

CFI Bootcamp

Flight Instructor Training

Teaching Skills

Giving Preflight Briefings With a Syllabus

Lesson Plans for the Checkride
Don't Work

Giving Preflight Briefings with a Syllabus

The Problem

How to Use a Syllabus is Not Being Taught

Giving Preflight Briefings with a Syllabus

The Problem

Lesson Plans for a Checkride Don't Fit Well In a Syllabus

Giving Preflight Briefings with a Syllabus

The Checkride Lesson Plan

Complete full lesson

Assumes you are giving the ground as well as flight

Usually takes between 15 - 30 minutes per maneuver

Giving Preflight Briefings with a Syllabus

The Checkride Lesson Plan

Steep Turns

CFI LESSON PLANS

CFI Bootcamp
Flight Instructor Training

STEEP TURNS

Objective

To perform a 360-degree level turn using between 45 - 50 degrees bank while maintaining altitude, airspeed, and coordination.

Motivation

Develops smoothness, coordination, orientation, division of attention, and control techniques to control the increase in load factor and stall speed. This maneuver can be used to avoid an encounter with clouds, terrain, or other aircraft.

Presentation: 20 Minutes

The applicant demonstrates instructional knowledge by describing and explaining:

1. Aerodynamics review of turning flight including increases in load factor and stall speed and accelerated stalls.
2. Pilot sensations and control forces.
3. How load factor increases with bank angle - Note how after bank angles of greater than 45 degrees load factor increases substantially with even small increases in bank angle.
4. Determining maneuvering speed, including changes in weight.
5. Identification of reference points and heading.
6. Adverse yaw and how to use rudder to stop it.
7. Use of horizon to determine bank and the different sight pictures in left / right turns.
8. Maintaining altitude with elevator and airspeed with power.
9. Use of trim in a turn.
10. Overbanking tendency.
11. Left turning tendencies and the use of rudder in the turn.
12. Anticipating rolling out. (1/2 bank angle in degrees)
13. Control inputs required to maintain altitude and airspeed when level.

© 2021 - CFI Bootcamp - Miami Beach, FL 33139 | 650-600-1021 | cfibootcamp.com

279

Giving Preflight Briefings with a Syllabus

A Lesson Plan Does Not:

Show you how to teach something

Become a Syllabus

In current form become a Preflight Briefing

Giving Preflight Briefings with a Syllabus

What you are Looking for - We hear this all the time

Tell me how to teach a lesson on “Steep Turns”
The Lesson plan should show me that - Wrong!

Giving Preflight Briefings with a Syllabus

There is no one way to deliver a lesson

Teaching is understanding the learner(s) and then delivering a lesson based upon that

Giving Preflight Briefings with a Syllabus

Example - "Steep Turns"

If giving ground then the whole lesson

Student taking a course/in one - Preflight briefing - 5 min

Flight review - Interactive - What do you need to know

Evaluation - State the maneuver and completion standards

Giving Preflight Briefings with a Syllabus

Lesson Plans are an Outline - Nothing More

You must understand what you are teaching

Giving Preflight Briefings with a Syllabus

Preflight Briefings are the How and What for this flight

Tells the pilot how to do something

Has a completion standard

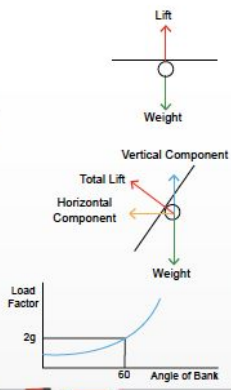
Takes around 5 to 10 minutes per maneuver

Giving Preflight Briefings with a Syllabus

Preflight Briefings are the How and What for this flight

Steep Turns

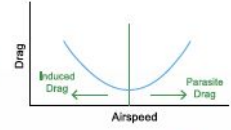
1. Clear the airspace and identify emergency landing areas.
2. Adjust the throttle to 2100 RPM - 90 KIAS.
3. Altitude no lower than 1500 feet AGL.
4. Identify a reference point in front of the aircraft and note the heading.
5. Roll into a 45 - 50 degree bank turn - Stop adverse yaw with rudder.
6. Maintain bank, altitude, and airspeed.
7. Elevator maintains altitude, throttle maintains airspeed, aileron - angle of bank.
8. Remain coordinated.
9. Begin the roll out 25 degrees before the 360 degree point - Stop adverse yaw.
10. Level the wings on the entry heading.
11. Reduce elevator to maintain altitude and decrease throttle for airspeed.
12. Roll into a 45 - 50 - degree bank turn in the opposite direction.
13. Repeat maneuver in the opposite direction.



The diagram shows a vertical vector for Lift and a downward vector for Weight. In a steep turn, the Lift vector is tilted to provide a horizontal component to counteract the centrifugal force. The graph shows Load Factor increasing as the Angle of Bank increases, starting from 1g at 0 degrees and reaching 2g at 60 degrees.

Slow Flight

1. Clear the area.
2. Reduce the throttle to 1500 RPM.
3. Maintain altitude with elevator back-pressure as the airspeed slows.
4. Lower the flaps to full in stages. 10 degrees below 110, the rest below Vfe.
5. Anticipate elevator pressure changes.
6. Slow to 50 KIAS, and apply throttle as necessary to maintain altitude.
7. Use elevator to maintain airspeed.
8. Apply rudder to keep the to maintain heading. Keep the wings level with ailerons.
9. Perform a level 90 degree turn to the left. Additional throttle will be required to maintain altitude.
10. Perform a level 90 degree turn to the right.
11. Return to straight and level flight at cruise speed by applying full power first.
12. As the airspeed increases, retract the flaps in stages while maintaining altitude.
13. When the airspeed is 90 KIAS reduce throttle to 2100 RPM and trim.



The graph shows Drag increasing with Airspeed, with Induced Drag being higher at lower speeds and Parasite Drag being higher at higher speeds. The Lift Equation is shown as $Lift = \frac{\rho V^2 S C_L}{2}$, with a note that C_L is the Angle of Attack. Below the equation, it states 'Variables we can control' and gives the formula $Lift = V^2 AOA$.

Left Turning Tendencies

1. Torque
2. P-Factor
3. Slipstream
4. Gyroscopic Precession (depends)

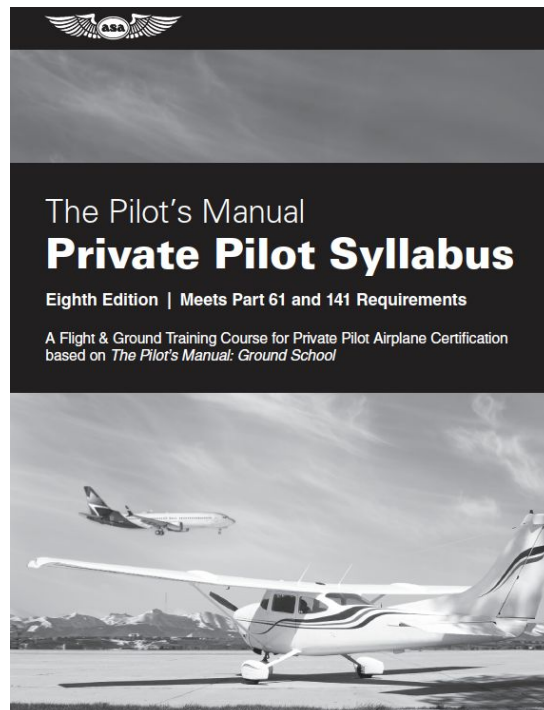
Giving Preflight Briefings with a Syllabus

What is a Syllabus?

A Roadmap to a Course of Training for each Class/Lesson

Giving Preflight Briefings with a Syllabus

What is a Syllabus?



Stage 1 / Module 1

Ground Training

Objective:

For the student to be introduced to the Private Pilot Certification program, and learn the flight school requirements, procedures, regulations, and grading criteria. Student shall also become familiar with stability, control, and the forces acting on an airplane.

Content:

- Review of course and objectives
- School requirements, procedures, regulations
- Grading criteria, expectations of student
- Review objective of Stage 1

The forces acting on an airplane

Weight

Lift

- streamline/turbulent flow
- Bernoulli's Principle
- dynamic/static pressure
- airspeed
- airfoil shape
- aerodynamic force
- pressure distribution and CP movement

Drag

- total drag
- parasite drag
- skin friction drag
- form drag
- interference drag
- induced drag
- angle of attack
- wing design
- lift/drag ratio
- wing flaps
- leading-edge devices
- spoilers

Thrust

- propeller motion
- forces on a propeller blade
- propeller efficiency
- controllable-pitch propellers
- takeoff effects of propellers
- propeller torque effect
- gyroscopic effect
- P-factor

Completion Standards:

This lesson is complete when the student has successfully completed all review questions following the assigned reading.

Assignment:

Ground School, Chapters 1 and 2

Stability and control

Stability

- static/dynamic stability
- stability vs. maneuverability
- airplane equilibrium
- pitching moments
- longitudinal/directional/lateral stability

Control

- elevator
- ailerons
- rudder
- control effectiveness



Flight Training

Objective:

For the student to be introduced to and become familiarized with preflight inspections, checklist operations, starting and taxi procedures, and the function and use of the airplane controls.

Content:

- Preflight inspection and aircraft documents (certificates and documents, aircraft logbooks, airplane servicing)
- Starting procedures
- Taxi
- Control effects on ground and in flight
- Checklist introduction and use
- Normal takeoff
- Four Basics: straight and level, climbs, descents, turns
- Collision avoidance procedures
- Normal approach and landing
- Postflight procedures

Completion Standards:

This lesson is complete when the student can conduct the preflight with minimum assistance, properly use all checklists, start the airplane, taxi, and operate the controls.

Recommended Reading:

Flight School

Minimum 141 Requirements

- Dual 1.0 hour flight
- 2.0 hours ground instruction

Stage 1 / Module 1

Date of Completion: _____

Signature: _____

Time Flown: _____

Giving Preflight Briefings with a Syllabus

What is a Syllabus?

Tells the teacher what must be covered and in what time
In Aviation it will specify the minimum time
In a class there will only be so much time available

Giving Preflight Briefings with a Syllabus

Most 141 Syllabi aren't usable "As is"

Lesson times understated - ASA 1st lesson takes 6-7 hours
The Syllabus Says 3 hours

Giving Preflight Briefings with a Syllabus

What to do about it?

Assign a course that aligns with the syllabus ground

Ensure the student is always ahead of the flight lesson

Chop up the ground/flight lesson when the lesson is too big

Giving Preflight Briefings with a Syllabus

Attention and Processing

Most people can only absorb 20 minutes of new things
People need time to process/try/fail - We learn like this

Giving Preflight Briefings with a Syllabus

Assigning a Course is Very Important - Part 61 schools

Students are constrained by instructor lesson allocations
There is time to try other methods to understand/use
Well structured and do a better job of g"Global" info
You provide the tailoring to the learner

Giving Preflight Briefings with a Syllabus

Use the Syllabus as a Checklist - Part 61

Look at what needs to be done and work on that list
When a stage is nearing completion see what remains

Giving Preflight Briefings with a Syllabus

Use the Syllabus as a Checklist - Part 61

Learners can see their progress and next steps

Giving Preflight Briefings with a Syllabus

The FOI?

A Basis on How to be a Teacher

Motivation is key one

Peoples backgrounds are key two

How people like to learn is key three

How you blend these as a teacher is key four

From Us to You!

PreFlight Briefings

Teach Brief - Fly
"A complete system to teach flying using either a Part 141 or 61 Syllabus."
Second Edition

CFI Bootcamp
Flight Instructor Training

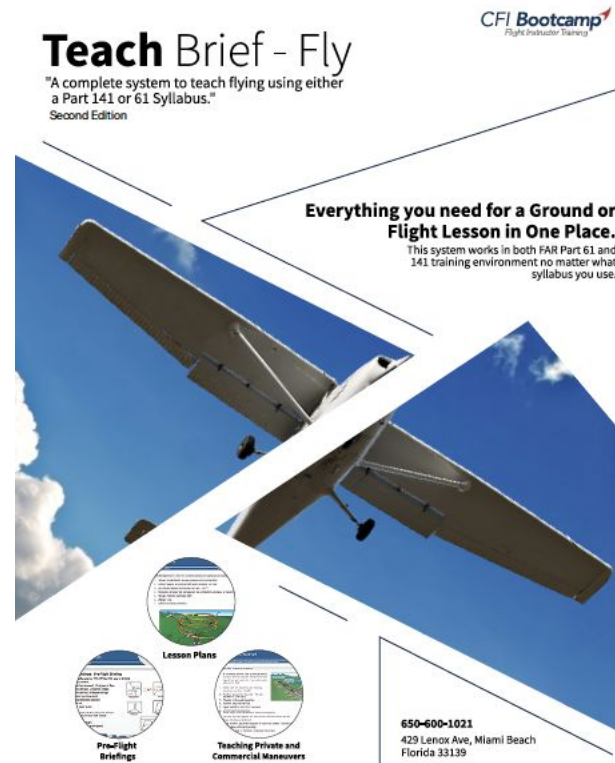
Everything you need for a Ground or Flight Lesson in One Place.
This system works in both FAR Part 61 and 141 training environment no matter what syllabus you use.

Lesson Plans

Pre-Flight Briefings

Teaching Private and Commercial Maneuvers

650-600-1021
429 Lenox Ave, Miami Beach
Florida 33139

The image shows the front cover of the 'Teach Brief - Fly' book. The cover features a large, stylized graphic of a white Cessna 172 aircraft in flight, viewed from a low angle looking up at the wings and tail against a blue sky with white clouds. The title 'Teach Brief - Fly' is prominently displayed at the top left. Below it, a quote describes the book as a complete system for teaching flying. The CFI Bootcamp logo is in the top right. A central text block states that the book contains everything needed for a lesson in one place. At the bottom, there are three circular icons representing different sections: Lesson Plans, Pre-Flight Briefings, and Teaching Private and Commercial Maneuvers. Contact information is provided in the bottom right corner.

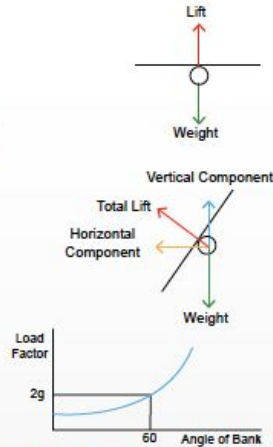
[Teach Brief-Fly!](#)

CFI Bootcamp
Flight Instructor Training

From Us to You!

Steep Turns

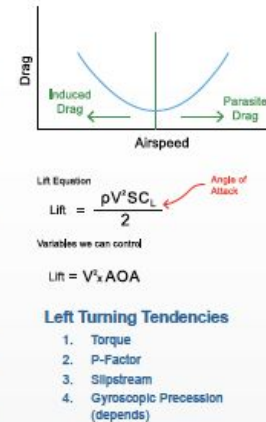
1. Clear the airspace and identify emergency landing areas.
2. Adjust the throttle to 2100 RPM - 90 KIAS.
3. Altitude no lower than 1500 feet AGL.
4. Identify a reference point in front of the aircraft and note the heading.
5. Roll into a 45 - 50 degree bank turn - Stop adverse yaw with rudder.
6. Maintain bank, altitude, and airspeed.
7. Elevator maintains altitude, throttle maintains airspeed, aileron - angle of bank.
8. Remain coordinated.
9. Begin the roll out 25 degrees before the 360 degree point - Stop adverse yaw.
10. Level the wings on the entry heading.
11. Reduce elevator to maintain altitude and decrease throttle for air-speed.
12. Roll into a 45 - 50 - degree bank turn in the opposite direction.
13. Repeat maneuver in the opposite direction.



[Teach Brief-Fly!](#)

Slow Flight

1. Clear the area.
2. Reduce the throttle to 1500 RPM.
3. Maintain altitude with elevator back-pressure as the airspeed slows.
4. Lower the flaps to full in stages. 10 degrees below 110, the rest below Vfe.
5. Anticipate elevator pressure changes.
6. Slow to 50 KIAS, and apply throttle as necessary to maintain altitude.
7. Use elevator to maintain airspeed.
8. Apply rudder to keep the to maintain heading. Keep the wings level with ailerons.
9. Perform a level 90 degree turn to the left. Additional throttle will be required to maintain altitude.
10. Perform a level 90 degree turn to the right.
11. Return to straight and level flight at cruise speed by applying full power first.
12. As the airspeed increases, retract the flaps in stages while maintaining altitude.
13. When the airspeed is 90 KIAS reduce throttle to 2100 RPM and trim.



Pathway - A Syllabus with Content Ready to Go



Private Pilot Pathway Syllabus

~~\$499.00~~ \$374.25

Add to Cart



[Get Pathway at a Discount](#)



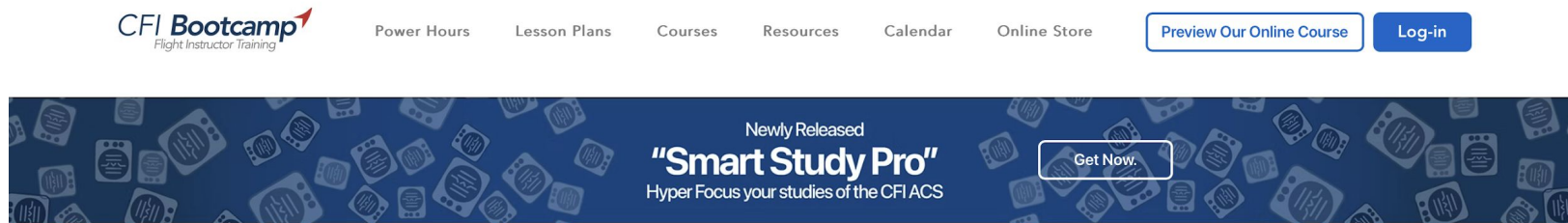
The Private Pilot Pathway also includes CFI Essentials.

From the very beginning, our Private Pilot Pathway was designed to be a flight instructor's single point of contact to teach every ground and flight lesson for a Private Pilot Certificate.

CFI Bootcamp
Flight Instructor Training

From us to you...

Our Newest Product



Every Knowledge and Risk Management Element for the oral portion explained – Built for audio – Driving etc. Also includes video and PDF companion guides

[CFI ACS Smart Study Pro](#)



From us to you...

Start your CFI Training and Finish it!



Power Hours

Lesson Plans

Courses

Resources

Calendar

Online Store

[Preview Our Online Course](#)

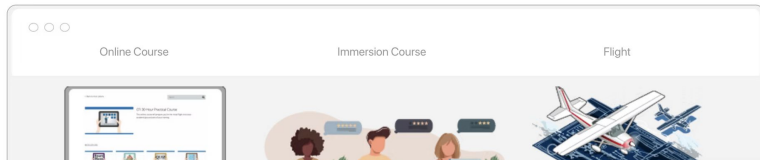
[Log-in](#)

Your Flight Instructor Training Starts Here.

A Complete Structured Training System,
Developed by Industry Leaders.

Palo Alto, CA and Miami, FL

[Learn More.](#)



We get the job done

CFI Bootcamp
Flight Instructor Training

From us to you...

Program

42-hour self-paced online course

42-hour in-person/remote ground school – 7 Days

One week of flight/ground – Dedicated airplanes/CFIs

From us to you...

Program

Checkride - Prescheduled

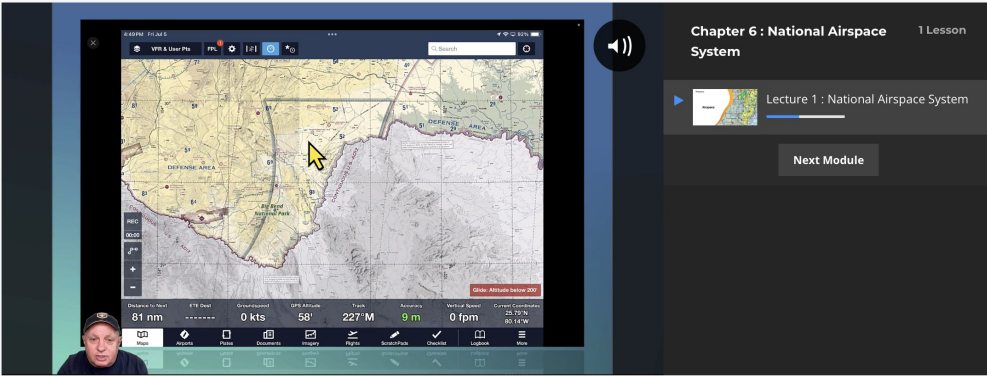
On Campus for 2 to 2.5 weeks

Click Here: [We get the job done](#)

From us to you...

Free Preview of Our Online Course

[Click here to get a Preview of the Online Course](#)



Chapter 6 : National Airspace System 1 Lesson

Lecture 1 : National Airspace System

Next Module

[Mark As Complete](#)

Lecture 1 : National Airspace System

Chapter 6 : National Airspace System

This updated lecture provides an in-depth exploration of the various types of airspace within the National Airspace System. We'll cover controlled and uncontrolled airspace, special use airspace, and airspace classes, focusing on the rules and regulations that pilots must follow to ensure safe operations in each type.

Downloads

- [National Airspace System](#)
- [Chapter 12: Workbook Questions](#)

CFI Bootcamp
Flight Instructor Training

From us to you!

Past Power Hour Information

[Click here to get outlines of previous power hours](#)

Power Hour Lesson Outlines

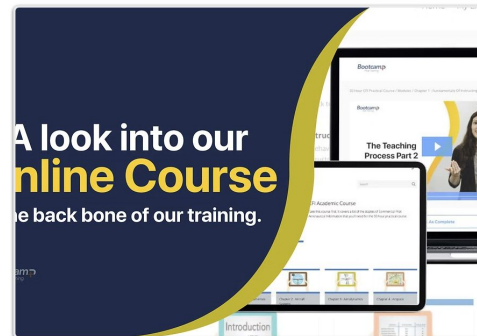
Created Around Hour Long Weekly Live Topic Specific Instructional Training.

Powered by Bootcamp +



How to Make Being a Flight Instructor a Career

March 8, 2025 at 12:00:00 PM



A look into the products CFI Bootcamp has to offer


February 22, 2025 at 12:00:00 PM

CFI Bootcamp
Flight Instructor Training

From us to you...

See Every Full-Length Power Hour

[Click here to get a huge discount to our membership site to see every previous power hour – Over 233 of them](#)


Premium Training Content

Resources | Content

Bootcamp Pilot Training	Included
Flight Training the Way See it - Podcast	<input checked="" type="checkbox"/>
Weekly Short Subject Videos	<input checked="" type="checkbox"/>
Private Pilot Ground Schools Video Course	<input checked="" type="checkbox"/>
Bootcamp + Networking Community	<input checked="" type="checkbox"/>
Entire Power Hour Lesson Catalog	<input checked="" type="checkbox"/>
Focused Training Resources	<input checked="" type="checkbox"/>

By clicking "Complete my purchase" you agree to the [Terms and Privacy Policy](#). Billed after 7 Day Free Trial Expires.

\$22.00 / Monthly Subscription – Billed After 7 Day Trial

7 day trial

Subtotal: \$22.00 USD every month

Trial: 7 day trial

Discount: 59% off forever ×

Due Now: \$0.00 USD

Logout

mikeshiflett@gmail.com


Card number MM / YY


Your payment information will be stored on a secure server for future purchases


Complete my purchase


It will work out to be \$9/month after the 7-day Free Trial!


Power-Hour-Lessons


**Welcome!**
A Quick Guide Showing you the Features you'll have at your fingertips.


**Student Pilot Regulations and Endorsements**
Learn "How to Solo a Student and send them to other airports". Topics Regulations FAR 61 ...

**Class E & G Airspace**
Class E IFR and VFR flights are permitted. IFR flights are provided with air traffic co...

**5 Things that Will Instantly Improve your Flying**
5 things that will instantly improve your flying that you were NEVER taught in flight school - ...

**Endorsements You Must Know**
Core regulations you need to know 61.1 Definitions 61.23. Medical certificates 61.31 Aircraft au...

**Airmanship Etiquette**
- There are things that aren't in any book, the unwritten rules - You'd need to be told these ru...

**Aerodynamics Part Two**
This lesson covers how an aircraft achieves stability around the three axes and the advantages an...

CFI Bootcamp
Flight Instructor Training