Common Errors

- Not enjoying your big moment!
- Failure to organize cockpit correctly when IP exits.

Flight Tasks +

- ○○○ Checklist Usage
- ○○○ Operation of Systems
- ○○○ Takeoff & Departure Procedures
- ○○○ Traffic Pattern Operations
- ○○○ Approach & Landing Procedures
- ○○○ Go-Around

Completion Standards

SP can competently perform all duties, procedures and maneuvers necessary for safe solo flight.

Altitude +/-100 feet • **Airspeed** +/-10 Knots
Bank +/- 10 degrees • **Heading** +/- 10 degrees

Tips

- Happy Solo Day! You've probably heard a lot of pilots say it: "You only solo once! Take it all in." It's sort of true. You'll solo multiple times before getting your PPL, but the first time is a big deal. **Have a camera ready** (Polaroids are the best) for a little pre-flight photo session. Check in with your IP to see what other traditions you may want to take part in, such as a T-shirt cutting. But, above all, **enjoy your time today** (especially when you have an empty seat to place your checklist on).

Homework

Listen to and Review the FLY8MA course lesson 15: "VFR Charts", and **Review** Lesson 17 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. How did your landings go on each lap?
2. Do you feel there are any skills you'd like to work on for your next solo flight?
3. How long is your current solo endorsement good for?
4. What is the maximum wind (headwind and crosswind) you're able to fly in, solo?
5. If you were to announce on CTAF a "full-stop" intention, or receive clearance from TWR, "cleared to land," could you still execute a go-around?

LESSON 17

Second Solo (Pattern) + Maneuver Review
Ground Lesson 2.0 / Dual 1.0 / Solo 0.5

Lesson Objective(s)

While reviewing visual maneuvers, emergency procedures and local area operations, the student will ensure proficiency before flying their second solo in the traffic pattern.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA PPL Course Lesson: 15
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Stall Characteristics +
- ○○○ Spin Awareness +
- ○○○ Equipment & Systems Malfunctions +
- ○○○ Solo Limitations

Common Errors

- Lengthy radio calls (or freezing up once touching the mic button).

Flight Tasks +

- ○○○ Takeoff & Departure Procedures
- ○○○ Cockpit Management
- ○○○ Turns around a Point
- ○○○ Rectangular Course
- ○○○ S-Turns
- ○○○ Slow Flight
- ○○○ Power Off Stall
- ○○○ Power On Stall
- ○○○ Steep Turns
- ○○○ Equipment & Systems Malfunctions
- ○○○ ENG-Out Approach
- ○○○ Approach & Landing Procedures
- ○○○ Go-Around

Completion Standards

SP can competently perform all duties, procedures and maneuvers necessary for safe solo flight in the local training area.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- This will be your second ever solo flight. It's very exciting, but will no doubt bring about nervous or anxious feelings. **Before pushing the mic button, think of what you want to say**. This will help prevent wordy radio calls, or you freezing up all together!

Homework

Listen to and Review the FLY8MA course lesson 16: "Weather Charts and Services", and **Review** Lesson 18 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. How did your landings go on each lap?
2. Do you feel there are any skills you'd like to work on for your next solo flight?
3. Give me an example of where a cross-controlled stall would occur around the airport environment.
4. Why would a cross-controlled stall lead to a spin?
5. You experienced alternator failure in the practice area, and are currently running on your main battery. However, you aren't certain how old this battery is, or how long it will support your panel (with radio). If inbound to a towered airport, what would your radio call sound like?

LESSON 18

Unaccompanied Pattern Solo
Ground Lesson 2.0 / Solo 1.0

Lesson Objective(s)

The student will fly their third solo altogether, and their first unaccompanied in the pattern. The SP will further their confidence by performing airport operations (incl. takeoffs, landings, collision avoidance and radio communications).

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA PPL Course Lesson: 2 and 16
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Airspace
- ○○○ Weather
- ○○○ Traffic Pattern Operations
- ○○○ Dispatch Procedures

Common Errors

- Misjudging height above the RWY.
- Getting “behind” the aircraft.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Approach & Landing Procedures
- ○○○ Parking & Securing Aircraft

Completion Standards

SP successfully performs a solo traffic pattern flight without incident. During approach-to-landing, the student made smooth, timely and correct control inputs, resulting in a safe landing.

Altitude +/-100 feet • **Airspeed +/-10 Knots**
Bank +/- 10 degrees • **Heading +/- 10 degrees**

Tips

- When you being your flare, make sure to **transition your eyes down the RWY** to avoid flaring too high or low.
- **Practice your checklist flows before flying**, and always think of what you can do next when you have downtime in-air. This is especially important in the pattern, where you can get task saturated very fast!

Homework

Listen to and Review the FLY8MA course lesson 17: “Aeromedical Factors, ADM, FARs”, and **Review** Lesson 19 – FLY8MA PPL Syllabus.

Scenario:

Your parents haven’t flown with you since getting your PPL. You’d like to surprise them tomorrow with an afternoon flight! However, due to a busy work schedule, you haven’t flown in 120 days.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. How did your landings go on each lap?
2. Do you feel there are any skills you’d like to work on for your next solo flight?
3. Refer to Scenario: What do you have to accomplish in order to carry passengers legally? (*14 CFR 61.57*)
5. Refer to Scenario: There is a national park nearby your parents want to take pictures of. The FAA recommends you maintain a minimum altitude of _____ above the surface of the park.
6. Refer to Scenario & Question 5: If you’re renting a float plane, could you land on a river within the national park? You don’t think you’d be disturbing the wildlife, plus your mom could get really cool pictures.

LESSON 19

Local Area Solo
Ground Lesson 2.0 / Dual 0.7 / Solo 1.0

Lesson Objective(s)

The student will increase proficiency in practicing maneuvers/procedures as directed by the IP. They will also improve their skillsets by traveling to/from the practice area by use of visual navigational cues and local area procedures.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA PPL Course Lesson: 6 and 17
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Aircraft Preventative MX & Servicing
- ◯◯◯ Bird Strikes
- ◯◯◯ Pre-Solo Briefing

Common Errors

- Lack of situational awareness.
- Not using your checklist after ground ops are completed (i.e. after before-takeoff check).

Flight Tasks

- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Local Area Procedures
- ◯◯◯ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo local area flight without incident. The student conducted maneuver/procedure practice within the practice area while maintaining positive attitude control and correct radio procedures.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Maintain a **continuous scan outside and cross-check your position** with your map/GPS when able. This will help you maintain situational awareness, and avoid getting lost.

Homework

Listen to and Review the FLY8MA course lesson 19: "Cross Country Flight Planning", and **Review** Lesson 20 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. We outlined maneuvers and procedures for you to work on during the ground brief. How did those go?
2. How would you grade yourself on today's flight (maneuvers, procedures, radio communications, pattern entry, TO/LD)?
3. How many landings did you accomplish when returning? Do you feel you made the right judgement calls by continuing the approach or going around?
4. Are there any skillsets you employed today that you'd like to work on?
5. Were there any unfamiliar scenarios today that you encountered? How did you handle them?
6. During your preflight, you notice the pilot-side main tire is low. Can you air it up?
7. Your aircraft is due for an oil change. The most recent one was completed by an A&P during the annual inspection. Can you change the oil this time?
8. A sparrow just hit your windshield in-flight, sending a crack down the middle. How would you report this, if flying at a controlled airfield? Referring to NTSB 830, would you have to report it to the FAA once landed?

LESSON 20

Principles of Navigation
Ground Lesson 1.0 / Flight Lesson 1.3

Lesson Objective(s)

The student will enhance their ability to navigate solely by visual reference. Using their magnetic compass, sectional chart, VOR and GPS, the SP will become competent in basic navigational procedures.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA PPL Course Lesson: 12 VOR Navigation Topic and Lesson 19
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Sectional Charts
- ○○○ Pilotage & Dead Reckoning

Common Errors

- Unable to identify visual landmarks/VFR checkpoints [chosen from sectional chart] while flying.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Compass Turns
- ○○○ Cross Country Navigation
- ○○○ Approach & Landing Procedures

Completion Standards

SP maintains appropriate altitudes, heading and wind correction angles throughout the entire flight (with reference to magnetic compass and other navigational systems).

Altitude +/-100 feet • **Airspeed** +/-10 Knots
Bank +/- 10 degrees • **Heading** +/- 10 degrees

Tips

- Just because it's pictured on the sectional, does not mean it's easy to see. For example: If you are in a heavily wooded area, it might not be easy to spot that small river you're trying to follow. Or, if you're entering an urban area, those railroad tracks might be near impossible to pick out. Be sure to **choose a variety of visual waypoints** to ensure at least one of them will be distinguishable.

Homework

Listen to and Review the FLY8MA course lesson 12: "VOR Navigation", review any applicable parts of Lesson 19, and **Review** Lesson 21 – FLY8MA PPL Syllabus.

Scenario:

You just moved to the area, and the local pilots want to organize a group flight to a local diner for lunch. This group knows the area very well, and the town isn't far away... But you'd like to plot out a route, just in case.

Debrief Questions

1. Refer to Scenario: How would you find out if the destination airport had a courtesy car to borrow?
2. Refer to Scenario: Using your sectional chart, does the destination airport have fuel available?
3. Refer to Scenario: You like to cover all your bases. Just in case you (or any of the other pilots) have maintenance issues, how can you find the destination airport maintenance phone number? Or even if they have maintenance?
4. Refer to Scenario: Along your route, identify potential ENG-out landing spots (off-airport or on a nearby strip).
5. Refer to Scenario: Depending on which direction the destination airport is from your home airport, what will your cruising altitude be?
6. Your GPS is inoperative, but no worries—it's a beautiful day outside, and you are only navigating to a town 10 miles away for a fly-in breakfast. You will follow I-29 between the two airports. What kind of navigation would this be categorized as?

LESSON 21

XC Flight Emergency Procedures
Ground Lesson 1.0 / Flight Lesson 1.3

Lesson Objective(s)

The student will enhance their familiarity with basic navigational systems and pilotage skillset. Performing emergency procedures enroute will help them bridge the gap between comprehension and correlation.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- Sectional Charts
- Pilotage & Dead Reckoning
- Emergency Procedures during XC Flights

Common Errors

- Forgetting to announce position while 10NM/5NM out from destination airport.

Flight Tasks

- Takeoff & Departure Procedures
- Cross Country Navigation
- Radio Communications
- Unfamiliar Airport Operations
- Equipment & Systems Malfunctions
- Lost Procedures
- ENG-Out Approach
- Approach & Landing Procedures

Completion Standards

SP maintains an appropriate altitude enroute with minimal course deviation. While referencing visual cues for navigation (also employing VOR/GPS knowledge), the student navigates to/from an unfamiliar airport and airspace. They also correctly apply emergency procedure checklist flows during simulated scenarios.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Whether you are flying to a controlled or uncontrolled field, announcing your position while inbound is very important. It allows TWR to grant you access to their airspace, and coordinate other traffic with your arrival. On the CTAF, it helps other pilots keep track of local traffic (i.e. you), or coordinate arrivals if they are inbound from the same direction. **Mark your sectional with a symbol you'll recognize 5 & 10NM out from the destination airport**. Also, periodically check the NRST function on your GPS. This will help you remember to make those radio calls.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 22 – FLY8MA PPL Syllabus.

Scenario:

Your old college buddy just moved to a nearby town (≤ 25NM) for a job. This afternoon, you'll fly over for dinner to catch-up. The G430 in your panel has an out-of-date database, so you won't be relying on that for this flight.

Home Airport METAR: KAPA 242256Z AUTO 07008KT 10SM CLR HZ 13/07 A3032

Destination Airport METAR: KBJC 242255Z AUTO 07007KT 10SM FEW015 FEW033 FEW100 10/04 A3030

Debrief Questions

1. Refer to Scenario: Is it legal for you to fly with an out-of-date GPS database? Why can't you rely on it?
2. Refer to Scenario: If you can't use the GPS as primary navigation, what other systems/skillsets could you use?
3. Refer to Scenario: What's the difference between pilotage and dead reckoning? How would they be used for this scenario?
4. Refer to Scenario: You will be departing RWY 35R with a left turn departure (NW). What kind of error can you expect from your magnetic compass during this turn?
5. Refer to Scenario: You need to transition through Class B airspace enroute. What kind of requirements (communication, equipment, etc.) must you have before entering Class B?

LESSON 22

XC Flight Planning
Ground Lesson 1.0 / Flight Lesson 1.8

Lesson Objective(s)

As an intro to cross country flight planning, the student plans a trip to another airport ~25 - 50NM away. In addition to gaining familiarity with a VFR navigation log, the SP also correlates WX briefings, performance calculations, and aeronautical publications with a very common flight scenario.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ WX Briefing +
- ○○○ Preflight Planning ⅄
- ○○○ Navigation Logs ⅄
- ○○○ Flight Plans ⅄

Common Errors

- Failure to start/reset a timer for navigation log use in-cockpit
- Trying to liftoff too early during short field takeoff

Flight Tasks

- ○○○ Takeoff & Departure Procedures +
- ○○○ Short Field TO/LD +
- ○○○ Cross Country Navigation ⅄
- ○○○ Radio Communications +
- ○○○ Unfamiliar Airport Operations +
- ○○○ Equipment & Systems Malfunctions +
- ○○○ ENG-Out Approach +
- ○○○ Forward Slip to Landing +
- ○○○ Approach & Landing Procedures +

Completion Standards

SP plans and conducts a mini cross country flight, including WX analysis, use of flight publications/ charts, flight plan and navigation (pilotage, dead reckoning, VOR/GPS). Given an emergency scenario, the student makes a timely decision to divert or execute suitable procedure.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- **An organized cockpit = a clear mind**. Before taking off, ensure your nav log is secure to a kneeboard with pen in-hand.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 23 – FLY8MA PPL Syllabus.

Scenario:

You and a coworker are part of the company softball team. This year you made it to the playoffs! The next game will be ~2 hours away by car, but flying sounds more fun. You would be leaving in the morning (14 hours from now). Your coworker is also a private pilot, and has volunteered to fly the return leg. Neither of you are familiar with the destination airport.

Debrief Questions

1. Refer to Scenario: If you plan to depart 14 hours from now, what kind of WX briefing could you obtain?
2. Refer to Scenario: During your ENG run-up, you notice a 500 RPM drop during the left magneto check. You decide to cancel the flight. You had already activated your VFR flight plan after ENG start with FSS. How do you cancel your flight plan? Refer to Scenario: If you land at the destination airport and TWR instructs you to “back-taxi,” what does this mean?
3. Refer to Scenario: How do you obtain weather enroute?
4. Refer to Scenario: If you land at the destination airport and TWR instructs you to “back-taxi,” what does this mean?
5. Refer to Scenario: On the return trip, your engine loses oil pressure with rapidly increasing temperatures. Before it seizes, you shut it down. There are no other airfields (private or otherwise) you can glide to... this will be an off-airport LD. What factors make a particular spot ideal for off-airport landings?

LESSON 23

VORs + Maneuver Review
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

While reviewing visual maneuvers and introducing advanced VOR use, the student will gain greater understanding of ground-based navigational systems and proficiency in aircraft control.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Maneuvers + ACS Standards +
- ○○○ VOR Navigation

Common Errors

- Forget to Tune & ID the intended VOR before use.

Flight Tasks

- ○○○ Takeoff & Departure Procedures +
- ○○○ Turns around a Point +
- ○○○ Rectangular Course +
- ○○○ S-Turns +
- ○○○ Slow Flight +
- ○○○ Power Off Stall +
- ○○○ Power On Stall +
- ○○○ Steep Turns +
- ○○○ Navigational Systems
- ○○○ Approach & Landing Procedures +

Completion Standards

SP demonstrates ability to conduct any and all of the visual maneuvers within standards set by the IP. The student also manages aircraft airspeed, altitude and HDG while conducting VOR course interception and tracking.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Remember to **verify the VOR you're trying to use**! If you don't tune & ID (therefore confirming its morse code identifier), you might end up using the wrong VOR... which can lead to its own host of problems. Think of it like sending a text to a friend—you want to verify you're sending it to the right person, rather than your boss. Whoops!

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 24 – FLY8MA PPL Syllabus.

Scenario:

You are a bush pilot in Alaska. Today, you will be hauling valuable supplies to an isolated village in desperate need. The flight categories reported along the entire route are MVFR with unreported wind conditions. Another issue: you are very unfamiliar with the area, and your intended route.

Debrief Questions

1. A VOR emits two signals: the _____ and the _____. What is the difference between the two?
2. What is "reverse sensing?"
3. Your home airport has a "terminal" VOR. What is its service volume?
4. What kind of limitations do VORs have? (Hint: reception & obstacles + passing directly overhead)
5. When tuning & IDing a VOR, you hear silence. NAV1 radio is turned all the way up, and you have plugged in the correct frequency. What does this mean?

LESSON 24

Local Area Solo
Ground Lesson 2.0 / Solo 1.0

Lesson Objective(s)

The student will increase proficiency and confidence in practicing maneuvers as directed by the IP.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

◯◯◯ Pre-Solo Briefing

Common Errors

- Rushing the preflight.
- Lack of checklist use.
- Continuing takeoff, even if winds exceed their limits last second (not as expected from WX briefing).

Flight Tasks

◯◯◯ Takeoff & Departure Procedures

◯◯◯ Local Area Procedures

◯◯◯ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo local area flight without incident. The student conducted maneuver/procedure practice within the practice area while maintaining positive attitude control and correct radio procedures.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Solo flight is an exciting time—you get to build up your confidence level, really feel like you're a pilot... not to mention having some peace and quiet (i.e. no IP). However, this fact can also make you rush through things or become complacent. To prevent this from happening, **slow down**. Make sure you're conducting a thorough preflight and wx briefing. Check the updated weather before taking off. Use your checklists throughout all phases of flight. Essentially, **pretend your IP is looking over your shoulder**—this will help continue your diligence!

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 2 – FLY8MA PPL Syllabus.5

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. We outlined maneuvers and procedures for you to work on during the ground brief. How did those go?
2. How would you grade yourself on today's flight (maneuvers, procedures, radio communications, pattern entry, TO/LD)?
3. How many landings did you accomplish when returning? Do you feel you made the right judgement calls by continuing the approach or going around?
4. Are there any skillsets you employed today that you'd like to work on?
5. Were there any unfamiliar scenarios today that you encountered? How did you handle them?
6. During your preflight, you notice a static wick on the rudder has broken off. Can you legally fly during Day VFR conditions?
7. Your aircraft is low on oil. Can you add in a quart by yourself, or must an A&P be present? Is there anything you need to record in the logbooks after?

LESSON 25

Advanced Navigational Systems
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

The student will become familiar with using all types of navigational systems within your specific aircraft (VOR, GPS, ADF). SP will also strengthen their skillset of controlling the airplane solely by reference to instruments through basic instrument maneuvers and unusual attitude recovery.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Instrument Maneuvers
- ○○○ Navigational Systems
- ○○○ Autopilot

Common Errors

- Not using enough rudder pressure within the traffic pattern or unusual attitude recovery.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Basic Instrument Maneuvers
- ○○○ Unusual Attitude Recovery
- ○○○ Navigational Systems
- ○○○ Short Field TO/LD
- ○○○ Soft Field TO/LD
- ○○○ Forward Slip to Landing
- ○○○ Go-Around
- ○○○ Approach & Landing Procedures

Completion Standards

SP correctly simulates ATC communications/ services and navigational course interception throughout instrument maneuvers. The student also applies flight controls to recover from unusual attitudes while staying within the airplane's limitations.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- When constantly changing power settings and configurations through unusual attitude recovery or traffic pattern ops, it can be easy to forget about your rudder. To avoid leaving it in the dust, make a point to **maintain directional control** through all types of recoveries (go-arounds, unusual attitudes, etc.). **Keep an eye on your nose (yaw) and add the quality-of-turn indicator to your instrument scan**.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 26 – FLY8MA PPL Syllabus.

Scenario:

You are flying two friends to a concert and will stay the night before returning home. One way, it'll take two hrs flight time (four hrs by car). As you walk out to load your friends' luggage, you see a frontal boundary moving in... Currently, the airport and surrounding area have unlimited VFR (except for the scattered storms along the frontal boundary). You don't know how long this unexpected system will last.

Debrief Questions

1. Can you still fly a GPS course with an out-of-date database? It expired yesterday, and you haven't received the new card yet.
2. How do you figure out which VOR radial you're currently on?
3. Refer to Scenario: You active a Direct-to course from your current position to the destination airport. Will the GPS account for (avoid) the restricted airspace in the middle of the route? If not, what will you do to avoid it?
4. Refer to Scenario: The system that unexpectedly rolled in looks like it may become severe, but you've altered your route to stay ~25NM away from it. Does this alteration effectively manage risk? Will this affect your GPS signal in-flight?

LESSON 26
OPTIONAL

Local Area or Pattern Solo
Ground Lesson 2.0 / Flight Lesson 1.0

Lesson Objective(s)

The student will increase proficiency and confidence in practicing maneuvers and procedures (and/or pattern work) as directed by the IP.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Airspace
- ○○○ Pre-Solo Briefing

Common Errors

- Lack of checklist use.
- Continuing takeoff, even if winds exceed their limits last second (not as expected from WX briefing).

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Local Area Procedures
- ○○○ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo local area flight without incident. The student conducted maneuver/procedure practice within the practice area while maintaining positive attitude control and correct radio procedures.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- An aircraft manufacturer didn't create the checklist for you to stick it in the seat pocket indefinitely. The IP also didn't set your wind limits at a certain speed/angle just for fun. These resources and restrictions have purposes—to ensure safety of flight, as much as possible. **Remember to use your checklist in all phases of flight (especially in-air) and always doublecheck the weather**.

Homework

Complete flight plan and navigation log for next lesson's cross country flight. (Video found in Lesson 19, "Navigation Logs")

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 27 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. We outlined maneuvers and procedures for you to work on during the ground brief. How did those go?
2. How would you grade yourself on today's flight (maneuvers, procedures, radio communications, pattern entry, TO/LD)?
3. How many landings did you accomplish when returning? Do you feel you made the right judgement calls by continuing the approach or going around?
4. Are there any skillsets you employed today that you'd like to work on?
5. Were there any unfamiliar scenarios today that you encountered? How did you handle them?
6. You're trying to reenter Class D airspace for a full-stop landing. TWR replies, "N8MA, standby." Are you cleared to enter the airspace?

LESSON 27

First Dual XC Flight
Ground Lesson 1.5 / Flight Lesson 1.8

Lesson Objective(s)

The student will plan and implement a VFR XC flight that includes a point of landing at a straight-line distance of +50NM from point of origin. SP also interprets aeronautical charts for navigation using pilotage and dead reckoning with the aid of a magnetic compass.

Student Actions

- Arrive early to complete preflight items. Obtain a weather briefing.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

◯◯◯ XC Flight Planning

Common Errors

- Misreading the plotter when filling out the navigation log.
- Waypoints are created too far apart or too close together.
- Carrying only one pen or pencil.

Flight Tasks

◯◯◯ Takeoff & Departure Procedures
◯◯◯ Cross Country Navigation
◯◯◯ Radio Communications
◯◯◯ Unfamiliar Airport Operations
◯◯◯ Equipment & Systems Malfunctions
◯◯◯ ENG-Out Approach
◯◯◯ Approach & Landing Procedures

Completion Standards

SP plans and conducts a XC flight with a thorough WX briefing, preflight risk assessment and complete nav log. The student determined an updated ETE/ETA within 10 minutes throughout the route.

Altitude +/-100 feet • **Airspeed +/-10 Knots**
Bank +/- 10 degrees • **Heading +/- 10 degrees**

Tips

- Example: a waypoint is 30NM away from the last one. You get distracted, and therefore off-course. You can get very turned around in 30NM without visual cues to guide you! We recommend **placing waypoints within 5-10NM in the beginning, and up to 20NM (maximum) during cruise**.
- Take note of the old saying, "Two is one, one is none." In assuming Murphy's Law (if something can go wrong, it will), we plan to either lose or break an essential item during any flight. So, according to the saying, we should carry a spare (assuming one will fail). In a cross-country case, we almost always see someone lose their only pen/pencil (drop it, runs out of ink, etc.). Moral of the story: **carry a spare, if it is an essential item**!

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 28 – FLY8MA PPL Syllabus.

Scenario:

You are a top-selling agent at a national real estate firm. They put a lot of trust in you, and have requested you attend a large meeting with a new-home construction company on the other side of the state. Your plan is to be the first buyer on-scene (by flying), giving you the best chance of acquiring an exclusive contract.

Debrief Questions

1. Refer to Scenario: If you are supposed to leave in two hours, what kind of WX briefing will you obtain?
2. Refer to Scenario: You didn't top-off after your last flight, but you can refuel at the destination airport. The FAA requires that you land with how many minutes of fuel reserves (Day VFR)?
3. What is the difference between true course (TC) and true heading (TH)?

LESSON 28

Unfamiliar Airport Traffic Pattern Ops
Ground Lesson 1.0 / Flight Lesson 1.7

Lesson Objective(s)

SP will gain proficiency in performing stabilized approaches and departures using several TO/LD styles in an unfamiliar airport environment. The student will also experience RWY/landing illusions, deepening their understanding of glideslop/PAPI/VASI use.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Human Factors
- ○○○ Preflight Planning

Common Errors

- Continuing to fly an approach-to-landing if not stabilized or in safe position to land.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Navigational Systems
- ○○○ Equipment & Systems Malfunctions
- ○○○ Lost Procedures
- ○○○ Unfamiliar Airport Operations
- ○○○ Short Field TO/LD
- ○○○ Soft Field TO/LD
- ○○○ Forward Slip to Landing
- ○○○ Go-Around
- ○○○ Approach & Landing Procedures

Completion Standards

The SP executes timely control inputs and procedures when conducting pattern practice and emergency scenarios. They also maintain complete directional control and divide their attention efficiently when using checklists.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- If your IP says, “show me a short field landing,” but you don’t feel stabilized on approach…**GO AROUND**! We like to see can make good judgement calls, too.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 29 – FLY8MA PPL Syllabus.

Scenario:

In the valley, spring time brings flowers. It also brings a lot of flooding. Your parents had a home in the valley, but they were fortunately evacuated before the flood passed through! You’d like to fly over their property to observe the damage. And, because you’ve gotten too comfortable with the 10,000’ RWY at home, you’d like to practice landings at a nearby 3,000’ RWY.

Debrief Questions

1. Refer to Scenario: Your home airport’s RWY is 10,000’ x 100’. The destination airport’s RWY is 3,000’ x 200’. Regarding the width of the RWY, what kind of landing illusion might you expect?
2. Refer to Scenario & Question 1: Considering that illusion, what tools can you use to ensure you fly a stable, on-glideslope approach?
3. Refer to Scenario: You are also getting over a cold, w/plugged sinuses remaining. What kind of affect will this have on your middle ear as you change ~4,500’ altitude?
4. Refer to Scenario & Question 3: Because of your cold, you took DayQuil this morning. Can you still fly?
5. While on final to an upsloping RWY, it is common to fly a (higher/lower)-than-normal approach.

LESSON 29
OPTIONAL

Local Area Solo
Ground Lesson 2.0 / Solo 1.0

Lesson Objective(s)

The student will increase proficiency and confidence in practicing maneuvers and procedures as directed by the IP.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Airspace
- ○○○ Pre-Solo Briefing

Common Errors

- Inadequate checklist usage.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Local Area Procedures
- ○○○ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo local area flight without incident. The student conducted maneuver/procedure practice within the practice area while maintaining positive attitude control and correct radio procedures.

Altitude +/-100 feet • **Airspeed +/-10 Knots**
Bank +/- 10 degrees • **Heading +/- 10 degrees**

Tips

- Take extra time to check and **doublecheck your checklists**. There is no rush!
- Being nervous is normal, but being uncomfortable is a no-go. If something feels off, or if you'd like more practice, **talk to your IP**!

Homework

Complete flight planning and navigation log for next lesson's night cross country.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 30 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. We outlined maneuvers and procedures for you to work on during the ground brief. How did those go?
2. How would you grade yourself on today's flight (maneuvers, procedures, radio communications, pattern entry, TO/LD)?
3. How many landings did you accomplish when returning? Do you feel you made the right judgement calls by continuing the approach or going around?
4. Are there any skillsets you employed today that you'd like to work on?
5. Were there any unfamiliar scenarios today that you encountered? How did you handle them?

LESSON 30

Night XC Flight
Ground Lesson 1.5 / Flight Lesson 1.8

Lesson Objective(s)

The student will perform effective flight planning, considering the night environment. SP will enhance flying skillset with precise aircraft control and navigational accuracy.

Student Actions

- Arrive early to complete preflight items. Obtain a weather briefing.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Night Operations
- ○○○ Preflight Planning

Common Errors

- Not planning for adequate fuel reserve (FAA Night VFR Reserves = 45 minutes).
- Failure to plan for pilot fatigue.

Flight Tasks

- ○○○ Takeoff & Departure Procedures
- ○○○ Night Operations
- ○○○ Cross Country Navigation
- ○○○ Radio Communications
- ○○○ Controlled Airport Operations
- ○○○ Equipment & Systems Malfunctions
- ○○○ Approach & Landing Procedures

Completion Standards

SP demonstrates effective night XC preparation and flight procedures. The student navigates accurately and handles simulated emergency procedures promptly.

Altitude +/-100 feet • **Airspeed** +/-10 Knots
Bank +/- 10 degrees • **Heading** +/- 10 degrees

Tips

- Due to our circadian rhythms, it's difficult for pilots to stay alert when it gets darker outside. **Grab a cup of coffee and get plenty of sleep the night before**.

Homework

Complete flight planning and navigation log for next lesson's long dual cross country.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 31 – FLY8MA PPL Syllabus.

Scenario:

Your cousin just bought a plane from a guy at your home airport. You have offered to ferry it over to him (over 50NM away). However, you are working from 0900-1700 each weekday—you will have to fly on Friday night. It is currently Tuesday.

Debrief Questions

1. Refer to Scenario: If it is currently Tuesday, how can you plan ahead for the flight?
2. Refer to Scenario: Do you need to complete any currency requirements before flying at night?
3. Refer to Scenario: What lights will the airplane be required to have?
4. Refer to Scenario: Your significant other just decided they want to come with, too. Does this change your night currency requirements?
5. Refer to Scenario: At what point can you actually log the night hours?

LESSON 31

Long Dual XC Flight
Ground Lesson 1.5 / Flight Lesson 2.3

Lesson Objective(s)

The student will plan and implement a VFR XC flight that includes landing at two airports other than the point of origin (three stops total, counting full-stop at home airport). This will prep them for their long solo cross country flight. SP also interprets aeronautical charts for navigation using pilotage and dead reckoning with the aid of a magnetic compass.

Student Actions

- Arrive early to complete preflight items. Obtain a weather briefing. Adjust nav log as necessary with current winds and temperatures aloft.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks +

- ○○○ XC Flight Planning
- ○○○ Airspace
- ○○○ Controlled Airport Operations

Common Errors

- Missing radio calls from ATC/Center (most common: traffic advisories).

Flight Tasks +

- ○○○ Takeoff & Departure Procedures
- ○○○ Cross Country Navigation
- ○○○ Radio Communications
- ○○○ Unfamiliar Airport Operations
- ○○○ Equipment & Systems Malfunctions
- ○○○ Lost Procedures
- ○○○ ENG-Out Approach
- ○○○ Approach & Landing Procedures

Completion Standards

SP plans and conducts a XC flight with a thorough WX briefing, preflight risk assessment and complete nav log. The student determined an updated ETE/ETA within 10 minutes throughout the route.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Pilots miss radio calls for multiple reasons (fatigue, distractions, looking at scenery, similar callsigns on radio, chatting with a crew member, etc.). Employ this best practice when in-flight: **stop talking when a call comes over the radio, even if it's not for you**. Even when the call isn't for you, you can miss out on valuable information (aircraft positions, PIREPs, etc).

Homework

Complete flight planning and navigation log for your first solo cross country flight. These documents will be used for next lesson's Stage 2 Check. Ask your IP which airport to plan to.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 32 – FLY8MA PPL Syllabus.

Scenario:

You are volunteering for Pilots & Paws today. You'll be flying to a nearby airport to pick up two puppies, and dropping them off at another airfield where "foster parents" will be waiting for the pups. You should be home by dinner time! See below for visual.

Debrief Questions

1. Refer to Scenario: Can Pilots & Paws cover the operating expenses for these flights?
2. Refer to Scenario: If you take out the two rear seats of your aircraft to make room for kennels, does that area now turn into "baggage area" instead of "rear seats" on your weight and balance?
3. Refer to Scenario: Your first stop (82C) is located within the boundaries of an MOA. The traffic pattern altitude will be 1,900' MSL. Will you be operating inside the MOA? If so, do you need permission to enter the airspace?
4. Refer to Scenario: Describe 82C's airspace.
5. Refer to Scenario: You will need to refuel at your second stop (C35). Do they have fuel? How do you know?

LESSON 32

Stage 2 Check
Ground Lesson 1.5 / Flight Lesson 2.0

Lesson Objective(s)

SP prepares for their first solo cross country flight by demonstrating proficiency in performing navigation log use, VOR + GPS use, traffic pattern work and emergency procedures. They will also showcase complete comfortability with airport operations, and the ability to adapt to unfamiliar situations using SRM.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Certificates & Documents
- ◯◯◯ SRM & Risk Mitigation
- ◯◯◯ Airspace
- ◯◯◯ WX Reports
- ◯◯◯ Weight & Balance
- ◯◯◯ Performance Calculations
- ◯◯◯ XC Flight Planning
- ◯◯◯ Aircraft Preflight

Common Errors

- Letting your less-than-perfect performance on one procedure get into your head, thereby snowballing into another procedure.

Flight Tasks

- ◯◯◯ Checklist Usage
- ◯◯◯ Cockpit Management
- ◯◯◯ Pre-Takeoff Brief
- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Radio Communications
- ◯◯◯ Cross Country Navigation
- ◯◯◯ Navigational Systems
- ◯◯◯ Diversion
- ◯◯◯ Basic Instrument Maneuvers
- ◯◯◯ Unusual Attitude Recovery
- ◯◯◯ Equipment & Systems Malfunctions
- ◯◯◯ Lost Procedures
- ◯◯◯ ENG-Out Approach
- ◯◯◯ Short Field TO/LD
- ◯◯◯ Soft Field TO/LD
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Go-Around
- ◯◯◯ Approach & Landing Procedures
- ◯◯◯ Parking & Securing Aircraft

Completion Standards

SP can competently perform all duties, procedures and maneuvers necessary for safe solo XC flight.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Safety is paramount during this flight. We want you to know how to correct mistakes, recognize and mitigate risk, and perform safe operations in all flight environments. **Give it your best go, and remember: if you didn't do amazing on that last procedure, you will on the next one.** Good luck!

Homework

Prep for next lesson's solo cross country flight (update forecasts, NOTAMs, etc. on nav log)**.**

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 33 – FLY8MA PPL Syllabus.

Debrief Questions

**IP will discuss with the SP how the flight went. The instructor will formulate 5-8 debrief questions of their own, based on the student's performance.*

1. Returning from a cross country, you want to track inbound to your home airport via VOR radial (stationed on-field). As you point your nose towards the airfield, your bearing to the VOR is 239°. What radial are you on?

2. While enroute on your solo cross country, you haven't heard anything on the radio for the last 10 minutes. You transmit a "radio check" without response. What is your next move?

3. Refer to Question 2: You do not regain radio use after troubleshooting. Your next stop is 12NM away (Class D airport). How do you request landing without a radio?

LESSON 33

First Solo XC Flight
Ground Lesson 2.0 / Solo 2.0

Lesson Objective(s)

The student will complete their first solo cross country including a point of landing that is a straight-line distance of +50NM from the point of departure. SP increases proficiency and confidence in solo + cross-country operations.

Student Actions

- **Arrive +1.5 hours early for preflight preparation** (obtain WX briefing & adjust nav log as necessary). Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

◯◯◯ Pre-Solo Briefing +

Common Errors

- Focusing too much inside the aircraft with nav log, route adjustments, adding frequencies, etc.
- Taking selfies while flying.

Flight Tasks

◯◯◯ Takeoff & Departure Procedures
◯◯◯ Cross Country Navigation
◯◯◯ Radio Communications
◯◯◯ Unfamiliar Airport Operations
◯◯◯ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo cross country flight +50NM away (straight-line distance from point of origin). The student completes a nav log for each flight, adjusting calculations along the way based on new wind readings and groundspeeds.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- Remember the golden rule: e**yes outside 80% of the time, inside 20% of the time**! Cross country flights are opportune times for you to become complacent (especially in cruise). Please stay alert and aware of your surroundings/traffic at all times!

Homework

Practice emergency checklist flows, refreshing on memory items.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 34 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. How would you grade yourself on each leg of today's flight (procedures, radio communications, pattern entry, TO/LD)?
2. Were there any approaches/landings that you weren't 100% confident in? Do you feel you made the right judgement call by continuing the approach or going around?
3. Are there any skillsets you employed today you'd like to work on?
4. Were there any unfamiliar scenarios today that you encountered? How did you handle them?

LESSON 34

Emergency Procedures + Pattern Work
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

Before their second and final solo cross country flight, the student refreshes emergency procedure work and traffic pattern operations. In case they should use them on their future cross country, short and soft field TO/LDs are also reviewed (and SP shows proficiency).

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

◯◯◯ ACS Standards

Common Errors

- Over-controlling aircraft during pattern operations.

Flight Tasks

◯◯◯ Takeoff & Departure Procedures
◯◯◯ Equipment & Systems Malfunctions
◯◯◯ ENG-Out Approach
◯◯◯ Short Field TO/LD
◯◯◯ Soft Field TO/LD
◯◯◯ Approach & Landing Procedures
◯◯◯ Go-Around

Completion Standards

SP executes timely action when faced with simulated emergency procedures. During the ENG-out approach, SP shows proficiency in establishing approach they would successfully land. The student also completes skillful traffic pattern operations without IP assistance.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- When in a task-saturated environment, such as the pattern, it can be easy to death-grip the yoke and overcontrol the airplane. To avoid, **use fingertip pressure and small control movements**.

Homework

Complete flight planning and navigation log for next lesson's solo cross country flight.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 35 – FLY8MA PPL Syllabus.

Scenario:

Last week, an aircraft was checked into maintenance for a faulty pilot-side mic button and smoke coming from behind the instrument panel. As Chief Flight Instructor for your aero club, you must test fly the airplane before releasing it to other members. You'll stay in the pattern, just to be safe.

Debrief Questions

1. Refer to Scenario: "...smoke coming from behind the instrument panel."—Is this likely from ENG or electrical fire? Why?
2. Refer to Scenario: You request taxi after ENG run-up using the pilot-side mic. You don't see "TX" on the radio screen as you push the PTT button. Did your call go through? What is your next move?
3. Refer to Scenario: The radio is fixed once again (thank you, MX guy), and you are about to takeoff. Before entering the RWY, you turn on the strobes. A circuit breaker immediately pops. What is your next move?
4. Refer to Scenario: Evidently, today is not your day. You decide to taxi back to the MX Hangar. Although you trust the MX guy, you'd like to doublecheck his records of repair. Where would you find these maintenance entries?
5. One day, you decide to borrow the club airplane for a sunrise flight. You depart from your home field (parallel RWYs, 5,000' x 150' each). At 800' AGL, you have complete ENG failure. You have 2,000' of RWY below you, but an aircraft is back-taxiing for departure. What do you do?

LESSON 35

Second Solo XC Flight
Ground Lesson 2.0 / Solo 3.0

Lesson Objective(s)

The student will complete their first solo cross country including +150NM total distance, full-stop LDs at three points and one segment of +50NM between TO and LD. SP increases proficiency and confidence in solo + cross-country operations

Student Actions

- **Arrive +1.5 hours early for preflight preparation** (obtain WX briefing & adjust nav log as necessary). Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

◯◯◯ Pre-Solo Briefing +

Common Errors

- Picking unidentifiable waypoints.
- Speeding through radio calls (talking too fast or mumbling).

Flight Tasks

◯◯◯ Takeoff & Departure Procedures
◯◯◯ Cross Country Navigation
◯◯◯ Radio Communications
◯◯◯ Unfamiliar Airport Operations
◯◯◯ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo cross country flight (+150NM total distance, full-stop LDs at three points and one segment of +50NM between TO and LD).

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- **Before finalizing your nav log, reference satellite imagery**—confirming your waypoints are easy to see.
- "Slow is fast, fast is slow." Talking fast over the radio is not all it's cracked up to be. That time you save by talking super fast won't matter if you have to repeat yourself. **Speak clearly and concisely**—this will help your calls be more efficient.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 36 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. How would you grade yourself on each leg of today's flight (procedures, radio communications, pattern entry, TO/LD)?
2. Were there any approaches/landings that you weren't 100% confident in? Do you feel you made the right judgement call by continuing the approach or going around?
3. Are there any skillsets you employed today you'd like to work on?
4. Were there any unfamiliar scenarios today that you encountered? How did you handle them?

LESSON 36

Maneuver Review
Ground Lesson 1.0 / Flight Lesson 1.5

Lesson Objective(s)

In preparation for the Mock PPL Checkride (next lesson), the SP will review all visual maneuver entry/exit procedures. Any item the student is not 100% on should be practised through at-home chair flying before Lesson 37.

Student Actions

- Arrive early to complete preflight items.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ ACS Standards
- ◯◯◯ Unusual Attitude Recovery

Common Errors

- Letting your less-than-perfect performance on one maneuver get into your head, thereby snowballing into another maneuver.

Flight Tasks

- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Rudder Usage
- ◯◯◯ Turns around a Point
- ◯◯◯ Rectangular Course
- ◯◯◯ S-Turns
- ◯◯◯ Slow Flight
- ◯◯◯ Power Off Stall
- ◯◯◯ Power On Stall
- ◯◯◯ Spin Awareness
- ◯◯◯ Unusual Attitude Recovery
- ◯◯◯ Approach & Landing Procedures

Completion Standards

The SP will show complete proficiency in all VFR maneuvers without any IP assistance (verbal or physical). The student also recognizes unusual attitudes by reference to instruments, and correctly recovers while maintaining proper rudder usage.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- This lesson is meant to show you what you need to work on before your next few lessons (and ultimately the PPL Checkride). Don't get down on yourself if one maneuver doesn't go as planned. You can't change how you did in that moment—you can change how you prepare for the next lesson, though. **Chair fly, chair fly, chair fly**.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 37 – FLY8MA PPL Syllabus.

Scenario:

Congratulations! You landed your first commercial job—tour pilot in the Hawaiian islands! Yeah, we're jealous. You've completed your checkouts with the chief pilot, and will be conducting your first single-pilot flight today. As you just moved from Nebraska, you're not too familiar with island weather. But, it'll be a short flight this evening—shouldn't be an issue...

METAR: PHOG 081656Z 06005KT 7SM FEW018 SCT022 BKN040 21/17 A3008

Debrief Questions

1. At what altitude must you recover by for visual maneuvers such as stalls?
2. At what altitude(s) do you complete ground reference maneuvers?
3. Describe coordinated vs. uncoordinated flight. What is the difference between a skidding and slipping turn?
4. What is a spin? How do you recovery from a spin?
5. What is Va (maneuvering speed), and when is it used?

LESSON 37

Mock PPL Checkride
Ground Lesson 1.5 / Flight Lesson 1.8

Lesson Objective(s)

The SP will be tested on all skills learned up to this point. ACS Standards will be applied to all maneuvers. This lesson will help expose what needs more work before the Stage 3 Check and actual PPL checkride.

Student Actions

- Arrive early to complete preflight items and review maneuvers + emergency procedures.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ PPL Checkride Profile
- ◯◯◯ Mock Oral Exam
- ◯◯◯ XC Flight Planning

Common Errors

- Failure to clear the area before a maneuver.
- Rushing a procedure or maneuver.
- Trying to salvage a bad/unstable approach.

Flight Tasks

- ◯◯◯ Checklist Usage, SRM + ADM
- ◯◯◯ Taxi & RWY Incursion Avoidance Procedures
- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Radio Communications
- ◯◯◯ Cross Country Navigation
- ◯◯◯ Navigational Systems
- ◯◯◯ Diversion
- ◯◯◯ Basic Instrument Maneuvers
- ◯◯◯ Unusual Attitude Recovery
- ◯◯◯ Turns around a Point
- ◯◯◯ Rectangular Course
- ◯◯◯ S-Turns
- ◯◯◯ Slow Flight
- ◯◯◯ Power Off Stall
- ◯◯◯ Power On Stall
- ◯◯◯ Spin Awareness
- ◯◯◯ Equipment & Systems Malfunctions
- ◯◯◯ Lost Procedures
- ◯◯◯ ENG-Out Approach
- ◯◯◯ Short Field TO/LD
- ◯◯◯ Soft Field TO/LD
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Go-Around
- ◯◯◯ Approach & Landing Procedures

Completion Standards

SP completes mock checkride maneuvers and procedures to ACS standards.

Tips

- If you're going to make mistakes, this is the time to do it. Use this lesson as a way to work out the kinks before the main event! As always, **chair fly** before the flight to ensure complete comfortability with all procedures and maneuvers. You should be able to rattle off EP memory items or slow flight entry/exit while playing basketball. [Just kidding, but if you can do that...you'll be just fine.]

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 38 – FLY8MA PPL Syllabus.

Debrief Questions

1. During solo flight, you want to rehearse steep turns. As you enter the practice area, you immediately start the maneuver at 1,000' AGL, cruise airspeed (110 KIAS, Va = 99). Your altitude varies ~150' throughout the maneuver. Did you complete steep turns per ACS standards?

2. We all know flying is not cheap. But, we love sharing it with other people at our own expense. You want to bring 3 friends with you on a sunset flight—they offer to pay for fuel. Can they do that?

3. You are a PPL, pursuing an instrument rating. Your CFI is based at a nearby Class D airport. On the commute to this morning's lesson, the visibility and ceilings start to quickly deteriorate. The most current ATIS reports 6SM and 900' ceilings. You are currently 11NM out. Can you land there? If so, how?

4. Tonight, you will be taking up a significant other for their first date-night-flight. If sunset is at 1855, and you aren't night-current, what time do you legally have to be on the ground?

LESSON 38

Local Area Solo
Ground Lesson 2.0 / Solo 1.0

Lesson Objective(s)

Based on their performance during Lesson 37 (Mock PPL Checkride), the SP will practice any maneuvers/ procedures which need to feel more solid. The student will increase proficiency and confidence in their ability.

Student Actions

- **Arrive +1.5 hours early for preflight preparation.** Of the 2.0 hours allotted for ground tasks, the other 30 minutes will be spent in post-flight (debriefing yourself + checking in w/ IP).
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks +

◯◯◯ Pre-Solo Briefing

Common Errors

- Lack of situational awareness.

Flight Tasks +

◯◯◯ Takeoff & Departure Procedures

◯◯◯ Local Area Procedures

◯◯◯ Approach & Landing Procedures

Completion Standards

SP successfully performs a solo local area flight without incident. The student conducted maneuver/procedure practice within the practice area while maintaining positive attitude control and correct radio procedures.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- You may be a little nervous, preparing for your Stage 3 Check and actual PPL Checkride. However, those feelings can't overshadow your situational awareness in-flight. Remember to **continuously scan for traffic, adequately clear the area prior to a maneuver, and monitor local frequencies to stay alert**.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 39 – FLY8MA PPL Syllabus.

Debrief Questions

**SP will grade themselves on solo flight tasks during debrief (not in-air)!*

1. We outlined maneuvers and procedures for you to work on during the ground brief. How did those go?
2. How would you grade yourself on today's flight (maneuvers, procedures, radio communications, pattern entry, TO/LD)?
3. How many landings did you accomplish when returning? Do you feel you made the right judgement calls by continuing the approach or going around?
4. Are there any skillsets you employed today that you'd like to work on?
5. Were there any unfamiliar scenarios today that you encountered? How did you handle them?

LESSON 39

Student Progress Evaluation
Ground Lesson 1.0 / Flight Lesson 1.8

Lesson Objective(s)

Following Lessons 37 & 38, the student is re-evaluated in preparation for the Stage 3 Check (Lesson 40). SP should perform all items to a proficient level with confidence and paramount risk mitigation.

Student Actions

- Arrive early to complete preflight items and review maneuvers + emergency procedures.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ PPL Requirements Audit
- ◯◯◯ ACS Standards

Common Errors

- Becoming pressured by ATC, other traffic, or IP to complete a procedure, maneuver or traffic pattern operation faster than comfortable.

Flight Tasks

- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ VFR Maneuvers
- ◯◯◯ Navigational Systems
- ◯◯◯ Equipment & Systems Malfunctions
- ◯◯◯ Lost Procedures
- ◯◯◯ ENG-Out Approach
- ◯◯◯ Short Field TO/LD
- ◯◯◯ Soft Field TO/LD
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Go-Around
- ◯◯◯ Approach & Landing Procedures

Completion Standards

SP revisits maneuvers marked as “unsatisfactory” or “satisfactory” during Mock PPL Checkride. These maneuvers are now marked as “proficient,” and completed to ACS Standards. The student also performs all other reviewed items to checkride-ready level.

Altitude +/-100 feet • Airspeed +/-10 Knots
Bank +/- 10 degrees • Heading +/- 10 degrees

Tips

- A large part of being a pilot is “acting as PIC.” If your IP is pressuring you to start a maneuver right this instant, or perform a secondary task, this is part of the test! We want to see **good PIC judgement and efficient task management**. This, in turn, enforces “safety” as your No. 1 priority (which is the goal).

Homework

Plan a cross country (based on discussion with IP) for the Stage 3 Check, similar to what you can expect on the actual checkride.

Listen to and Review the FLY8MA course lessons as assigned by your instructor, and **Review** Lesson 40 – FLY8MA PPL Syllabus.

Debrief Questions

1. During forward-slip-to-landing practice, you fail to manage airspeed correctly and float down the RWY. You end up landing 500’ past your intended touchdown point (whoops). Did you still complete the maneuver per ACS Standards?
2. If a circuit breaker pops during a flight, should you reset it?
3. How can you tell if an AD has been complied with?
4. You have 2.0 hours left before Annual Inspection. Your planned cross country flight will take 2.4 hours. Can you overfly the Annual Inspection?
5. After having just moved to the area, you take a flight around town. Unfortunately, you find yourself completely lost. How do you find the airport, again? Your VOR is operational, but your GPS is not. You also have a standard 6-pack panel.

LESSON 40

Stage 3 Check
Ground Lesson 1.5 / Flight Lesson 2.0

Lesson Objective(s)

The SP will be tested on all skills learned up to this point in preparation for the official PPL Checkride. ACS Standards will be applied to all maneuvers, and safety will be paramount.

Student Actions

- Arrive early to complete preflight items. Obtain a weather briefing. Adjust nav log as necessary with current winds and temperatures aloft.
- Review FLY8MA Course as assigned by instructor
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks +

- ◯◯◯ PPL Checkride Profile
- ◯◯◯ Mock Oral Exam
- ◯◯◯ Aircraft Preflight

Common Errors

- Failure to clear the area before a maneuver.
- Rushing a procedure or maneuver.
- Trying to salvage a bad/unstable approach.

Flight Tasks +

- ◯◯◯ Checklist Usage, SRM + ADM
- ◯◯◯ Taxi & RWY Incursion Avoidance Procedures
- ◯◯◯ Takeoff & Departure Procedures
- ◯◯◯ Radio Communications
- ◯◯◯ Cross Country Navigation
- ◯◯◯ Navigational Systems
- ◯◯◯ Diversion
- ◯◯◯ Basic Instrument Maneuvers
- ◯◯◯ Unusual Attitude Recovery
- ◯◯◯ Turns around a Point
- ◯◯◯ Rectangular Course
- ◯◯◯ S-Turns
- ◯◯◯ Slow Flight
- ◯◯◯ Power Off Stall
- ◯◯◯ Power On Stall
- ◯◯◯ Spin Awareness
- ◯◯◯ Equipment & Systems Malfunctions
- ◯◯◯ Lost Procedures
- ◯◯◯ ENG-Out Approach
- ◯◯◯ Short Field TO/LD
- ◯◯◯ Soft Field TO/LD
- ◯◯◯ Forward Slip to Landing
- ◯◯◯ Go-Around
- ◯◯◯ Approach & Landing Procedures

Completion Standards

All items completed in accordance with ACS Standards.

Tips

- View this as a routine flight, or a dress rehearsal for the main event. You've made it this far with your IP's blessing... And think about all of that confidence you've built up throughout training! **Just do what you do**—we're rooting for you.

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor.

Debrief Questions

**IP will discuss with the SP how the flight went. The instructor will formulate 5-8 debrief questions of their own, based on the student's performance.*

1. On the Winds Aloft forecast, you see the following under 6,000': *9900+19.* What does this mean?
2. You are a private pilot, and am finally taking up your little nephew for his first flight! You're excited, obviously... so much that you've forgotten your logbook. But, you still have your pilot certificate and medical. Can you still fly?
3. You're trying to figure out which VFR altitude you should file for tomorrow's cross country flight. The True Course is 178°, and the Magnetic Course is 182°. What VFR altitudes could you choose?

FLOATER GROUND LESSON

Can be accomplished at any time (i.e. flight cancellation due to WX).

AC Systems & Preventative Maintenance
Ground Lesson 1.0

Lesson Objective(s)

The SP will gain a greater understanding of what they can and cannot do in regards to preventative maintenance within aircraft systems.

Student Actions

- Review FLY8MA PPL Course Lesson: XXXXXXXXX
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Aircraft Documents + Logbooks
- ◯◯◯ Preventative MX (14 CFR Part 43, App. A)
- ◯◯◯ Aircraft Systems

Debrief Questions

1. You offer to help with your airplane's annual inspection. The A&P obliges, directing you to remove and check all spark plugs. In doing so, you notice an immense amount of carbon built up on one plug. Why would this happen? Can you clean the plug yourself, or will the A&P have to do it?

2. You just bought an used airplane which is coincidently overdue for an oil change. After completing the oil change, you screw on a new filter. This filter needs to be secured with a _____ wire.

3. How many logbooks for your aircraft are there, and what are they each used for? Should you keep them in the aircraft?

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor.

FLOATER GROUND LESSON

Can be accomplished at any time (i.e. flight cancellation due to WX).

Flight Planning Scenario
Ground Lesson 1.0

Lesson Objective(s)

The SP will develop a more thorough understanding of real-world preflight planning.

Student Actions

- Review FLY8MA PPL Course Lesson: XXXXXXXXX
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ◯◯◯ Preflight Planning
- ◯◯◯ Weather Reports
- ◯◯◯ Weight & Balance
- ◯◯◯ Performance Calculations

Debrief Questions

1. Refer to Scenario: How do you obtain a weather briefing? What kind should you request (normal, outlook, abbreviated)?

2. Refer to Scenario: Enroute, you notice the fuel burn is more than you anticipated. You will not be able to land with required (or comfortable) fuel reserve levels. What kind of airport symbol signifies "fuel services" on a sectional chart? Find one along your intended route.

3. Refer to Scenario: Based on the CG and total weight calculated, what kind of flight characteristics can you expect?

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor.

FLOATER GROUND LESSON

Can be accomplished at any time (i.e. flight cancellation due to WX).

Basic Weather Theory
Ground Lesson 1.0

Lesson Objective(s)

Using weather imagery, reports and forecasts, the student will become more comfortable with making weather-related timely decisions/assumptions. This will also assist them in cross country flight planning (altering routes, finding alternate airports, etc.).

Student Actions

- Review FLY8MA PPL Course Lesson: XXXXXXXXX
- Prior to lesson write down 3 questions from the above mentioned preparation.

Ground Tasks

- ○○○ Weather Briefings
- ○○○ Thunderstorms
- ○○○ Weather Imagery
- ○○○ METAR/TAF Decoding
- ○○○ Preflight Planning

Debrief Questions

1. The temperature/dew point spread is equal, there is a dense layer of fog over the airport and there is very little air movement. Do you think a thunderstorm may form from this?

2. As you fly along on a solo cross country route, you notice a thunderstorm left of course. Although the storm's cumulous mass is further away, it looks like the "anvil" is directly above your course. If you didn't alter heading, what conditions could you expect under the anvil?

3. The METAR and local radar show VFR conditions at the airport right now. But just to avoid surprises, you've obtained a weather briefing—they said a strengthening low pressure system would roll in by noon. Will the VFR weather likely hold? Why, or why not?

Homework

Listen to and Review the FLY8MA course lessons as assigned by your instructor.