

# Aviation Institute of Maintenance

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## Articulated Credit Agreement Between Aviation Institute of Maintenance (AIM) And Raytown C-2 School District (RSD)

Aviation Institute of Maintenance (AIM) agrees to provide the college's approved FAA General Aviation courses by articulation to Raytown C-2 School District (RSD) students under the guidance and requirements of the AIM's Air Agency Number USET092K. The General curriculum covered under this agreement pertains to Blocks 1 thru 4 of the AIM's Aviation Maintenance Technician program for a total of 480 Clock Hours and 19.0 Credit Hours. Within this program, RSD students will take all courses within their senior year. Attached as Exhibit 1.1 is an outline of the scheduling matrix for these courses in line with RSD academic calendar. The courses taught within the program include:

### Aviation General Science I: Mathematics and General Physics, 5.0 Credits

An introduction to aircraft types, nomenclature and basic aerodynamics. This course addresses algebraic operations, fractions, exponents, roots, and geometric analysis as applicable to aircraft design, powerplant operations, and aeronautical physics. Basic principles of physics for mechanics such as simple machines, heat dynamics, fluid and gas laws, work and power, and air pressure are covered. The basic principles of aircraft weight and balance are presented along with the process required to locate weight and balance information, safely weigh an aircraft, and compute the center of gravity in various configurations.

#### Aircraft Fundamentals

**Subject Description:** An introduction to aircraft types, nomenclature and basic aerodynamics.

**Subject Duration:** Total 30.0 hours, Class 20.0 - Shop 10.0

#### Mathematics

**Subject Description:** A review of basic mathematics including whole numbers, fractions, algebraic operations, exponents, roots, and the area and volume of geometric figures.

**Subject Duration:** Total 30.0 hours, Class 20.0 - Shop 10.0

#### Aircraft Physics/Weight & Balance

**Subject Description:** Basic principles of physics for mechanics such as simple machines, heat dynamics, fluid and gas laws, work and power, and air pressure. The basic principles of aircraft weight and balance are presented along with the process required to locate weight and balance information, safely weigh an aircraft, and compute the center of gravity in various configurations.

**Subject Duration:** Total 60.0 hours, Class 32.0 – Shop 28.0

### Aviation General Science II: Tools, Surfaces, and Corrosion Control, 4.5 Credits

A study into the charts, diagrams and text, which show the area dimensions, stations, access doors, zoning and physical locations of the major structural members of the aircraft. This course includes an explanation on the system of zoning and measurements used. An introduction to the tools, hardware and materials used in aircraft maintenance and repair, to include proper handling and inspection thereof and practical application of the various types of nondestructive testing of metals are covered. A study of various types of corrosion cause and corrective measures used to control corrosion of different types of metals in aircraft construction is completed.

#### Aircraft Drawings

**Subject Description:** Students learn to use drawings and blueprints, including orthographic projections, schematics, graphs, charts, and pictorial representations and to sketch repairs and alterations.

**Subject Duration:** Total 30 hours, Class 15.0 - Shop 15.0

### **Materials and Processes**

**Subject Description:** An introduction to the safe and proper use of hand tools, selection and installation of aircraft hardware, basic manufacturing techniques and materials, heat-treating metals, nondestructive testing methods, and precision measurement.

**Subject Duration:** Total 60.0 hours, Class 24.0 - Shop 36.0

### **Cleaning and Corrosion Control**

**Subject Description:** Introduces the student to the types of corrosion found on aircraft, its cause and the chemicals, materials, and procedures used to clean aircraft and to prevent or control corrosion.

**Subject Duration:** Total 30.0 hours, Class 15.0 – Shop 15.0

### **Aviation General Science III: Maintenance Forms and Records, 5.0 Credits**

The student is introduced to the use of technical literature, FAA publications, forms and records, microfiche, and Federal Aviation Regulations regarding maintenance personnel. This course provides an introduction to the types of rigid and flexible lines and fittings used to convey fluids in aircraft systems, their installation, inspection and maintenance. This also includes a presentation illustrating aircraft services procedures; ground handling of aircraft and safety procedures. An introduction to the types of powerplants used on aircraft, the nomenclature associated with these powerplants, their major components and operating cycles will be covered. Reciprocating, turbine and inducted fan type engines will be discussed.

### **Maintenance Publications & Fluid Lines**

**Subject Description:** The student is introduced to the use of technical literature, FAA publications, forms and records, microfiche, and Federal Aviation Regulations regarding maintenance personnel. Provides an introduction to the types of rigid and flexible lines and fittings used to convey fluids in aircraft systems, their installation, inspection and maintenance.

**Subject Duration:** Total 60.0 hours, Class 26.0 - Shop 34.0

### **Ground Operation and Servicing**

**Subject Description:** Students are taught safe ground handling procedures including moving, fueling, securing aircraft; and shop safety.

**Subject Duration:** Total 30.0 hours, Class 20.0 – Shop 10.0

### **Powerplant Fundamentals**

**Subject Description:** An introduction to the types of powerplants used on aircraft, the nomenclature associated with these powerplants, their major components and operating cycles. Reciprocating, and turbine engines will be discussed.

**Subject Duration:** Total 30.0 hours, Class 20.0 - Shop 10.0

### **Aviation General Science IV: Basic Electricity, 4.5 Credits**

This course offers an introduction to electrical theory and operation. Students learn to calculate and measure voltage, current, and resistance; build and analyze simple circuits, and use electrical schematics. It also includes instruction in Alternating Current Electricity, its theory, operation, associated components as well as basic electronics theory and solid-state devices.

### **Basic Electricity**

**Subject Description:** An introduction to electrical theory and operation. Learn to calculate and measure voltage, current, and resistance; build and analyze simple circuits, and use electrical schematics. An introduction to Alternating Current Electricity, its theory, operation, associated components as well as basic electronics theory and solid state devices.

**Subject Duration:** Total 120.0 hours, Class 40.0 - Shop 80.0

### **School Responsibilities**

The following criteria must be met for AIM to extend its Air Agency Number U5ET092K, and General Curriculum resources to meet the requirements of the FAA Part 147 Appendix B - General Curriculum Subjects to RSD' participating students:

1. AIM and RSD must adhere to the AIM's *Operations Manual* as it pertains to the integrity, delivery of content, and guidance of the curriculum.
2. General Curriculum Instructors must be Airframe and Powerplant certificated with a minimum of three years' field experience. The RSD General Curriculum Instructors must be approved as qualified instructors and documented on AIM's Instructor Roster.
3. If applicable, RSD must supply AIM with copies of faculty members' qualifications to teach under approved curriculum.
4. AIM and RSD facilities and equipment must be approved by AIM and the FAA.
5. AIM will provide and oversee the content of all courses within the program to assure that courses meet the standard required by the FAA, and that courses are transferable into the AIM program.
6. RSD must comply with routine audits of the School's Instructors and General curriculum program delivery by AIM and/or the FAA to ensure compliance as required under AIM's Air Agency Number U5ET092K.
7. RSD and AIM must provide students the opportunity to make up any subject matter, missed hours, course assignments, and projects of the General curriculum in order to receive credit through scheduled make up hours.
8. Though students within the program have no obligation to enroll in AIM after high school graduation, each of these courses completed with a 70.00% or greater will be eligible for transfer for students who later decide to enroll at AIM.

### **Student Responsibilities**

The following criteria must be met for AIM, under the auspicious usage of Air Agency Number U5ET092K, to provide credit towards AIM's Aviation Maintenance Technician program.

1. Students must complete all required hours, subject matter, course assignments and projects of General curriculum to receive credit.
2. Student must make up all missed hours, subject matter, course assignments and projects within the general curriculum to earn credit.
3. Students must have graduated high school with an overall cumulative grade point average of 2.0 in order to enroll full time in AIM.
4. Students must meet all admissions criteria of AIM in order to be accepted for full time enrollment.
5. Students must provide a high school transcript to AIM at the time of application to have transfer credits accepted in to the AIM full time program.

### **Grading Requirements**

The following criteria must be met in order for AIM, under the auspicious usage of Air Agency Number U5ET092K, to provide credit towards AIM's Aviation Maintenance Technician program,

1. RSD can adhere to RSD's grading policy for the purposes of RSD policies.
2. For students to gain transferrable credit into AIM's programs the student must adhere to the grading policies as outlined in AIM's Operational Manual. If students fail to earn credit for a course under AIM's grading policies, the student will not be eligible for transferrable credit of that course under this agreement.
  - a. Under AIM's grading policies students are eligible for one retake of final exams if student earned a grade below a 70. RSD must provide students the opportunity for the exam retake. The highest grade eligible to be earned on a re-take is a 70%.

### **Term of Agreement**

This initial term of this agreement will begin on **August 23<sup>rd</sup>, 2021** and continue in an ongoing manner until terminable by either entity with just reasoning. Students participating under this agreement are eligible to finish any course in which they are enrolled for credit under RSD policies. For the student to gain credit under AIM's Air Agency number the student must meet identified requirements as provided in this agreement and AIM's Operational Manual. The term may be extended for future terms upon mutual agreement of both parties, assuming a mutually-agreeable cost share program is enacted as referenced in the section titled "Initial Term and Subsequent Term Costs" below. Either parties may cancel at any time upon 30 days' notification.



**Initial Term and Subsequent Term Costs**

The initial term of this program will carry no costs to RSD or the students within the initial cohort. Students enrolled within the first term will take courses within their 12<sup>th</sup> grade years with no costs to the school system or to the students. Over the course of the first term of this program, both institutions will evaluate the actual costs for its instruction, equipment use, consumable materials, and other costs, and establish whether a cost share with RSD and/or its students is appropriate for further enhancements of the program. It is assumed that future terms into which this agreement is extended may carry a cost to RSD and/or its students, commensurate to the costs of operating the program, and any costs will be mutually agreed upon by the two institutions, so that the program can be sustainable for future years.

**Assignment**

The parties agree that they may not transfer or assign their interest in this Agreement without the prior written consent of the other party. The parties understand and agree that in the event that all or substantially all of their assets are acquired by another entity, that they or their successor in interest will remain obligated to fulfill the terms and conditions of this Agreement.

**Notice**

All notices given pursuant to this Agreement shall be in writing and shall either be mailed first class mail, postage prepaid, registered or certified with return receipt requested or delivered in person to the intended addressee, or sent by fax or overnight delivery service. Notice mailed shall be effective on mailing. Notice given in any other manner shall be effective on receipt. For purposes of notice, the addressees of the Parties shall be as stated under their names as set forth herein, provided, however, that each Party shall have the right to change its address for notice hereunder to any other location by the giving of 10 days' notice to the other Parties in the manner set forth above.

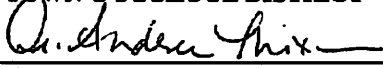
**Signature Authority**

The persons signing and executing the Agreement on behalf of the Vendor and District, or representing themselves as signing and executing the Agreement on behalf of Vendor and District, do hereby warrant and guarantee that they have been duly authorized by the party on behalf of which they sign to execute the Agreement on behalf of such party and to validly and legally bind such party to all terms, performance and provisions herein set forth.

**Certifications**

Pursuant to 2017 Senate Bill 252, Vendor is not a foreign terrorist organization as identified on the list prepared and maintained by the Missouri Comptroller of Public Accounts. If Vendor misrepresents its inclusion on the Comptroller's list, such omission or misrepresentation will void any or all agreements then currently in effect between Vendor and District.

**RAYTOWN C-2 SCHOOL DISTRICT**

By:   
Signature

Printed Name: Andrea Nixon

Title: Assistant Superintendent

Date Signed: 8/12/21

**AVIATION INSTITUTE OF MAINTENANCE**

By:   
Signature

Printed Name: Adam Rotrock

Title: Campus Executive Director

Date Signed: 8-12-2021