# AMT General II Course No. 40432 Credit: 0.5

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| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes:Aviation Maintenance and Operations (47.0607) - Maintenance and Avionics Strand

Course Description: This course continues to develop correct safety practices, comprehensive knowledge, and technical skills required to perform aviation maintenance procedures that align with the current Airmen Certification Standards

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

**Prerequisite:** AMT General I (40431)

## Benchmark 1: Apply basic math functions that are relative to aviation.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Explain scientific (exponential) notation, decimal notation, fractional notation, binary notation, and conversion between these various forms of numeric notation. |  |
| 1.2 | Utilize mathmatical practices, rounding, powers, conversions,integers & measurement systems |  |

## Benchmark 2: Calculate ratios and proportions that are relative to aviation.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Utilize ratio problems and proportion, including examples of where or how they may be used in relation to aircraft maintenance or system(s) operation. |  |

## Benchmark 3: Solve algebraic equations that are relative to aviation.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Utlize algebraic operations, including examples of where or how they may be used in relation to aircraft maintenance. |  |

## Benchmark 4: Solve geometric equations that are relative to aviation.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Identify areas of various geometrical shapes |  |
| 4.2 | Explain definitions, descriptions and use of geometrical terms, including but not limited to any of the following: polygon, pi, diameter, radius, and hypotenuse. |  |

## Benchmark 5: Identify and apply principles of physics that are relative to aviation.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Identify matter and energy. |  |
| 5.2 | Employ simple machines and mechanics to identify work, power, force and motion |  |
| 5.3 | Detail heat, pressure, gas law and fluid mechanics. |  |
| 5.4 | Illistrate Bernoulli’s Principle. |  |
| 5.5 | Correlate Newton’s Law of Motion. |  |
| 5.6 | Predict Gas law, fluid mechanics. force, area, or pressure in a specific application |  |
| 5.7 | Explain theory of flight (aerodynamics). |  |
| 5.8 | Identify standard atmosphere and factors affecting atmospheric conditions. |  |
| 5.9 | Identify primary and secondary aircraft flight controls. |  |
| 5.10 | Define additional aerodynamic devices, including vortex generators, wing fences, and stall strips. |  |
| 5.11 | Explain the relationship between temperature, density, weight, and volume. |  |

## Benchmark 6: Perform complete weight and balance check and record data.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Practice weight and balance Utlizing CG |  |
| 6.2 | Tesr purpose and application of weight and CG limits. |  |
| 6.3 | Describe adverse loading considerations and how to calculate if adverse loading causes an out-of-limit condition. |  |
| 6.4 | Determine proper empty weight configuration. |  |
| 6.5 | Determine proper ballast placement. |  |

## Benchmark 7: Ability to weight an aircraft.

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 7.1 | Explain weighing procedures, including the general preparations for weighing, with emphasis on aircraft weighing area considerations |  |
| 7.2 | Explain procedures for calculation of the following: arm, positive or negative moment, center of gravity (CG), or moment index. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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