AVIA 3113
COMMERCIAL AVIATION
UNIVERSITY OF OKLAHOMA

_____ _____, 20_____

I, _____, have acquired and have in my possession a copy of the training course outline, training syllabus, and safety procedures and practices for AVIA 3113, Commercial Aviation.

_____
Student Signature

_____
Flight Instructor Signature

_____
Chief Flight Instructor Signature

UNIVERSITY OF OKLAHOMA
DEPARTMENT OF AVIATION
AVIATION 3113 SYLLABUS
COMMERCIAL AVIATION

March 31, 1999
Instructor: David McClurkin

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact department personnel as soon as possible to discuss accommodations necessary to ensure full participation and facilitate educational opportunities.

COMMERCIAL PILOT
GROUND TRAINING SYLLABUS
GROUND TRAINING COURSE OBJECTIVES

The student will obtain the necessary aeronautical knowledge and meet the prerequisites specified in Federal Aviation Regulation Part 61 for a commercial pilot written test. Additionally, the student will be introduced to the concepts of flying safely, professionalism, and decision making needed to become a professional pilot.

GROUND TRAINING COMPLETION STANDARDS

The student will demonstrate through oral discussion, written and oral quizzes, and written examinations that the prerequisite knowledge required by Federal Aviation Regulation Part 61 has been met, and that the knowledge necessary to pass the commercial pilot written test has been obtained.

COMMERCIAL PILOT GROUND TRAINING SYLLABUS
Part 141 - A*

STAGE I			
Lesson # 1 – Chapter 1,	Section A	1.3 hrs	
Lesson # 2 - Chapter 1,	Section B	1.3 hrs	
Lesson # 3 – Chapter 2,	Sections A & B	2.6 hrs	
Lesson # 4 – Chapter 2,	Section C	1.3 hrs	
Lesson # 5 - Chapter 3,	Section A	1.3 hrs	
Lesson # 6 – Chapter 3,	Section B	1.3 hrs	
Lesson # 7 – Chapter 3,	Section C	1.3 hrs	
Lesson # 8 – Chapter 9,	Section A	1.3 hrs	
Lesson # 9 – Chapter 9,	Section B	1.3 hrs	
Lesson #10 – Chapter 9,	Section C	1.3 hrs	
Lesson #11 – Chapter 9,	Section D	1.3 hrs	
Lesson #12 – Chapter 9,	Section E	1.3 hrs	
Lesson #13 – Review and Exam			1.3 hrs
STAGE II			
Lesson #14 – Chapter 11,	Section A	1.3 hrs	
Lesson #15 – Chapter 11,	Sections B & C	1.3 hrs	
Lesson #16 – Chapter 12,	Section A	1.3 hrs	
Lesson #17 – Chapter 12,	Section B	1.3 hrs	
Lesson #18 – Chapter 12,	Section C	1.3 hrs	
Lesson #19 – Chapter 13,	Section A	1.3 hrs	
Lesson #20 – Chapter 13,	Section B	2.6 hrs	
Lesson #21 – Review and Exam			1.3 hrs
STAGE III			
Lesson #22 – FARs,	Part 1, 61, & 91	1.3 hrs	
Lesson #23 – FARs,	Part 125, 135, NTSB 830	1.3 hrs	
Lesson #24 - Chapter 14,	Sections A & B	1.3 hrs	
Lesson #25 - Chapter 14,	Sections C, D, & E	1.3 hrs	
Lesson #26 – VFR Operations/Cross Country		1.3 hrs	
Lesson #27 – Review		1.3 hrs	
Lesson #28 – Final Exam			1.3hrs
TOTAL		35.1 HOURS	3.9 HOURS
GRAND TOTAL –			**39.0 HOURS**

Note: The Chapter and Sections referred to in this syllabus are based on the Instrument Commercial Manual and the Federal Aviation Regulations published by Jeppesen Sanderson, Inc, Inglewood, Colorado. The hours designated for each chapter are suggested guidelines only, and may vary at the Instructor's discretion. In no case will the hours of instruction be less than the total number of hours defined in this syllabus.

* This time allocation table to be used for college credit students.

COMMERCIAL PILOT GROUND TRAINING SYLLABUS
Part 141 - B*

STAGE I			
Lesson # 1 – Chapter 1,	Section A	1.0 hrs	
Lesson # 2 - Chapter 1,	Section B	1.0 hrs	
Lesson # 3 – Chapter 2,	Sections A & B	2.0 hrs	
Lesson # 4 – Chapter 2,	Section C	1.0 hrs	
Lesson # 5 - Chapter 3,	Section A	1.5 hrs	
Lesson # 6 – Chapter 3,	Section B 1	.0 hrs	
Lesson # 7 – Chapter 3,	Section C	1.0 hrs	
Lesson # 8 – Chapter 9,	Section A	1.1 hrs	
Lesson # 9 – Chapter 9,	Section B	1.1 hrs	
Lesson #10 – Chapter 9,	Section C	1.3 hrs	
Lesson #11 – Chapter 9,	Section D	1.3 hrs	
Lesson #12 – Chapter 9,	Section E	1.2 hrs	
Lesson #13 – Review and Exam			1.0 hrs
STAGE II			
Lesson #14 – Chapter 11,	Section A	1.0 hrs	
Lesson #15 – Chapter 11,	Sections B & C	3.0 hrs	
Lesson #16 – Chapter 12,	Section A	1.0 hrs	
Lesson #17 – Chapter 12,	Section B	1.0 hrs	
Lesson #18 – Chapter 12,	Section C	1.0 hrs	
Lesson #19 – Chapter 13,	Section A	1.5 hrs	
Lesson #20 – Chapter 13,	Section B	1.5 hrs	
Lesson #21 – Review and Exam			1.0 hrs
STAGE III			
Lesson #22 – FARs,	Part 1, 61, & 91	1.5 hrs	
Lesson #23 – FARs,	Part 125, 135, NTSB 830	1.5 hrs	
Lesson #24 - Chapter 14,	Sections A & B	1.0 hrs	
Lesson #25 - Chapter 14,	Sections C, D, & E	1.0 hrs	
Lesson #26 – VFR Operations/Cross Country		1.5 hrs	
Lesson #27 – Review		1.0 hrs	
Lesson #28 – Final Exam			1.0 hrs
TOTAL		32.0 HOURS	3.0 HOURS
GRAND TOTAL –			**35.0 HOURS**

Note: The Chapter and Sections referred to in this syllabus are based on the Instrument Commercial Manual and the Federal Aviation Regulations published by Jeppesen Sanderson, Inc, Inglewood, Colorado. The hours designated for each chapter are suggested guidelines only, and may vary at the Instructor's discretion. In no case will the hours of instruction be less than the total number of hours defined in this syllabus.

* This time allocation table to be used for non-credit students.

STAGE I

STAGE OBJECTIVE

During this stage, the student will learn the basics of commercial operations, human factors, the principles of instrument flight and the flight environment. The student will also develop a more thorough understanding of operating in various weather conditions and the hazards involved, as well as, the sources available to obtain weather information.

STAGE COMPLETION STANDARD

This stage is complete when the student has taken the Stage I Examination and the instructor has reviewed each incorrect response to ensure complete student understanding before the student progresses to Stage II.

GROUND LESSON 1

TEXT REFERENCE: Instrument Commercial Manual - Chapter 1, Section A, "Instrument/Commercial Training and Opportunities"

LESSON OBJECTIVE: The objective of this lesson is for the student to develop an understanding of the opportunities for a pilot that holds an instrument rating and a commercial certificate.

CONTENT:
Section A - "Instrument/Commercial Training and Opportunities"

- Instrument Flight
- Why an Instrument Rating?
- Instrument Training
- Currency for the Clouds
- The Commercial Pilot Certificate
- Commercial Pilot Privileges
- Additional Certificates and Ratings
- Multi-Engine Rating
- Certificated Flight Instructor
- Airline Transport Pilot Certificate

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of instrument/commercial training and opportunities available to them before the student progresses to Ground Lesson 2.

GROUND LESSON 2

TEXT REFERENCE: Instrument Commercial Manual - Chapter 1, Section B, "Advanced Human Factors Concepts"

LESSON OBJECTIVE: The objective of this lesson is for the student to learn about the human factors involved in flying an airplane in the commercial environment. The student will develop a more thorough understanding of the physiology factors associated with altitude.

CONTENT:
Section B - "Advanced Human Factors Concepts"
- Aeronautical Decision Making
- Workload Management
- Aviation Physiology

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of aeronautical decision making and aviation physiology before the student progresses to Ground Lesson 3.

GROUND LESSON 3

TEXT REFERENCE: Instrument Commercial Manual - Chapter 2, Section A, "Flight Instrument Systems" and Section B, "Attitude Instrument Flying"

VIDEO PRESENTATION: Instrument Commercial Video – Part I, Subject Areas, "Flight Instrument Systems" and "Attitude Instrument Flying"

LESSON OBJECTIVE: The objective of this lesson is for the student to review and reinforce the background knowledge of the flight instrument systems and the concepts of attitude instrument flying.

CONTENT:

Section A - "Flight Instrument Systems"
- Gyroscopic Flight Instruments
- Magnetic Compass
- Pitot-Static Instruments

Section B – "Attitude Instrument Flying"
- Fundamental Skills
- Attitude Instrument Flying Concepts
- Basic Flight Maneuvers
- Climbs and Descents
- Coping with Instrument Failure
- Partial Panel Flying
- Unusual Attitude Recovery
- Control and Performance Concept

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of the flight instruments and operating in IFR conditions before progressing to Ground Lesson 4.

GROUND LESSON 4

TEXT REFERENCE: Instrument Commercial Manual - Chapter 2, Section C, "Instrument Navigation"

VIDEO PRESENTATION: Instrument Commercial Video – Part I, Subject Area, "Instrument Navigation"

LESSON OBJECTIVE: The objective of this lesson is for the student to review and reinforce the background knowledge of navigating in the IFR environment.

CONTENT:
Section C - "Instrument Navigation"
- VOR Navigation
- ADF Navigation
- Distance Measuring Equipment

- Operational Considerations
- Area Navigation

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of instrument navigation before progressing to Ground Lesson 5.

GROUND LESSON 5

TEXT REFERENCE: Instrument Commercial Manual - Chapter 3, Section A, "Airports, Airspace, and Flight Information"

VIDEO PRESENTATION: Instrument Commercial Video – Part I, Subject Area, "Airports, Airspace, and Flight Information"

LESSON OBJECTIVE: During this lesson, the student's knowledge of the national airspace system will be expanded. This will include airports and flight information publications as they relate to commercial flight operations.

CONTENT:
Section A - "Airports, Airspace, and Flight Information"

- The Airport Environment
- Runway Incursion Avoidance
- Lighting Systems
- Airspace
- Flight Information

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of airports, airspace, and flight information before progressing to Ground Lesson 6.

GROUND LESSON 6

TEXT REFERENCE: Instrument Commercial Manual - Chapter 3, Section B, "Air Traffic Control System"

VIDEO PRESENTATION: Instrument Commercial Video – Part I, Subject Area, "Air Traffic Control System"

LESSON OBJECTIVE: During this lesson, the student will learn how the air traffic control system functions, including the use and limitations of radar and transponders.

CONTENT:

Section B - "Air Traffic Control System"

- Air Route Traffic Control Center
- ARTCC Traffic Separation
- Processing the IFR Flight Plan
- Additional ARTCC Services
- Terminal Facilities
- ATIS
- Clearance Delivery
- Control Tower
- Approach and Departure Control
- Radar Service for VFR Aircraft
- Class C Service Areas
- Class B Service Areas
- Traffic Advisories
- Flight Service Stations

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate a complete understanding of the airspace system before progressing to Ground Lesson 7.

GROUND LESSON 7

TEXT REFERENCE: Instrument Commercial Manual - Chapter 3, Section C, "ATC Clearances"

VIDEO PRESENTATION: Instrument Commercial Video – Part I, Subject Area, "ATC Clearances"

LESSON OBJECTIVE: During this lesson, the student will expand their knowledge of Air Traffic Control Clearances.

CONTENT:
Section C - "ATC Clearances"
- Pilot Responsibilities
- IFR flight Plan and ATC Clearance
- Clearance Readback
- Clearance Shorthand

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of ATC Clearances before the student progresses to Ground Lesson 8.

GROUND LESSON 8

TEXT REFERENCE: Instrument Commercial Manual - Chapter 9, Section A, "Weather Factors"

VIDEO PRESENTATION: Instrument Commercial Video – Part III, Subject Area, "Weather Factors"
LESSON OBJECTIVE: The objective of this lesson is for the student to learn the major factors affecting weather patterns.

CONTENT:
Section A - "Weather Factors"
- The Atmosphere
- Moisture, Precipitation, & Stability
- Airmasses
- Fronts
- High Altitude Weather

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of weather factors before progressing to Ground Lesson 9.

GROUND LESSON 9

TEXT REFERENCE: Instrument Commercial Manual - Chapter 9, Section B, "Weather Hazards"

VIDEO PRESENTATION: Instrument Commercial Video - Part III, Subject Area, "Weather Hazards"

LESSON OBJECTIVE: The objective of this lesson is for the student to learn the hazards involved with weather.

CONTENT:
Section B - "Weather Hazards"

- Thunderstorms
- Turbulence
- Windshear
- Low Visibility
- Icing
- Hydroplaning
- Cold Weather Operations

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of weather factors before progressing to Ground Lesson 10.

GROUND LESSON 10

TEXT REFERENCE: Instrument Commercial Manual - Chapter 9, Section C, "Printed Reports and Forecasts"

VIDEO PRESENTATION: Instrument Commercial Video – Part III, Subject Area, "Printed Reports and Forecasts"

LESSON OBJECTIVE: The objective of this lesson is for the student to use the printed reports and forecasts that are available as an aid in commercial flight planning.

CONTENT:
Section C - "Printed Reports and Forecasts"
- Printed Weather Reports
- Radar Weather Reports
- Pilot Weather Reports
- Printed Weather Forecasts
- Aviation Area Forecast

Severe Weather Reports and Forecasts

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of printed reports and forecasts before progressing to Ground Lesson 11.

GROUND LESSON 11

TEXT REFERENCE: Instrument Commercial Manual - Chapter 9, Section D, "Graphic Weather Products"

VIDEO PRESENTATION: Instrument Commercial Video – Part III, Subject Area, "Graphic Weather Products"

LESSON OBJECTIVE: During this lesson, the student will learn to use the graphic weather charts that are available as an aid in commercial flight planning.

CONTENT:

Section D - "Graphic Weather Products"

- Surface Analysis Chart
- Weather Depiction Chart
- Radar Summary Chart
- Satellite Weather Pictures
- Composite Moisture Stability Chart
- Constant Pressure Analysis Chart
- Observed Winds and Temperatures Aloft Chart
- Graphic Forecasts
- High Level Significant Weather Prog Chart
- Severe Weather Outlook Chart
- Forecast Winds and Temperatures Aloft Chart
- Tropopause Data Chart
- Volcanic Ash Forecast Transport and Dispersion Chart

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of graphic weather products available before progressing to Ground Lesson 12.

GROUND LESSON 12

TEXT REFERENCE: Instrument Commercial Manual - Chapter 9, Section E, "Sources of Weather Information"
VIDEO PRESENTATION: Instrument Commercial Video – Part III, Subject Area, "Sources of Weather Information"

LESSON OBJECTIVE: During this lesson, the student will learn to use the sources of weather information available as an aid in commercial flight planning.

CONTENT:
Section E - "Sources of Weather Information"
- Preflight Weather Sources
- In-flight Weather Sources
- Automated Surface Weather Reporting Systems
- Airborne Weather Equipment

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of the weather sources available before progressing to Ground Lesson 13.

GROUND LESSON 13

STAGE I - REVIEW AND EXAM

LESSON OBJECTIVE: The exam administered during this lesson evaluates the student's comprehension of the material presented in Stage I of this course.

CONTENT:

Stage I Exam

- "Instrument/Commercial Training Opportunities"
- "Advanced Human Factors Concepts"
- "Flight Instrument Systems"
- "Attitude Instrument Flying"
- "Instrument Navigation"
- "Airports, Airspace, and Flight Information"
- "Air Traffic Control System"
- "ATC Clearances"

"Weather Factors"
"Weather Hazards"
"Printed Reports and Forecasts"
"Graphic Weather Products"
"Sources of Weather Information"

COMPLETION STANDARDS:

This lesson and stage are complete when the student has completed the exam with a minimum passing score of 70%, and the instructor will review each incorrect response to ensure complete understanding before the student progresses to Stage II.

STAGE II

STAGE OBJECTIVE

During this stage, the student will learn the operation of advanced systems appropriate to complex airplanes, advanced aerodynamics, aircraft performance, weight and balance, emergency procedures, and commercial decision making.

STAGE COMPLETION STANDARD

This stage is complete when the student has taken the Stage II Examination and the Commercial Pilot Final Exam and the instructor has reviewed each incorrect response to ensure complete student understanding.

GROUND LESSON 14

TEXT REFERENCE: Instrument Commercial Manual - Chapter 11, Section A, "High-Performance Powerplants"

VIDEO PRESENTATION: Instrument Commercial Video – Part IV, Subject Area, "High Performance Powerplants"

LESSON OBJECTIVE: During this lesson, the student will learn the function and use of high performance powerplants.

CONTENT:
Section A - "High-Performance Powerplants"
- Fuel Injection Systems
- Turbocharging Systems
- Constant-Speed Propellers

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of high performance powerplants before progressing to Ground Lesson 15.

GROUND LESSON 15

TEXT REFERENCE: Instrument Commercial Manual - Chapter 11, Section B, "Environmental and Ice Control Systems", Section C, "Retractable Landing Gear"

VIDEO PRESENTATION: Instrument Commercial Video – Part IV, Subject Area, "Environmental and Ice Control Systems" Instrument Commercial Video – Part IV, Subject Area, "Retractable Landing Gear"

LESSON OBJECTIVE: During this lesson, the student will learn the function and use of environmental and ice control systems found on typical complex airplanes.

CONTENT:

Section B - "Environmental and Ice Control Systems"

- Oxygen Systems
- Oxygen Storage
- Oxygen Servicing
- Cabin Pressurization
- Ice Control Systems

Section C - "Retractable Landing Gear"

- Landing Gear Systems
- Gear System Safety
- Operating Procedures
- Emergency Gear Extension

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of environmental, ice control systems and landing gear systems before the student progresses to Ground Lesson 16.

GROUND LESSON 16

TEXT REFERENCE: Instrument Commercial Manual - Chapter 12, Section A, "Advanced Aerodynamics"

LESSON OBJECTIVE: The objective of this lesson is for the student to review basic aerodynamics to ensure the complete understanding of the factors affecting airplane flight characteristics.

CONTENT:

Section A - "Advanced Aerodynamics"

- Lift
- High-Lift Devices
- Drag
- High-Drag Devices
- Thrust
- Weight and Load Factor
- Aircraft Stability
- Aerodynamics and Flight Maneuvers
- Stall and Spin Awareness

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of commercial aerodynamics before the student progresses to Ground Lesson 17.

GROUND LESSON 17

TEXT REFERENCE: Instrument Commercial Manual - Chapter 12, Section B, "Predicting Performance"

LESSON OBJECTIVE: The objective of this lesson is for the student to review and reinforce the background knowledge of the factors that affect airplane performance and the methods used to calculate the expected performance under given conditions.

CONTENT:
Section B - "Predicting Performance"

- Factors Affecting Performance
- The Pilot's Operating Handbook
- Performance Charts
- Takeoff Charts
- Climb Performance Charts
- Cruise Performance Charts
- Descent Charts
- Landing Distance Charts
- Glide Distance
- Stall Speeds

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of aerodynamics before progressing to Ground Lesson 18.

GROUND LESSON 18

TEXT REFERENCE: Instrument Commercial Manual - Chapter 12, Section C, "Controlling Weight and Balance"

LESSON OBJECTIVE: The objective of this lesson is to enable the student to review weight and balance theory and computations, and to reinforce the understanding of weight and balance and its importance to aircraft performance.

CONTENT:
Section C - "Controlling Weight and Balance"

- Weight and Balance Limitations
- Maximum Weight Limits
- Center of Gravity Limits
- Weight and Balance Documents
- Weight and Balance Condition Checks
- Weight Shift Computations

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of weight and balance before the student progresses to Ground Lesson 19.

GROUND LESSON 19

TEXT REFERENCE: Instrument Commercial Manual – Chapter 13, Section A, "Emergency Procedures"

LESSON OBJECTIVE: During this lesson, the student will gain additional insight into the emergency procedures involved in operating an aircraft.

CONTENT:
Section A – "Emergency Procedures"
- Emergency Descent
- Emergency Approach and Landing
- Systems and Equipment Malfunctions
- Emergency Equipment and Survival Gear

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of the emergency procedures that can affect the safety of flight and how to control those factors before progressing to Ground Lesson 20.

GROUND LESSON 20

TEXT REFERENCE: Instrument Commercial Manual – Chapter 13, Section B, "Commercial Decision Making"

LESSON OBJECTIVE: During this lesson, the student will gain additional insight into the commercial decision making process.

CONTENT:
Section B – "Commercial Decision Making"

- Commercial Operations
- Applying the Decision-Making Process
- Crew Resource Management
- Pilot-In-Command Responsibility
- Communication
- Resource Use
- Workload Management
- Situational Awareness
- Application of Aeronautical Decision Making

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of the use of decision making as a commercial pilot before progressing to Ground Lesson 21.

GROUND LESSON 21

STAGE II - REVIEW AND EXAM

LESSON OBJECTIVE: The exam administered during this lesson evaluates the student's comprehension of the material presented in Stage II of this course.

CONTENT:
Stage II Exam
"High Performance Powerplants"
"Environmental and Ice Control Systems"
"Retractable Landing Gear"
"Advanced Aerodynamics"
"Predicting Performance"
"Controlling Weight and Balance"
"Emergency Procedures"
"Commercial Decision Making"

COMPLETION STANDARDS:
This lesson and stage are complete when the student has completed the exam with a minimum passing score of 70%, and the instructor will review each incorrect response to ensure complete understanding before the student progresses to Stage III.

STAGE III

STAGE OBJECTIVE

During this stage, the student will learn the Federal Aviation Regulations relating to commercial operations required for commercial pilot certification, and cross-country operations. The student will learn advanced flight maneuvers used in obtaining a commercial pilot certificate.

STAGE COMPLETION STANDARD

This stage is complete when the student has taken the Stage III Examination and the Commercial Pilot Final Exam and the instructor has reviewed each incorrect response to ensure complete student understanding.

GROUND LESSON 22

TEXT REFERENCE: FAR/AIM – Jeppesen Sanderson

LESSON OBJECTIVE: During the study of the Federal Aviation Regulations, the student learns the regulations relating to operating an aircraft commercially.

CONTENT:

- FAR 1
- FAR 61
- FAR 91
- Aircraft Inspections and Required Certificates

COMPLETION STANDARDS:

Through oral quizzing and discussion will demonstrate an understanding of the Federal Aviation Regulations before progressing to Ground Lesson 23.

GROUND LESSON 23

TEXT REFERENCE: FAR/AIM – Jeppesen Sanderson

LESSON OBJECTIVE: During the study of the Federal Aviation Regulations, the student learns the regulations relating specifically to commercial pilot operations. In addition, NTSB Part 830 is reviewed.

CONTENT:

- FAR 125
- FAR 135
- NTSB Part 830

COMPLETION STANDARDS:

Through oral quizzing and discussion will demonstrate an understanding of the Federal Aviation Regulations before progressing to Ground Lesson 24.

GROUND LESSON 24

TEXT REFERENCE: Instrument Commercial Manual - Chapter 14, Section A, "Maximum Performance Takeoffs and Landings", Section B, "Steep Turns"

VIDEO PRESENTATION: Instrument Commercial Video – Part IV, Subject Area, "Maximum Performance Takeoffs and Landings" Instrument Commercial Video – Part IV, Subject Area, "Steep Turns"

LESSON OBJECTIVE: At the completion of this lesson, the student will have the knowledge required to practice maximum performance takeoffs and landings and steep turns.

CONTENT:

Section A – "Maximum Performance Takeoffs and Landings"

- Soft Field Takeoff and Climb
- Soft Field Approach and Landing
- Short Field Takeoff and Climb
- Short Field Approach and Landing

Section B - "Steep Turns"

- Steep Turns

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of the maximum performance takeoffs and landings and steep turns before progressing to Ground Lesson 25.

GROUND LESSON 25

TEXT REFERENCE: Instrument Commercial Manual - Chapter 14, Section C, "Chandelles", Section D, "Lazy Eights", Section E, "Eights-On-Pylons"

VIDEO PRESENTATION: Instrument Commercial Video – Part IV, Subject Area, "Chandelles"
Instrument Commercial Video – Part IV, Subject Area, "Lazy Eights"
Instrument Commercial Video – Part IV, Subject Area, "Eights-On-Pylons"

LESSON OBJECTIVE: At the completion of this lesson, the student will have the knowledge required to practice chandelles, lazy eights, and eights-on-pylons.

CONTENT:
Section C - "Chandelles"
- Chandelles
Section D - "Lazy Eights"
- Lazy Eights
Section E – "Eights-On-Pylons"
- Eights-On-Pylons

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate an understanding of chandelles, lazy eights, and eights-on-pylons before progressing to Ground Lesson 26.

GROUND LESSON 26

VIDEO PRESENTATION: Private Pilot Course - Volume 6, Subject Area, "Aeronautical Charts" and "Pilotage and Dead Reckoning"

LESSON OBJECTIVE: During this lesson, the student will receive an in-depth review of the use of aeronautical charts and pilotage and dead reckoning for VFR flight.

CONTENT:

- Sectional Charts
- VFR Terminal Area Charts
- World Aeronautical Charts
- Longitude and Latitude
- Airport Data
- Navigation Aids
- Airspace
- Obstruction
- Topographical Information
- Pilotage
- Selecting Checkpoints
- Following a Route
- Orientation
- Dead Reckoning
- Navigation Plotter
- Flight Planning
- Navigation Log
- Flight Plan
- Position Reports
- Flying Over Hazardous Terrain

COMPLETION STANDARDS:

Through oral quizzing and discussion, the student will demonstrate an understanding of the use of VFR aeronautical charts and pilotage and dead reckoning for cross-country flight before progressing to Ground Lesson 27.

GROUND LESSON 27

FINAL REVIEW

LESSON OBJECTIVE: This review session is designed to evaluate the student's comprehension of the academic material presented in preparation for the FAA Commercial Pilot Written Examination.

CONTENT:
Commercial Pilot Review

COMPLETION STANDARDS:
Through oral quizzing and discussion, the student will demonstrate the knowledge to pass the Commercial Pilot Final Exam.

GROUND LESSON 28

FINAL EXAM

LESSON OBJECTIVE: This testing session is designed to evaluate the student's comprehension of the academic material presented in preparation for the FAA Commercial Pilot Written Examination.

CONTENT:
Commercial Pilot Final Exam

COMPLETION STANDARDS:
The student will complete the Commercial Pilot Final Exam with a minimum passing score of 70%, and the instructor will review each incorrect response to ensure complete understanding before the student progresses to the FAA Commercial Pilot Written Examination.