

# KING

## Instrument Rating Syllabus





**King Schools, Inc.**

# **Instrument Rating Syllabus**

***The Route to Enhancing Your Pilot Certificate***

**Featuring King Schools:**

**Instrument Rating Ground School and Test Prep Course**

**Instrument Rating Practical Test Course**

**Single-Subject Takeoff Courses**

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# King Schools Instrument Rating Syllabus

## *The Route to Enhancing Your Pilot Certificate*

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# King Schools Instrument Rating Syllabus

## RECORD of REVISIONS

<b>Revision Number</b>	<b>Revision Date</b>	<b>Online Date</b>	<b>Change Description</b>
Ver. 1.0	07-24-13	07-24-13	ORIGINAL
Ver. 1.1	12-27-16	01-04-17	Pg. ii, 24-31: Airman Certification Standards replaced Practical Test Standards
Ver. 1.1	12-27-16	01-04-17	Pg. ii-v, vii: Knowledge Test Course renamed Ground School and Test Prep Course
Ver. 1.1	12-27-16	01-04-17	Pg. vii: <i>En Route Charts</i> renamed <i>IFR Cross-Country Flying</i> , <i>Departures and Arrivals</i> renamed <i>Departure and Arrival Procedures</i> , <i>Weather Wise</i> renamed <i>Aviation Weather Wise</i> , <i>Navigation From A to Z</i> renamed <i>Airplane Navigation From A to Z</i> ; Page viii: <i>Approach Charts</i> renamed <i>Instrument Approach Charts</i> , <i>Surviving Systems Emergencies</i> renamed <i>Surviving Aircraft Systems Emergencies</i>
Ver. 1.1	12-27-16	01-04-17	Pg. xi-xiv: Updated to conform to revised simulation device allowances
Ver. 1.2	09-01-23	09-15-23	Pg i-xii: Deleted references to FAA Part 141 requirements focusing on Part 61 curriculum

**King Schools, Inc.**  
**Instrument Rating Syllabus**  
***The Route to Enhancing Your Pilot Certificate***

***To the pilot choosing to expand horizons:***

You have already added a significant dimension to your life by becoming a pilot, but perhaps you have a touch of envy of those who are not always “grounded” by the weather. So you want to reach beyond those VFR limitations and continue your pursuit of aviation knowledge and skill by getting an Instrument Rating. You will find this task both a challenge and a source of great satisfaction.

***What is the objective of this syllabus?***

The King Schools Instrument Rating syllabus provides a curriculum of instruction for the FAA required aeronautical knowledge areas using King Schools, Inc. courses and a structured flight training program leading to an Instrument Rating in airplanes.

This curriculum is designed for an individual training at a flight school or with an independent instrument flight instructor to complete their instrument rating requirements in as little as 36 hours of ground instruction and 40 hours of actual or simulated instrument time of which at least 15 hours is flight instruction from an instructor holding an instrument-airplane rating.

The curriculum sequence of ground and flight lessons builds on basic instrument skills while adding the whole new environment of Instrument Flight Rules (IFR) operations. You will learn to combine precise aircraft control, navigation, use of IFR charts and procedures, ATC communications, and the skills to achieve confidence in this demanding environment. This curriculum emphasizes gaining a thorough knowledge of weather including theory, pre-planning and in-flight products such as reports, forecasts, graphical charts, and hazardous conditions. You will also acquire a keen understanding of the risks associated with instrument flying and learn effective ways to manage those risks.

Upon successful completion of this syllabus, as a holder of an Instrument Rating, you will be authorized to fly under Instrument Flight Rules (IFR) in instrument meteorological conditions (IMC).

***How do I start training using this syllabus?***

You may take flight training conforming to this syllabus at a business operating as a flight school or with an independent flight instructor. Flight training with independent flight instructors and those flight schools not holding an FAA Pilot School certificate must meet the 40-hour minimum mentioned above. The King Schools Instrument Rating Syllabus provides a curriculum that will satisfy those requirements.

## ***What are the steps for earning an instrument rating?***

Earning an Instrument Rating involves the items listed below. Your instructor can explain each and can answer any question you may have.

- Hold a Private Pilot (or higher) certificate
- Have logged 50 hours of cross-country flight time as pilot in command (at least 10 hours in an airplane)
- Pass a test on aeronautical knowledge
  - The *King Schools Ground School and Test Prep Course* prepares you for that test
- Complete the required flight training for the course
  - See the table summary on pages xi-xii of this syllabus
- Pass a practical test with a Pilot Examiner
  - Meeting or exceeding the criteria in the FAA Instrument Rating Airman Certification Standards (ACS)
    - A link is provided to the latest downloadable version

## ***How do I start the King Schools Instrument Rating curriculum?***

Once you have enrolled in your flight training curriculum, you will want to review this syllabus with your flight instructor to establish a schedule and set clear, mutual expectations for your training. Your instructor is there to facilitate your learning, mentor and guide you, keep the training environment safe, and incrementally transfer management of all IFR flight elements to you, so that when you complete your training, you will be qualified to be “Pilot-in-Command” in IMC.

During your training you will acquire a new set of knowledge unique to instrument operations and this is accomplished in large part through your ground lessons. You will want to refer to the table on page vii, the *Recommended King Course Ground Lesson Schedule* as your guide for study. It provides a sequence the King Schools curriculum materials and pairs topics up with the flight training lessons. These courses also help you prepare for the FAA knowledge test and the oral portion of your FAA practical test. You will want to keep up with or be ahead of the ground lesson schedule to be on track with your flight lessons and be ready at the appropriate time for those tests.

## ***To flight instructors and flight schools using this syllabus:***

### **14 CFR Part 61 Training**

This syllabus is coordinated with King Schools courses with which you are probably already familiar. The Knowledge Test Course and the Practical Test Course are foundational to this syllabus, and the 13 Single Subject Courses applicable to Instrument Rating are highly recommended augmentation. There are package options your client can take advantage of. You and your client should discuss a study schedule to match their goals and flight schedule. You will want to encourage and monitor your client’s study so that they are prepared for the tests at the appropriate time without loss of continuity in their training.

#### ***Instrument Rating Ground School and Test Prep Course:***

Ground School for the required aeronautical knowledge areas and the FAA knowledge test. This course may be taken prior to starting the flight training or incrementally thorough it as suggested in the Ground Lesson Schedule on page vii.

#### ***Instrument Rating Practical Test Course:***

Ground school preparation for the FAA practical test (oral and in-flight portions). This course is most effective when taken later in the training.

#### **Single-Subject Courses (Individual single-topic courses):**

Each applicable course is listed with a suggested progress point for taking it.



### **Scenario Based Training**

You are encouraged to create and use a realistic scenario for each of these lessons such that your client has an intellectual and emotional investment making every flight. Each scenario will include a plausible reason for making the flight...on that day...at that time. It will also state or imply consequences if the flight is not completed (your wife won't speak to you for a week if you miss her sister's birthday party; this meeting is crucial to your company's future; etc.).

Using such scenarios goes hand-in-hand with the early involvement of your client identifying and managing risks.

### **Task Grading**

You will want to make sure your client clearly understands the objective of each flight and task and the acceptable performance standard for each. The grading for each task/maneuver is either "Meets" indicating the pilot you are training met or exceeded the minimum standard, or "Continue" indicating that the task was either not performed or not performed per the minimum standard. A continued task will then be added to a subsequent lesson.

To avoid unrealistic expectations, make sure your client understands that some tasks are more difficult than others and may require more than one flight to master. It is also helpful they understand that interruptions in the training schedule for weather, personal schedules, etc. can make it necessary to revisit tasks that have been previously mastered.

### **Learner-Centered Grading**

You may want to employ the postflight "learner-centered grading" technique of asking your client to mark and evaluate their performance with each of the tasks on that flight while at the same time you mark your form. You can then use a comparison of the marks for your lesson debrief. It may be very revealing to see where you and your client matched and where you didn't. This offers the opportunity to discuss the differences. As the instructor, you have the final authority in assigning the grade.

### **Lesson Completion**

Ground training study is tracked within in the individual King Schools courses and each course makes available a printable completion certificate when all the requirements for that course are done. The King Flight Instructor Program (no cost to CFIs) provides access to all of the King Ground School & Test Prep and Practical Test courses your students are taking as well as access to a dashboard where you can monitor their progress.

A flight lesson is complete when all the tasks have been graded as meeting or exceeding the task standards and lesson total and sub-category times meet or exceed the minimum listed in the table on pages xi-xii. Individual tasks not attempted or not meeting standards within a lesson may be carried over and included in the next lesson within that stage. If there are incomplete tasks in the last lesson within a stage, that lesson must be repeated as necessary to finish all tasks to the standards. If a lesson task requires equipment not available in the aircraft or training device (i.e. autopilot), that task will be noted as not applicable in the training course outline.

### **Stage Completion**

A stage is complete when all the lessons have been completed including progress checks and any specified tests.

## **General information for pilots in training and instructors:**

### **Aviation Training Devices**

This syllabus is designed for integrated use with a wide variety of Aviation Training Devices (ATD) including both Basic Aviation Training Devices (BATD) and Advanced Aviation Training Devices (AATD).

Capable Aviation Training Devices (ATD) are available at costs within reach of most all levels of flight training organizations and have proven quite effective for gaining the skill and proficiency required of various instrument flight tasks. This syllabus is focused on providing an efficient, but a complete path to an instrument rating and appropriate use of an ATD will support that goal.

You will see a number of lessons in this syllabus marked “ATD” indicating that an Aviation Training Device may be used in lieu of an airplane. Training received under Federal Aviation Regulation Part 61 (a business operating as a flight school or an independent flight instructor) may use an ATD within certain limitations.

If all the lessons marked “ATD” are flown in an ATD, you will most likely exceed the allowed ceilings for credit. There is no penalty for logging additional ATD time provided the minimum *in-the-airplane* training requirements are met before completing the course. Therefore, the instructor and the pilot being trained will want to choose ATD flights to maximize the learning/cost benefit while carefully tracking the course requirements.

### **View-limiting Device**

When safely airborne after takeoff to no later than the missed approach point prior to landing, all in-flight maneuvers will be flown with a view-limiting device unless in instrument meteorological conditions (IMC).

### **IMC Exposure**

FAA regulations have no requirement to train in IMC (instrument meteorological conditions) or to log actual instrument time prior to obtaining an instrument rating. In fact it's possible to see very little IMC in many training locations. Experience has shown training with a view-limiting device still provides cues that are not available when in IMC. Instructors are strongly encouraged to create opportunities to expose their trainees to some actual IMC appropriate to the training level and good risk management.

### **FAA Emphasis on Risk Management and Safety of Flight items**

The Instrument Rating Airman Certification Standards identify specific Risk Management elements for each task and detail important Safety of Flight items in the Appendix. Risk mitigation techniques and good cockpit practices such as positive exchange of controls, use of checklists, etc. are listed on most of the lessons of this syllabus to make sure they are incorporated by the pilot being trained.

**Task Standards**

“Review” implies that the item listed is new and the pilot-being-trained may need guidance from the instructor during the preflight briefing.

“Brief” implies that the pilot-being-trained has previously been introduced to the concept and has sufficient understanding to brief the instructor during the preflight briefing (i.e. evaluating the weather for the flight).

In order to develop a higher level of flight skills, task tolerances (altitude, heading, airspeed, etc.) become tighter while progressing through the syllabus flight lessons, and will in some cases, go beyond the ACS standards. The final progress check is evaluated to ACS standards.

**Equipment Not Installed**

The practical test requirements allow the use of aircraft that are not equipped for NDB or IFR GPS navigation. This syllabus was written to cover all equipment possibilities. If your aircraft does not have one of these systems, you may consider using an ATD or substituting another system.

**Pilot in Command**

A key concept of this syllabus that starts with the first flight and continues throughout is to develop the pilot-in-command level knowledge and skills needed to effectively manage the risks of instrument flight. Performance in risk management as well as the other elements of the Single Pilot Resource Management concepts will be evaluated concurrent with the flight maneuvers.

**Intentionally left blank**

## RECOMMENDED KING COURSE GROUND LESSON SCHEDULE

If the pilot-in-training does not complete the Knowledge Test Course before beginning flight training, recommend following schedule of ground lessons be done prior to the paired flight lesson. Recommend that the pilot-in-training successfully complete the FAA knowledge test before the Long IFR Cross Country Progress Check. The training times noted account for video instruction and answering questions. This schedule applies to a Part 61 course.

KTC—refers to the King Schools *Instrument Rating Ground School*      SSC—refers to a King Schools Single-Subject Course by title  
*and Test Prep Course* with subject title

PTC—refers to the King Schools *Instrument Rating Practical Test Course*

FLIGHT TRAINING Lessons	CORE GROUND TRAINING		SUPPLEMENTAL GROUND TRAINING	
	KING SCHOOLS KNOWLEDGE & PRACTICAL TEST COURSES	Training Time	KING SCHOOLS SINGLE-SUBJECT AND RISK MANAGEMENT COURSES	Training Time
<b>Stage 1: Learning and Refining Aircraft Control Using the Instruments</b>				
1-Preflight and Basic Instrument Control	KTC <i>Flight Instruments</i>	3.3		
2-Expanding Instrument Skills			SSC <i>Airport Signs, Markings &amp; Procedures</i>	0.6
3-Using the Magnetic Compass	KTC <i>IFR Cross-Country Flying</i>	3.0	SSC <i>METAR/TAF Made Easy</i>	1.3
4-IFR Flight Plans and Clearances				
5-Primary Flight Instrument/Display Failure	KTC <i>Weather</i>	4.8	SSC <i>Aviation Weather Wise</i>	0.9
6-Review of Instrument Control and Progress Check			SSC <i>Practical Risk Management for Pilots</i>	0.8
<b>Stage 2: Navigating While Flying on Instruments</b>				
7-GPS and VOR for IFR	KTC <i>Navigation</i>	1.7	SSC <i>Flying with the KLN 94 GPS</i> Or.. <i>Flying the Garmin 430/530</i> Or <i>Flying the Garmin 650/750</i>	2.8 4.0 6.5
8-NDB/ADF Navigation and Departure Procedures	KTC <i>Departure &amp; Arrival Procedures</i>	0.4	SSC <i>Airplane Navigation From A to Z</i>	2.2

FLIGHT TRAINING	CORE GROUND TRAINING		SUPPLEMENTAL GROUND TRAINING	
	KING SCHOOLS KNOWLEDGE & PRACTICAL TEST COURSES	Training Time	KING SCHOOLS SINGLE-SUBJECT AND RISK MANAGEMENT COURSES	Training Time
9-Building Skill with GPS, VOR and NDB Navigation				
10-DME Arcs	KTC <i>Holding Patterns</i>	1.1	SSC <i>Surviving Your Most Feared Flying Emergencies</i>	1.1
11-Holding Procedures				
12-Progress Check				
<b>Stage 3: Finding the Airport – Flying Instrument Approaches</b>				
13-ILS Approaches and Procedures Turns	KTC <i>Instrument Approaches</i>	6.3	SSC <i>Complete Jeppesen Chart Review</i>	2.3
14-RNAV Approaches with Vertical Guidance	KTC <i>Aeronautical Information Manual</i>	2.9		
15-LNAV and Localizer Approaches				
16-VOR and NDB Approaches	KTC <i>Federal Aviation Regulations</i>	2.9		
17-Circling Approaches				
18-Partial Panel and Using the Autopilot for Approaches			SSC <i>Surviving Aircraft Systems Emergencies</i>	1.8
19-Progress Check				
<b>Stage 4: Instrument Cross Countries</b>				
20-Short IFR Cross Country	KTC <i>Flight Planning</i>	0.9	SSC <i>IFR With Confidence</i>	1.8
21-Refining Approaches				
22-Long Cross Country Progress Check	Take FAA Knowledge Test		SSC <i>How to Avoid Unwanted Adventure</i>	1.0

FLIGHT TRAINING Lessons	CORE GROUND TRAINING		SUPPLEMENTAL GROUND TRAINING	
	KING SCHOOLS KNOWLEDGE & PRACTICAL TEST COURSES	Training Time	KING SCHOOLS SINGLE-SUBJECT AND RISK MANAGEMENT COURSES	Training Time
<b>Stage 5: Becoming Instrument Rated</b>				
23-Honing the Edge	PTC (entire course)	7.5	SSC IFR Regulations Refresher	2.5
24-Pre-Checkride Progress Check			SSC Practical Risk Management for Single-Pilot IFR	1.1
<b>Total KTC &amp; PTC</b>		<b>36.3</b>	<b>Total SSC</b>	<b>20.2</b>

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## Course Completion Flight Training Minimums Table

This syllabus was designed to be used for Part 61 training.

Since logable flight time in an aircraft may include ground operations (taxi, etc.), *Total Flight Time* will normally exceed *Instrument Flight Training* time except for those lessons flown in a simulation device [Aviation Training Device (ATD)—Basic Aviation Training Device (BATD) or Advanced Aviation Training Device (AATD), Flight Training Device (FTD), or a Full Flight Simulator (FFS)]. *Instrument Flight Training* time is the controlling minimum.

This table reflects a typical number of flights and the minimum number of hours to complete the FAA time/event requirements. Interruptions in the training schedule for weather, personal schedules, etc. can require additional review to achieve/regain the necessary proficiency.

### **Part 61**

<b>Stage #</b>	<b>Lesson #</b>	<b>Total Flight Time</b>	<b>Instrument Flight Training</b>	<b>Instrument Cross Country</b>	<b>BATD</b>	<b>FTD not Part 142 or AATD</b>	<b>FFS or FTD Part 142</b>
<b>1</b>	1		1.4				
	2		1.4				
	3		1.4				
	4		1.4				
	5		1.4				
	6 <i>Prg</i> ✓		1.8				
Stage	Totals		8.8				
<b>2</b>	7		1.5				
	8		1.5				
	9		1.5				
	10		1.5				
	11		1.5				
	12 <i>Prg</i> ✓		1.8				
Stage	Totals		9.3				
<b>3</b>	13		1.5				
	14		1.5				
	15		1.5				
	16		1.5				
	17		1.5				
	18		1.5				
	19 <i>Prg</i> ✓		2.0				
Stage	Totals		11.0				

Stage #	Lesson #	Total Flight Time	Instrument Flight Training	Instrument Cross Country	BATD	FTD not Part 142 or AATD	FFS or FTD Part 142
<b>4</b>	20		2.0	2.0			
	21		1.5				
	22 <i>Prg</i> ✓		3.2	3.2			
Stage	Totals		6.7	5.2			
<b>5</b>	23		**2.1				
	24 <i>Prg</i> ✓		**2.1				
	Stage	Totals		4.2			
<b>Final</b>	<b>Totals</b>		40.0	5.2			
<b>Pt.61</b>			<b>*40 Min</b>	<b>****</b>	<b>***10 Max</b>	<b>***20 Max</b>	<b>***30 Max</b>

**Part 61 Required Aeronautical Experience:**

50 hours of cross-country flight time as pilot in command, of which 10 hours must have been in an airplane (not required to be actual or simulated instrument time).

\*40 hours of actual or simulated instrument time in an aircraft or approved simulation device of which 15 must be received from a flight Instructor with an instrument-airplane rating.

\*\*3 hours of instrument flight training from an authorized instructor in an airplane that is appropriate to the instrument-airplane rating within 2 calendar months before the date of the practical test.

\*\*\*10 hours maximum instrument time in a Basic Aviation Training Device, not more than 20 hours in an Advanced Aviation Training Device or Flight Training device (not conducted under Part 142) or a maximum of 30 hours if in a Flight Training Device or Full Flight Simulator (completed in accordance with Part 142).

\*\*\*\* No minimum cross-country time. One cross-country flight must be under IFR with a flight plan filed with ATC, at least 250 nm along airways (or ATC-directed routing) involving an approach at each airport and a total of three different kinds of approaches using navigation systems.

## **STAGE 1**

### **Learning and Refining Aircraft Control Using the Instruments**

#### **Objectives:**

Learn about the flight instruments used for aircraft control in IMC, en route IFR navigation charts, and weather concepts, reports, forecasts, charts and their application. Review the signs and markings in use at airports to prevent runway incursions. Also learn techniques for managing potential flight risks.

Refine aircraft instrument control through straight and level flight, standard rate turns, climbs, descents and changing speed. Exercise control by standby or partial panel instruments including recovery from unusual attitudes and make turns to headings using time and the magnetic compass.

Complete progress check.

Instrument Rating Flight Training Syllabus

Flight Lesson 1 — **Preflight and Basic Instrument Control** — Local

Objective: Learn actions to prepare for instrument flight including risk management, preflighting the aircraft, and checking the instruments. Exercise instrument control in flight and conduct an IFR focused postflight.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Review &amp; explain the PAVE checklist with emphasis on environmental conditions</i>		
2		Positive Exchange of Flight Controls <i>Understands and uses the positive three-step exchange of controls</i>		
3		Collision Avoidance Procedures <i>Clear understanding of responsibilities &amp; procedures for visual &amp; Instrument reference</i>		
4		Using the Checklists <i>Exercises an effective flow and check process for procedures</i>		
5		Preflight for Instrument Flight <i>Perform aircraft inspection with emphasis on systems associated with instrument flight</i>		
6		Checking the Instruments on the Ground <i>Systematically checks instruments &amp; systems for proper indications during ground operations</i>		
7		Runway Incursion Avoidance <i>Uses airport diagram, notes taxi clearances, requests clarification as needed</i>		
8		Normal Takeoff and Climb <i>Completes pre-takeoff checks, checks HI on runway, notes airspeed indications on takeoff roll</i>		
9		Constant Airspeed Climbs <i>Smooth transition level to climb, maintains airspeed <math>\pm 15</math>kts, heading <math>\pm 15^\circ</math>, bank <math>\pm 10^\circ</math></i>		
10		Level-Off from Climb <i>Smooth transition climb to level <math>\pm 100</math> ft, accelerates to cruise airspeed, trims</i>		
11		Straight and Level <i>Maintains airspeed <math>\pm 15</math>kts, heading <math>\pm 15^\circ</math>, altitude <math>\pm 150</math> ft</i>		
12		Level Standard Rate Turns to Heading <i>Maintains <math>\pm 15</math>kts, target bank angle <math>\pm 5^\circ</math>, stops on assigned heading <math>\pm 10^\circ</math>, <math>\pm 150</math> ft</i>		
13		Constant Airspeed Descents <i>Smooth transition level to descent, maintains airspeed <math>\pm 15</math>kts, heading <math>\pm 15^\circ</math>, bank <math>\pm 10^\circ</math></i>		
14		Level-Off from Descent <i>Smooth transition descent to level <math>\pm 100</math> ft, returns to cruise airspeed, trims</i>		
15		Normal Approach and Landing <i>Completes pre-landing checks, smooth landing with appropriate crosswind correction.</i>		
16		After landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
17		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

Note: When safely airborne after takeoff, to no later than the missed approach point prior to landing, all in-flight maneuvers will be flown with a view-limiting device.

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 2 — **Expanding Instrument Skills** — Local/ATD

Objective: Challenge and enhance basic instrument control skills by holding a constant climb/descent rate when changing altitude, making airspeed changes in level flight, and combining turns with climbs and descents.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist in identifying &amp; mitigating flight risks, briefs the weather</i>		
2		Controlled Flight into Terrain Awareness <i>Briefs local area vertical obstructions &amp; charted maximum elevation figures</i>		
3		Pre-takeoff Calculations <i>Briefs Weight &amp; Balance and Takeoff and Landing performance data for conditions</i>		
4		Preflight for Instrument Flight <i>Complete aircraft inspection with emphasis on systems associated with instrument flight</i>		
5		Checking the Instruments on the ground <i>Systematically checks instruments &amp; systems for proper indications during ground operations</i>		
6		Runway Incursion Avoidance <i>Uses airport diagram, notes taxi clearances, requests clarification as needed</i>		
7		Constant Rate Climbs <i>Smooth transition level to climb, rate ±200 fpm, heading ±15°, levels ±100 ft</i>		
8		Constant Rate Descents <i>Smooth transition level to descent, rate ±200 fpm, heading ±15°</i>		
9		Constant Rate Climbs and Descents with Constant Airspeed <i>Notes pitch &amp; power, rate ±200 fpm, airspeed ±15kts, heading ±15°, levels ±100 ft</i>		
10		Level Standard Rate Turns to Headings <i>Up to 180° of turn, airspeed ±15kts, heading ±10°, alt ±150 ft, bank angle ±5°</i>		
11		Climbs and Descents While Turning to a Heading <i>Maintains airspeed ±15kts, heading ±15°, bank ±10°, levels ±100 ft</i>		
12		Straight and Level While Changing Airspeed <i>Maintains ±150 ft, heading ±15°, airspeed ±10kts, correct use of trim</i>		
13		After landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
14		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 3 — **Using the Magnetic Compass** — Local

Objective: Learn to deal with an unreliable heading indicator by using the magnetic compass to hold heading and for making turns to a heading. Work on refining overall basic instrument control.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist, briefs weight &amp; balance, takeoff &amp; landing performance, &amp; weather</i>		
2		Controlled Flight into Terrain Avoidance <i>Briefs local area minimum safe altitudes for IR operations</i>		
3		Automation Management <i>Review installed technically advanced systems &amp; application for situation awareness &amp; failures</i>		
4		Task Management <i>Review priorities regarding aircraft control, equipment failures, navigation &amp; communications</i>		
5		Preflight for Instrument Flight <i>Complete aircraft inspection with emphasis on systems associated with instrument flight</i>		
6		Checking the Instruments on the Ground <i>Systematically checks instruments &amp; systems for proper indications during ground operations</i>		
7		Runway Incursion Avoidance <i>Uses airport diagram, notes taxi clearances, requests clarification as needed</i>		
8		Constant Rate Climbs and Descents with Constant Airspeed <i>Notes pitch &amp; power, rate <math>\pm 200</math> fpm, airspeed <math>\pm 10</math> kts, heading <math>\pm 10^\circ</math>, levels <math>\pm 100</math> ft</i>		
9		Level Standard Rate Turns to Headings <i>Up to <math>180^\circ</math> of turn, alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math> kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 10^\circ</math></i>		
10		Climbs and Descents While Turning to a Heading <i>Maintains airspeed <math>\pm 10</math> kts, heading <math>\pm 15^\circ</math>, bank <math>\pm 10^\circ</math>, heading <math>\pm 10^\circ</math>, levels <math>\pm 100</math> ft</i>		
11		Straight and Level While Changing Airspeed <i>Maintains <math>\pm 150</math> ft, heading <math>\pm 10^\circ</math>, airspeed <math>\pm 10</math> kts, correct use of trim</i>		
12		Turns to Headings Using Magnetic Compass <i>Alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math> kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 20^\circ</math></i>		
13		Timed Turns to Headings Using Magnetic Compass <i>Alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math> kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 20^\circ</math></i>		
14		After Landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
15		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 4 — **IFR Flight Plans and Clearances** — Local/ATD

Objective: Prepare a simulated IFR flight plan to nearby airport. Copy and read back a simple clearance to that airport. Fly the clearance route and simulated ATC vectors. Continue building basic instrument proficiency.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist, briefs weight &amp; balance, takeoff &amp; landing performance, &amp; weather</i>		
2		Enroute Charts <i>Review chart symbology for planned route</i>		
3		Flight Plan <i>Using route provided, prepares an IFR flight plan to a nearby airport</i>		
4		Situational Awareness <i>Review planned route for leg courses, distances, and ETE for an in-flight mental picture</i>		
5		Preflight for Instrument Flight <i>Complete aircraft inspection with emphasis on systems associated with instrument flight</i>		
6		Checking the Instruments on the Ground <i>Systematically checks instruments &amp; systems for proper indications during ground operations</i>		
7		Copy and Read Back IFR Clearance <i>Simulated: requests clearance, copies simple clearance &amp; correctly reads back clearance</i>		
8		Flying an "ATC" Route, Vectors and Altitudes <i>Conforms to assigned route, vectors, and altitudes in clearance or as assigned by "ATC"</i>		
9		Constant Rate Climbs and Descents with Constant Airspeed <i>Notes pitch &amp; power, rate <math>\pm 200</math> fpm, airspeed <math>\pm 10</math>kts, heading <math>\pm 10^\circ</math>, levels <math>\pm 100</math> ft</i>		
10		Level Standard Rate Turns to Headings <i>Up to <math>180^\circ</math> of turn, alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math>kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 10^\circ</math></i>		
11		Climbs and Descents While Turning to a Heading <i>Maintains airspeed <math>\pm 10</math>kts, heading <math>\pm 15^\circ</math>, bank <math>\pm 10^\circ</math>, heading <math>\pm 10^\circ</math>, levels <math>\pm 100</math> ft</i>		
12		Straight and Level While Changing Airspeed <i>Maintains <math>\pm 150</math> ft, heading <math>\pm 10^\circ</math>, airspeed <math>\pm 10</math>kts, correct use of trim</i>		
13		Turns to Headings Using Magnetic Compass <i>Alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math>kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 20^\circ</math></i>		
14		Timed Turns to Heading Using Magnetic Compass <i>Alt <math>\pm 150</math> ft, airspeed <math>\pm 10</math>kts, bank angle <math>\pm 5^\circ</math>, heading <math>\pm 20^\circ</math></i>		
15		After landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
16		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 5 — **Primary Flight Instrument/Display Failure** — Local/ATD

Objective: Learn to recognize primary flight instrument/display failure and how to control the airplane using standby or "partial-panel" instruments.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (W&amp;B, Performance, Weather), reviews instrument systems</i>		
2		Situational Awareness <i>Review aircraft control using standby or partial-panel instruments</i>		
3		Aeronautical Decision Making <i>Review managing in-flight risk (CARE) &amp; decisions regarding primary instrument failure</i>		
4		Automation Management <i>Review autopilot use in the event of primary instruments/display failure</i>		
5		Before Instrument Flight Ground Operations <i>Complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
6		Copy and Read Back IFR Clearance <i>Simulated: requests clearance, copies simple clearance &amp; correctly reads-back clearance</i>		
7		Straight and Level Using Standby/Partial-Panel Instruments <i>Maintains ±150 ft, heading ±15°, airspeed ±10kts</i>		
8		Standard Rate Turns to Headings Standby/Partial-Panel Instruments <i>Up to 180° of turn, alt ±150 ft, airspeed ± 10kts, heading ±15°</i>		
9		Constant Airspeed Climbs Standby/Partial-Panel Instruments <i>Airspeed ± 15kts, heading ±15°, levels ±200 ft</i>		
10		Constant Airspeed Descents Standby/Partial-Panel Instruments <i>Airspeed ± 15kts, heading ±15°, levels ±200 ft</i>		
11		Unusual Attitudes Recovery (Nose High/Low) Full Panel <i>Returns to stabilized level flight within operating limitations or not entering unsafe conditions</i>		
12		Unusual Attitudes Recovery (Nose High/Low) Standby/Partial-Panel <i>Returns to stabilized level flight within operating limitations or not entering unsafe conditions</i>		
13		Straight and Level While Changing Airspeed <i>Maintains ±150 ft, heading ±10°, airspeed ±10kts, correct use of trim</i>		
14		Timed Turns to Heading Using Magnetic Compass <i>Alt ±150 ft, airspeed ±10kts, bank angle ±5°, heading ±20°</i>		
15		After landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
16		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_



Instrument Rating Flight Training Syllabus

Flight Lesson 6 — **Review of Instrument Control and Progress Check** — Local

Objective: Refine and check basic instrument proficiency as well as partial panel skills in preparation for incorporating them with using navigation systems.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Weather)</i>		
2		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs ways to maintain situational awareness &amp; avoid terrain in instrument conditions</i>		
3		Positive Exchange of Flight Controls <i>Briefs the positive three-step exchange of controls</i>		
4		Automation Management <i>Briefs autopilot use in the event of primary instruments/display failures</i>		
5		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
6		Copy and Read-back IFR Clearance <i>Simulated: requests clearance, copies simple clearance &amp; correctly reads-back clearance</i>		
7		Using the Checklists <i>Exercises an effective flow and check process for procedures</i>		
8		Collision Avoidance Procedures <i>Clear understanding of responsibilities &amp; procedures for visual &amp; Instrument reference</i>		
9		Constant Rate Climbs and Descents with Constant Airspeed <i>Maintains rate ±150 fpm, airspeed ±10 kts, heading ±10°, levels ±100 ft</i>		
10		Straight and Level While Changing Airspeed <i>Maintains ±120ft, heading ±10°, airspeed ±10kts, correct use of trim</i>		
11		Level Standard Rate Turns to Headings <i>Up to 180° of turn, maintains alt ±120 ft, airspeed ±10kts, bank angle ±5°, heading ±10°</i>		
12		Climbs and Descents While Turning to a Heading <i>Maintains airspeed ±10 kts, heading ±10°, bank ±10°, levels ± 100 ft</i>		
13		Straight and Level Using Standby/Partial-Panel Instruments <i>Maintains ±150 ft, heading ±15°, airspeed ±10kts</i>		
14		Standard Rate Turns to Headings Standby/Partial-Panel Instruments <i>Up to 180° of turn, maintains alt ±150 ft, airspeed ±10kts, heading ±15°</i>		
15		Constant Airspeed Climbs and Descents Standby/Partial-Panel Instruments <i>Maintains airspeed ±15 kts, heading ±15°, levels ±200 ft</i>		
16		Timed Turns to Heading Using Magnetic Compass <i>Maintains alt ±150 ft, airspeed ±10 kts, bank angle ±5°, heading ±20°</i>		
17		Unusual Attitudes Recovery (Nose High/Low) Standby/Partial-Panel <i>Returns to stabilized level flight within operating limitations or not entering unsafe conditions</i>		
18		After landing, Taxi, Parking <i>Exercises good practices to avoid runway incursions</i>		
19		Postflight Procedures <i>Notes equipment operation, conducts postflight inspection, documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

## **STAGE 2**

### **Navigating While Flying on Instruments**

#### **Objectives:**

Learn about all the potential navigation systems and their application for IFR flight. Gain an initial understanding of instrument procedures while being introduced to Departures and Arrivals and explore holding patterns. Review how to deal with aircraft emergencies.

Start exercising and building skill with intercepting and tracking courses of GPS, VOR, NDB and DME Arc navigation systems. Apply those navigation skills for complying with holding instructions. Practice navigating while controlling the airplane using partial panel/standby instruments.

Complete progress check.

Instrument Rating Flight Training Syllabus

Flight Lesson 7 — **GPS and VOR for IFR** — Local/ATD

Objective: Determine position and navigate using GPS (if installed) and VOR. Establish correct orientation, select/track course direct to waypoint or station, and intercept and track designated GPS and VOR courses.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Weather)</i>		
2		Situational Awareness <i>Reviews situational awareness issues with RNAV (GPS) and VOR systems</i>		
3		Controlled Flight into Terrain Awareness <i>Briefs charted minimum altitudes and hazards of off-airway routes</i>		
4		Automation Management <i>Review autopilot use for instrument flight</i>		
5		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
6		Using GPS for IFR Flight <i>Review certification level, capabilities &amp; limitations of installed GPS equipment</i>		
7		Using VOR for IFR Flight <i>Reviews requirements &amp; options for checking whether a VOR is suitable for IFR; does VOR check</i>		
8		GPS Flight Plan <i>Enters flight plan into GPS(RNAV) unit &amp; confirms that it matches prebriefed route.</i>		
9		GPS Orientation <i>Position with GPS, selects appropriate course/altitude to specified route or waypoint</i>		
10		GPS Course Interception and Tracking <i>Altitude <math>\pm 150</math> ft, airspeed <math>\pm 10</math> kts, intercepts and tracks course <math>&lt;</math> full-scale deflection</i>		
11		VOR Tune and Identification <i>Determines &amp; selects VOR frequency, identifies station by comparing audio code with chart</i>		
12		VOR Orientation <i>Orientation with 1 VOR &amp; position with 2 or more, selects course/altitude to designated VOR</i>		
13		VOR Radial Interception and Tracking <i>Altitude <math>\pm 150</math> ft, airspeed <math>\pm 10</math> kts, intercepts and tracks radial <math>&lt;</math> full-scale deflection</i>		
14		Timed Turns to Heading Using Magnetic Compass <i>Maintains alt <math>\pm 120</math> ft, airspeed <math>\pm 10</math> kts, heading <math>\pm 15^\circ</math></i>		
15		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 8 — **NDB/ADF Navigation and Departure Procedures** — Local/ATD

Objective: Learn to determine position and navigate with ADF (if installed). Track courses and airways using VOR. Become familiar with departure procedures. Review partial panel control.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Weather)</i>		
2		Situational Awareness <i>Reviews situational awareness issues with NDB/ADF and VOR systems and published procedures</i>		
3		Controlled Flight into Terrain Awareness <i>Reviews climb requirements and minimum altitudes on published procedures</i>		
4		Single Pilot Resource Management <i>Review the resources available for single-pilot IFR operations</i>		
5		Using NDB for IFR Navigation <i>Review NDB signals, ADF system operation/limitations &amp; installed instrumentation</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
7		Instrument Departure Procedure <i>Conforms to procedure restrictions, courses, &amp; altitudes.</i>		
8		NDB Orientation <i>Tunes, identifies &amp; finds bearing to/from NDB, selects heading/altitude for specified route</i>		
9		NDB Bearing Interception and Tracking <i>Alt ±150 ft, airspeed ±10 kts, intercepts and tracks ±15° desired bearing inbound/outbound</i>		
10		VOR Orientation <i>Orientation with 1 VOR &amp; position with 2 or more, selects course/altitude to designated VOR</i>		
11		Airway Interception and Tracking <i>Intercepts &amp; tracks VOR airway, identifies intersection, alt ±120 ft, airspeed ±10 kts, ≤3/4 CDI</i>		
12		Turns, Climbs and Descents Standby/Partial-Panel Instruments <i>Alt ±150 ft, airspeed ±15kts, heading ±15°, levels ±150 ft</i>		
13		Unusual Attitudes Recovery (Nose High/Low) Standby/Partial-Panel <i>Returns to stabilized level flight within operating limitations or not entering unsafe conditions</i>		
14		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 9 — **Building Skill with GPS, VOR and NDB Navigation** — Local

Objective: Building skill navigating with GPS, VOR, and NDB (as equipped) while refining aircraft control under instrument reference. Navigate while controlling the aircraft with standby or partial-panel instruments.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Weather)</i>		
2		Situational Awareness <i>Briefs situational awareness issues with GPS, NDB &amp; VOR systems and published procedures</i>		
3		Controlled Flight into Terrain Awareness <i>Briefs climb requirements and minimum altitudes on published procedures</i>		
4		Single Pilot Resource Management <i>Briefs resources available for single-pilot IFR operations</i>		
5		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
7		Instrument Departure Procedure <i>Conforms to procedure restrictions, courses, &amp; altitudes</i>		
8		GPS Course Interception and Tracking <i>Altitude ±100 ft, airspeed ±10 kts, intercepts and tracks course ≤3/4CDI</i>		
9		VOR Radial Interception and Tracking <i>Intercepts &amp; tracks VOR radial, alt ±100 ft, airspeed ±10 kts, ≤3/4CDI</i>		
10		Constant Rate Climbs and Descents while Tracking a VOR Radial <i>Rate ±100 fpm, airspeed ±10kts, ≤3/4 CDI, levels ±100 ft</i>		
11		NDB Bearing Interception and Tracking <i>Altitude ±100 ft, airspeed ±10 kts, intercepts and tracks ±10° desired bearing inbound/outbound</i>		
12		Airway Interception and Tracking Standby/Partial-Panel <i>Intercepts &amp; tracks VOR airway, identifies intersection, alt ±150 ft, airspeed ±10 kts, ≤3/4CDI</i>		
13		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 10 — **DME Arcs** — Local/ATD

Objective: Learn to navigate a curved path using DME . Build skill intercepting and tracking navigational courses.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
3		Holding Procedures <i>Review what ATC expects for holds (concepts, procedures and restrictions)</i>		
4		Situational Awareness <i>Review ATC reasons for holds, consequences, alternatives, minimum fuel &amp; emergency fuel</i>		
5		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
7		DME Arcs Intercepting and Tracking <i>Alt ±120 ft, airspeed ±10 kts, heading ±10°, DME ± 1.5 nm, ≤3/4CDI</i>		
8		VOR Radial Interception and Tracking <i>Intercepts &amp; tracks VOR radial, alt ±100 ft, airspeed ±10 kts, ≤3/4CDI</i>		
9		NDB Bearing Interception and Tracking <i>Altitude ±100 ft, airspeed ±10 kts, intercepts and tracks ±10° desired bearing inbound/outbound</i>		
10		GPS Course Interception and Tracking <i>Altitude ±100 ft, airspeed ±10 kts, intercepts and tracks course ≤3/4CDI</i>		
11		Turns, Climbs and Descents Standby/Partial-Panel Instruments <i>Alt ±150 ft, airspeed ±15 kts, heading ±15°, levels ±150 ft</i>		
12		Unusual Attitudes Recovery (Nose High/Low) Standby/Partial-Panel <i>Returns to stabilized level flight within operating limitations or not entering unsafe conditions</i>		
13		Airway Interception and Tracking Standby/Partial-Panel <i>Intercepts &amp; tracks VOR airway, identifies intersection, alt ±150 ft, airspeed ±10 kts, ≤3/4CDI</i>		
14		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 11 — **Holding Procedures** — Local/ATD

Objective: Learn aviation's version of dropping the anchor. Enter charted and ATC-clearance defined holding patterns at NAVAIDs, waypoints and VOR-defined intersections. Review DME arcs and partial-panel navigation.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Aeronautical Decision Making <i>Review techniques for dealing with ATC imposed changes during a flight, use the CARE checklist</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
5		Situational Awareness <i>Briefs ATC reasons for holds, consequences, alternatives, minimum fuel &amp; emergency fuel</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
7		Holding at a VOR or an NDB <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
8		Holding at a VOR with DME or GPS Waypoint <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
9		Non-Published Holding at a VOR or an NDB <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
10		Non-Published Holding at a VOR Intersection <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
11		Holding at a VOR, NDB or GPS Waypoint Standby/Partial-Panel <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
12		Intercepting and Tracking DME Arcs <i>Alt ±100 ft, airspeed ±10 kts, headings ±5°, DME ± 1.0 nm, ≤3/4CDI</i>		
13		Airway Interception and Tracking Standby/Partial-Panel <i>Intercepts &amp; tracks VOR airway, identifies intersection, alt ±150 ft, airspeed ±10 kts, ≤3/4CDI</i>		
14		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 12 — **Progress Check** — Local

Objective: Demonstrate skills using navigation systems for orientation, intercepting and tracking courses and DME arcs as well as the correct procedures for ATC assigned holding.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk Before and During Instrument Flight <i>Employs PAVE &amp; CARE checklists</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Before Instrument Flight Ground Operations <i>Conducts complete preflight, taxi, pretakeoff checks with emphasis on instrument flight</i>		
6		GPS Flight Plan <i>Enters flight plan into GPS(RNAV) unit &amp; and confirms that it matches prebriefed route.</i>		
7		Instrument Departure Procedure <i>Conforms to procedure courses, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
8		GPS Orientation and Course Interception and Tracking <i>Locates position, intercepts course, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
9		VOR Orientation and Radial Interception and Tracking <i>Orients with VOR, intercepts course, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
10		NDB Orientation and Bearing Interception and Tracking <i>Orients with NDB, intercepts bearing, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤10° RMI</i>		
11		Intercepting and Tracking DME Arcs <i>Alt ±100 ft, airspeed ±10 kts, headings ±5°, DME ± 1 nm, ≤3/4CDI</i>		
12		Holding at a GPS Waypoint <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
13		Holding at a VOR <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
14		Holding at an NDB <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤10° RMI, wind correction</i>		
15		Holding with DME (or GPS) Legs <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
16		Holding at a VOR Intersection <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
17		Airway Interception and Tracking Standby/Partial-Panel <i>Intercepts &amp; tracks VOR airway, identifies intersection, alt ±100 ft, airspeed ±10 kts, ≤3/4CDI</i>		
18		Holding at a VOR, NDB or GPS Waypoint Standby/Partial-Panel <i>Uses recommended entry, alt ±100 ft, airspeed ±10 kts, heading ±10°, &lt; 3/4 CDI/10° RMI, wind</i>		
19		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_



## **STAGE 3**

### **Finding the Airport – Flying Instrument Approaches**

**Objective:**

Learn about the different kinds of instrument approaches and how their components provide safe paths to the airport. Become familiar with the way approaches are presented on different chart options and concentrate on the various chart views, standardized locations for information, and how to determine which information applies. Study the FARs and AIM information associated with IFR flight, and focus on aircraft systems emergencies.

Apply your instrument control and navigation capabilities to start building skill with ILS, RNAV, LNAV, Localizer, VOR and NDB approaches. Gain familiarity with the circling to land procedure, using partial panel/standby instruments to fly an approach and incorporating an autopilot when flying an approach.

Complete progress check

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**Flight Lesson 13 — ILS Approaches and Procedure Turns — Local/ATD**

Objective: Track the more sensitive localizer course and the glide slope of the precision ILS system. Fly a procedure turn course reversal. Transition from instrument approach to missed approach or visual landing.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Approach Briefing <i>Review the key elements of a pre-approach briefing &amp; when to conduct it</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		Checklist Use <i>Reviews use of checklists during instrument approaches</i>		
8		Instrument Departure Procedure <i>Conforms to procedure courses, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4 CDI</i>		
9		Intercepting and Tracking Localizer Front Course (No Descent) <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4CDI</i>		
10		Intercepting and Tracking Localizer Back Course (No Descent) <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4CDI</i>		
11		Procedure Turn Course Reversal <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4CDI</i>		
12		Constant Rate Descent while Tracking a VOR Radial <i>Rate ±100 fpm, airspeed ±10kts, ≤ 3/4CDI, levels ±100 ft</i>		
13		ILS Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4CDI</i>		
14		Missed Approach Procedure <i>Initiates at DA/DH if no visual reference, +100/-0 ft, airspeed ±10kts, hdg ±10°, ≤ 3/4CDI</i>		
15		Transition to Normal Landing <i>Normal rate of descent, normal maneuvering, uses visual glideslope</i>		
16		VOR Radial Interception and Tracking <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 3/4CDI</i>		
17		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 14 — **RNAV Approaches with Vertical Guidance** — Local

Objective: Apply techniques from ILS approaches for flying course/glide path of GPS WAAS approaches. Load approach and apply appropriate minima. Fly a Terminal Arrival Area (TAA) procedure.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Checklist Use <i>Briefs how will use checklists during instrument approaches and uses them</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		RNAV (GPS) Setup for Approach <i>Confirms nav data, calls up &amp; verifies correct procedure/waypoints, notes mode &amp; minima</i>		
8		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
9		Terminal Area Arrival Procedure <i>Conforms to published procedure, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
10		RNAV (GPS WAAS) Approach with Vertical Guidance <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
11		ILS Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
12		Missed Approach Procedure <i>Initiates at DA/DH if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤3/4CDI</i>		
13		Transition to Landing from Straight-In Approach <i>From DH/DA normal rate of descent, normal maneuvering, uses visual glideslope</i>		
14		Intercepting and Tracking DME Arcs <i>Alt ±100 ft, airspeed ±10 kts, headings ±5°, DME ±1 nm, ≤3/4CDI</i>		
15		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

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Avionics:

Hobbs In:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

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Flight Lesson 15 — **LNAV and Localizer Approaches** — Local/ATD

Objective: Learn to use minimum descent and step-down altitudes while flying approaches that have "precision" courses but no vertical guidance for descent. Build your standby/partial-panel skills.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Checklist Use <i>Uses appropriate checklists during all flight operations</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		RNAV (GPS) Setup for Approach <i>Confirms nav data, calls up &amp; verifies correct procedure/waypoints, notes mode &amp; minima</i>		
8		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
9		LNAV Approach (GPS–No Electronic Vertical Guidance) <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
10		Localizer Approach (No Glideslope) <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
11		ILS Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
12		Holding Pattern Course Reversal <i>Correct entry, alt +100/-0 ft after FAF, a/s ±10 kts, heading ±10°, ≤3/4CDI, wind correction</i>		
13		Missed Approach Procedure <i>Initiates at DA/DH/MAP if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤3/4CDI</i>		
14		Turns, Climbs and Descents Standby/Partial-Panel Instruments <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, levels ±100 ft</i>		
15		Transition to Landing from Straight-In Approach <i>From DH/DA normal rate of descent, normal maneuvering, uses visual glideslope</i>		
16		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

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Hobbs In:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 16 — **VOR and NDB Approaches** — Local/ATD

Objective: Become familiar with the "Grand-Daddy" approaches, VOR and NDB. Learn to safely adapt the transition to landing for each unique situation due to different MAP locations and MDA heights.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather)</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Checklist Use <i>Uses appropriate checklists during all flight operations</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
8		VOR Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
9		NDB Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4CDI</i>		
10		Localizer Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤1/2CDI</i>		
11		Missed Approach Procedure <i>Initiates at DA/DH/MAP if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤3/4 CDI</i>		
12		Transition to Landing from Straight-In Approach <i>From DH/DA/MDA normal rate of descent, normal maneuvering, uses visual glideslope</i>		
13		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

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Instrument Rating Flight Training Syllabus

Flight Lesson 17 — **Circling Approaches** — Local

Objective: Become familiar with flying an approach that takes you to the airport but is not aligned with the landing runway. Learn to perform a circling maneuver in order to get lined-up for the runway.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Uses PAVE checklist (Pilot, W&amp;B, Performance, Reserves, Weather, day/night, area lighting)</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs nav systems, backups, min altitudes, local min safe altitude, obstructions near airports</i>		
5		Checklist Use <i>Uses appropriate checklists during all flight operations</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
8		ILS or RNAV (GPS WAAS) Circling Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
9		VOR or NDB Circling Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
10		Transition to a Landing from Circling Approach <i>Maintains MDA +100/-0 ft, normal rate of descent, normal maneuvering, uses visual glideslope</i>		
11		ILS Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤1/2 CDI</i>		
12		LNAV Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2 CDI</i>		
13		Missed Approach Procedure <i>Initiates at DA/DH/MAP if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤ 3/4 CDI</i>		
14		Transition to Landing from Straight-In Approach <i>From DH/DA/MDA normal rate of descent, normal maneuvering, uses visual glideslope</i>		
15		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

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Instrument Time:

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Instrument Rating Flight Training Syllabus

Flight Lesson 18 — **Partial-Panel and Using the Autopilot for Approaches** — Local

Objective: Fly approaches using the standby or partial-panel instruments under simulated failure scenarios.

Become comfortable using the installed autopilot for flying instrument approaches.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist, incorporates installed advanced/automated equipment in planning</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Automation Management <i>Understands autopilot functions/modes, clear on failure indications and responses</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
8		ILS Approach Standby/Partial-Panel <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
9		VOR Approach Standby/Partial-Panel <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
10		NDB Approach Standby/Partial-Panel <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
11		LNAV or Localizer Approach Standby/Partial-Panel <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤3/4 CDI</i>		
12		VOR, NDB, LNAV or Localizer Approach Using Autopilot <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤1/2 CDI</i>		
13		ILS Approach Using Autopilot <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤1/2 CDI</i>		
14		Missed Approach Procedure <i>Initiates at DA/DH/MAP if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤3/4 CDI</i>		
15		Transition to a Landing (Straight-in or Circling Approach) <i>Maintains MDA +100/-0 ft, normal rate of descent, normal maneuvering, uses visual glideslope</i>		
16		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 19 — **Progress Check** — Local

Objective: Demonstrate skill with precision and non-precision approaches, both for straight-in and circle to land. Fly approaches referencing partial panel and also using the autopilot.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Managing Risk for Instrument Flight <i>Employs PAVE checklist, incorporates installed advanced/automated equipment in planning</i>		
2		Single Pilot Resource Management <i>Briefs the resources available for single-pilot IFR operations</i>		
3		Task Management <i>Briefs priorities of aircraft control, navigation &amp; communications</i>		
4		Situational Awareness and Controlled Flight into Terrain Awareness <i>Briefs navigation systems, backups, minimum altitudes, local minimum safe altitude</i>		
5		Automation Management <i>Briefs autopilot functions/modes, failure indications and responses, approach techniques</i>		
6		Before Instrument Flight Ground Operations <i>Conducts complete preflight, navigation, taxi, pretakeoff checks for instrument flight</i>		
7		Approach Briefing <i>Procedure, NAVAID, runway, course, min altitude/visibility, missed approach, notes</i>		
8		ILS Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
9		RNAV (GPS WAAS) Approach with Vertical Guidance <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
10		VOR or NDB Circling Approach <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
11		LNAV or Localizer Approach Standby/Partial-Panel <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
12		VOR, NDB, LNAV or Localizer Approach Using Autopilot <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
13		Procedure Turn Course Reversal <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
14		Terminal Area Arrival Procedure <i>Conforms to published procedure, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤ 1/2CDI</i>		
15		Holding Pattern Course Reversal <i>Correct entry, alt +100/-0 ft after FAF, a/s ±10 kts, heading ±10°, ≤ 1/2CDI, wind correction</i>		
16		Missed Approach Procedure <i>Initiates at DA/DH/MAP if no visual reference, +100/-0 ft, a/s ±10 kts, hdg ±10°, ≤ 1/2CDI</i>		
17		Transition to a Landing (Straight-in or Circling Approach) <i>Maintains MDA +100/-0 ft, normal rate of descent, normal maneuvering, uses visual glideslope</i>		
18		After landing, Taxi, Parking, Postflight <i>Exercises good practices to avoid runway incursions, notes &amp; documents discrepancies</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

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Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_



## **STAGE 4**

### **Instrument Cross Countries**

**Objective:**

Acquire and apply cross-country planning knowledge to instrument cross countries. Learn tips and techniques for efficient IFR operations and lessons from the missteps of others.

Apply IFR skills and proficiency to unfamiliar airports and procedures while making cross-country flights. Refine proficiency flying various types of approaches.

Complete FAA Knowledge test

Complete long IFR cross country and progress check

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Flight Lesson 20 — **Short IFR Cross Country** — Cross-Country

Objective: IFR cross country to an airport greater than 50 nm straight-line distance to experience en route ATC communications, procedures, and navigation and fly three instrument approaches.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Single-Pilot Resource Management <i>Instrument Rating Airman Certification Standards</i>		
2		Aeronautical Decision Making <i>Instrument Rating Airman Certification Standards</i>		
3		Risk Management <i>Instrument Rating Airman Certification Standards</i>		
4		Task Management <i>Instrument Rating Airman Certification Standards</i>		
5		Situational Awareness <i>Instrument Rating Airman Certification Standards</i>		
6		Controlled Flight into Terrain Awareness <i>Instrument Rating Airman Certification Standards</i>		
7		Automation Management <i>Instrument Rating Airman Certification Standards</i>		
8		Required ATC Reports <i>Review all required ATC reports</i>		
9		Cross-Country Flight Planning <i>Instrument Rating Airman Certification Standards</i>		
10		Instrument Cockpit Check <i>Instrument Rating Airman Certification Standards</i>		
11		Compliance with Departure, En Route, and Arrival Procedures and Clearances <i>Instrument Rating Airman Certification Standards</i>		
12		Autopilot Use <i>Uses autopilot appropriately; instructor simulated failure to fully exercise manual flying skills</i>		
13		Precision Approach <i>Instrument Rating Airman Certification Standards</i>		
14		Non-Precision Approach (Full Panel) <i>Instrument Rating Airman Certification Standards</i>		
15		Non-Precision approach (Standby/Partial Panel) <i>Instrument Rating Airman Certification Standards</i>		
16		Diversion <i>Responds to instructor scenario, plans &amp; requests diversion to an alternate</i>		
17		Holding <i>Instrument Rating Airman Certification Standards</i>		
18		Lost Communications <i>Instrument Rating Airman Certification Standards</i>		
19		Landing from a Straight-in or Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
20		Runway Incursion Avoidance <i>Studies airport diagram, anticipates post-landing taxi, aware of hot spots</i>		
21		Postflight Checking Instruments and Equipment <i>Instrument Rating Airman Certification Standards</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 21 — **Refining Approaches** — Local/ATD

Objective: Refine your skills flying approaches prior to your long IFR cross country. Be introduced to either a precision or surveillance radar approach (if available).

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Single Pilot Resource Management <i>Instrument Rating Airman Certification Standards</i>		
2		Instrument Cockpit Check <i>Instrument Rating Airman Certification Standards</i>		
3		ILS Approach <i>Instrument Rating Airman Certification Standards</i>		
4		RNAV (GPS WAAS) Approach with Vertical Guidance <i>Instrument Rating Airman Certification Standards</i>		
5		NDB (VOR if NDB not available) Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
6		VOR Approach Standby/Partial-Panel <i>Instrument Rating Airman Certification Standards</i>		
7		VOR, NDB, LNAV or Localizer Approach Using Autopilot <i>Instrument Rating Airman Certification Standards</i>		
8		PAR or ASR Approach (if available) <i>Alt ±100 ft until FAF then +100/-0 ft, airspeed ±10 kts, heading ±5°, ≤1/2 CDI</i>		
9		Procedure Turn Course Reversal <i>Alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤1/2 CDI</i>		
10		Terminal Area Arrival Procedure <i>Conforms to published procedure, alt ±100 ft, airspeed ±10 kts, heading ±10°, ≤1/2 CDI</i>		
11		Lost Communications <i>Instrument Rating Airman Certification Standards</i>		
12		Missed Approach <i>Instrument Rating Airman Certification Standards</i>		
13		Landing from a Straight-in or Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
14		Postflight Checking Instruments and Equipment <i>Instrument Rating Airman Certification Standards</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

Instrument Rating Flight Training Syllabus

Flight Lesson 22 — **Long IFR Cross Country Progress Check** — Cross Country

Objective: IFR cross-country at least 250 nm, airways or ATC directed routing, 1 leg at least 100 nm straight-line distance between airports. Approach at each airport, 3 different types of approaches using nav systems.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Single-Pilot Resource Management <i>Instrument Rating Airman Certification Standards</i>		
2		Aeronautical Decision Making <i>Instrument Rating Airman Certification Standards</i>		
3		Risk Management <i>Instrument Rating Airman Certification Standards</i>		
4		Task Management <i>Instrument Rating Airman Certification Standards</i>		
5		Situational Awareness <i>Instrument Rating Airman Certification Standards</i>		
6		Controlled Flight into Terrain Awareness <i>Instrument Rating Airman Certification Standards</i>		
7		Automation Management <i>Instrument Rating Airman Certification Standards</i>		
8		Required ATC Reports <i>Review all required ATC reports</i>		
9		Cross-Country Flight Planning <i>Instrument Rating Airman Certification Standards</i>		
10		Instrument Cockpit Check <i>Instrument Rating Airman Certification Standards</i>		
11		ATC Clearances <i>Instrument Rating Airman Certification Standards</i>		
12		Compliance with Departure, En Route, and Arrival Procedures and Clearances <i>Instrument Rating Airman Certification Standards</i>		
13		Lost Communications <i>Instrument Rating Airman Certification Standards</i>		
14		Autopilot Use <i>Uses autopilot appropriately; instructor simulated failure to ensure demonstrates manual skill</i>		
15		Instrument approaches (3 approaches, each a different type nav system) <i>Instrument Rating Airman Certification Standards</i>		
16		Missed Approach <i>Instrument Rating Airman Certification Standards</i>		
17		Landing from a Straight-in or Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
18		Runway Incursion Avoidance <i>Studies airport diagram, anticipates post-landing taxi, aware of hot spots</i>		
19		Postflight Checking Instruments and Equipment <i>Instrument Rating Airman Certification Standards</i>		

A/C Type:

N-#:

Avionics:

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Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

## **STAGE 5**

### **Becoming Instrument Rated**

#### **Objectives:**

Learn about the Airman Certification Standards and the role they will play in your Instrument Rating practical test. Review Federal Aviation Regulations applicable to IFR operations.

Review and perform all the appropriate maneuvers of the current Instrument Rating Airman Certification Standards at or exceeding the designated standards.

Complete Pre-Checkride progress check

Complete the Instrument Rating Practical Test

## Instrument Rating Flight Training Syllabus

Flight Lesson 23-1 — **Honing the Edge** — Local

Objective: With your instructor, review special emphasis areas, single-pilot resource management items and the applicable tasks in the Instrument Rating Airman Certification Standards.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Airman Certification Standards <i>Introduction, Appendices, Areas of Operation &amp; Tasks</i>		
2		Positive Aircraft Control <i>Instrument Rating Airman Certification Standards</i>		
3		Positive Exchange of Flight Controls <i>Instrument Rating Airman Certification Standards</i>		
4		Stall/Spin Awareness <i>Instrument Rating Airman Certification Standards</i>		
5		Collision Avoidance <i>Instrument Rating Airman Certification Standards</i>		
6		Wake Turbulence Avoidance <i>Instrument Rating Airman Certification Standards</i>		
7		Land and Hold Short Operations (LAHSO) <i>Instrument Rating Airman Certification Standards</i>		
8		Runway Incursion Avoidance <i>Instrument Rating Airman Certification Standards</i>		
9		Checklist Usage <i>Instrument Rating Airman Certification Standards</i>		
10		Icing Condition Operational Hazards, Anti-icing and Deicing Equipment <i>Instrument Rating Airman Certification Standards</i>		
11		Single-Pilot Resource Management <i>Instrument Rating Airman Certification Standards</i>		
12		Aeronautical Decision Making <i>Instrument Rating Airman Certification Standards</i>		
13		Risk Management <i>Instrument Rating Airman Certification Standards</i>		
14		Task Management <i>Instrument Rating Airman Certification Standards</i>		
15		Situational Awareness <i>Instrument Rating Airman Certification Standards</i>		
16		Controlled Flight into Terrain Awareness <i>Instrument Rating Airman Certification Standards</i>		
17		Automation Management <i>Instrument Rating Airman Certification Standards</i>		
18		Pilot Qualifications <i>Instrument Rating Airman Certification Standards</i>		
19		Weather Information <i>Instrument Rating Airman Certification Standards</i>		
20		Cross-Country Flight Planning <i>Instrument Rating Airman Certification Standards</i>		
21		Aircraft Systems Related to IFR Operations <i>Instrument Rating Airman Certification Standards</i>		
22		Aircraft Flight Instruments and Navigation Equipment <i>Instrument Rating Airman Certification Standards</i>		
23		Instrument Cockpit Check <i>Instrument Rating Airman Certification Standards</i>		
24		Air Traffic Control Clearances <i>Instrument Rating Airman Certification Standards</i>		

Objective: Continue Flight Lesson 23

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
25		Compliance with Departure, En Route, and Arrival Procedures and Clearances <i>Instrument Rating Airman Certification Standards</i>		
26		Holding Procedures <i>Instrument Rating Airman Certification Standards</i>		
27		Basic Instrument Flight Maneuvers <i>Instrument Rating Airman Certification Standards</i>		
28		Recovery from Unusual Flight Attitudes <i>Instrument Rating Airman Certification Standards</i>		
29		Intercepting and Tracking Navigational Systems and DME Arcs <i>Instrument Rating Airman Certification Standards</i>		
30		Nonprecision Approach <i>Instrument Rating Airman Certification Standards</i>		
31		Precision Approach <i>Instrument Rating Airman Certification Standards</i>		
32		Missed Approach <i>Instrument Rating Airman Certification Standards</i>		
33		Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
34		Landing from a Straight-In or Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
35		Loss of Communications <i>Instrument Rating Airman Certification Standards</i>		
36		Approach with Loss of Primary Flight Instrument Indicators <i>Instrument Rating Airman Certification Standards</i>		
37		Postflight Checking Instruments and Equipment <i>Instrument Rating Airman Certification Standards</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

## Instrument Rating Flight Training Syllabus

Flight Lesson 24-1 — **Pre-Checkride Progress Check** — Local

Objective: Conduct this flight as a simulated checkride with a progress-check instructor making sure that all tasks meet/exceed the Instrument Rating Airman Certification Standards.

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
1		Airman Certification Standards <i>Introduction, Appendices, Areas of Operation &amp; Tasks</i>		
2		Positive Aircraft Control <i>Instrument Rating Airman Certification Standards</i>		
3		Positive Exchange of Flight Controls <i>Instrument Rating Airman Certification Standards</i>		
4		Stall/Spin Awareness <i>Instrument Rating Airman Certification Standards</i>		
5		Collision Avoidance <i>Instrument Rating Airman Certification Standards</i>		
6		Wake Turbulence Avoidance <i>Instrument Rating Airman Certification Standards</i>		
7		Land and Hold Short Operations (LAHSO) <i>Instrument Rating Airman Certification Standards</i>		
8		Runway Incursion Avoidance <i>Instrument Rating Airman Certification Standards</i>		
9		Checklist Usage <i>Instrument Rating Airman Certification Standards</i>		
10		Icing Condition Operational Hazards, Anti-icing and Deicing Equipment <i>Instrument Rating Airman Certification Standards</i>		
11		Single-Pilot Resource Management <i>Instrument Rating Airman Certification Standards</i>		
12		Aeronautical Decision Making <i>Instrument Rating Airman Certification Standards</i>		
13		Risk Management <i>Instrument Rating Airman Certification Standards</i>		
14		Task Management <i>Instrument Rating Airman Certification Standards</i>		
15		Situational Awareness <i>Instrument Rating Airman Certification Standards</i>		
16		Controlled Flight into Terrain Awareness <i>Instrument Rating Airman Certification Standards</i>		
17		Automation Management <i>Instrument Rating Airman Certification Standards</i>		
18		Pilot Qualifications <i>Instrument Rating Airman Certification Standards</i>		
19		Weather Information <i>Instrument Rating Airman Certification Standards</i>		
20		Cross-Country Flight Planning <i>Instrument Rating Airman Certification Standards</i>		
21		Aircraft Systems Related to IFR Operations <i>Instrument Rating Airman Certification Standards</i>		
22		Aircraft Flight Instruments and Navigation Equipment <i>Instrument Rating Airman Certification Standards</i>		
23		Instrument Cockpit Check <i>Instrument Rating Airman Certification Standards</i>		
24		Air Traffic Control Clearances <i>Instrument Rating Airman Certification Standards</i>		



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Instrument Rating Flight Training Syllabus

Flight Lesson 24-2 — **Pre-Checkride Progress Check** — Local

Objective: Continue Flight Lesson 24

Date:		Name of pilot in training:		
Task #	✓	Tasks/Standards	Meets	Continue
25		Compliance with Departure, En Route, and Arrival Procedures and Clearances <i>Instrument Rating Airman Certification Standards</i>		
26		Holding Procedures <i>Instrument Rating Airman Certification Standards</i>		
27		Basic Instrument Flight Maneuvers <i>Instrument Rating Airman Certification Standards</i>		
28		Recovery from Unusual Flight Attitudes <i>Instrument Rating Airman Certification Standards</i>		
29		Intercepting and Tracking Navigational Systems and DME Arcs <i>Instrument Rating Airman Certification Standards</i>		
30		Nonprecision Approach <i>Instrument Rating Airman Certification Standards</i>		
31		Precision Approach <i>Instrument Rating Airman Certification Standards</i>		
32		Missed Approach <i>Instrument Rating Airman Certification Standards</i>		
33		Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
34		Landing from a Straight-In or Circling Approach <i>Instrument Rating Airman Certification Standards</i>		
35		Loss of Communications <i>Instrument Rating Airman Certification Standards</i>		
36		Approach with Loss of Primary Flight Instrument Indicators <i>Instrument Rating Airman Certification Standards</i>		
37		Postflight Checking Instruments and Equipment <i>Instrument Rating Airman Certification Standards</i>		

A/C Type:

N-#:

Avionics:

Hobbs In:

Hobbs Out:

Total Time:

Instrument Time:

Customer signature: \_\_\_\_\_

Instructor signature: \_\_\_\_\_

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