

Berrien Springs Partnership Lab Syllabus and Instructor Qualifications

LABS (CLASSES) ARE PROVIDED AS AN EDUCATIONAL SOURCE FOR PBL (PROJECT BASED LEARNING)

COMMUNITY CLASS TITLE: **Introduction to Aviation**

GRADE OR AGE LEVELS: 14-18 years old

FORMAT: IN-PERSON

DAY AND TIME OF THE WEEK: Tuesday 1300-1500

TOTAL REQUIRED HRS: 24

ADD'L POSSIBLE HRS (OPTIONAL TIME): 6

TOTAL SEMESTER HOURS POSSIBLE: 30

LOCATION (address):

Dowagiac Municipal Airport 710 W Prairie Ronde St, Dowagiac, MI 49047

On entering Dowagiac East bound on M-62:

Turn Left onto Spruce Street at the light.

Turn Left onto N Paul Street.

On entering Dowagiac North bound on M-51:

Turn Left onto N Paul Street.

Once on N Paul Street:

Continue through the curve with the high school on the right.

Airport entrance is the second left. First left is the Road commission, third left is the National Guard Armory.

Follow the airport entrance road to the parking lot on the left side of the entrance road. This will be where vehicles are parked. Classes will be held in the red roofed building.

PRIMARY INSTRUCTOR: Matthew J. Harrison

SECONDARY INSTRUCTOR: Daniel I. Baker

CONTACT INFORMATION:

Phone: (269) 775-3614

Email: foxtrotflighttraining.llc@gmail.com

Website: foxtrotflighttraining.com

NO ADDITIONAL REGISTRATION REQUIRED.

INSTRUCTOR QUALIFICATIONS (may attach a separate page if necessary):

Matthew J. Harrison: FAA Certified Flight Instructor & Flight Instructor Instrument

Daniel I. Baker: FAA Certified Advanced Ground Instructor & Certified Flight Instructor

COURSE DESCRIPTION (OVERVIEW):

This course is designed to introduce students to the field of aviation, especially from a pilot's perspective. Students will cover the basics of; aerodynamics, aircraft design, aviation history, aviation meteorology, navigation, career options within aviation, and aviation law. The course will include hands-on learning and classroom style lecture.

COURSE OBJECTIVES AND APPROXIMATE TARGET DATES: The objective of the course is to provide the student a solid introduction to aviation. Class is expected to run September 2nd to November 18th.

STUDENT ASSESSMENT - what will be used to evaluate student progress and/or end of semester pass/fail status?

1. Student agrees to attend at least 80% of class sessions/lessons offered. Attendance is kept online and tracked by Partnership staff. Failure to meet 80% or be on track to meet 80% may result in program discontinuation.
2. The Partnership Student Assessment or Performance Form is filled out by the teacher and turned in to Partnership staff. The link to this form is found on the web page for this class. Failing marks for lack of participation, behavior issues, practice time, etc. may result in program discontinuation.

Class-specific assessment: The main grading criteria for this class is attendance and engagement based.

ADDITIONAL RESOURCES: No named resources.

CLASS POLICIES: ATTENDANCE, BEHAVIOR, WEATHER, ETC.

Attendance: Attendance is critical for both the grading of the class, and the understanding of the material.

Behavior: Aviation is a very safety minded industry, and we will not tolerate horseplay. We expect any students or parents to behave in a professional manner.

Weather: We will cancel lessons based on National Weather Service Warnings.

Other: None

SYLLABUS/OUTLINE: WEEKLY BREAKDOWN OF PROJECT-BASED LEARNING LAB ACTIVITIES

Week I (January 13th): Introduction - Aviation Careers/Regulatory Bodies/Aircraft Control Basics

Week II (January 20th): Aerodynamics - Fluid Dynamics/Four Forces of Flight/Turning Tendencies

Week III (January 27th): Aircraft Design - Aircraft control surfaces/landing gear types/wing types
This lesson will involve being around one or several aircraft.

Week IV (February 3rd): Aircraft Engines - Reciprocating, Turbine, and Turboprop.
This lesson will involve looking at a disassembled Aircraft engine.

Week V (February 10th): Aircraft Instruments – Overview of the cockpit instruments use and function.

Week VI (February 17th): Airport Signage and Lighting – Runway and Taxiway markings, Airport Lights, and Visual Approach Indicators.

Week VII (February 24th): Airspace - National Airspace System/Air Traffic Control/IFR vs VFR

Week VIII (March 3rd): Charts and Navigation - Chart Reading/Navigation Basics

Week IX (March 10th): Meteorology - Atmospheric Structure/Frontal Systems/Aviation Weather Reports

Week X (March 17th): Weight and Balance – Determining Aircraft Weight and Balance and loading considerations.

Week XI (March 24th): Aircraft Performance – Determining Aircraft Performance and its effects on operations.

Week XII (March 31st): Review - General review and questions

