



Hagerstown, MD Campus

Established 2011

Catalog 2014-2015

Volume 4, July 2014

LOCATION:

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Hagerstown, MD 21742**

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Pittsburgh Institute of Aeronautics

Not all industry related scenes on the cover depict PIA's facilities and equipment



HAGERSTOWN CAMPUS

Admissions Department: 1-800-444-1440

Catalog Insert

Volume 4, July 2014

Aviation Maintenance Technology Full-Time Program Calendar

Semester Beginning Date	Semester End Date	Graduation Date
August 27, 2014	December 18, 2014	December 23, 2015
January 5, 2015	April 23, 2015	April 25, 2016
April 27, 2015	August 18, 2015	August 18, 2016
August 31, 2015	December 22, 2015	December 22, 2016

Semester Breaks

December 19, 2014 - January 4, 2015

April 24, 2015

August 18, 2015 - August 30, 2015

December 23, 2015 - January 3, 2016

Holidays

November 27 & 28, 2014

December 24 - 26, 2014

January 1, 2015

May 26, 2015

July 3, 2015

September 7, 2015

November 26 & 27, 2015

December 24, 25, 28, & 29, 2015

Tuition, Fees, and Charges

Application Fee - None

Registration Fee - \$150.00. This fee must accompany the enrollment application at the time that the candidate makes formal registration. The registration fee is not applied toward tuition, and is not refundable except as outlined in this catalog under "Refund Policies."

Tuition Schedule

Tuition is charged at the rates shown:

Advance Payment	\$25,200.00
Tuition per Semester (Full-Time)	\$6,300.00
Tuition per Unit (Part-Time)	\$6,300.00

The tuition rate is subject to change with 120 days advance notice.

Students are invoiced prior to the start of each term. Payment for each term is due in full two weeks prior to the beginning of classes, unless other arrangements, such as payment options, are made through the business office. Payment options may allow up to four installments, and will be free of interest and/or service charges by the Pittsburgh Institute of Aeronautics.

Academic and tuition credit for comparable prior training may be granted at the discretion of the school, and as outlined in this catalog under “General Information.”

Books, Tools, and Supplies

The charges for books, tools, and supplies are approximate costs and are subject to applicable sales taxes. Because the school does not establish costs for these items, prices may change without notice. Estimates cover cost of one program.

AMT Full-Time Program	\$2022.00
AMT Part-Time Program	\$2022.00

FAA Certification Fees

Three Federal Aviation Administration (FAA) practical and oral examinations are required for certification: General, Airframe, and Powerplant. The cost is established by the current market rate charged by FAA Designated Mechanic Examiners (DMEs). The typical cost is \$200.00 per exam, for a total of \$600.00.

The FAA also requires three knowledge tests, conducted by computer, be passed for each of the three aforementioned areas. The cost for these exams is established by the test provider, not by the school, and is typically \$115.00 per test, for a total of \$345.00.

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PIA School Philosophy

PIA is committed to the pursuit of postsecondary education that is both meaningful to the individual and valuable to society. The Institute believes that it serves the dual functions of providing its learners with opportunities, while furnishing the community with its most valuable resources, skilled men and women who possess the willingness to learn and the propensity to mature as contributing members of society.

To accomplish its objectives, PIA believes that school programs must: (a) develop specific career-related skills, (b) broaden abilities in essential academic areas, and (c) form attitudinal traits compatible with career goals. In order to be effective, these studies must be dispensed through an appropriate collection of instructional techniques, each designed to best achieve its specific objective(s).

In reaching these goals, PIA accomplishes its purpose as a provider of career opportunities and fulfills its role as an institution of higher education.

History of PIA

PIA celebrated its 80th anniversary during 2009. The school was founded as the Curtiss-Wright Flying Service in 1927, and became PIA in 1929. From 1929 until 1944, PIA trained airframe and engine mechanics for the aviation industry. In 1944, William J. Graham purchased the school and incorporated Graham Aviation as a division of PIA. An aviation electronics (avionics) course was added to the curriculum in 1979, giving students a choice of training for certification as Aviation Maintenance Technicians (AMT) or Aviation Electronics Technicians (AET). Since 1929, PIA and the Graham Aviation Division have graduated more than 36,000 and 33,000 students, respectively. PIA graduates have been placed in careers throughout every segment of the aviation industry, including commercial air carriers, aircraft manufacturers and general aviation companies. The PIA Main Campus, located on the Allegheny County Airport since 1946, is situated 8 miles southeast of downtown Pittsburgh.

Reorganization of PIA

On December 1, 1944, Mr. William J. Graham, President of the Graham Aviation Company and pioneer in aviation training, purchased PIA. Mr. Graham became president of the school and under his direction, the existing for-profit corporation was dissolved and the school was reorganized as a nonprofit corporation chartered in the Commonwealth of Pennsylvania on February 8, 1946. Mr. Graham's early administrative reorganization plans included the 1944 appointment of Dr. T.B. Lyons to the position of Director.

In May 1946, the school established its advanced phase of training for aircraft mechanics in new shops opened at the Allegheny County Airport. These facilities replaced those that were discontinued when the Bettis Airport location was no longer available. It was decided that the school should move its base of operation from its downtown location to the Allegheny County Airport.

A long range plan was developed by the officers of the school which led to the establishment of a fully accredited institute. Even more important, however, were the efforts to have the school develop a curriculum tailored to the industry it served. During the years between 1956 and 1971, the Institute played a major role in efforts to upgrade aviation technical education in the United States. A mechanic training program was conducted at PIA by the Federal Aviation Administration (FAA) where representatives of the FAA monitored a class of students through the entire program, on a monthly basis. Their findings were used for the updating of the FAA curriculum requirements for all approved schools. In 1967 PIA was acquired by Mr. Jack Graham who became active in the management of PIA as President, CEO, and Chairman of the Board.

In 2005, John Graham III began his tenure as PIA's President. In 2008, John Graham II retired and John Graham III assumed the position of CEO, and Chairman of the Board as well.

Graduates of PIA School of Specialized Technology have been placed with airlines, electronics manufacturers, mechanical repair facilities, the space program, and a host of other industries. Many have become managers and administrative officers for those same corporations. In addition, many of the school's alumni number themselves among the higher echelons of the electronics industry, the transportation industry, and their related technologies. PIA is recognized by the industries that it serves as a preeminent institution of education.

The Hagerstown, MD Campus was opened in April 2011. Working in conjunction with the Hagerstown Airport Authority, PIA instituted an aviation maintenance technician school at the Hagerstown Regional Airport to serve the workforce needs of the Western Maryland area.

Admission Procedures and Requirements

Minimum Requirements

Applicants must fulfill these minimum requirements to commence training at PIA's Hagerstown Campus:

- Possess a High School Diploma or GED Equivalency
- Be at least 17 years of age

Due to Federal Aviation Administration (FAA) regulations and graduate employment requirements, applicants must be at least 17 years old before they can commence training.

Suggested Courses

Applicants interested in pursuing the **Aviation Maintenance Technology** program are recommended to have successfully completed the following high school courses:

- Algebra I
- Basic Physics

The aforementioned courses are not required for admission. However, they provide a solid foundation for the program.

Application and Admission Procedures

Applicants for admission to PIA's Hagerstown Campus are required to visit the school for a personal interview and a tour of the campus facilities prior to beginning classes. The tour and personal interview are conducted by a qualified admissions representative and are intended to give the prospective student an understanding of the following:

- AMT Program
- Instruction Methods
- PIA's Learning Environment
- Program Goals and Outcomes
- Admission Policies
- Program Availability
- Academic Assistance
- Graduate Placement Statistics

Tours are generally conducted Monday through Friday by appointment. Tours can be arranged for either individuals or small groups by calling the Admissions Department at 1-800-444-1440. Visitors are encouraged to ask questions, so that they can make informed decisions concerning the career fields

presented, costs, and methods of payment (for info on Financial Assistance, see page 22).

In order to apply for entrance to PIA's Hagerstown Campus, the prospective student must receive a current school catalog and submit a complete admissions application form and \$150 registration fee. Applicants who are still attending high school may be conditionally accepted, pending graduation from high school. Applicants who possess a high school diploma or GED certificate may be conditionally accepted, pending proof of high school graduation or equivalency. Acceptable proof of high school graduation is an official final transcript. If it is not possible to secure the transcript, PIA may, at its discretion, accept a letter from the appropriate high school principal, or a PIA official may copy the applicant's original high school diploma. Applicants with a GED certificate may have a PIA official copy their original GED certificate. All applicants must also complete a Math Skills Assessment (unless waived by the Director) as part of the enrollment process. Accepted students will receive an enrollment packet which includes an enrollment agreement, disclosure statement, letter of acceptance or conditional acceptance and contact info form.

If an applicant pays the registration fee, but is not accepted into the program selected, the registration fee will be refunded in its entirety. Refer to page 13 of this catalog for applicable registration refund possibilities.

Placement Examination

Unless waived by the Director, the Mathematics Skills Assessment (MSA) must be taken by all applicants prior to admission to PIA's Hagerstown Campus. Its purpose is to determine the math abilities of the prospective student, allowing the Director to determine if the applicant possesses the skills required for success in his/her chosen program of study, or if some form of preparatory/transitional training is needed. The results of this examination cannot predict student success with 100% accuracy, however, it does give the faculty guidance in addressing student needs.

Registration Expiration

In the event an applicant cannot begin his/her studies on the starting date of the class for which he/she is registered, credit will be granted for the registration fee toward the next two class start dates. After that period, the registration will be considered "expired" and the applicant must pay a new registration fee for any future classes.

General Information

Students with Disabilities

Pittsburgh Institute of Aeronautics is committed to compliance with Section 504 of the Rehabilitation Act of 1973 and its regulations. Persons with disabilities are encouraged, but not required, to identify themselves to the school in order to collaborate on development of a Personal Emergency Plan and/or to arrange necessary accommodations. The school does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Applicants or students with a disability may request an accommodation or Personal Emergency Plan by contacting the Director of Education.

Nondiscriminatory Policy

PIA admits students of any race, religion, age, creed, marital status, veteran status, political affiliation, color, national origin, gender, or disability to all rights, privileges, programs, and activities generally accorded or made available to learners at the school. The school does not discriminate on the basis of race, religion, age, creed, marital status, veteran status, political affiliation, color, national origin, gender, or disability in the administration of its educational policies, scholarships, and loan programs or other school, administered programs. The Campus Director (refer to the ‘Staff’ section) serves as the Title IX coordinator.

Credit for Comparable Training

At the school’s discretion, course and tuition credit may be granted for comparable education and training. This credit may be based upon documented course work accomplished at other recognized schools or training facilities (when course descriptions closely match), or from the results of written and/or practical evaluations (when course descriptions do not match closely enough).

Clock Hour/Credit Hour Equivalency

PIA does not currently measure its Hagerstown Campus programs in credit hours. All courses are weighted according to the number of clock hours utilized. A clock hour is defined as: “a one-hour period including at least 50 minutes of student/instructor contact,” also referred to as a “contact hour.”

Transfer Credit

PIA will evaluate transfer credit from other institutions. The amount of credit awarded for work accomplished at PIA’s Hagerstown Campus may vary from one postsecondary institution to another. A student who completes the entire AMT program at the Hagerstown Campus will receive 58 credit hours toward the AMT associate degree program offered at another PIA campus, or at least 18 credit hours toward any other associate degree program offered by PIA.

Absence

PIA is regulated by a number of governing agencies, one of which is the Federal Aviation Administration (FAA). The FAA determines the number of hours a student must spend in an AMT program in order to qualify for certification testing. Because of this regulation (14 CFR, Part 147.21), all absence must be made up in order for the student to graduate from an AMT program at the Hagerstown Campus. Make-up work can be accomplished at a time determined by the Director. This time may be on regular school days either before scheduled class hours, after scheduled class hours, or on weekends.

Furthermore, a student must attend at least 90% of all SCHEDULED class and shop/lab time. Failure to meet this standard will result in dismissal from the program.

A student's net absence (time missed minus time made up) for any semester or unit must not exceed 600 minutes in order to advance to each succeeding term of study. At the end of the program, the student's net absence must equal zero (0) in order for him/her to receive a diploma and an FAA completion certificate from the school.

Attendance will be evaluated and discussed with students upon completion of the first two weeks of each term and every two weeks, thereafter. Student absence must not exceed 20% for any two week period, or the student will be placed on attendance watch and tracked by campus staff. Written attendance reports will be made available to students at the two-week discussions, or upon request by student.

Any student who is absent from school for a period of five (5) consecutive scheduled class days without notifying PIA of the reason for his/her absence will be removed from the school's roll sheets, and be considered as "withdrawn." In order to reenter the program, the student must apply for readmission, and he/she must submit an acceptable reason for the absence. It must be shown that corrective action has been taken to prevent recurrence of the cause for absence. When a student applies for re-admittance, he/she will not be required to retake the MSA.

Tardiness

Any student not present at the beginning of the first scheduled period of the day is considered tardy and must report to his/her instructor. The exact number of minutes of tardiness will be recorded and transcribed into the student's permanent record. Tardiness is treated as a period of absence.

Early Dismissal

Early dismissal, when permitted, is counted as a period of absence. Students are required to receive permission from their instructor when leaving before the end of the scheduled day.

Conduct Requirements

At the time of enrollment, each applicant is required to sign an enrollment agreement which states that the student will abide by the regulations and policies as outlined in the enrollment agreement, this catalog, and the Student Handbook, and as presented by the staff of the school. Any violations of the regulations or policies may result in disciplinary action including suspension or dismissal from PIA.

Certifications

Individuals who graduate from PIA's AMT program (full-time or part-time) are qualified to test for the FAA Airframe and/or Powerplant certificate(s), as appropriate. In order to secure these certifications, the graduate must pass a battery of written (computerized), practical, and oral examinations prescribed by the FAA. These certifications are not requirements for graduation, since they cannot be accomplished until after the student has completed the approved subject areas.

Veteran's Policies

Approved Programs

The Hagerstown campus offers one program: 1900 clock hour Aviation Maintenance Technology program. This program has been approved for VA educational benefits. Refer to *Approvals and Accreditation* on page 22 for a full listing of approved VA educational benefit programs.

Previous Credit and Training Evaluation Procedures

PIA will obtain written records on a veteran's previous education and experience, complete a documented evaluation, grant credit where appropriate, advise the veteran and the Department of Veterans Affairs, and maintain all records. The VA will be alerted of any change in enrollment status, to include being placed on academic or attendance probation, changes with scheduling, or termination.

Student Records and Grade Reports

Permanent grade records are maintained in both physical and electronic structures. Student transcripts are available online and are also kept indefinitely in Pittsburgh at the main campus. Veterans can continually monitor their individual academic progress through PIA's Student Portal. Report cards are issued at the beginning of every semester for the previous semester's work. Final transcripts and report cards are mailed to each student after graduation.

Refunds

All refunds due to students who receive veteran education benefits will be paid within 40 days of the last day of attendance.

Student Complaints

Schools accredited by the Accrediting Commission of Career Schools & Colleges (ACCSC) must have a procedure and operational plan for handling student complaints. If a student does not feel that the school has adequately addressed a complaint or concern, the student may consider contacting the Accrediting Commission. All complaints considered by the Commission must be in written form, with permission from the complainant(s) for the Commission to forward a copy of the complaint to the school for response. The complainant(s) will be kept informed as to the status of the complaint, as well as the final resolution of the commission. Please direct all inquiries to: ACCSC, 2101 Wilson Blvd, Suite 302, Arlington, VA 22201; Phone 703-247-4214; FAX 7033-247-4533; or the website at: www.accsc.org/Student-Corner/.

A copy of the Commission's Complaint Form is available at the school and may be obtained by contacting the Director.

Students may also write to the Secretary of Higher Education at the Maryland Higher Education Commission to register complaints or to obtain information concerning the performance of PIA's Hagerstown Campus programs. This includes but is not limited to information regarding the program's enrollment, completion rate, placement rate, and pass rate of graduates on licensure examinations. Direct all inquiries to: MHEC, 6 N. Liberty St, 10th Floor, Baltimore, MD 21201; or the website at; www.mhec.state.md.us.

Finally, students may contact the Maryland Office of the Attorney General, Consumer Affairs. This office can be reached at 200 St Paul Pl, Baltimore, MD 21202, at 1-888-743-0023 or by visiting <http://www.oag.state.md.us/consumer/>.

Student Grading and Progress Reports

A student transcript is issued at the end of each term of study. The transcript includes information concerning the student's academic achievement and his/her daily attendance. The following grading system is used for the PIA Hagerstown Campus AMT program.

Grading System

All written examinations and quizzes, as well as shop/lab projects, are scored by percent. These percents are then converted into letter grades. To receive credit for a shop/lab project, the student must achieve a score of 70% or higher. Individual course achievement is recorded by letter grade, each equivalent to a prescribed grade-point value. This grade-point value is then multiplied by the number of clock hours (also known as contact hours) assigned to the course, giving a quantity of grade points that will be used to calculate the student's average. The term progress report and the transcript indicate student achievement by grade point average (GPA), which is derived by dividing the sum of all grade points earned by the total number of contact hours completed. Transferred credits or other advanced standings are not used in this computation. PIA shall retain all permanent grades for as long as the school exists.

Following is a table used to convert percents, letter grades, and grade-point values.

PERCENT	LETTER	G-P VALUE
90 – 100	A	4.00
80 - 89	B	3.00
70 - 79	C	2.00
60 - 69	D	1.00
0 - 59	F	0.00

Additional Grade Codes

In addition to these letter grades, other codes may appear on the student's term report or transcript. Following are the meanings for the various codes:

BP – Term by-passed	SA – Suspension due to absence
CR – Credit granted	TC – Terminated (complete)
FA – Failure due to absence	TI – Terminated (incomplete)
FC – Financially complete	WC – Withdrawal (complete)
FI – Financially incomplete	WI – Withdrawal (incomplete)
FG – Failure due to grades	WU – Withdrawal (unsatisfactory)
OT – Other transcript	* - Retaken and passed

NOTE: If a student receives a code of WI (withdrawal, incomplete), it will remain in effect indefinitely, or until the term is satisfactorily completed.

Term Progress

In order to advance to the succeeding term, the student must achieve a 70% or higher for all courses. A grade of 69% or lower for any course constitutes unsatisfactory progress and the course must be retaken in order to move on to the next semester or unit.

Student academic progress is evaluated, at a minimum, every two weeks and at the end of each course. The learner must have satisfied all attendance requirements, making up all excess absences prior to the start of the next term. In addition, all exams and projects must be completed prior to the start of the next term. All financial obligations to the school must be met prior to advancing to the next term. Although it is PIA's policy to supply transcripts to students when properly requested, transcripts issued to students who have not satisfied all grade, attendance, and/or financial obligations will be marked with a stamp identifying the deficiency.

Individual Examinations

When a student receives a written test score of less than 60%, the examination may be retaken under the following conditions: 1) BOTH the instructor and the student determine that a retake is warranted; 2) The test is retaken within five (5) school days of the failed attempt; 3) The student understands that the highest possible score he/she can receive for the retaken exam is 60% ("D"); 4) Only two (2) retakes are permitted. If the student has failed to achieve a score of 60% or better after the second retake, then the highest score attained is recorded.

NOTE: This policy does not apply to quizzes or shop/lab projects.

Unsatisfactory Progress

A student who fails to achieve a minimum of a 70% in any course is not eligible to advance to the succeeding semester or unit until he/she repeats that course and receives a 70% or higher. A student is only permitted to repeat a course two (2) times [a total of three (3) attempts]. If after three attempts, the student is unable to achieve a 70% or higher in any course required for the completion of an AMT program, he/she will be terminated from the program.

The PIA attendance policy requires that the student can not have more than twelve (12) hours or 600 minutes of net absence in order to advance to the succeeding semester or unit. A grace period of ten (10) school days at the beginning of the next semester or unit may be granted by the school to make up enough time to achieve the twelve (12) hour limit.

NOTE: A student's net absence MUST be zero (0) in order to graduate at the end of the fourth, and final, semester or unit.

Any course repeated will be billed at the rate currently in effect.

Regardless of the reason for unsatisfactory progress, a student **MUST** complete his/her selected program of study within 1.5 times the normal duration of completion. For example, a 16 month program must be completed in 24 months of attendance, or less. A 32 month program must be completed in 48 months of attendance or less. If a student officially withdraws from a program, then reenters, the interim time between the withdrawal and reentry is not considered in this calculation.

PIA does not have a mandatory probationary period.

Termination of Students

The school reserves the right to reject any applicant who does not meet the required standards, or to expel any student who does not abide by the rules and/or regulations, either behaviorally or scholastically, as outlined in this catalog, enrollment agreement, or Student Handbook.

A student may be terminated from the school for unsatisfactory academic progress, nonpayment of tuition, excessive absence or tardiness, or failure to abide by the rules and policies as established by PIA. The termination date will be the student's last date of attendance.

Reinstatement

A student seeking to return to school may be granted reinstatement under the following conditions: 1) he/she must meet minimum school academic criteria (refer to "Term Progress"); 2) he/she must be in compliance with the school's attendance policy (refer to "Absence") at the time of reinstatement; 3) he/she must be recommended for reinstatement by the Campus Director and accepted by the Director; 4) he/she must have met all financial obligations to the school up to the date of reinstatement; and 5) he/she must be free of any sanctions imposed by the school, including suspensions or other forms of disciplinary actions.

A student seeking to return to school and granted reinstatement under the aforementioned criteria will enter the applicable program of study at the point where all of these standards have been met, even if that means that certain classes previously attended must be retaken, and all applicable conditions, including the payment of tuition and achieving passing grades have been satisfied.

Students accepted for reinstatement will sign a revised enrollment agreement indicating any courses and tuition credits already completed, and any changes, such as graduation date, that are affected by the new agreement.

Graduation Requirements

Following are the minimum graduation requirements for students attending PIA's Aviation Maintenance Technology program at the Hagerstown Campus.

The student must achieve a grade of "C" or higher for all required courses. In addition, the student must have passed every shop/lab project with a score of 70% or better.

Students must have attended 90% of all scheduled class/shop hours, and all absences must have been satisfactorily made up.

All financial obligations must have been met to cover tuition, books, supplies, tools, fees, etc., according to school policies.

Graduate Placement

The final objective of most learners at PIA's Hagerstown Campus is to obtain employment upon graduation. Over the years, the school has established excellent relations with employers in many industries. The school provides post graduate employment assistance, at no extra charge, for all alumni who wish to avail themselves of this service. PIA will assist any graduate in securing employment at any time he/she requests, regardless of the number of occurrences or the amount of time that has elapsed since graduation. Each applicant, student, and graduate, however, must keep in mind that PIA does not guarantee jobs.

Refund Policies

Applicant Rejection

All monies paid by the applicant will be refunded if his/her application for admission is rejected by the school.

Registration Cancellation

Any applicant may cancel registration prior to the beginning of the class by requesting a cancellation. A cancellation will be assumed if the applicant has not notified or participated in the program by the third school day. The program start date will be the recorded cancellation date. If the cancellation date is within seven (7) calendar days following the date of the enrollment agreement and prior to the start of the training program, all monies including the registration fee will be refunded. Upon cancellation after the seventh calendar day following the date of the enrollment agreement but prior to the beginning of the training program, monies paid to the school will be refunded except the registration fee. However, if the cancellation occurs after the seven day cancellation period, but prior to ninety (90) days before the beginning of the applicant's original training program, 50% (\$75) of the full registration fee paid may be refunded in addition to the other monies paid.

Teach Out

If PIA discontinues a program at its Hagerstown Campus, all students enrolled in that program will be provided the opportunity to complete all graduation requirements, on-site at the Hagerstown Campus, by means of a teach out of the affected program. If the school closes or discontinues a course or program, the school shall refund to each currently enrolled student monies paid by the student for tuition and fees and monies for which the student is liable for tuition and fees.

Request for Leave of Absence or Withdrawal

Students are encouraged to make an appointment with the Campus Director prior to initiating any request for temporary or permanent leave.

A student may request a temporary period of absence from Pittsburgh Institute of Aeronautics (PIA) due to extenuating academic, medical or personal circumstances that prevent a student from participating fully in his/her program of study. A student must apply in advance and all requests for leave must be submitted in writing, must be signed and dated. The student must provide a reason for requesting the leave and a reasonable expectation when they will return.

The Campus Director and Director of Financial Aid will review all leave requests and determine whether the student is approved for a Leave of Absence (LOA). A student who meets the criteria and is granted an approved LOA is not considered to have withdrawn, and no Return of Title IV calculation is required.

If the student's request for leave is determined to be a Withdrawal (W/D) and the student received financial aid and is a Title IV loan recipient, he/she will be subject to the Federal regulations governing the return of Title IV funds. A refund of any tuition overpayment is made as outlined in this paragraph. PIA will calculate the amount of grant, loan assistance and earned tuition through the last date of recorded attendance. The refund of overpaid tuition is made on a prorata basis of 100% according to the number of days remaining beyond the last date of recorded attendance. This refund is made within 30 calendar days of the official date of the withdrawal. All students, regardless of their method of payment, are subject to the same refund policy.

The maximum time allowed for an approved leave of absence is 180 days in any 12 month period. Students who do not return at the expiration of an approved leave of absence will have their enrollment status changed to a withdrawal and must apply for re-admission. Due to the change in enrollment status PIA will begin the return of Title IV funds outlined in the previous paragraph. Information concerning refunds for third party funding agencies (Title IV, Veteran's Administration, WIA, etc.) can be obtained from the Financial Aid Office.

If the student re-enters after 180 days, his/her remaining financial aid (as applicable) will be calculated on the remaining time to complete the program. This may lower the amount of eligible financial aid when the student re-enters.

If the student re-enters after 180 days, he/she will lose his/her six (6) month grace period (as applicable). An active student loan(s) will enter repayment and the student will be responsible for monthly installments. Please note, once a student uses the 6 month grace period, it may not be reinstated for any reason. Based on the student enrollment status they may utilize an in-school deferment to postpone repayment of his/her loans until graduation.

Aviation Maintenance Technology Program

Full-Time Program

The curriculum for PIA's full-time Aviation Maintenance Technology (AMT) program, as offered at the Hagerstown Campus, satisfies the requirements of 14 CFR (Code of Federal Regulations), Part 147, making the graduate eligible to test for the Federal Aviation Administration (FAA) Airframe and Powerplant (A & P) certifications. The AMT full-time program is a non-degree course of study leading to a diploma. The program is four (4) semesters in length, the first three consisting of 474 contact hours, and the fourth consisting of 478 contact hours, for a total of 1,900 hours of instruction. The program operates continuously, except for short breaks during the late summer and during the traditional holiday season. The total calendar time needed to complete this study is 16 months (64 weeks).

Part-Time Program

The curriculum for PIA's part-time Aviation Maintenance Technology (AMT) program, as offered at the Hagerstown Campus, is identical to the full-time program in content. It also earns the graduate eligibility toward FAA certification testing. The program consists of four (4) units, the first three being 474 contact hours in length, and the final unit including 478 hours of instruction. As with the full-time version, total hours are 1,900. The part-time AMT program includes, approximately, the same summer and holiday break periods offered in the full-time program, but takes 32 months (128 weeks) to complete. Holiday and vacation periods are shown on the school calendar insert for this catalog.

Hours of Attendance

For the full-time program, classes are in session five days per week, Monday through Friday, from 8:00am to 2:30pm, with a 30 minute lunch period. Exceptions are scheduled holidays and faculty in-service days. This equals 30 hours per week.

For the part-time program, classes are in session three days per week, an average of five hours per day, except for scheduled holidays and faculty in-service days. The exact hours and days of classes are established by the Hagerstown Campus Director to best accommodate the scheduling needs of the students in attendance. This equals 15 hours per week.

Delays/Closings

Pittsburgh Institute of Aeronautics takes pride in its past efforts of providing uninterrupted training. The record will show exceptionally few school closings/delays due to inclement weather or other reasons. To the students, this means on-time graduation and a minimum of inconveniences.

In the event that a school closing/delay is necessary for any reason including inclement weather, the students will be notified by as many of the following means as possible:

1. check www.pia.edu
2. Call the campus at 240-347-4805
3. Text Alerts - to sign up for PIA Hagerstown, text PIA3 to 76274 for alerts
4. E-mail - student issued e-mail accounts will be sent a notification
5. When possible, announcements will be given to TV stations and radio stations: WHAG-TV (NBC) 301-797-4400 and 106.9 the Eagle.

Class Size

Enrollments and class sizes are regulated by the appropriate governing agencies. Accordingly, student/instructor ratios cannot exceed 25:1 in the shop/lab environment, and cannot exceed 50:1 in the theory classroom.

Aviation Maintenance Technician Job Description

Duties of the Aviation Maintenance Technician include inspections, component replacement, overhauls, extensive repairs, troubleshooting, and servicing of aircraft and aircraft systems. Certificated Aviation Maintenance Technicians enter the industry as journeymen, and are not required to serve in apprenticeship capacities.

Aviation Maintenance Technology Diploma Program

AMT Diploma Curriculum Outline

Four Semesters (full-time) 1,900 clock hours (16 months)

Four Units (part-time) 1,900 clock hours (32 months)

Semester One/Unit One (474 clock hours)

Course Code and Title	Clock Hrs
MA2101 Aerospace Math	35
PH2103 Aerospace Physics	35
EL2105 Basic Electricity	35
AG2107 Maintenance Practices	45
MA2109 Aircraft Weight & Balance	25
PH2111 Theory of Flight	25
MA2113 Shop Related Math	11
EL2115 Aircraft Electricity	70
EL2117 Aircraft Electrical Systems	60
EL2119 Electrical Power Systems I	30
EL2120 Electrical Power Systems II	18
EL2123 Advanced Electrical Theory	34
EL2125 Diodes and Transistors	36
EL2127 Special Application Circuits I	15

Semester Two/Unit Two (474 clock hours)

Course Code and Title	Clock Hrs
EL2228 Special Application Circuits II	10
EL2229 Amplifiers	32
EL2231 Operational Amps & Power Supplies	32
EL2233 Oscillators and Pulse Circuits	30
EL2235 Navigation & Communication Systems	44
EL2237 Electrical Synthesis	12
PP2241 Introduction to Turbine Engines	42
PP2243 Turbine Engine Systems	53
PP2245 Turbine Engine Maintenance	49
PP2247 Introduction to Reciprocating Engines	68
PP2249 Engine Principles	47
PP2251 Fuel Metering Systems I	55

Semester Three/Unit Three
(474 clock hours)

Course Code and Title	Clock Hrs
PP2352 Fuel Metering Systems II	10
PP2355 Engine Overhaul	73
MA2357 Boolean Algebra	26
PP2359 Ignition Systems	74
PP2361 Engine Troubleshooting	39
PP2363 Aircraft Propellers	67
MA2365 Powerplant Math	16
PP2367 Powerplant Synthesis	16
AF2371 Environmental Controls	33
AF2373 Introduction to Metallurgy	67
AF2375 Fluid Mechanics	33
MA2377 Advanced Weight & Balance	20

Semester Four/Unit Four
(478 clock hours)

Course Code and Title	Clock Hrs
AF2481 Nonmetallic Structures	99
AF2483 Fuel Systems/Electrical Installations	40
AF2485 Working with Sheet Metal	92
AF2487 Welding Technology	57
AF2489 Aircraft Inspections	82
AF2491 Landing Gear Systems	32
AF2493 Rigging and Assembly	55
AF2495 Airframe Synthesis	21

Facilities and Equipment

Location

PIA's Hagerstown Campus is located on the Hagerstown Regional Airport, east off Exit 10 of Interstate 81. Exit 10 is approximately five miles north of the intersection of I-81 and I-70. This easily accessible location is within a short drive of the Pennsylvania and West Virginia borders, as well as main arteries leading to western and eastern Maryland. The airport facility provides an ideal environment for aviation maintenance training.

The total area of the school is approximately 18,000 square feet. In addition to classrooms and shop areas, the campus houses a learning resource center a break area with vending machines and administrative offices. Ample parking is available adjacent to the school's building.

Training Equipment

As an FAA-approved Aviation Maintenance Technician school, PIA's Hagerstown Campus includes all of the equipment needed to satisfy 14 CFR, Part 147 training requirements, including engine, accessory, aircraft, and electrical components. The tool rooms contain the necessary precision and specialized tools, such as micrometers, dial calipers, torque wrenches, etc., needed by the student in order to perform work on aircraft, engine, and electrical equipment.

Separate Facilities

In addition to the facility in Hagerstown, MD, PIA currently operates the following campuses:

Pittsburgh - Main Campus

5 Allegheny County Airport
West Mifflin, PA 15122

Myrtle Beach Branch Campus

1038 Shine Ave.
Myrtle Beach, SC 29577

Youngstown-Warren Branch Campus

1453 Youngstown-Kingsville Rd NE
Vienna, OH 44473

Staff

Pittsburgh Institute of Aeronautics Hagerstown Campus is a branch of Pittsburgh Institute of Aeronautics (PIA), whose main campus is located in West Mifflin, PA, a suburb of Pittsburgh. PIA is a non-profit postsecondary school governed by a Board of Directors. Daily operations are overseen by the school President.

Headings marked with an asterisk (*) are lists of staff based at the main campus in Pittsburgh. However, students are invited to contact them by calling 1-800-444-1440. Staff from the main campus also make regularly scheduled visits to the branch, and are available to students during these visits. Students are notified of main campus administrator and personnel visits via the student info bulletin board.

BRANCH CAMPUS ADMINISTRATOR

Bernard Adams Hagerstown Campus Director

MAIN CAMPUS ADMINISTRATORS*

John Graham III President/CEO
Suzanne Markle Executive Vice President/Director
Gary Hoyle Director of Campus Operations
Jonathan Vukmanic Director of Financial Aid
Gregory Null Director of Education
Steven Sabold Director of Admissions

FACULTY

Ross Bowman Instructor
Brian Britton Instructor
Richard Carnes Instructor
Paul Eisenhart II Instructor
James Stewart Instructor

ADMISSIONS/STUDENT SERVICES

Heather Allen Placement and Retention Coordinator
Roxanne Ober Admissions and Community Outreach Coordinator
Stephanie Ostrowski Admissions Representative - HS Recruiting

FINANCIAL AID*

Tara Timpano Financial Aid

Student Services

Advisement

Advisement begins at the time of the prospective student's interview with an Admissions Department representative. During this interview, the applicant is provided with information concerning the school's academic provisions for progress. In addition, school life, acceptable conduct, and expected interactions with fellow students and PIA staff members are discussed.

Each prospective student must take the Mathematics Skills Assessment (MSA) either prior to or immediately upon enrollment. The results of the appraisal are discussed with the applicant, and he/she is advised if remediation is warranted. This is never done to discourage the student; rather it is a means of providing additional assistance early in the learning process to enhance the probability of academic success. There is no tuition charge to enrolled students for remedial classes conducted by PIA.

Once training begins, student academic progress is periodically reviewed by a faculty member. If necessary, it may be recommended that the student obtain additional academic assistance from either an instructor or a selected student tutor. As with remedial classes, PIA does not charge tuition to currently enrolled students who seek tutoring.

Placement

Placement assistance is provided by the PIA Student Services Department. Enrolled students are kept abreast of industry hiring trends from the early days of their training. During the final semester or unit of the program, students are interviewed by a member of the Student Services Department for the purpose of arranging job interviews. The number and frequency of these interviews depends upon industry need for trained aviation maintenance technicians at a particular time. PIA cannot guarantee job placement.

Housing

If requested, an Admission Department representative can provide the prospective student with information concerning the availability of housing in the Hagerstown area.

Approvals and Accreditation

- Accredited by the Accrediting Commission of Career Schools and Colleges (ACCSC). Visit www.accsc.org for more information on accreditation.
- Approved by the Maryland Higher Education Commission (MHEC)
- Approved by the U.S. Department of Education
- Federal Aviation Administration Air Agency approval I4PT091K
- This school is approved by the Maryland State Approving Agency to offer training to veterans and other eligible dependents under the VA educational benefit programs:

Montgomery GI Bill	Chapter 30
Veterans Educational Assistance Program (VEAP)	Chapter 32
Dependents Educational Assistance (DEA)	Chapter 35
Montgomery GI Bill Selected Reserve	Chapter 1606
Reserve Education Assistance Program (REAP)	Chapter 1607
Post 9-11 GI Bill	Chapter 33
- Chapter 31 Vocational Rehabilitation is administered directly by the Department of Veterans Affairs through the Vocational Rehabilitation and Employment (VR&E) Program. Information pertaining to Vocational Rehabilitation benefits is available at: <http://www.vba.va.gov/bln/vre/>.

Financial Assistance for Students

Financial assistance is available to qualified students attending PIA's Hagerstown Campus through various loans and grants. The school is approved by the U.S. Department of Education and is accredited by the Accrediting Commission of Career Schools & Colleges (ACCSC).

PIA Hagerstown Campus offers the following Financial Aid Programs:

- Federal Direct Student Loan Program (FDLP)
- PELL Grant

PIA does not participate in Federal Supplemental Educational Opportunity Grant (FSEOG), Perkins Loans, or Federal Work Study (FWS). Certain federal and state financial assistance programs require that the applicant is registered with the Selective Service System. Details on financial aid programs are available from the Financial Aid Office.

PIA's Hagerstown Campus matches individual scholarships offered by aviation industry companies and organizations. Students should contact their Student Advisor for more details.

PIA Hagerstown Campus
Course Descriptions
Aviation Maintenance Technology Programs
2014-2015

Note: Courses are normally completed in the sequence shown.

Explanation of Course Alpha Prefixes

AF	Subject matter deals primarily with the Art of Fabrication .
AG	Subject matter deals with the study of Aviation General topics.
EL	Subject matter deals with the study of Electricity or electronics.
MA	Subject matter deals primarily with the study of Mathematics .
PH	Subject matter deals with the study of Physics and related topics.
PP	Subject matter deals with the study of Propulsion systems.

Semester One/Unit One

MA2101 Aerospace Math (35 clock hrs: 28 Theory, 7 Practical)

This course is designed to enhance the student's skill and confidence with a variety of practical mathematics disciplines. Subject areas include basic math principles, geometry, scientific notation, algebra I, algebra II, trigonometry, and charts & graphs. The MSA is prerequisite to this course.

PH2103 Aerospace Physics (35 clock hrs: 28 Theory, 7 Practical)

This course is designed to furnish the student with a basic understanding of a variety of physical laws. Topics include atomic structure, measurements and their units, temperature, heat, properties of matter, force and motion, simple machines, light, and sound. MA2101 is a co-requisite for this course.

EL2105 Basic Electricity (35 clock hrs: 13 Theory, 22 Practical)

EL2105 introduces the learner to the basic theories and applications of electricity, and prepares him/her for more complex exposure to the applications of electricity and electronics. Ohm's Law is studied in the classroom and applied in the lab through construction of simple circuits and electrical diagrams. Courses MA2101 and PH2103 are prerequisites.

AG2107 Maintenance Practices (45 clock hrs: 11 Theory, 34 Practical)

This course introduces the student to the fundamentals of drafting and blueprint reading, the use of precision tools, identification of hardware, and the proper use of basic hand tools. All of these skills will be utilized in subsequent courses. AG2107 has no prerequisites.

MA2109 Aircraft Weight & Balance (25 clock hrs: 12 Theory, 13 Practical)

Course MA2109 introduces the learner to the proper procedures for weighing aircraft, determining moment-arms, using manufacturer's data, and computing center-of-gravity. The student will gain experience performing and applying calculations involving fractions and decimals. MA2101 is a prerequisite to this course.

PH2111 Theory of Flight (25 clock hrs: 22 Theory, 3 Practical)

Theory of Flight is designed to introduce the student to several important topics concerning aircraft operation. Aircraft component identification, composition of the atmosphere, laws of aerodynamics, and basic aircraft instrumentation are all covered. PH2103 is a prerequisite to this course.

MA2113 Shop Related Math (11 clock hrs: 9 Theory, 2 Practical)

MA2113 is a synthesis of previously learned mathematics concepts along with several new topics, including the relationships of geometry, algebra, and trigonometry to shop maintenance practices. MA2101 is a prerequisite.

EL2115 Aircraft Electricity (70 clock hrs: 35 Theory, 35 Practical)

Course EL2115 enhances the ability of the student to grasp more complex electrical concepts by focusing on topics such as electron theory, magnetism, aircraft wiring and soldering practices, and electrical measuring instruments. Related safety practices are also discussed. Courses PH2103 and EL2105 are prerequisites.

EL2117 Aircraft Electrical Systems (60 clock hrs: 30 Theory, 30 Practical)

EL2117 introduces important aircraft electrical systems, including battery theory and maintenance, aircraft fire protection systems, lighting systems, and landing gear position & warning systems. EL2115 is a prerequisite to this course.

EL2119 Electrical Power Systems I (30 clock hrs: 15 Theory, 15 Practical)

This course introduces the principles of AC current, DC generators, and voltage regulators, as well as circuit protection devices, motor generators and inverters, auxiliary power units, and alternators. EL2117 is a prerequisite.

EL2120 Electrical Power Systems II (18 clock hrs: 9 Theory, 9 Practical)

EL2120 gives the learner practical knowledge concerning the operation and maintenance of a variety of electrically operated systems, including DC motors and starters, relays and transformers, magnetic amplifiers, AC motors, synchros and servo mechanisms. Course EL2119 is prerequisite.

EL2123 Advanced Electrical Theory (34 clock hrs: 30 Theory, 4 Practical)

Course EL2123 provides the learner with practical knowledge of electrical theory subject areas including inductance, capacitance, R-L and R-C circuit analysis, R-L-C circuit analysis, resonance and filters, and vacuum tubes. EL2120 is a prerequisite to this course.

EL2125 Diodes and Transistors (36 clock hrs: 26 Theory, 10 Practical)

This course covers topics directly related to the electrical and electronic aspects of maintenance. The learner is introduced to semiconductor fundamentals, semiconductor diodes, the zener diode, special application semiconductors, bipolar transistor characteristics, and bipolar transistor operation. EL2123 is the prerequisite course.

EL2127 Special Application Circuits I (15 clock hrs: 10 Theory, 5 Practical)

This course and its companion, EL2228, introduce the learner to special application circuits, including field effect transistors, thyristors, integrated circuits, and optoelectronic devices. Course EL2125 is a prerequisite.

Semester Two/Unit Two

EL2228 Special Application Circuits II (10 clock hrs: 5 Theory, 5 Practical)

This course and its companion, EL2127, introduce the learner to special application circuits, including field effect transistors, thyristors, integrated circuits, and optoelectronic devices. Course EL2127 is prerequisite.

EL2229 Amplifiers (32 clock hrs: 20 Theory, 12 Practical)

EL2229 provides the student with an understanding of the structure and function of basic types of amplifiers. Amplifier biasing and coupling are also discussed. EL2228 is the prerequisite course.

EL2231 Operational Amps and Power Supplies (32 clock hrs: 18 Theory, 14 Practical)

This course extends the student's understanding of amplifiers through the introduction of the characteristics, processes, and applications of operational amplifiers. A detailed discussion of power supplies is also included in this course. EL2229 is the prerequisite.

EL2233 Oscillators and Pulse Circuits (30 clock hrs: 17 Theory, 13 Practical)

Course EL2233 provides the learner with fundamental information concerning the types and functions of oscillators. Attention is also given to pulse circuits, with information relating to waveforms, wave shaping, and types of wave generators. Prerequisite to this course is EL2231.

EL2235 Navigation & Communication Systems (44 clock hrs: 24 Theory, 20 Practical)

This course of study introduces the student to the topics of amplitude and frequency modulation, basic radio principles, avionics systems, and installation and maintenance practices. EL2233 must be taken prior to this course.

EL2237 Electrical Synthesis (12 clock hrs: 12 Theory, 0 Practical)

This final course in electricity reinforces the student's knowledge of electricity and electronics by synthesizing all previously related topics into a coherent compilation. All courses beginning with the prefix "EL" are prerequisite to this study.

PP2241 Introduction to Turbine Engines (42 clock hrs: 24 Theory, 18 Practical)

PP2241 introduces the student to jet engine terminology, related safety practices, the history and development of turbine engines, related physics, factors affecting thrust, air inlet ducts, and compressors. Courses PH2103 and AG2107 are prerequisites.

PP2243 Turbine Engine Systems (53 clock hrs: 23 Theory, 30 Practical)

This course provides the learner with information about the structure and function of turbine engine systems. Subjects covered in this course include combustion sections, turbine assemblies, exhaust systems, manufacturers' publications, lubrication, fuel systems, and ignition. PP2241 is prerequisite.

PP2245 Turbine Engine Maintenance (49 clock hrs: 12 Theory, 37 Practical)

This course introduces the student to turbine engine maintenance practices. Subjects covered in this course include anti-icing systems, engine starting, instrumentation, inspections, and engine trim adjustments. The prerequisite is course PP2243.

PP2247 Introduction to Reciprocating Engines (68 clock hrs: 23 Theory, 45 Practical)

In this course, the student will be introduced to the nomenclature of piston engines, their history and development, the various types of reciprocating engines, engine components, and affiliated devices such as bearings, propeller shafts, and reduction gears. In addition, relevant FAA regulations and the physics related to these types of engines are discussed. There are no prerequisites to this course.

PP2249 Engine Principles (47 clock hrs: 22 Theory, 25 Practical)

PP2249 is a detailed look at piston engine operation, focusing on horsepower and displacement, related mathematical equations, the two-stroke cycle of operation, the Otto cycle, engine firing orders, valve timing practices, engine lubrication, exhaust systems, and induction & supercharging. PP2247 and MA2101 are the prerequisites for this course.

PP2251 Fuel Metering Systems I (55 clock hrs: 25 Theory, 30 Practical)

PP2251 and its companion course, PP2352, cover topics that include basic fuel systems, related physics concepts, float carburetors, pressure injection carburetors, fuel injection systems, related maintenance practices, and system troubleshooting. PP2249 and PH2103 are the prerequisites.

Semester Three/Unit Three

PP2352 Fuel Metering Systems II (10 clock hrs: 5 Theory, 5 Practical)

PP2352 is the conclusion to course PP2251. All of the topics covered in that course are blended into a coherent study of fuel metering systems.

PP2355 Engine Overhaul (73 clock hrs: 30 Theory, 43 Practical)

This course addresses the details of reciprocating engine overhaul, including cleaning, disassembly techniques, hardware replacement, use of maintenance publications, nondestructive testing methods, and use of manufacturer's specifications. Learners disassemble, inspect, reassemble, and run a reciprocating engine. PP2249 is a prerequisite to this course.

MA2357 Boolean Algebra (26 clock hrs: 23 Theory, 3 Practical)

MA2357 covers the concepts of binary numbers, logic functions, truth tables, and Boolean laws. This course introduces the student to complex logic circuits. MA2101 is a prerequisite.

PP2359 Ignition Systems (74 clock hrs: 30 Theory, 44 Practical)

Information covered in PP2359 includes the types of ignition systems utilized in piston engine applications and their operating characteristics. Ignition components are closely examined. Attention is also given to magneto ignition systems and their starting aids. PP2249 is a prerequisite to this course.

PP2361 Engine Troubleshooting (39 clock hrs: 31 Theory, 8 Practical)

This course provides the learner with information including, but not limited to, engine starting and starter maintenance, fuels and fuel systems, lubrication systems, and engine detonation problems. It concludes with a systematic method for practicing reciprocating engine troubleshooting. PP2352 and PP2359 are prerequisite courses.

PP2363 Aircraft Propellers (67 clock hrs: 41 Theory, 26 Practical)

As the title implies, PP2363 examines the fundamental design of aircraft propellers and their related systems. Topics covered consist of basic propeller engineering for the various types of propellers used in modern aircraft. These types include counterweight propellers, full-feathering props, and turbine engine propellers. Propeller balancing, maintenance, and synchronization are also covered.

MA2365 Powerplant Math (16 clock hrs: 16 Theory, 0 Practical)

This course focuses on important mathematical concepts as they relate to aircraft powerplants and their systems. Subject areas include algebraic functions, squares and square roots, the Pythagorean Theorem, and ratios & proportions. MA2101 and all courses beginning with the prefix PP are prerequisites.

PP2367 Powerplant Synthesis (16 clock hrs: 16 Theory, 0 Practical)

This course is an overview of all subjects related to aircraft powerplants, tying them together in a coherent composition. All courses that begin with the prefix PP are prerequisites to this course.

AF2371 Environmental Controls (33 clock hrs: 20 Theory, 13 Practical)

AF2371 introduces the learner to various aircraft environmental controls, including pressurization, ventilation, ice elimination, and oxygen supply systems. Course PH2111 is prerequisite.

AF2373 Introduction to Metallurgy (67 clock hrs: 30 Theory, 37 Practical)

Course AF2373 takes a comprehensive look into properties of various metals, the process of heat treating, nondestructive testing methods, corrosion and its control, metal fatigue, and bonded metal construction. PH2103 is a prerequisite course.

AF2375 Fluid Mechanics (33 clock hrs: 14 Theory, 19 Practical)

This course provides the student with a variety information on fluid mechanics as it relates to aircraft systems. Subject areas covered in AF2375 include hydraulic terms, principles of hydraulics and pneumatics, hydraulic fluids, reservoirs, fluid filters and seals, power pumps, check valve operation, valve disconnects, auxiliary power units, pressure regulation and measurement, actuators, and the use of fluid system schematics. PH2103 and AG2107 are prerequisites to this course.

MA2377 Advanced Weight & Balance (20 clock hrs: 11 Theory, 9 Practical)

This course reviews the weight and balance principles first addressed in MA2109. It then introduces more advanced skills including the actual weighing of an aircraft, computing of its center-of-gravity, and calculating ratios and proportions. Mathematics principles such as trigonometric functions and vectors are also discussed. MA2109, of course, is a prerequisite for MA2377.

Semester Four/Unit Four

AF2481 Nonmetallic Structures (99 clock hrs: 23 Theory, 76 Practical)

This course examines the construction, repair, and inspection of aircraft wooden structures, fabric coverings, and plastic components. An in depth study of advanced composite materials is given, including fabrication techniques and repair methods. The course concludes with the application of aircraft finishing materials. AG2107 and PH2111 are prerequisites.

AF2483 Fuel Systems & Electrical Installations (40 clock hrs: 15 Theory, 25 Practical)

AF2483 covers a variety of topics that will be needed when performing aircraft inspections and maintenance. These include a discussion of fuel system components not previously covered, refueling techniques, wiring procedures, related federal regulations, and electrical systems maintenance practices. AG2107 and EL2117 are prerequisites to this course.

AF2485 Working with Sheet Metal (92 clock hrs: 25 Theory, 67 Practical)

AF2485 introduces the student to subjects that are of paramount concern in the field of aircraft maintenance. Topics include using various types of sheet metal tools, operating the machinery and equipment employed in sheet metal shops, forming sheet metal, using metal and rivet codes, installing and removing fasteners, interpreting blueprints, repairing primary and secondary structures, and employing special application fasteners. AG2107 is a prerequisite for this course.

AF2487 Welding Technology (57 clock hrs: 22 Theory, 35 Practical)

This course emphasizes the close inspection of welds employed in structural components. Practical application is utilized to enhance conceptual aspects of the topic. Included in this course is information on welding nomenclature and equipment, welding processes, torch welding procedures, metal identification, welded repairs, exotic metals, brazing, and silver soldering. AF2373 is a prerequisite.

AF2489 Aircraft Inspections (82 clock hrs: 12 Theory, 70 Practical)

During this course, live job conditions are mirrored to provide practical experience performing aircraft inspections. The student will apply knowledge gained from the program to this point. Specific subjects covered in AF2489 include the use of maintenance forms and records and exercising mechanic privileges and limitations. The instructor's permission, rather than any specific course, is prerequisite for participation in this course of study.

AF2491 Landing Gear Systems (32 clock hrs: 12 Theory, 20 Practical)

AF2491 introduces the learner to all aspects of landing gear systems and their maintenance, including brakes and brake systems, tires and tubes, anti-skid devices, shock struts, shock absorbers, shimmy dampers, nose wheel steering systems, and boost control systems. AF2375 is the prerequisite course.

AF2493 Rigging and Assembly (55 clock hrs: 22 Theory, 33 Practical)

This course provides the learner with information relevant to aircraft rigging and assembly practices. Among the topics covered are rigging concepts, cables and related components, pertinent hardware, flight controls, helicopter theory, and helicopter rigging. AG2107 and PH2111 are prerequisite courses.

AF2495 Airframe Synthesis (21 clock hrs: 21 Theory, 0 Practical)

AF2495 is an amalgamation of aircraft general and airframe subject areas covered throughout the program. In this course, all airframe related materials are tied together to give the student a better understanding of the overall operation of modern aircraft. All courses beginning with the prefix AF are prerequisites for this course.

Hagerstown Branch Campus

14516 Pennsylvania Avenue

Hagerstown, MD 21742