

## Master Syllabus

### AVT 1170 - Instrument Pilot Ground School

**Division:** Science, Mathematics and Engineering

**Department:** Aviation Technology

**Credit Hour Total:** 3.0

**Lecture Hrs:** 3.0

**Prerequisite(s):** AVT 1110

**Other Prerequisite(s):** AND Approval of Department

**Date Revised:** May 2016

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### Course Description:

Basic nonvisual cockpit instrument reference education, including principles of basic attitude instrument flight and limitations of flight instruments, instrument flight procedures for departure, en-route and arrival operations, federal aviation regulations, weather factors and emergency situations. The lab component includes all of these areas in practice on the Elite Personal Computer Aviation Training device (PCATD). Both fixed -wing and helicopter sections are offered.

### General Education Outcomes:

- Critical Thinking/Problem Solving Competency
- Values/Citizenship/Community Competency

### Course Outcomes:

#### Basic Attitude Instrument Flight and Limitations

Comprehend and apply principles of basic attitude instrument flight and limitations of flight instruments while considering diverse physiological responses.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Mastery of competency at 100%.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 80%

**Assessment Method:** Simulations

**Performance Criteria:** 100% Proficiency in maneuvers on the PCATD

#### Instrument Flight Procedures

Comprehend and demonstrate the use of instrument flight procedures during departure, enroute, and arrival operations.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Mastery of competency at 100%.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 80%

**Assessment Method:** Simulations

**Performance Criteria:** 100% Proficiency in maneuvers on the PCATD

#### Federal Aviation Regulations

Identify and apply federal aviation regulations to instrument flight operations in the national airspace system.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Mastery of competency at 100%.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 80%

**Assessment Method:** Simulations

**Performance Criteria:** 100% Proficiency in maneuvers on the PCATD

#### Weather Information and Aircraft Emergencies

Demonstrate the ability to recognize, assess, and respond appropriately to emergency situations and identify sources of weather information. Comprehend and analyze weather factors, hazards, and weather conditions.

**Assessment Method:** Behavioral observations

**Performance Criteria:** Mastery of competency at 100%.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 80%

**Assessment Method:** Simulations

**Performance Criteria:** 100% Proficiency in maneuvers on the PCATD

### Outline:

Human Factors and Aviation Physiology Flight Instrument Systems Attitude Instrument Flying Fundamentals Instrument Navigation Federal Aviation Regulations Weather Factors and Hazards Instrument Flight Emergencies and the Decision Making Process