COURSE OUTLINE

AVI 231 Commercial Pilot III 3
Course Number Course Title Credits

Hours: 3 Pre-requisite: AVI 132 Implementation
Lab/Other Co-requisite: MAT 135 Fall 2012

Catalog description (2011-2013 Catalog):
Complements Flight III and Flight IV courses, with basic information to pass the FAA Instrument Pilot Examination. Subject areas include altitude instrument flying, instrument flight charts, IFR clearances, and IFR regulations.

Is course New, Revised, or Modified? Revised

Required texts/other materials:

- Instrument Pilot FAA Written Examination
- ASA G1000 Study Guide on Airport PC – Latest Edition

Revision date: February 2014
Course coordinator:
Joan Jones,
609) 570-3436
jonesj@mccc.edu

Information resources: (Not Mandatory)

Text Books:
Guided Flight Discovery Instrument/Commercial
Instrument Procedures Handbook ~ FAA – H – 8261

Other learning resources:

College Learning and Tutoring Center Student’s Flight Instructor
King Schools Software (www.kingschools.com) Gleim Software (www.gleim.com)
Flight student mentoring group AOPA (www.aopa.org)
Aviation Digital Data Service Intellicast (www.adds.org) FAA (www.faa.gov)
Course Competencies/Goals:

The Course Goals are outlined in the requirements for the issuance of instrument rating for an airplane as described in CFR 141 Appendix C Section 3 b (1)-(10). The ground training must include the following aeronautical knowledge areas:

1. Applicable Federal Aviation Regulations for IFR flight operations.
2. Appropriate information in the “Aeronautical Information Manual”.
3. Air traffic control system and procedures for instrument flight operations.
4. IFR navigation and approaches by use of navigation systems.
5. Use of IFR en route and instrument approach procedure charts.
6. Procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions.
7. Safe and efficient operation of aircraft under instrument flight rules and conditions.
8. Recognition of critical weather situations and wind shear avoidance.
9. Aeronautical decision making and judgment.
10. Crew resource management, to include crew communication and coordination.
# GENERAL EDUCATION
## CORE COMPETENCIES, GOALS AND OBJECTIVES

**Course** | AVI 231  
---|---
**Prepared by** | Joseph Blasenstein  
**Date** | March 2010  
**Revised by** | Jerry Kuhl, 2011

<table>
<thead>
<tr>
<th><strong>MCCC General Education Core Competencies</strong></th>
<th><strong>Activities, projects, assignments, and exams that will evaluate student learning of the core competency</strong></th>
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</thead>
<tbody>
<tr>
<td>Core competencies should be embedded – to the greatest extent possible – in all courses [Check all that are addressed directly and seriously (not peripherally) in the course.]</td>
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<table>
<thead>
<tr>
<th><strong>A Written and Oral Communication in English:</strong> Students will communicate effectively in speech and writing, and demonstrate proficiency in reading. (See General Education Goal 1.)</th>
<th>Treated in General Education Goal 1 and associated objectives.</th>
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<tbody>
<tr>
<td>✓ B1 Students will distinguish among opinions, facts, and inferences.</td>
<td>The student will distinguish weather reports, graphs, and forecasts to determine the feasibility of local and cross-country flights.</td>
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<tr>
<td>✓ B2 Students will identify and critique underlying or implicit assumptions.</td>
<td>The student will be able to determine the appropriate instruments used in IFR operations and identify instrument peculiarities, limitations and failure of the basic flight instruments.</td>
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<tr>
<td>✓ B3 Students will thoughtfully evaluate diverse perspectives and alternative points of view.</td>
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<tr>
<td>✓ B4 Students will ask informed questions and make informed judgments.</td>
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<tr>
<td>✓ B5 Students will solve problems by applying discipline-appropriate methods and standards.</td>
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<tr>
<th><strong>B Critical Thinking and Problem-Solving:</strong> Students will use critical thinking and problem solving skills in analyzing information.</th>
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<td>✓</td>
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<tr>
<td>C1 Students will identify ethical implications of an issue or a situation.</td>
<td>The student will be able to evaluate information about the Federal Aviation Regulations and analyze circumstances to determine the efficacy of their actions.</td>
</tr>
<tr>
<td>✓ C2 Students will analyze and evaluate the strengths and weaknesses of different perspectives on an ethical issue or a situation.</td>
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<tr>
<td>✓ C3 Students will integrate their knowledge, take a position on an ethical issue or a situation, and defend it with logical arguments.</td>
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<thead>
<tr>
<th><strong>C Ethical Decision-Making:</strong> Students will recognize, analyze and assess ethical issues and situations.</th>
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<tbody>
<tr>
<td>✓</td>
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<tr>
<td>D1 Students will recognize the value of using information to strengthen arguments and articulate a research question.</td>
<td>Students will be able to assess the airworthiness of an aircraft, determine appropriate procedures, extract information from en route and approach plates, and analyze operations involving crew resource management toward the completion of an instrument flight.</td>
</tr>
<tr>
<td>✓ D2 Students will identify resources needed and develop and modify appropriate search strategies to obtain the information required to answer a research question.</td>
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<tr>
<td>D3 Students will recognize the factors that affect the quality of information and extract the pertinent information needed for the specific research question.</td>
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<tr>
<td>D4 Students will integrate the information located in a cohesive manner that addresses the research question and communicate the information to the appropriate audience.</td>
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<tr>
<td>D5 Students will respect the privacy, security, and</td>
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</table>
ownership of the information they locate and use. Students will identify the ethical considerations relevant to the use of information, with a particular focus on how to prevent plagiarism.

<table>
<thead>
<tr>
<th>✓</th>
<th>E Computer Literacy: Students will use computers to access, analyze or present information, solve problems, and communicate with others.</th>
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<tbody>
<tr>
<td>E1 Students will demonstrate proficiency in using major categories of computer software such as word processing, spreadsheet and presentation software.</td>
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<tr>
<td>E2 Students will be proficient in using an interface and managing files.</td>
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<tr>
<td>E3 Students will use email and communication software effectively and appropriately.</td>
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</tr>
<tr>
<td>E4 Students will use a web browser and search engines to seek information and will recognize types of information and sources.</td>
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<tr>
<td>E5 Students will understand the impact of computers on society.</td>
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</table>

The student will be able to extract from computer software copies of approach plates, weather, cross-country routing, flight plans, advisory circulars, and airport diagrams and evaluate this information toward the successful completion of an instrument flight.

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<tr>
<th>✓</th>
<th>F Collaboration and Cooperation: Students will develop the interpersonal skills required for effective performance in group situations.</th>
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<tbody>
<tr>
<td>F1 Students will demonstrate communication skills that promote effective function and interpersonal relations within group situations or settings.</td>
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<tr>
<td>F2 Students will recognize and employ strategies and role-playing which encourage a productive and supportive group climate.</td>
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<tr>
<td>F3 Students will employ aspects of reflective thinking to solve problems utilizing brainstorming and consensus within collaborative projects.</td>
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</tr>
<tr>
<td>F4 Students will identify leadership, task/maintenance and self-serving roles and their effect on group function.</td>
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Crew coordination, communication and management issues are necessary for the safe and efficient operation of aircraft under IFR rules. These elements of communication and personal interactions will be applied in classroom flight scenarios.

<table>
<thead>
<tr>
<th>✓</th>
<th>MCCC General Education Goals &amp; Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Check all that are addressed directly and seriously (not peripherally) in the course.]</td>
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</tbody>
</table>

**Goal 1 Written and Oral Communication in English:** Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.

| ✓ | 1.1 Students will read, write, and listen actively, critically, and reflectively. |
| ✓ | 1.2 Students will logically, informatively, persuasively, and creatively respond orally and/or in writing to what they read, hear, and see. |
| ✓ | 1.3 Students will evaluate and revise their written and/or oral communication. |
| ✓ | 1.4 Students will write and speak clearly and effectively in formal American English. |
| ✓ | 1.5 Students will understand, analyze, and assess nonverbal, cultural, and gender communication in both small group and public communication settings. |

Activities, projects, assignments, and exams that evaluate student learning of the course’s General Education goals and objectives

There will be 11-12 in-class quizzes and 10 unit tests in which the students will demonstrate their proficiency in reading, writing and oral communications.
### Goal 2: Quantitative Understanding
Students will demonstrate quantitative understanding by appropriately using mathematical and statistical concepts and operations to interpret data accurately and to solve problems.

| 2.1 | Students will develop graphical, numeric, analytical and verbal models to describe quantitative relationships that exist in the world and explain the connections between these various models. |
| 2.2 | Students will investigate and interpret these models using the mathematical skills, tools and reasoning appropriate to each type of model. |
| 2.3 | Students will draw logical conclusions by applying a variety of mathematical problem-solving strategies. |
| 2.4 | Students will be able to communicate mathematical concepts effectively. |
| 2.5 | Students will demonstrate an appreciation for mathematics, its historical development, its use as a precise language, and its value as a tool for solving complex problems in many disciplines. |

The students will be able to display their understanding of holding patterns by graphically showing standard and non-standard patterns and entry procedures. The students will calculate time en route and cross-country planning compensating for winds, altitude, engine performance, and ATC delays.

### Goal 3: Natural Science
Students will apply the scientific method of inquiry to draw conclusions based on verifiable evidence, use scientific theories and knowledge to understand the natural world, and assess the impact of scientific theories, discoveries and technological changes on society.

| 3.1 | Students will identify and analyze scientific information and theories, and, integrating and applying this knowledge, will use the scientific method to solve problems and draw conclusions from data. |
| 3.2 | Students will integrate scientific principles and scientific discovery, and will critically investigate the impact of science and scientific discovery on our understanding of the natural universe. |

The impact of heat in the formation of low and high pressure systems on weather within the earth’s atmosphere will be investigated.

### Goal 4: Technology
Students will use technology to access, analyze or present information, solve problems, and communicate with others.

| 4.1 | Students will demonstrate proficiency with electronic communications as appropriate to their program. |
| 4.2 | Students will demonstrate a working knowledge of a major domain of technological application. |
| 4.3 | Students will demonstrate the ability to use a particular technology or group of technologies to analyze or solve problems in general and within their academic discipline. |
| 4.4 | Students will explain the social and ethical issues that surround a particular technology or group of technologies and articulate their opinions about such issues using written and oral communications tools. |

Computers will be utilized to assess weather, federal regulations, NTSB reports, advisory circulars, and GPS functions in conjunction with flight.

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**INSTRUMENT GROUND INSTRUCTION COURSE OBJECTIVES**

The purpose of this course is to have the student acquire the knowledge and information necessary to pass the FAA instrument computer examination. This course is designed to meet the requirements specified in the Code of Federal Regulations Part 141 that pertain to the instrument pilot certificate CFR 65 Section (1) – (10).
COURSE COMPLETION STANDARDS

The student must demonstrate through oral and written testing, attendance, and classroom activities that they have gained the knowledge and understanding necessary to pass the FAA instrument rating airplane knowledge test with a minimum grade of 70%. All quizzes and unit tests, whether written or oral, must be corrected to 100% upon review by the student. Each student must complete a Garmin 1000 ASA study project. The fourteen lesson completion quizzes must be provided as evidence of project completion.

Unit 1  Flight Instruments, 100 minutes

Learning Objectives
Six basic flight instruments will be discussed in this lesson. The student will be informed about the construction, operation, and peculiarities and limitations of these instruments. In addition to the basic six, other types of instruments will be discussed.

Lesson Content
Flight Instruments and System Errors

1. Pilot Static Instruments
2. Altitude and Height Measurements
3. Pressure Altimeter
4. Encoding Altimeter, Radar Altimeter
5. Vertical-speed Indicator
6. Airspeed Indicator, Types of Airspeed
7. True Airspeed Indicator, Mach Indicator
8. Gyroscopic Instruments and Principles
9. Sources of Power for Gyro Operation
10. Attitude Indicator
11. Turn Coordinator, Turn and Slip Indicator
12. Heading Indicators
13. Compass and Compass Errors
14. Remote Indicating Compass
15. RMI, HSI, Flight Director System
16. Primary Flight Display / Garmin 1000
17. Multi-function Display / Garmin 1000

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Flight Operations

Unit 2  Flight Operations, 100 minutes

Learning Objectives
This lesson details the basic concepts of IFR Flight Operations. Major topics include the basic four: climbs, turns, descents, and fundamental skills. Appropriate sources for information involving scan will also be reviewed. Flight problems such as unusual attitudes, wake turbulence, turbulence and collision avoidance concludes this lesson.

Lesson Content
Flight Operations

1. Straight and Level
2. Turns, Rate of Turns, Standard Rate of Turns
3. Load Factor in Turns
4. Relationship of Airspeed and Bank Angle for a Standard Rate Turn
5. Attitude Indicator Use in Turn
6. Half Standard Rate Turns
7. Clims and Descents
8. Leveling off from a Climb or Descent
9. Six Configurations – Power Setting Chart
10. Instrument Cross Check, Instrument Interpretation, Airplane Control
11. Appropriate Instruments for IFR, Scan
12. Unusual Attitudes
13. Key Instrument in an Unusual Attitude
14. Wake Turbulence
15. Turbulence
16. Wind Shear
17. Collision Avoidance

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Airports and ATC

Unit 3 Airports and ATC, 200 minutes

Learning Objectives
This lesson is concerned with detailing information about IFR airport structure and functions. Air Traffic Control is also discussed.

Lesson Content
Airports and ATC

1. Structure and Functions of Air Traffic Control System
2. Airport Traffic Control Towers
3. Air Route Traffic Control Centers
4. Flight Data Center
5. IFR Control Sequence
   a) ATIS
   b) Clearance Delivery
   c) Ground
   d) Tower
   e) Departure
6. Precision Instrument Runway Markings
7. VASI, PAPI
8. IFR Flight Planning Information
9. IFR Flight Plan
10. ATC Clearances
    a) Types
11. ATC Communication Failure
12. Radio Communication Failure
Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Aeronautical Information Manual

Unit 4    Aeronautical Information Manual, 150 minutes

Learning Objectives
This lesson is designed to provide the student with basic instrument flight information and Air Traffic Control procedures. This material contains the fundamentals required to fly in the United States National Airspace System.

Lesson Content
Aeronautical Information Manual

2. Navigation Aids
   a) Air Navigation Radio Aids
   b) Radar Services and Procedures

3. Aeronautical Lighting and Airport Marking Aids
   a) Airport Lighting Aids
   b) Air Navigation and Obstruction Lighting
   c) Airport Marking Aids

4. Airspace
   a) General
   b) Class “G” Airspace
   c) Class “E” Airspace
   d) Class “A”, “B”, “C” Airspace
   e) Other Airspace Areas

5. Air Traffic Control
   a) Services Available to Pilots
   b) Radio Communications
   c) Airport Operations
   d) ATC Clearance/Separations
   e) Pre-flight
   f) Departure Procedures
   g) En Route Procedures
   h) Arrival Procedures
   i) Pilot/Controller Roles and Responsibilities

6. Emergency Procedures
   a) Emergency Service Available to Pilots
   b) Two-Way Radio Communication Failure

7. Safety of Flight
   a) Altimeter Setting Procedures

Lesson Completion Requirements
The student will pass an in-class quiz given by the instructor with a score of 70% or better.
Next Assignment
Federal Aviation Regulations and NTSB

Unit 5 Federal Aviation Regulations and NTSB, 150 minutes

Learning Objectives
The purpose of this lesson is to convey to the student the Federal Aviation Regulations (FAR) that pertain to the instrument rating. Once this information is explained, the student will apply it to IFR situations.

Lesson Content
Federal Aviation Regulations and NTSB

A. IFR, FARs Part 61

61.3 Requirements for Certificate Ratings and Authorizations
61.51 Pilot Logbooks
61.57 Recent Flight Experience: Pilot in Command
61.65 Instrument Rating Requirements
61.129 Airplane Rating: Aeronautical Experience

B. IFR, FARs Part 91

91.3 Responsibility and Authority of Pilot in Command
91.103 Pre-flight Action
91.123 Compliance with ATC Clearances and Instructions
91.129 Class “D1” Airspace
91.131 Class “B” Airspace
91.135 Class “A” Airspace
91.155 Basic VFR Minimums
   1) VFR-on-Top Clearance on IFR Flights
      a) Controlled airspace
         i. Less than 10,000’ MSL
         ii. At or above 10,000’ MSL
      b) Uncontrolled airspace
         i. 1200’ AGL or less
         ii. 1200’ AGL but less than 10,000’ MSL
         iii. 1200’ AGL at or above 10,000’ MSL

91.157 Special VFR Minimums
91.167 Fuel Requirements for Flight in IFR Conditions
91.169 IFR Flight Plan; Information Required
91.171 VOR Equipment Check for IFR Operations
91.173 ATC Clearance and Flight Plan Required
91.175 Takeoff and Landing under IFR
91.177 Minimum Altitudes for IFR Operations
91.179 IFR Cruising Altitudes or Flight Level
91.180 Operations within Airspace Designated as Reduced Vertical Separation Minimum Airspace
91.181 Courses to be Flown
91.183 IFR Communications
91.185 IFR Operations: Two-way Communication Failure
91.187 Operation under IFR in Controlled Airspace: Malfunction Reports
Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Navigation

Unit 6 Navigation, 225 minutes

Learning Objectives
In order for an IFR pilot to be competent in his/her navigation, he/she must understand and be able to utilize the radio equipment to its fullest. The student will be given information about radio principles, VOR, DME, Area navigation, GPS, and ADF. The student will be able to use and interpret these systems.

Lesson Content
Navigation

1. Basic Radio Principles
2. Static Disturbance
3. VOR Facilities
4. VOR Accuracy Checks and Signal Strength
5. Interpreting VOR Indicators
6. Bracketing
7. Intercepts
8. Time and Distance
9. VOR Limitations
10. DME & RMI
11. HSI
12. ADF Facilities
13. NDB Interpretation and Use
14. ADF Limitations
15. Radio Magnetic Indicator
16. DME Arcs
17. Common Errors in the Use of Navigation Instruments
18. GPS

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.
Unit 7 IFR Approaches, 300 minutes

Learning Objectives
In this lesson the student will become familiar with the ILS, VOR, and NDB procedures. We will discuss the various ground components of the instrument landing system and how they are used. We will also utilize approach charts and extract the information needed. Other areas that will be included are inoperative components, straight-in landings, and circling approaches. We conclude this lesson with a concentration on ADF equipment and NDB procedures.

Lesson Content
IFR Approaches

1. ILS Approaches
   a) ILS Components
      1) Localizer
      2) Glide slope
      3) ILS marker beacons
      4) Compass locators
      5) ILS with DME
      6) ILS visual aids
      7) ILS categories
         i. Cat I, Cat II, Cat III

2. Flying the ILS Approach
   a) Non-radar ILS Procedures
   b) Approach Chart Review
   c) Setting up the Approach
   d) Transition via DME-ARC
   e) ADF Transition
   f) Approach Procedures

3. Back Course Approaches
   a) Interpretation
   b) Flying with HSI

4. VOR Approaches
   a) Approach Clearance
   b) VOR Approach Procedures
   c) Off Airport Facility
   d) On Airport Facility
   e) VOR DME Procedures
   f) RNAV Approach Procedures

5. GPS Approaches
   a) Accuracy
   b) Equipment Requirements and Self-testing
   c) RAIM
   d) Entering Routes
   e) Final Approach Way Point
   f) Stand-alone Approach
   g) WAAS Approaches
      1) LNAV
      2) LNAV+V
3) LNAV+VNAV or LNAV
4) LPV

6. NDB Procedures
   a) NDB Approach Charts
   b) NDB Approach Procedures
   c) Approach Chart Review
   d) Intercepting Bearing to and from the Beacon
   e) ADF Movement

7. Additional Approaches and Procedures
   a) SDF
   b) LDA
   c) LOC
   d) Vectored Approaches
   e) DME Arc
   f) Circling
   g) Missed Approach Procedures
   h) STARS
   i) Procedure Turns
   j) Timed Approaches from a Fix
   k) Side Step Maneuver
   l) No Procedure Turns

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Holds

Unit 8   Holds, 150 minutes

Learning Objectives
The purpose of this lesson is to understand holding patterns. The student will be taught the various procedures and circumstances that are used in conjunction with holding patterns.

Lesson Content
Holding Patterns

1. Standard Holding Patterns
2. Non-standard Holding Patterns
3. Timing
4. Crosswind Correction
5. Holding Speeds
6. Holding Pattern Entries
   a) Direct
   b) Teardrop
   c) Parallel
7. Visualizing Entry Procedures
8. ATC Holding Instructions, EFC Times
9. Radio Procedures

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.
Next Assignment
IFR En Route

Unit 9 IFR En Route, 300 minutes

Learning Objectives
Instrument flight covering the en route phase will be discussed in this lesson. The IFR en route chart interpretation will be taught. The student will also learn how to write and accept departure clearances. This lesson will conclude with information about takeoff and alternate minimums, standard instrument departures, IFR cruising altitudes and communication loss.

Lesson Content
IFR En Route

1. En Route Charts
   a) Low Altitude En Route Charts
      1) Victor Airways
   b) High Altitude En Route Charts
      1) Jet routes
   c) Front Panel of Charts
      1) Jeppesen chart
      2) NOS chart
   d) Navigation Aids
      1) Symbols
         i. Victor Airways
         ii. Mileage Breakpoint
         iii. Intersections
         iv. Compulsory Reporting Points
         v. Non-compulsory Reporting Points
         vi. Minimum En Route Altitude
         vii. Minimum Obstruction Clearance Altitude
         viii. Maximum Authorized Altitude
         ix. Minimum Reception Altitude
         x. Minimum Crossing Altitude
         xi. Changeover Point
         xii. Communications
         xiii. Remote Communications Outlet
         xiv. Airports
         xv. Airspace
         xvi. Area Charts

2. Departure Charts
   a) Pilot Nav Sid
      1) Initial set of instructions
      2) Transition routes
      3) Radar vector segment
   b) Vector
      1) Initial set of instructions
      2) Minimum climb gradient

3. IFR Clearances
   a) Elements of an IFR Clearance CRAFT
   b) Cruise Clearance
   c) VFR on Top
   d) To VFR on Top
Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Weather

Unit 10 Weather, 225 minutes

Learning Objectives
This lesson explains the major concepts regarding weather appropriate to IFR flight operations. Weather theory, hazards and avoidance will be discussed. Weather reports, forecasts, and charts will also be reviewed. The unit will end with high altitude aspects of meteorology.

Lesson Content
Weather Factors and Hazards

1. Weather Factors
   a) Layers of the Atmosphere
   b) Atmosphere Circulation
   c) Moisture
   d) Atmospheric Stability
   e) Clouds
   f) Air Masses

2. Weather Hazards
   a) Thunderstorms
   b) Thunderstorm Avoidance
   c) Turbulence
   d) Low Visibility
   e) Restrictions to Visibility
   f) Icing
   g) Estimating Freezing Level
   h) Avoiding Ice
   i) Hydroplaning
   j) Cold Weather Operations

3. Printed Reports and Forecasts
Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Next Assignment
Crew Resource Management

Unit 11  Crew Resource Management, 150 minutes

Learning Objectives
The purpose of this unit is to detail the human factors that apply to each phase of flight. Aeronautical decision making, crew resource management, single-pilot resource management and the decision making process are elements that will be discussed.

Lesson Content
Advanced Human Factors Concepts

1. IFR Decision Making
   a) Risk Elements
      1) Environment
      2) Pilot
      3) Aircraft
      4) Operation
      5) Overall situational awareness and confirmation of correct runway lineup

2. Applying the Decision Making Process
   a) Reactive
   b) Proactive
   c) Decide

3. Assessing risk

4. Pilot in Command Responsibility

5. Self-Assessment
Lesson Completion Requirements
The student must pass the in-class quiz with a minimum grade of 70%.

Next Assignment
IFR Trip Review

Unit 12 IFR Trip Review, 150 minutes

Learning Objectives
The purpose of this lesson is to plan various IFR trips based upon data supplied by your instructor.

Lesson Content
IFR Trip Review

1. The student will plan an IFR trip when supplied with the following information:
   a) Description of Flight
   b) Partially Completed IFR Flight Plan
   c) Aircraft Equipment Status List
   d) Partially Completed Flight Log
   e) Sid and Stars
   f) Airport/Facility Directory Excerpts
   g) Instrument Approach Charts
   h) Low Altitude En Route Chart

Lesson Completion Requirements
The student must pass the unit test at the College Testing Center with a minimum grade of 84%.

Evaluation of student learning:

Grading Criteria:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Unit Tests</td>
<td>30%</td>
</tr>
<tr>
<td>In-Class Quizzes</td>
<td>30%</td>
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<tr>
<td>FAA Knowledge Test*</td>
<td>20%</td>
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<tr>
<td>Class Work**</td>
<td>20%</td>
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<tr>
<td>**Total</td>
<td>100%</td>
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* A score of less than 70 on the FAA Knowledge Test will result in a failure for AVI 231
** Projects, Homework, Participation
Academic Integrity Statement:

Mercer County Community College is committed to Academic Integrity – the honest, fair and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work and that faculty and academic support services staff members will take reasonable precautions to prevent the opportunity for academic dishonesty.

The College recognizes the following general categories of violations of Academic Integrity, with representative examples of each. Academic Integrity is violated whenever a student:

A. Uses or obtains unauthorized assistance in any academic work.
   - Copying from another student’s exam
   - Using notes, books, electronic devices or other aids of any kind during an exam when prohibited
   - Stealing an exam or possessing a stolen copy of an exam

B. Gives fraudulent assistance to another student.
   - Completing a graded academic activity or taking an exam for someone else
   - Giving answers to or sharing answers with another student before, during or after an exam or other graded academic activity
   - Sharing answers during an exam by using a system of signals

C. Knowingly represents the work of others as his/her own, or represents previously completed academic work as current.
   - Submitting a paper or other academic work for credit which includes words, ideas, data or creative work of others without acknowledging the source
   - Using another author’s words without enclosing them in quotation marks, without paraphrasing them or without citing the source appropriately
   - Presenting another individual’s work as one’s own
   - Submitting the same paper or academic assignment to another class without the permission of the instructor
     - Falsifying bibliographic entries
     - Submitting any academic assignment which contains falsified or fabricated data or results

D. Inappropriately or unethically uses technological means to gain academic advantage
   - Inappropriately or unethically acquiring material via the Internet or by any other means
   - Using any electronic or hidden devices for communication during an exam

Each instructor and academic support service area is authorized to establish specific guidelines consistent with this policy.

Consequences for Violations of Academic Integrity

For a single violation, the faculty member will determine the course of action to be followed. This may include assigning a lower grade on the assignment, assigning a lower final course grade, failing the student in the course, or other penalty appropriate to the violation. In all cases, the instructor shall notify the Chair of the Academic Integrity Committee of the violation and the penalty imposed.

When two (or more) violations of academic integrity are reported on a student, the Academic Integrity Committee (AIC) may impose disciplinary penalties beyond those imposed by the course instructors. The student shall have the right to a hearing before the AIC or a designated AIC subcommittee.
Appeals

The student has a right to appeal the decision of the instructor or the Academic Integrity Committee. Judicial procedures governing violations of Academic Integrity are contained in the Student Handbook.

Approved: Board of Trustees
May 19, 1983

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March 18, 2004

ATTENDANCE POLICY

Students are expected and required to attend all classes. If you cannot avoid an absence, contact your instructor for assignments. Prolonged absences due to illness, injury, bereavement for an immediate family member should be reported to the office of the Executive Dean for Student Affairs. If for a valid reason you require an excused absence, you may obtain consent from your instructor, provided you fulfill all course requirements.