Student Name:

402-194

Commercial Phase II Syllabus & Flight Training Record

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SYLLABUS OVERVIEW

This program consists of four blocks totaling 55 flying hours. Successful completion of all phase checks qualifies an applicant to be recommended for the Commercial Pilot Certificate. Procedures are found in the Fox Valley Technical College Maneuvers Guide. The FAA-H-8083-3 airplane-flying handbook is the main reference for this guide. Practical knowledge of the maneuvers from the airplane-flying handbook is essential to passing a phase check.

Block 1 Applicants will begin the course with an introduction to the maneuvers required for the Commercial Pilot Certificate. This block is intended to give the students a better understanding of the commercial maneuvers. Practical Test Standards are emphasized but do not have to be met consistently. Ground subjects will cover all knowledge areas from the Commercial Practical Test Standards. A Level 1 Peer Instructor Phase Check is required prior to progression into Block 2. The requirements for successful completion of this phase check are:

1. Understanding & application of ground information into the Performance Maneuvers.
2. Understanding of the techniques for high performance T/O & Landing.
3. Ability to explain the knowledge areas with minimal note reference.
4. Flight proficiency consistently above private pilot standards, but not quite at the commercial level.

Block 2 is the introduction of emergency procedures & further practice of the Block 1 Maneuvers. This block is intended to give the students a better understanding of system & equipment malfunctions & emergency procedures. Practical Test Standards are to be met for most maneuvers. Ground subjects will cover all knowledge areas from the Commercial Practical Test Standards. A Level 1 Phase Check is required prior to progression into Block 4. Phase check completion standards will be:

1. Correlation of Private Maneuvers to Commercial Maneuvers.
2. In-depth knowledge of all areas from the Commercial Practical Test Standards
3. Flight Proficiency to Commercial Practical Test Standards in most Maneuvers

Block 3 is the introduction & practice of maneuvers required by the Commercial Practical Test Standards in a multiengine aircraft. The instructor & student should be aware of the necessity for 10 hours in the complex aircraft to complete the course. The complex signoff will be given to all students before the end of Block 3.

The commercial multiengine rating will be the first rating obtained from the FAA. As a result of this process, the student will have a Level 1 Phase Check and Checkride prior to entering Block 4. Block 4 Can NOT be accomplished until a Commercial Pilot multiengine rating is obtained.

Block 4 is the single engine add on to the Commercial Pilot Multiengine rating.

GROUND LESSONS

These Ground Lessons are provided to give guidance for flight periods in which the scheduled flight cannot be accomplished. All topics will be covered in the CPC & during regular scheduled ground sessions, but individual instructor reinforcement is helpful. Instructors should utilize these lessons during weather days or when an aircraft is down for maintenance. Applicants should utilize these lessons as springboards for study. All subjects will be evaluated during the Level 2 Phase Check at the end of Block 4.

1) Federal Aviation Regulations Parts 91, 119, 135, & 121,
2) Aeromedical Factors & Visual Scan
3) Night Operations
4) High Altitude Operations
5) Minimum Equipment List
6) A/C Systems
7) National Airspace System
8) Weight & Balance
9) Performance Charts
10) Principles Of Flight & Aerodynamics
11) Airplane Flight Controls
12) Navigation & Flight Planning
13) Navigation Systems & Radar Services
14) Certificate Privileges & Limitations
15) Principles of Commercial Maneuvers
16) Aeronautical Decision Making
17) Aircraft Certificates & Documents
18) Minimum Equipment List
19) Aircraft Pilot Operating Handbook
20) Performance Maneuver Flight Theory
21) Cross-country Flight Planning for High Performance Aircraft
22) Long Distance Cross-country Flight Planning
23) Air Traffic Control Services & Procedures
24) Pilot/Controller Glossary
25) Professional Pilot Radio Communications

DATE _____/_____/2003

Block 1 Introduction to Performance Maneuvers

Lesson 1 – Ground 3.0 Introduction

☐ Instructor introduction to include:

- o Instructor Experience
- o Course Expectations
- o Schedule
- o FVTC Student Records
- o Ground & Flight Preparation
- o Professionalism
- o Student Questions

☐ Review Commercial Written Test Results & Correct to 100%

_____

_____

☐ Cross-Country Flight Planning (Pilotage, Dead Reckoning, Flight Log for Fuel, Radar Services)

_____

_____

☐ Minimum Controllable Airspeed, Power On Stall, Power Off Stall, Spin Awareness, & Go-Around (Aerodynamics & Maneuvers Guide Procedures. Recovery Techniques)

_____

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☐ Transfer Of Controls, Weight & Balance, Performance, & General 172 POH Review

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DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 2 – Flight 1.5 Dual Stalls

1. INTRODUCE
   - ☐ Performance & Weight & Balance (Student MUST prepare a weight & balance sheet as well as Takeoff & Landing Distances prior to flight. Current Data must be used.)
   - ☐ Visual Inspection
   - ☐ Cockpit Management
   - ☐ Engine Starting
   - ☐ Taxing
   - ☐ Commercial Pilot Radio Communication
   - ☐ Pretakeoff Check
   - ☐ Normal or Crosswind Takeoff & Climb
   - ☐ Maneuvering During Slow Flight
   - ☐ Instructor DEMO of Accelerated Stall & Secondary Stall. (Check Weight & Balance!)
   - ☐ Imminent Power On Stall
   - ☐ Turning Power Off Stall (Full or Imminent)
   - ☐ Traffic Pattern
   - ☐ Go-Around
   - ☐ Normal or Crosswind Landing & Rollout

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 3 – Flight 1.5 Solo Stalls

1. REVIEW

- ☐ Normal or Crosswind Takeoff & Climb
- ☐ Maneuvering During Slow Flight
- ☐ Imminent Power On Stall
- ☐ Turning Power Off Stall (Full or Imminent)
- ☐ Traffic Pattern
- ☐ Go-Around
- ☐ Normal or Crosswind Landing & Rollout

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

DATE _____/_____/2003

Lesson 4 – Ground 3.0 Performance Maneuvers

NOTE: Students can locate most of the information for these topics in Chapter 6 of FAA-H-8083-3

☐ Task not covered in Lesson 1 _____

_____

_____

☐ Eights-on-Pylons (Pivotal Altitude, Maneuvers Guide Procedure, Wind Compensation)

_____

_____

_____

☐ Steep Spiral (Maneuvers Guide Procedure, Uses, Difference Between Maneuver & Emergency)

_____

_____

_____

☐ Chandelle (Maneuvers Guide Procedure, Maximum Performance, Difference Between L & R)

_____

_____

_____

☐ Lazy Eight (Maneuvers Guide Procedure, Maximum Performance, Difference Between L & R)

_____

_____

_____

☐ Steep Turn (Difference from Private, Maneuvers Guide Procedure, Load Factor, Transition)

_____

_____

_____

_____

_____

_____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 5 – Flight 1.5 Dual Performance Maneuvers

1. INTRODUCE
   - ☐ Commercial Steep Turn
   - ☐ Steep Spiral
   - ☐ Chandelle
   - ☐ Lazy Eight
   - ☐ Eights-on-Pylons
2. REVIEW
   - ☐ Performance & Weight & Balance (Student MUST prepare a weight & balance sheet as well as Takeoff & Landing Distances prior to flight. Current Data must be used.)
   - ☐ Commercial Pilot Radio Communication
   - ☐ Pretakeoff Check
   - ☐ Normal or Crosswind Takeoff & Climb
   - ☐ Traffic Pattern
   - ☐ Normal or Crosswind Landing & Rollout
3. ADDITIONAL TASKS
   - ☐ _____
   - ☐ _____
   - ☐ _____

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_____
_____
_____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 6 – Flight 1.5 Solo Performance Maneuvers

1. REVIEW
   - ☐ Commercial Steep Turn
   - ☐ Steep Spiral
   - ☐ Chandelle
   - ☐ Lazy Eight
   - ☐ Eights-on-Pylons
2. (Instructor Assigned) ADDITIONAL TASKS
   - ☐ _____
   - ☐ _____
   - ☐ _____
   - ☐ _____

DATE _____/_____/2003

Lesson 7 – Ground 3.0 Maximum Performance Airport Operations

NOTE: Students can locate most of the information for these topics in Chapter 7 of FAA-H-8083-3

☐ Precision Traffic Pattern (Wind Correction at the Corners & Legs, Turn Timing, Stable Final)

☐ Go Around (Procedure, Technique, Identification of Positive Rate, Wind Shear/Wake, LAHSO)

☐ Short Field Takeoff (Performance Data, Importance of Vx, Achievement of Maximum Performance)

☐ Short Field Landing (Maneuvers Guide, Ground Effect, Minimizing Float, Precision Touchdown)

☐ Soft Field Takeoff (Ground Effect Acceleration, Tail Strike, Flight Out of GE Below Stall Speed)

☐ Soft Field Landing (Transfer of Weight from Wings to Wheels SLOWLY, Rollout & Taxi Off)

Lesson 8 – Flight 1.5 Dual Airport Operations

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE
   - ☐ Precision Traffic Pattern
   - ☐ Go-Around
   - ☐ Short Field Takeoff
   - ☐ Short Field Landing
   - ☐ Soft Field Takeoff
   - ☐ Soft Field Landing
2. REVIEW
   - ☐ Commercial Steep Turns
   - ☐ Steep Spirals
   - ☐ Chandelle
   - ☐ Lazy Eight
   - ☐ Eights-on-Pylons
3. ADDITIONAL TASKS
   - ☐ _____
   - ☐ _____
   - ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 9 – Flight 1.2 Solo Airport Operations

1. REVIEW

- ☐ Precision Traffic Pattern
- ☐ Go-Around
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Commercial Steep Turns
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 10 – Flight 6.0 SOLO X-Country

OSH-DBQ-DSM-MSN-OSH

NOTE: Students should use their Friday time block to complete this cross-country. If this cross-country is modified for any reason, it must be redone.

1. REVIEW

- ☐ Dead Reckoning/Pilotage
- ☐ Airport Operations
- ☐ Radio Navigation (VOR/GPS)
- ☐ Flight Log Usage
- ☐ Radar Services (Flight Following)
- ☐ Maximum Performance Takeoff & Climb
- ☐ Traffic Pattern
- ☐ Maximum Performance Landing & Rollout

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

(1) DATE _____/_____/2003 (2) DATE _____/_____/2003

Lesson 11 – Ground 6.0 Technical Subject Areas (Two 3 Hour Sessions)

☐ Certificates & Documents (Commercial Pilot Privileges & Limitations, Common Carriage Medical, Flight Records, Airworthiness & Registration, Equipment List, Aircraft POH, FAR 91,135,121)

_____

_____

☐ Airworthiness Requirements (MEL, AD's, Required Equipment, Special Flight Permit, Signoff's)

_____

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☐ Weather (SA Chart, Radar Sum Chart, Sig Wx Chart, Winds/Temp Chart, AWOS, ASOS, 850 Chart)

_____

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☐ National Airspace System (Weather Mins, Pilot Certification & Aircraft Requirements, Dimensions) (AIM Chapter 3, AIM Chapter 5 Sections 1-4, AC61-23C Chapter 7)

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☐ C-172 Systems (Flight Controls, Flaps, Power plant, Pitot-static/vacuum, Fuel, Electrical, Heating)

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_____

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☐ Aeromedical Factors (Symptoms-Causes-Effects-Corrective Actions of: Hypoxia, Hyperventilation, Middle Ear & Sinus Block, Spatial Disorientation, Motion Sickness, Carbon Monoxide Poisoning, Stress & Fatigue, Dehydration, Alcohol, Drugs, Nitrogen Excess, Cold Medications)

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DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 12 – Flight 1.3 Dual Review

1. REVIEW

- ☐ Precision Traffic Pattern
- ☐ Go-Around
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Commercial Steep Turns
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

Lesson 13 – Flight 1.2 Solo Review

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. REVIEW

- ☐ Precision Traffic Pattern
- ☐ Go-Around
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Commercial Steep Turns
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 14 – Flight 1.5 Dual Clean Up

1. REVIEW

- ☐ Precision Traffic Pattern
- ☐ Go-Around
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Commercial Steep Turns
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power On Turning Stall
- ☐ Power Off Imminent Stall
- ☐ MCA

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

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DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	
GROUND TIME	

Lesson 15 – Ground 2.0 & Flight 2.5 Dual Block 1 Phase Check (Level 1 Peer)

1. REVIEW

- ☐ Precision Traffic Pattern
- ☐ Go-Around
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Commercial Steep Turns
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power On Turning Stall
- ☐ Power Off Imminent Stall
- ☐ MCA

2. GROUND AREAS

- ☐ Certificates & Documents
- ☐ Airworthiness
- ☐ Weather
- ☐ Airspace
- ☐ Aeromedical

DATE _____/_____/2003

Block 2 INTRODUCTION TO EMERGENCIES & CONTINUED PRACTICE OF COMMERCIAL MANEUVERS

Lesson 16 – Ground 3.0 Phase Check Review & Emergencies

☐ Review Comments From Phase Check & Correct Any Deficiencies in Ground Knowledge

_____

_____

☐ Emergency Descent (High Altitude Operations, Procedure, Not for Certification, Conditions for Use)

_____

_____

☐ C-172 System Emergencies & Malfunctions (Fire, Electrical, Fuel, Flaps, Icing, Egress Procedures, Passenger Briefings, Fire Extinguisher Procedures, Survival Equipment)

_____

_____

☐ Emergency Approach & Landing Off Airport (Below 500' AGL at a grass landing strip, Procedures)

_____

_____

☐ Emergency Approach (To 505' AGL over a suitable landing site, Procedures, Picking a Landing Site)

_____

_____

☐ Emergency Approach & Landing (To the Runway from the Pattern, Procedures, Techniques)

_____

_____

☐ 180° Accuracy Landing (Procedures, Techniques, Wind Correction, Overshoot Correction)

_____

_____

_____

_____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 17 – Flight 1.5 Dual Emergencies

1. INTRODUCE
   - ☐ Passenger Pretakeoff Briefing
   - ☐ Emergency Descent
   - ☐ System Malfunction
   - ☐ System Emergency
   - ☐ Emergency Approach & Landing Off Airport (Go-around at 10’ AGL)
   - ☐ Emergency Approach
   - ☐ Emergency Approach & Landing (From Pattern)
   - ☐ 180° Accuracy Landing
2. REVIEW
   - ☐ Short Field Takeoff
   - ☐ Chandelle
   - ☐ Precision Pattern
   - ☐ Go-around
3. ADDITIONAL TASKS
   - ☐ _____
   - ☐ _____
   - ☐ _____
   - ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 18 – Flight 1.2 Solo Emergencies

1. REVIEW

- ☐ Soft Field Takeoff
- ☐ Chandelle
- ☐ Emergency Descent
- ☐ Eights-on-Pylons
- ☐ Go-around
- ☐ Emergency Approach
- ☐ Precision Pattern
- ☐ Emergency Approach & Landing (From Pattern)
- ☐ 180° Accuracy Landing

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 19 – Flight 1.5 Dual Emergencies

1. REVIEW

- ☐ Soft Field Takeoff
- ☐ Chandelle
- ☐ Emergency Descent
- ☐ Eights-on-Pylons
- ☐ Go-around
- ☐ Emergency Approach
- ☐ Precision Pattern
- ☐ Emergency Approach & Landing (From Pattern)
- ☐ 180° Accuracy Landing
- ☐ System Malfunction
- ☐ System Emergency

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 20 – Flight 6.0 SOLO X-Country

OSH-RFD-SPI-JVL-OSH

NOTE: Students should use their Friday time block to complete this cross-country. If this cross-country is modified for any reason, it must be redone.

1. REVIEW

- ☐ Dead Reckoning/Pilotage
- ☐ Professional Radio Communications
- ☐ Radio Navigation (VOR/GPS)
- ☐ Flight Log Usage
- ☐ Radar Services (Flight Following)
- ☐ Soft Field Takeoff & Climb
- ☐ Precision Traffic Pattern
- ☐ Soft Field Landing & Rollout

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

DATE _____/_____/2003

Lesson 21 – Ground 3.0 Altitude Emergencies

☐ High Altitude Emergency Approach (Above 3500 AGL, Communications, Checklists & Flows)

☐ Steep Spiral Emergency Approach (Key Position, Restart Technique, Checklist Usage, Procedure)

☐ Steep Spiral Emergency Approach & Landing (Key Position, Wind Correction, Preplanning, Descent Rate Control, Securing Procedures, Passenger Briefings)

☐ Forward Slip to Landing (Difference from Side Slip, Uses, Overshoot, Flap Failure)

☐ High Altitude Emergency Approach & Landing (3500'AGL to Runway in a Straight Line, Planning)

☐ No Flap Landing (Procedure, Technique, Pattern Differences, Stall Awareness, Excessive Float)

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 22 – Flight 1.5 Dual Altitude Emergencies

1. INTRODUCE
   - ☐ High Altitude Emergency Approach
   - ☐ Steep Spiral Emergency Approach
   - ☐ Steep Spiral Emergency Approach & Landing
   - ☐ Forward Slip to a Landing
   - ☐ High Altitude Emergency Approach & Landing
   - ☐ No Flap Landing
2. REVIEW
   - ☐ Lazy Eight
   - ☐ Eights-on-Pylons
   - ☐ Soft Field Takeoff
   - ☐ Precision Pattern
   - ☐ 180 Accuracy Landing
3. ADDITIONAL TASKS
   - ☐ _____
   - ☐ _____
   - ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 23 – Flight 1.3 Solo Altitude Emergencies

1. REVIEW

- ☐ High Altitude Emergency Approach
- ☐ Steep Spiral Emergency Approach
- ☐ Steep Spiral Emergency Approach & Landing
- ☐ Forward Slip to a Landing
- ☐ High Altitude Emergency Approach & Landing
- ☐ No Flap Landing
- ☐ Soft Field Takeoff
- ☐ 180 Accuracy Landing
- ☐ Precision Pattern
- ☐ Soft Field Landing

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2003
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 24 – Flight 1.5 Dual Clean Up

1. REVIEW

- ☐ Passenger Pretakeoff Briefing
- ☐ Short/Soft Takeoff
- ☐ Emergency Descent
- ☐ System Malfunction
- ☐ System Emergency
- ☐ Chandelle
- ☐ Emergency Approach & Landing Off Airport (Go-around at 10' AGL)
- ☐ Emergency Approach & Landing (From Pattern)
- ☐ High Altitude Emergency Approach
- ☐ Steep Spiral Emergency Approach & Landing
- ☐ Forward Slip to a Landing
- ☐ No Flap Landing
- ☐ 180° Accuracy Landing

2. ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

_____
_____
_____
_____

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	
GROUND TIME	

Lesson 25 – Ground 1.0 & Flight 2.0 Dual Block 2 Phase Check (Level 1)

1. REVIEW

- ☐ Passenger Pretakeoff Briefing
- ☐ Short/Soft Takeoff
- ☐ Emergency Descent
- ☐ System Malfunction
- ☐ System Emergency
- ☐ Chandelle
- ☐ Emergency Approach & Landing Off Airport (Go-around at 10’ AGL)
- ☐ Emergency Approach & Landing (From Pattern)
- ☐ High Altitude Emergency Approach
- ☐ Steep Spiral Emergency Approach & Landing
- ☐ Forward Slip to a Landing
- ☐ No Flap Landing
- ☐ 180° Accuracy Landing

2. GROUND AREAS

- ☐ C-172 Systems
- ☐ In Flight Emergencies
- ☐ High Altitude Operations
- ☐ Passenger Briefing
- ☐ Emergency Communication

Block 3 Multi Engine/Complex Aircraft Operations

Lesson 26 – Ground 3.0 HRS. REVIEW

NOTE: This lesson is a review of lesson 24 from the Commercial I Syllabus. Use it to reintroduce multi-engine operations and stress the importance of relearning the flows on their own time by Lesson 32. Also, take the time to go over the Commercial PTS and how he/she will be taking their multi-engine commercial check ride first followed by the singe-engine add on piece.

☐ Differences Between A Complex Aircraft And A Non-Complex Aircraft (Retractable Gear, Power Pack, Hydraulic Advantage & Dampening, Constant Speed Propeller Principles [Slip], Multiengine Governor vs. Single Engine Governor, Manifold Pressure [Over boost], Cowl Flaps [CHT])

☐ Multi Engine Maneuvers Guide (Short Field T/O & Ldg, Steep Turns, MCA, Power On/Off Stall, Emergency Descent, Go-Around, Pattern. ***Do not cover single engine operations until Lesson 34)***

☐ BE-76 POH (Sections 1,2,3,4 and 7 – Concentrate on Numbers Memorization and Systems)

☐ Specifications Sheet Of BE-76 In Maneuvers Guide (Combine With Above To Verify Locations Of All Numbers Listed On The Sheet – So The Students Knows Where The Numbers Came From)

☐ Review all normal checklist flows AND systems tests, i.e. alternator & prop. tests. Make sure student has checklist flow and systems test handouts to study from, and has a BE-76 cockpit poster.

☐ Weight & Balance/Performance Computations (Complete a W & B/Performance sheet with the student, cover all materials in Section 5 & 6 in PE-76 POH, emphasize "Associated Conditions" for each performance chart, and from the completed computation sheet, practice a takeoff briefing)

☐ Preflight (At The Aircraft – Preflight Walk-Through With Emphasis On Gear, Propeller Inspection, Cowl Flap Operation, Environmental Openings, Safety Features [Stall Horns, Squat Switches])

Lesson 27 – TruFlite 2.0 HRS Normal Flows Review

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Note: If the simulator is not available, use the aircraft with ground power hooked up to complete the flow training. Review each flow and have student perform. Student is required to have flows down by Lesson 28 or training should not continue. Emphasize/expand upon items in parenthesis.

☐ Before Starting Flow (passenger briefing)

☐ Starting Flow (oil pressure check after each engine start, instrument air test & alternator load check)

☐ After Start Flow.(alternator test and the operation of the climate control system, auxiliary pumps test, and engine instrument scan)

☐ Before Taxi Flow (bulb test)

☐ Run-up Flow (all prop tests)

☐ Before Takeoff Flow (takeoff briefing: short, concise, and to the point with the use of the performance sheet, talk about the importance of turning off the blower)

☐ Climb Flow (cowl flap operation)

☐ Pre-Maneuver Flow

☐ Cruise Flow (leaning out mixtures on cross-country flights)

☐ Descent Flow

☐ Before Landing Flow (go over GUMPS)

☐ After Landing Flow (emphasize not doing flow checklist items while taxiing)

☐ Shut-down Flow (instrument air check)

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Lesson 28_____ TruFlite 2.0 HRS
Normal Flows Continuation Check

NOTE: This lesson is designed to verify that the student is ready to continue with multi-engine training. He/she needs to perform each flow/systems test by memory. If the instructor determines that the student is not to standard (NO/GO), discrepancies should be noted and this lesson done over until the standard is met. If performing over, photocopy this lesson, label as appropriate (28A, B, C) and insert in binder. If the student completes this lesson with extra simulator time to spare, the remaining time should be used towards practicing takeoffs and landings in preparation for the next lesson

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

☐ Before Starting Flow:
GO_____ NO/GO:_____

☐ Starting Flow:
GO_____ NO/GO:_____

☐ After Start Flow:
GO_____ NO/GO:_____

☐ Before Taxi Flow:
GO_____ NO/GO:_____

☐ Run-up Flow:
GO_____ NO/GO:_____

☐ Before Takeoff Flow:
GO_____ NO/GO:_____

☐ Climb Flow:
GO_____ NO/GO:_____

☐ Cruise Flow :
GO_____ NO/GO:_____

☐ Descent Flow :
GO_____ NO/GO:_____

☐ Before Landing Flow :
GO_____ NO/GO:_____

☐ After Landing Flow :
GO_____ NO/GO:_____

☐ Shut-down Flow :
GO_____ NO/GO:_____

☐ Pre-Maneuver Flow:
GO_____ NO/GO:_____

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Lesson 29____ – TruFlite 2.0 Multi-Engine Pattern Review

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

NOTE: This lesson is designed to verify that the student is ready to move to the actual aircraft. He/she needs to perform each flow/systems test by memory and all pattern work items listed below to standard in the TruFlite prior to going to the flightline. If the instructor determines that the student is not to standard, discrepancies should be noted and this lesson done over until the standard is met. If performing over, photocopy this lesson, label as appropriate (29A, B, C) and insert in binder.

1. Review
   - ☐ Normal/Crosswind Takeoff & Climb
   - ☐ Short Field Takeoff & Climb
   - ☐ Complex Traffic Pattern
   - ☐ Go-Around
   - ☐ No Flap Landing
   - ☐ Normal/X-wind Landing & Rollout
   - ☐ Short Filed Landing & Rollout
   - ☐ Touch & Go Procedure

2. Introduce and Practice
   - ☐ Maneuvering During Slow Flight
   - ☐ Power-On Stalls
   - ☐ Power-Off Stalls
   - ☐ Steep Turns

Lesson 30 – Flight: Pattern/Area Work

1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. Practice

- ☐ Normal/Crosswind Takeoff & Climb
- ☐ Short Field Takeoff & Climb
- ☐ Complex Traffic Pattern
- ☐ Go-Around
- ☐ Normal/X-wind Landing & Rollout
- ☐ Short Filed Landing & Rollout
- ☐ Touch & Go Procedure
- ☐ Maneuvering During Slow Flight
- ☐ Power-On Stalls
- ☐ Power-Off Stalls
- ☐ Steep Turns

Lesson 31 – TruFlite – Emergency Flow/Checklist Procedures – 2.0 hrs

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Note: If the simulator is not available, use the aircraft with ground power hooked up to complete the flow training. Review each emergency flow and have student perform. Go over emergency situations listed below and use the POH as your guide to deal with the situation at hand. Emphasize/expand upon items in parenthesis.

☐ Engine Fire in Flight Flow (go over importance of backing this flow up with checklist and if fire can't be contained, how it leads to engine fire emergency descent flow/checklist.)

☐ Engine Fire/Emergency Descent Flows (discuss differences, specifically airspeeds/gear limit speeds. Note that 150K AS limit is for training. In real world, VNE may be required to combat fire.)

☐ Rectify Engine Checklist (discuss why a flow has not been established. Evaluators would rather see student secure engine and land. If time permits, refer to checklist to see if failed engine is obvious.)

☐ Securing Engine Flow (monitor electrical load/power demand on good engine, importance of Vyse/Vxse 85K, go over fuel cross feed procedures in POH.)

☐ Electrical Failure/Fire (POH references: electrical smoke or fire, complete loss of electrical power, illumination of alternator-out light. Talk about load shedding, bus components, bus isolation. Compare problem solving differences when VFR compared to IFR.

☐ Gear Failure (go over manual extension vs. gear-up landing POH procedures.

☐ Flap Failure (landing airspeed difference, shallower approach glide path, less landing flare.)

☐ Emergency Equipment/Survival Gear (refer to Area VIII, Task F in PTS and relate requirements to the Duchess and challenges associated with Midwest weather.

☐ Air Restart Checklist (go over procedure in POH, cautions/notes, importance of 100K and how to start if air start fails.)

☐ After Air Start (importance of engine warm up, 2000rpm/15mp.)

Lesson 32B – Flight Emergencies – 1.5 hrs

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

- ☐ Emergency Descent (Low Speed, High Drag)
- ☐ Engine Fire Emergency Descent
- ☐ Electrical Failure/Fire
- ☐ Gear Failure/Manual Gear extension
- ☐ Flap Failure/No Flap Landing

2. REVIEW

- ☐ Normal T/O And Climb
- ☐ Short Field T/O And Climb
- ☐ Power-On Stalls
- ☐ Power-Off Stalls
- ☐ Complex Traffic Pattern
- ☐ Steep Turns
- ☐ Normal/X-wind Landing & Rollout
- ☐ Short Field Approach And Land
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐

Lesson 33 – TruFlite Review 2.0 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Note: Any or ALL of these maneuvers at the flight instructor's discretion. Students should not require instructor assistance to perform these maneuvers. Emphasis should be put on aircraft control, procedural knowledge and checklist usage.

1. REVIEW

- ☐ Normal T/O & Climb
- ☐ Normal Landing
- ☐ X-Wind T/O & Climb
- ☐ Short Field T/O
- ☐ Go Around
- ☐ Steep Turns
- ☐ Power On Stall
- ☐ MCA
- ☐ Power Off Stall
- ☐ Emergency Descent
- ☐ Electrical Failure/Fire
- ☐ Gear Failure/ Manual Extension
- ☐ Short Field Landing
- ☐ X-Wind Landing

2. TIME PERMITTING

- ☐ Rectify Engine Procedure/Checklist
- ☐ Securing Engine Procedure/Checklist
- ☐ Air Restart Procedure/Checklist
- ☐ After Air-Start Procedure/Checklist

DATE _____/_____/2006

Lesson 34 – Ground – Single Engine Maneuvers & Demos – 2.0 HRS.

NOTE: Instructors need to make sure they use the aircraft POH and FVTC Maneuvers Guide while teaching these subjects. Other FAA publications (AFH, PHAK) should be referenced also.

☐ Engine Failure on Takeoff Roll before V_{mc} (loss of engine recognition, maximum braking vs. locked brakes, brake cooling prior to next takeoff(_____

☐ Engine Failure on Takeoff Roll after V_{mc} (decision to abort vs. continue takeoff, read/discuss Engine Failure After Lift-Off And In Flight in POH, Takeoff Weight & Accelerate-Stop/Go Charts, importance of retracting gear, 80K vs. 85K)_____

☐ Engine Failure on Climb out above 600 feet AGL (procedure: max. power, lock heading/altitude, identify/verify/feather, checklist usage below/above 1500 AGL, _____

☐ Affects of Configuration on Performance Demo (go over in detail "demonstrating the effects of various airspeeds and configurations during engine inop. performance" lesson in Multi Maneuvers guide and discuss how these different configurations will degrade single engine performance.)_____

☐ V_{mc} Demo (go over procedure in Maneuvers Guide, discuss recognition techniques, importance of staying above Vmc airspeed, extra airspeed and altitude is good, region of reverse command, situations that force a pilot's attention away from his primary duty of maintaining aircraft control.)_____

☐ Intentional Engine Shutdown En-Route (Above 3000 Feet AGL) (Air Restart Checklist: go over procedure in POH, cautions/notes, importance of 100K and how to start if air start fails.)_____

☐ Single Engine Maneuvering (5 degrees into good engine, zero sideslip, avoid turning into dead engine, maintaining extra airspeed, planning to always give yourself a way out of a bad situation)_____

☐ Air Restart (importance of engine warm up, 2000rpm/15mp.) _____

☐ Single Engine Pattern (plan ahead, widen out pattern, don't turn into dead engine, go over airspeeds, when to add flaps, delay flaps, gear, importance of using checklists)_____

☐ Single Engine Go-Around (refer to One-Engine Inop. Go-Around in POH, read WARNING, go-around may not be possible once full flaps are deployed, planning ahead, Climb-Balked Landing Chart, Climb-One Engine Inop. Chart.)_____

☐ Single Engine Approach & Landing (VFR) (refer to One-Engine Inop. Landing in POH)_____

☐ Single Engine Effects on Cross Country Flight Planning (Drift Down, Fuel, Airport Selection, Service Ceiling-One Engine Inop. Chart, difference between S.E. service ceiling and S.E. absolute ceiling)_____

Lesson 35 – TruFlite – Single Engine Operations & Demos 2.0 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

- ☐ Abnormal Flows
- ☐ Engine Failure On Take Off Roll (Below Vmc)
- ☐ Engine Failure Just after Liftoff with Gear in Transit
- ☐ Engine Failure On Climb Out (Above 600' AGL)
- ☐ Affects of Configuration on Performance Demo
- ☐ Vmc Demo
- ☐ Intentional Engine Shutdown En-Route (Above 3000' AGL)
- ☐ Single Engine Maneuvering
- ☐ Air Restart
- ☐ Engine Fire In-flight
- ☐ Engine Fire With Emergency Descent
- ☐ Single Engine Go-Around (perform go-around on approach to landing.)
- ☐ Single Engine Approach And Landing

Lesson 36 – Flight – Single Engine Operations & Demos 1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

- ☐ Abnormal Flows
- ☐ Engine Failure On Take Off Roll (Below 30 KIAS)
- ☐ Short Field Takeoff
- ☐ Engine Failure On Climb Out (Above 600' AGL)
- ☐ Affects of Configuration on Performance Demo
- ☐ Vmc Demo
- ☐ Intentional Engine Shutdown En-Route (Above 3000' AGL)
- ☐ Single Engine Maneuvering
- ☐ Air Restart
- ☐ Engine Fire In-flight
- ☐ Engine Fire With Emergency Descent
- ☐ **Simulated** Single Engine Go-Around (only perform this maneuver above 4000' AGL in training area with one engine back to idle.)
- ☐ Single Engine Approach And Landing (Full Stop Only. Allow simulated failed engine to warm and stabilize prior to applying full power.)

2. ADDITIONAL TASKS (From Prior Flights)

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Lesson 37 – TruFlite – S.E. Operations & Demos PRACTICE 2.0 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. PRACTICE

- ☐ Abnormal Flows
- ☐ Engine Failure On Take Off Roll (Below 30 KIAS)
- ☐ Short Field Takeoff (X2)
- ☐ Engine Failure On Climb Out (Above 600' AGL)
- ☐ Affects of Configuration on Performance Demo
- ☐ Vmc Demo
- ☐ Intentional Engine Shutdown En-Route (Above 3000' AGL)
- ☐ Single Engine Maneuvering
- ☐ Air Restart
- ☐ Engine Fire In-flight
- ☐ Engine Fire With Emergency Descent
- ☐ Single Engine Go-Around (perform go-around on approach to landing.)
- ☐ Single Engine Approach And Landing
- ☐ Short Field Landing (X2)

2. ADDITIONAL TASKS (From Prior Flights)

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

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Lesson 38 – Flight Review 1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Note: Any or ALL of these maneuvers at the flight instructor's discretion. Students should not require instructor assistance to perform these maneuvers.

1. REVIEW

- ☐ Abnormal Flows
- ☐ Engine Failure On Take Off Roll (Below 30 KIAS)
- ☐ Short Field Takeoff
- ☐ Engine Failure On Climb Out (Above 600' AGL)
- ☐ Affects of Configuration on Performance Demo
- ☐ Vmc Demo
- ☐ Intentional Engine Shutdown En-Route (Above 3000' AGL)
- ☐ Single Engine Maneuvering
- ☐ Air Restart
- ☐ Engine Fire In-flight
- ☐ Engine Fire With Emergency Descent
- ☐ **Simulated** Single Engine Go-Around (only perform this maneuver above 4000' AGL in training area with one engine back to idle.)
- ☐ Single Engine Approach And Landing (Full Stop Only. Allow simulated failed engine to warm and stabilize prior to applying full power.)

Lesson 39_____ TruFlite –(IFR) 1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

NOTE: Student should not be allowed to progress to the next lesson until all approaches are performed to standard in the simulator. If the instructor determines that the student is not to standard, discrepancies should be noted and this lesson done over until the standard is met. If performing over, photocopy this lesson, label as appropriate (39A, B, C) and insert in binder.

- ☐ Simulator Differences
- ☐ Instrument Takeoff (Visibility 3000 RVR)
- ☐ VOR Approach (Two Engines) _____
- ☐ NDB Approach (Two Engines) _____
- ☐ Localizer Approach (Two Engines) _____
- ☐ ILS Approach (Two Engines) _____
- ☐ Landing From An Instrument Approach

3. ADDITIONAL APPROACHES (Time Permitting)

- ☐ Back Course_____
- ☐ ILS_____
- ☐ VOR_____
- ☐ Holding_____

Discrepancies:

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Lesson 40 – Flight –(IFR) – 1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

- ☐ Instrument Takeoff (Student Hooded)
- ☐ 1st Non Precision Approach All Engines
- ☐ 2nd Non Precision Approach All Engines
- ☐ 1st Precision Approach All Engines
- ☐ 2nd Precision Approach All Engines
- ☐ Choice Of Approach (Time Permitting)(GPS)
- ☐ Instrument Holding
- ☐ Go Around
- ☐ Landing from an Instrument Approach
- ☐ Steep Turns (IMC 45° Bank)

2. REVIEW

- ☐ Short Field Takeoff
- ☐ Short Field Landing

Lesson 41_____ – TruFlite – (IFR) Single Engine Operations 2.0 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

NOTE: Student should not be allowed to progress to the next lesson until all approaches are performed to standard in the simulator. If the instructor determines that the student is not to standard, discrepancies should be noted and this lesson done over until the standard is met. If performing over, photocopy this lesson, label as appropriate (41A, B, C) and insert in binder.

- ☐ Pre-brief Of Recognition Of Single Engine On Instruments Only, In Simulator. (DEMO)
- ☐ Non-Precision Approach Intro to Single Engine Operations _____
- ☐ VOR Approach (One Engine) _____
- ☐ NDB Approach (One Engine) _____
- ☐ Localizer Approach (One Engine) _____
- ☐ ILS Approach (One Engine) _____

2. ADDITIONAL APPROACHES (Time Permitting)

- ☐ Back Course_____
- ☐ ILS_____
- ☐ VOR_____
- ☐ Holding_____

Discrepancies:

- ☐ _____
- ☐ _____
- ☐ _____

Lesson 42 – Flight – (IFR) Single Engine Operations 1.5 HRS

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. INTRODUCE

- ☐ VOR Approach (One Engine) _____
- ☐ NDB Approach (One Engine) _____
- ☐ GPS Approach (One Engine) _____
- ☐ ILS Approach (One Engine) _____

2. ADDITIONAL APPROACHES (Time Permitting)

- ☐ Single Engine Hold to an Instrument Approach
- ☐ Non Precision _____
- ☐ Precision _____

3. ADDITIONAL TASKS (From Prior IFR Flights)

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

Lesson 43 – Ground – Multiengine Cross Country Flight Planning 2.0 HRS

Note: This lesson is a review from Comm. I. Cover the operation of the individual chart as well as its overall purpose. Utilize real time weather specific to the day that you perform this lesson. Make sure to cover all "Associated Conditions" and "Notes" pertaining to each individual chart.

☐ Manifold Pressure vs. RPM Chart

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☐ Take-Off Distance Charts

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☐ Climb Chart (two engines)

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☐ Time, Fuel, & Distance to Climb Chart

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☐ Cruise Speed Chart

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☐ Maximum, Recommended, & Economy Cruise Power Charts

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☐ Range/Endurance Profile Charts

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☐ Time, Fuel, & Distance to Descend Chart

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☐ Landing Distance Charts

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DATE _____/_____/2006

Lesson 44 – Ground 3.0 Check Ride Oral Review

☐ Review Multiengine Ground Power Points (O:\sjs\flight\0Ground School Power Point Presentations\MultiEngine)_____

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☐ Discuss and Note Student's Weak Areas

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☐ Go over PTS and cover required flight maneuvers that will be tested and ground areas.

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Lesson 45 – TruFlite –Review all PTS – 2.0 HRS

NOTE: Student should not be allowed to progress to the M.E. Phase Check until all items are performed to standard in the simulator. If the instructor determines that the student is not to standard, discrepancies should be noted and this lesson done over until the standard is met. If performing over, photocopy this lesson, label as appropriate (51A, B, C) and insert in binder.

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. REVIEW
   - ☐ Preflight Procedures
   - ☐ Normal Takeoff & Climb & Landing
   - ☐ Short Field Takeoff & Climb & Landing
   - ☐ Steep Turn
   - ☐ Slow Flight
   - ☐ Power-On Stall
   - ☐ Power-Off Stall
   - ☐ Emergency Descent
   - ☐ Engine Failure On Takeoff Prior to Vmc
   - ☐ Engine Failure at 600’ AGL
   - ☐ Engine Failure above 3000’ AGL
   - ☐ S.E. Visual & Inst. Approach (es)/Landing (s)
   - ☐ Vmc Demo
   - ☐ Intentional Engine Shutdown En-Route (Above 3000’ AGL) followed by Air Start
   - ☐ PostFlight Procedures

Lesson 46 – Flight (1.5) and Ground (2.0) – ME PHASE CHECK

GROUND

- ☐ Preflight Preparation (Ground)
  - ☐ Performance & Limitations
    - ☐ Weight & Balance
    - ☐ Performance Charts
    - ☐ Performance Effect's Of Atmospheric Conditions
  - ☐ Operation Of Systems
    - ☐ 5 Systems
  - ☐ Principles Of Flight – Engine Inoperative
    - ☐ Critical Engine
    - ☐ Relationship Of Stall Speed And Vmc
    - ☐ Altitude's Effect On Vmc Demo
    - ☐ Affects Of Weight And Cg On Control
    - ☐ Affects Of Angle Of Bank On Control
    - ☐ Reasons For Loss Of Directional Control
    - ☐ Indications Of Loss Of Directional Control
    - ☐ Loss Of Directional Control Recovery Procedure
    - ☐ Engine Failure During Takeoff To Include Planning, Decisions, & Single-Engine Operations.
    - ☐ Importance Of Zero Side Slip

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FLIGHT

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

☐ Preflight Procedures

- ☐ Preflight
- ☐ Taxi
- ☐ Before Takeoff Checks

☐ Normal Takeoff & Climb & Landing

- ☐ Short T/O
- ☐ Short Landing
- ☐ Normal Landing

☐ Steep Turn

☐ Slow Flight & Stalls

- ☐ MCA
- ☐ Power Off
- ☐ Power On

☐ Multiengine Operations

- ☐ Vmc Demo
- ☐ Engine Failure During Flight
- ☐ Instrument Approach
- ☐ Maneuvering With One Engine Inoperative

☐ Emergency Operations

- ☐ Emergency Descent

☐ Approach And Landing With Engine Inop

☐ Engine Failure After Liftoff

☐ System & Equipment Malfunctions

☐ Emergency Equipment

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Lesson 47____ – Flight 1.5 Check Ride

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Examiner - _____

Date _____ Pass/Fail _____ A/C _____

Use the following checklist to indicate which Tasks were tested. Add any additional comments about the examiner below. If the student did not pass, use this lesson again, label it appropriately (47A, B) and insert it in binder.

- ☐ PreflightPreparation
- ☐ Preflight Procedures
- ☐ Airport Operations
- ☐ Takeoffs, Landings, & Go-Around
- ☐ Performance Maneuver
- ☐ Slow Flight & Stalls
- ☐ Multiengine Operations
- ☐ Emergency Operations
- ☐ Post Flight Procedures

Additional Information

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Block 4: Single-Engine Add-On

Lesson 48 – Ground 3.0 HRS. REVIEW

NOTE: This block of instruction is designed to prepare the student for the single-engine add-on piece of the commercial pilot rating. This block consists of two instructor flight lessons, two solo lessons, one ground session, a phase check, and then the checkride. If the instructor determines that the student does not need the last solo lesson, the student should then be scheduled for the phase check. This ground lesson is built around the requirements outlined in the PTS. It should be used to review/refresh the student's knowledge on information that has already been covered. Also, besides the PTS, ***use Mr. Meyer's oral guide to review all areas that will be covered on the oral!***

☐ Performance and Limitations (172 performance charts in Section 5 of the POH, work through different scenarios for each chart, and stress referring to Notes/Conditions; quiz student on 172 limitations from Section 2 of POH; have student complete a weight and balance).

_____

☐ Operation of Systems (refer to Section 7, Airplane and Systems Description, and cover all 172 systems. Also cover systems that don't directly correlate with the 172 such as; leading edge devices, spoilers, retractable landing gear, hydraulic systems, deicing and anti-icing systems).

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☐ Airspeeds (know and be able to explain all 172 airspeeds, specifically Va, Vfe, Vs vs. Vso, Vx vs. Vy, normal vs. cruise climb and when/why you would use them given a particular situation).

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☐ From PTS, Area of Operation IV , Takeoffs, Landings, and Go Around (use Mr. Myer's guide and go over all areas mentioned, ie. differences and techniques between normal, short, & soft T/O & LDG).

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☐ From PTS, Area of Operation IX, Emergency Operations (use Mr. Myer's guide, go over all areas mentioned and refer to Ch. 6 in the AIM to guide your discussion. Also refer to Section 3, Emergency Procedures, in the 172 POH. Also, discuss differences between 180 degree accuracy vs. emergency approach and landing).

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☐ Refer to the VFR Aeronautical Chart and quiz the student on map symbology, airspace, terrain features, VFR landmarks and associated markings, special use airspace and TFRs).

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Lesson 49 – Flight 2.0 Single Engine Add-on Maneuvers

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. PRACTICE

- ☐ Starting Emergencies
- ☐ Passenger Briefing
- ☐ Precision Traffic Pattern
- ☐ Normal Takeoff
- ☐ Normal Landing
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power-off 180 Accuracy Approach and Landings
- ☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)
- ☐ Emergency Communications Protocol

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____

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DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 50 – Flight 1.5 , Solo, Single Engine Add-on Maneuvers

1. PRACTICE

- ☐ Precision Traffic Pattern
- ☐ Normal Takeoff
- ☐ Normal Landing
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power-off 180 Accuracy Approach and Landings
- ☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

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DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

Lesson 51– Flight 2.0 Single Engine Add-on Maneuvers

3. PRACTICE

- ☐ Starting Emergencies
- ☐ Passenger Briefing
- ☐ Precision Traffic Pattern
- ☐ Normal Takeoff
- ☐ Normal Landing
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power-off 180 Accuracy Approach and Landings
- ☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)
- ☐ Emergency Communications Protocol

4. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

Lesson 52 – Flight 1.5 , Final Solo, Single Engine Add-on Maneuvers

NOTE: If the instructor feels that the student is ready to progress to the phase check and this solo is not needed, use this time for noted ground training weak areas.

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. PRACTICE

- ☐ Precision Traffic Pattern
- ☐ Normal Takeoff
- ☐ Normal Landing
- ☐ Short Field Takeoff
- ☐ Short Field Landing
- ☐ Soft Field Takeoff
- ☐ Soft Field Landing
- ☐ Steep Spirals
- ☐ Chandelle
- ☐ Lazy Eight
- ☐ Eights-on-Pylons
- ☐ Power-off 180 Accuracy Approach and Landings
- ☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)

2. (Instructor Assigned) ADDITIONAL TASKS

- ☐ _____
- ☐ _____
- ☐ _____

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	
GROUND TIME	

Lesson 53 – Ground 1.0 & Flight 1.5 Dual Block 4 Phase Check

1. REVIEW

☐ Starting Emergencies

☐ Passenger Briefing

☐ Precision Traffic Pattern

☐ Normal Takeoff

☐ Normal Landing

☐ Short Field Takeoff

☐ Short Field Landing

☐ Soft Field Takeoff

☐ Soft Field Landing

☐ Steep Spirals

☐ Chandelle

☐ Lazy Eight

☐ Eights-on-Pylons

☐ Power-off 180 Accuracy Approach and Landings

☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)

2. GROUND AREAS (use the PTS and Mr. Meyer's oral guide to cover all required areas)

☐ Performance and Limitations

☐ Operation of 172 Systems

☐ Emergency Approach and Landing

☐ Systems and Equipment Malfunctions

☐ Emergency Communications Protocol

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Lesson 54____ – Flight 1.5 Check Ride

Examiner - _____

Date _____ Pass/Fail _____ A/C _____

Use the following checklist to indicate which Tasks were tested. Add any additional comments about the examiner below. If the student did not pass, use this lesson again, label it appropriately (54A, B) and insert it in binder.

DATE	/ /2006
AIRCRAFT NUMBER	N
HOBBS IN	
HOBBS OUT	
TOTAL TIME	

1. FLIGHT

☐ Precision Traffic Pattern

☐ Normal Takeoff

☐ Normal Landing

☐ Short Field Takeoff

☐ Short Field Landing

☐ Soft Field Takeoff

☐ Soft Field Landing

☐ Steep Spirals

☐ Chandelle

☐ Lazy Eight

☐ Eights-on-Pylons

☐ Power-off 180 Accuracy Approach and Landings

☐ Emergencies (Emergency approach and landing, system/equipment malfunctions)

2. GROUND

☐ Performance and Limitations

☐ Operation of 172 Systems

☐ Emergency Approach and Landing

☐ Systems and Equipment Malfunctions

☐ Emergency Communications Protocol

Additional Information

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