## AMT 0219  Aircraft Hydraulics & Aviation Mathematics

**Course Description:** In this course, the student will learn about aircraft hydraulic and pneumatic systems and advanced aviation mathematics. (19 Clock Hours)

<table>
<thead>
<tr>
<th>Course Competency</th>
<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| **Competency 1:** The student will demonstrate knowledge of aircraft hydraulic and pneumatic systems by: | • Communication  
• Numbers / Data  
• Critical thinking  
• Information Literacy |
| 1. Identifying elements of hydraulic and pneumatic systems.  
2. Showing various forms of installations.  
3. Identifying and creating various types of hydraulic and pneumatic lines.  
4. Performing an actual inspection of a hydraulic landing gear system. | |
| **Competency 2:** The student will demonstrate knowledge of advanced aviation mathematics by: | |
| 1. Examining the role of Physics & Geometry for Aviation.  
2. Identifying the application of Algebraic equations, rules & order of operation in aviation settings.  
3. Identifying the application of Geometry, including computations of area, volumes, and surface areas, as well as trigonometry as applied in aviation tasks.  
4. Demonstrating the emerging role of Measurement Systems and Binary Numbers in aviation applications, especially avionics. | |