**FLGHT 117 Instrument Rating Simulation Lab** (55269) Fall 2020

**Instructor:** Jaime Luque-Montes e-mail: jaime.luque-montes@reedleycollege.edu

Office Phone: (559) 638-0300 ext. 3734 Office Location: Reedley College, Aero building, room 7

Office Hours: TBD

**CLASS LOCATION:** Aero building, room 2

**DAILY SCHEDULE:** 08/10/2020-08/21/2020: M-Th 8:30AM - 9:50AM then…

08/24/2020-11/23/2020: Mondays only 8:30AM - 9:50AM

**HOLIDAYS (NO CLASS):** Sep. 7 Labor Day

Nov. 11 Veterans Day

Nov. 26/27 Thanksgiving

**IMPORTANT DATES:** Aug 21 last day to drop for full refund

Aug 28 last day to add a class (Aug 23 for FLGHT courses)

Aug 28 last day to drop and not receive a “W” grade

Oct 9 last day to drop but will still receive a “W” grade

**REQUIRED TEXTBOOKS/EQUIPMENT:**

1. Uniform shirt(s)
2. Pencils, pens, paper, 8½ by 11 binder, simple calculator (add, subtract, multiply, divide)
3. Jeppesen Textbook ISBN 978-0-8847-130-9 printed 2016 (Instrument and Commercial) (Jeppesen part number 10001784-005)
4. Instrument Rating Practical Test Standards for Airplane, Helicopter, and Powered Lift (FAA-S-8081-4E with Changes 1, 2, 3, 4, & 5) (electronic version is acceptable)
5. FAR/AIM, current (recommend Jeppesen brand)
6. Instrument Flying Handbook (FAA-H-8083-15B) (plus errata sheet plus addendum) (electronic version is acceptable)
7. Instrument Procedures Handbook (FAA-H-8083-16B) (electronic version is acceptable)
8. Plotter
9. E6-B
10. PA-28 Warrior II POH (provided by Reedley College)
11. AC 00-6B Aviation Weather
12. AC 00-45H Weather Services (with change 1)
13. Aeronautical Chart User’s Guide (electronic version is acceptable)
14. Aeronautical Decision Making (AC 60-22) (electronic version is acceptable)
15. Unreliable Airspeed Indication (AC 91-43) (electronic version is acceptable)
16. Effect of Icing on Aircraft Control and Airplane Deice and Anti-Ice Systems (AC 91-51) (electronic version is acceptable)
17. Pilot Guide: Flight in Icing Conditions (AC 91-74) (electronic version is acceptable) Knee Board
18. IPad with cellular capability (but no paid cell phone plan) or WiFi only capability with an external GPS and ForeFlight "Pro Plus" ($199/year)

*Or*

Chart Supplement, U.S. SouthWest, valid

Instrument Approach Procedure Charts (Terminal Procedures) for California, valid

STARs – Standard Terminal Arrival Charts for California, valid

Departure Procedure Charts for California, valid

Low Altitude Instrument Charts for California, valid

***IT IS HIGHLY RECCOMMENDED students use an iPad with ForeFlight Pro Plus.***

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| **COURSE DESCRIPTION:** This course is an introduction to instrument flight training via the use of simulation. Students will practice flight lessons in Aviation Training Devices (simulators) that apply to instrument flight. 0.5 credits. |

**Corequisite:** FLGHT 111

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| **COURSE CONTENT:** |
| **Student Learning Outcomes:** |
| *Upon completion of this course, students will be able to:* |
| 1. Demonstrate instrument approach procedures in a simulator  2. Demonstrate requirements of air traffic control clearances in a simulator  3. Demonstrate use of instrument navigational aids. |
| **Objectives:** |
| *In the process of completing this course, students will:* |
| 1. Demonstrate instrument cross-country procedures  2. Develop proficiency of flight under simulated instrument conditions.  3. Demonstrate understanding of emergency procedures during instrument conditions in a simulator |

**Lab Content:**

I. Preflight Preparation

A. Pilot Qualifications

B. Weather Information

C. Cross-Country Flight Planning

II. Preflight Procedures

A. Aircraft Systems Related to IFR Operations

B. Aircraft Flight Instruments and Navigation Equipment

C. Instrument Cockpit Check

III. Air Traffic Control Clearances and Procedures

A. Air Traffic Control Clearances

B. Compliance with Departure, En Route, and Arrival Procedures and Clearances

C. Holding Procedures

IV. Flight by Reference to Instruments

A. Basic Instrument Flight Maneuvers

B. Recovery from Unusual Flight Attitudes

V. Navigation Systems

Intercepting and Tracking Navigational Systems and DME Arcs

VI. Instrument Approach Procedures

A. Nonprecision Approach (NPA)

B. Precision Approach (PA)

C. Missed Approach

D. Circling Approach

E. Landing from a Straight-in or Circling Approach

VII. Emergency Operations

A. Loss of Communications

B. One Engine Inoperative During Straight-and-Level Flight and Turns (Multiengine Airplane Only)

C. One Engine Inoperative—Instrument Approach (Multiengine Airplane Only)

D. Loss of Primary Flight Instrument Indicators

VIII. Postflight Procedures

A. Checking Instruments and Equipment

**MINIMUM COURSE REQUIREMENTS:** In order to pass this course, ALL of the following requirements must be met:

1. Attend and participate in Lab class in at least 80% of scheduled lab events

**GRADING:** Each lab class meeting will be graded.

Average of all lab class meetings …………………………………………..................................100%

Overall Course Grading Scale: 90.0 % and above = A

85.0 % and above = B

80.0 % and above = C

75.0 % and above = D

below 75.0% = F

i.e. 89.99% = B (Scores will not be rounded up)

Grades are updated approximately once per week and are available in Canvas.

If a student earns less than a “C” grade in this course (less than 80% overall), it will not count towards the AS degree in Flight Science and must be re-taken.

**ATTENDANCE:** This absence policy will be strictly adhered to.

Graded activity will occur every event. Grades are based on attendance and participation.

If a student is too ill to attend an event, the student must call the instructor’s phone and leave a message at least 30 minutes prior to the scheduled start of the event or it will be an unexcused absence.

Documented circumstances out of the student’s control will be considered for an excused absence. If students know in advance they are going to miss an event or be absent for any length of time, submit an email or written request at least seven calendar days in advance to your assigned flight instructor with name, reason for absence, and a proposed make-up date/time. Provide appropriate documentation. Requests for absences for personal reasons will be taken under consideration and have the same seven day advance request requirements.

If an event is missed for a reason out of the control of the student, the student must call the instructor at least 30 minutes prior to the start of the event if possible, but preferably, as soon as it is apparent that an event will be missed. The student will then need to provide hard copy documentation proving the absence was outside of the student’s control.

If a student has no appropriate documentation that proves the circumstances were out of their control or the student fails to call the instructor 30 minutes prior to the event in case of an illness, it will be considered an unexcused absence. All unexcused absences will earn the student a zero (0) grade for that event.

If a student is scheduled for a lab class meeting and does not have a uniform shirt or other required materials or equipment available, the student loses 1% towards the final course grade.

If a student does not finish an outstanding “Incomplete” (I) grade from an FLGHT class prior to the last day to add/drop in the next semester, the student will be administratively dropped from all FLGHT classes for which prerequisites have not yet been completed. Essentially, if an “I” grade is not finished by the last day to add/drop of the next term, the student will not fly that next term.

Do not schedule trips or airline flights that conflict with course dates. Do not make travel plans that start before the last day of FLGHT classes. Always check with your instructor prior to purchasing any airline flights, even when outside of scheduled college semesters.

**COURSE ACTIVITIES:** Simulator lessons usually consist of a preflight briefing of 5-15 minutes, preflight review, a 1.0 hour simulation practice, and a 5-15 minute post-flight briefing.

1-on-1 aeronautical knowledge evaluation consists of aeronautical knowledge evaluation by a flight instructor. 1-on-1 aeronautical knowledge evaluation lessons are designed to confirm the student can pass the oral portion of the flight stage check(s) and/or checkride. It is not designed to be used as remedial instruction for material already covered in ground school.

It is the student’s responsibility to ask questions concerning any and all simulation events.

Students are responsible for taking good notes, asking questions if anything is unclear, getting assignments done on time, requesting help if performance in this class is less than what they would expect, deciding on the amount of time and effort spent towards this course, and on study methods used for the flight events and the stage check(s) and checkride (if any).

**STUDENT CONDUCT STANDARDS:** Respect for the rights of others and for the College and its property are fundamental expectations for every student.  The “Student Conduct Standards” outlines behavioral expectations, and explains the process for responding to allegations of student misconduct. Students who do not comply with the “Student Conduct Standards” are subject to the College disciplinary actions. The Student Conduct Standards can be found at [**https://www.reedleycollege.edu/about/about-us/policies-and-procedures/student%20conduct%20standards.html**](https://www.reedleycollege.edu/about/about-us/policies-and-procedures/student%20conduct%20standards.html)

**BEHAVIOR:** Any behavior which disrupts other student learning will not be tolerated. Here are some examples of inappropriate in-class behavior:

1. Eating of any kind in class or lab. Covered drinks are allowed in classrooms and in the designated area in lab only. No drinks of any kind are ever allowed in any computer lab or in the simulator lab.

2. Using foul language

3. Total of student voices being louder than the instructor

4. Cell phones ringing or texting during class

5. Horseplay

6. Discriminatory or harassing remarks based on gender, age, national origin, race, or

religion, or disability.

7) See included Simulator Lab Room Use Policy

**ACADEMIC DISHONESTY:** Students at Reedley College are entitled to the best education that the college can make available to them. Students, their instructors, and their classmates share the responsibility to ensure that this education is honestly attained. Because cheating, plagiarism, and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences.

*Cheating*is the act or attempted act of taking an examination or performing an assigned, evaluated task in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another’s work, supplying one’s work to another, giving or receiving copies of examinations without an instructor’s permission, using or displaying notes or devices inappropriate to the conditions of the examination, allowing someone other than the officially enrolled student to represent the student, or failing to disclose research results completely.

*Plagiarism*is a specific form of cheating: the use of another’s words or ideas without identifying them as such or giving credit to the source. Plagiarism may include, but is not limited to, failing to provide complete citations and references for all work that draws on the ideas, words, or work of others, failing to identify the contributors to work done in collaboration, submitting duplicate work to be evaluated in different courses without the knowledge and consent of the instructors involved, or failing to observe computer security systems and software copyrights. Incidents of cheating and plagiarism may result in any of a variety of sanctions and penalties, which may range from a failing grade on a particular examination, paper, project, or assignment in question to a failing grade in the course, at the discretion of the instructor and depending on the severity and frequency of the incidents.

**DOING WELL IN THIS COURSE:** To learn the most from this course, the instructor suggests the following techniques:

1) Maintain punctual and perfect attendance.

2) Show up prepared (having read text, accomplish homework assignments, studied for tests/final exam, and brought equipment (homework, notepaper, lecture notes, pencils, pens, erasers) to class.

3) Study alone plus participate in a study group three times per week (every week) to do practice questioning for each test/exam.

4) Read and follow all verbal & written (syllabus, exams, homework, project) instructions.

5) Use a day planner and refer to schedule of class activities.

6) Get a good night’s sleep, eat healthy, exercise, and stay hydrated.

7) Ask the instructor for additional help.

**PROBLEMS:** Personal problems that affect your academic performance must be brought to the attention of the instructor immediately. *Problems must be worked out in advance*. Doing poorly on a graded activity or not showing up for a graded activity cannot be fixed “after the fact.”

**CELL PHONE, TABLETS, LAPTOPS:** No use of Personal Electronic Devices (PED) (such as cell phones, tablets) in class (laptops/tablets may be used to take notes in class) or in lab without prior instructor permission.

**STUDENTS WITH DISABILITIES/SPECIAL ACCOMMODATIONS:** If you have a verified need for an academic accommodation or materials in alternate media (i.e. Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or section 504 of the Rehabilitation Act, please contact me as soon as possible.

**GRIEVANCE PROCEDURE:** Every effort is made to treat all students the same. If you feel you have been treated unfairly, please inform the instructor immediately so appropriate corrections can be made. If you have a problem with the instructor or the way this course is conducted, please talk to the instructor immediately.

***Simulator Lab Room Use Policy***

The Flight Simulator Lab is in room 2 of the Aeronautics (AERO) building. The lab equipment consists of thirteen Fly This Sim TouchTrainer VX BATDs (Basic Aviation Training Devices). This lab is typically open only during scheduled lab class times and as posted on the lab entrance door.

1. The simulator lab room (sim lab) is only authorized for use during a scheduled sim lab class or when supervised by a college employee.
2. Students shall only use the sim lab for flight training purposes. Entertainment, playing computer games, surfing the internet, accomplishing homework, or other purposes are not authorized at any time.
3. Students shall not change settings in X-Plane. Students may use the lower right small touch screen to change aircraft location, weather, time, etc.
4. With instructor permission, a student may change which model airplane will be flown (PA-28 instead of a PA-38) and will change it back to original at end of each lab period.
5. Students shall not change any computer setting, including the bios, Windows 10, or SimAvio settings.
6. Students shall not install any software on simulator computers.
7. Food and/or drinks (including water bottles) are not allowed in the sim lab at any time.
8. Use of cell phones is prohibited when other students are flying a simulator.
9. Pets are not allowed, except for properly documented Service Animals.
10. Directions must be followed when given by any instructor concerning equipment/facilities or student conduct that may cause damage to lab equipment or to people or degrades the learning experience of the other students. Failure to do so may result in student disciplinary action, as described in the Reedley College catalog.

I certify that I have read and understand the syllabus for FLGHT 117.

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Printed name of student signature date