

# Gateway STEM High School

*Learners Today, Leaders Tomorrow!*



**Aviation Airframe Part A – Junior Class**

**Aviation Building E001 - Periods 1, 2, 3**

**COURSE SYLLABUS**

**2024-2025**

**INSTRUCTOR:** Andrew Craig  
**E-Mail:** andrew.craig@slps.org  
**Office:** 314-345-5670

**PLANNING PERIOD:** 4<sup>th</sup> & 8<sup>th</sup>

## **COURSE FRAMEWORK:**

**Federal Aviation Administration (FAA) School Certification:** Gateway STEM High School is a certified Aviation Maintenance Technician School in accordance with Title 14 of the Code of Federal Regulations 14 CFR, Part 147.

**Aircraft Maintenance Technician (AMT),** also known as an Aircraft Mechanic, refers to a licensed qualification for carrying out aircraft maintenance. Aircraft Maintenance Technicians (AMTs) inspect and perform or supervise maintenance, preventive maintenance, and alteration of aircraft and aircraft systems. The rules for persons who hold an AMT (Mechanic) certificate issued by the Federal Aviation Administration, both for receiving certification and for certificate-holders, are detailed in Subpart D of Part 65 of the Federal Aviation Regulations (FARs). Visit the Federal Aviation Administration website for specific program certification requirements - [www.faa.gov](http://www.faa.gov).

**Gateway STEM High School Certification Offerings:** Airframe – certification required when working on aircraft structures, systems and components.

## LEARNING OUTCOMES:

Once a student passes all FAA required courses and license examinations they will receive their FAA Airframe certificate.

## COURSE OUTLINE:

### First Semester

- Regulations, Maintenance Forms, Records, and Publications
- Human Factors
- Fluid Lines and Fittings
- Physics for Aviation
- Mathematics
- Weight and Balance
- Aircraft Drawings

### Second Semester

- Fundamentals of Electricity and Electronics
- Aircraft Materials, Hardware, and Processes
- Inspection Concepts and Techniques
- Cleaning and Corrosion Control
- Ground Operation and Servicing

## REQUIRED MATERIALS:

- Textbook: FAA-H-8083-30B Aviation Maintenance Technician Handbook – General (free download)
- Textbook: FAA-H-8083-31B Aviation Maintenance Technician Handbook – Airframe (free download)
- Pen or pencil
- Notebook
- Calculator

## CLASSROOM EXPECTATIONS/POLICIES:

Appropriate classroom conduct at the high school level includes being on time and prepared for class. It includes behaving respectfully towards other students and instructors at all times. Disrespectful behaviors are beneath the standards of high school level students and may result in your being excused from this class.

**Cell phones and electronic devices must be turned off for the duration of the class period. No phone calls, text messages, or other uses of electronic devices will be tolerated.**

## GRADING POLICY/SCALE:

Assignments	Descriptions	Value
Lecture Grade	Average of lecture test, quizzes, and homework assignments	= 50%
Lab Grade	Average of all projects, quizzes, and homework assignments	= 50%
		<b>TOTAL = 100%</b>

### Semester Grade Policy:

**Grading Policy:** Students will follow the grading scale issued by the district which is as follows:

<u>Grade</u>	<u>Grading Scale</u>
A	100 – 90
B	89 – 80
C	79 – 70
D	69 – 60
F	59 and below

Parents may have internet access to their student's grades and assignments, upon Administrative approval at <https://sis.slps.org/SLPS/Default.aspx>

### **GRADE COMPUTATION**

A student's final grade in each course in the curriculum is a combination of his/her lecture grade (50%) and laboratory grade (50%). A minimum final grade of "C", equivalent to a numeric grade of 70%, is required for successful completion of all courses. All laboratory projects must be successfully completed before a passing grade of "A", "B" or "C" may be given for a course.

### **ATTENDANCE**

**Attendance is mandatory.** As an FAA certified Airframe and Powerplant Mechanic Training Program, we must abide by the FAA's attendance policy. Instructors are required to take roll each class period. It is the student's responsibility to contact the instructor in advance of absences whenever possible or immediately thereafter to arrange make-up time where appropriate and to obtain handouts or other material from classes missed.

**Students are expected to be in class and lab on time.** Absences are counted in 0.5 hour blocks and are a matter of record and stored in the Gateway's computerized Student Information System (SIS) and FAA student record.

### **Absence and Makeup Time**

Attendance at all scheduled lecture sessions is required. Lecture absences can be made up in the following manner:

- A. By reading assignments which are to be substantiated by passing an examination.
- B. By submission of a written report covering, in detail, the topical area missed.
- C. By attending lecture(s) covering the missed topics.
- D. By individual tutoring by a faculty member.
- E. By other teaching means including, but not limited to, video instruction or computer based training.

Attendance at all scheduled laboratory sessions is required. Laboratory absences can be made up in the following manner:

- A. By completion of required and/or optional laboratory projects under the supervision of a faculty member, in the appropriate laboratory environment.

### **ACADEMIC INTEGRITY/ PLAGIARISM:**

Plagiarism is taking words or ideas that are not your own and presenting them as though they were. Plagiarism is a serious violation of school rules and will result in a zero on the assignment with no opportunity to make up that assignment. Incidents of plagiarism will also be referred to school administration and a call home.

### **MISCELLANEOUS COURSE INFORMATION:**

**Safety:** Safety is of the utmost importance. Standard eye protection, not sun glasses, and closed toe shoes are required to be worn while in the labs. Remember safety first.