



***Bakers School of Aeronautics Airframe and Powerplant Course Syllabus / Effective Date: 1/1/2020***

**DAY ONE - MONDAY**

0800-0850 ORIENTATION

0900-0910 DISTRIBUTE STUDY MATERIALS

0910-1100 AIRFRAME LECTURE

- Rivets and Rivet Layout Fundamentals
- Sheetmetal Bending and Layout Fundamentals
- Torque Wrenches
- Drag Formula
- Air Cycle Machines
- Vapor Cycle Systems
- Aircraft Pressurization

1100-1130 SELF STUDY BEGINS

1130-1230 LUNCH

1230-1530 SELF STUDY

1530-1600 END OF DAY BRIEFING

**DAY TWO - TUESDAY**

0800-0815 MORNING BRIEFING

0815-0900 ORIENTATION BRIEFING FOR AKT (Airman Knowledge Testing)

0900-1130 SELF STUDY

1130-1230 LUNCH

1230-1600 MOCK TESTING FOR AIRFRAME EXAM

**DAY THREE – WEDNESDAY**

0800-0815 MORNING BRIEFING

0815-1130 FAA TESTING FOR AIRFRAME

1130-1230 LUNCH

1230-1330 FINAL STUDENTS FINISH AIRFRAME EXAM

1330-1600 GENERAL LECTURE

- Federal Aviation Regulations
- Basic Electricity Fundamentals
- Aircraft Weight and Balance Principles
- Math Refresher for Aviation Maintenance
- Precision Measuring Devices
- Aviation Charts for Aircrew and Maintenance

**DAY FOUR - THURSDAY**

0800-0815 MORNING BRIEFING

0815-1130 SELF STUDY / MOCK TESTING FOR GENERAL

1130-1230 LUNCH

1230-1600 FAA TESTING FOR GENERAL

**DAY FIVE - FRIDAY**

0800-0815 MORNING BRIEFING

0815-1130 CONTINUED FAA TESTING FOR GENERAL

1130-1230 LUNCH

1230-1330 POWERPLANT LECTURE

- Magnetos and Ignition Systems
- Propeller Fundamentals
- 4 Cycle Engine Operating Principles
- Carburetor Fundamentals
- Turbine Engine Fundamentals
- APU Systems

**DAY SIX - SATURDAY**

0800-1130 SELF STUDY AND MOCK TESTING

1130-1600 FAA POWERPLANT TEST AND SELF STUDY FOR ORAL AND PRACTICALS

**DAY SEVEN – SUNDAY**

**BAKERS IS CLOSED (Student required to self-study)**

**DAY EIGHT – MONDAY**

0800-0900 ORAL AND PRACTICAL ORIENTATION

0900-1030 RIVETS AND RIVET PRACTIAL APPLICATION

- Calculating rivet sizes and Sheetmetal riveting
- Bucking Rivets
- C-Squeeze Rivet Installation
- Blind Rivet Installation and Usage
- Rivet Removal

1030-1130 AIRCRAFT SMALL SYSTEMS PRACTIALS

- Aircraft Vacuum Pumps
- Aircraft Brake Systems
- Composite Inspections
- ELT Inspections
- Starter Generator Maintenance
- Aircraft Mooring Knots
- Soldering

1130-1230 LUNCH

1230-1430 POWERPLANT PRACTICALS

- Bench Magneto Timing
- On Engine Magneto Timing
- Compression Tests
- Engine Exhaust Systems
- Compressor and Turbine Blade Inspections
- Cylinder and Piston Inspections
- Propeller Dressing
- Blade Track and Blade Angle Measurements
- Spark Plug Cleaning and Gapping

1430-1600 SELF STUDY

## **DAY NINE – TUESDAY**

### 0800-0930 BASIC ELECTRICITY

- Resistor Calculations
- Multimeter Practical's

### 0930-1030 WEIGHT AND BALANCE CALCULATIONS

### 1030-1100 MICROMETER READINGS

### 1100-1130 CORROSION RECOGNITION

### 1130-1230 LUNCH

### 1230-1330 FAA FORMS AND REGULATIONS

- TCDS (Type Certificate Data Sheets)
- FAA Form 337s
- TDATA IA-approach software training
- Logbook Entries

### 1330-1500 GENERAL PRACTIAL PROCEDURES

- Flex Hose Construction
- Hard Line Construction
- Cable Tension Measurements
- Turnbuckle Safety wire Techniques

### 1500-1600 BAKERS SUPPLEMENTAL VIDEO

- Reciprocating Engine Cylinder Removal and Installation
- Piston and Rotating Mass Inspection
- General Aviation Engine Run Principles
- Welding Torch Techniques
- Oil Filter Inspection
- Battery Electrolyte Inspection
- Wire Tying Techniques

## **DAY TEN - WEDNESDAY**

### 0800-1600 SELF STUDY AND PRATICAL PRACTICE

- At this point students are released to continue group study and practice the procedures we have taught them.

## **DAY ELEVEN THURSDAY**

0800-1600 This is the first day that the students begin to visit the Designated Maintenance Examiners (DME). They will continue to flow to the DMEs depending on their scheduled appointments with the DME. Students will generally continue studying here at the school until their appointment date.

**Students will be required to study at least 4 to 5 hours every evening during the week and all-day on Sundays.**