AEROSPACE ENGINEERING – COURSE 2

Test Code: 9031
Version: 01

Specific Competencies and Skills Tested in this Assessment:

Information about the AC course standards can be found in the front of the AC course teacher guide.

CTE
1A CTE
1B CTE
1C CTE
1D CTE
2A CTE
2B CTE
2C CTE
2D CTE
3A CTE
3C CTE
3D CTE
3G CTE
4 CTE
7A CTE
7F CTE
8F CTE
9A CTE
9B CTE
9D CTE
9E CTE
10B CTE
10C CTE
Aerospace Engineering – Course 2 (continued)

**Literacy**
- RST.9.10.1 Literacy
- RST.9-10.1 Literacy
- RST.9.10.2 Literacy
- RST.9-10.4 Literacy
- RST.9.10.4 Literacy
- RST.9-10.10 Literacy

**Math**
- G-GMD.4 Math
- G-MG.3 Math
- G-SRT.11 Math
- S-ID.2 Math
- N-Q.3 Math
- A-CED.4 Math

**Science**
- HS-ETS-1 Science
- HS-ETS-2 Science
- HS-ETS-3 Science
- HS-ETS-4 Science
- HS-PS 2-1 Science
**Aerospace Engineering – Course 2 (continued)**

**Written Assessment:**

Administration Time: unlimited  
Number of Questions: 60

**Areas covered:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>52%</td>
<td>CTE</td>
</tr>
<tr>
<td>17%</td>
<td>Literacy</td>
</tr>
<tr>
<td>10%</td>
<td>Math</td>
</tr>
<tr>
<td>22%</td>
<td>Science</td>
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**Sample Questions:**

One of the basic features of a continuous improvement system is the focus on:

A. Reducing process variance  
B. Increasing the process variance  
C. Holding the variance constant  
D. Shifting the mean value to the target/design value through process changes

A twin tail on an aircraft is made from a rectangular stabilizer with two smaller rectangular fins mounted on both ends of the stabilizer. If the span between the fins is 50 feet and the width of the stabilizer is 10 feet, calculate the surface area of the stabilizer.

A. 500 sq ft  
B. 2500 sq ft  
C. 100 sq ft  
D. 25 sq ft

One of the first steps in defining a new model airplane for your customers is:

A. Gathering the right materials  
B. Defining the set of criteria of customer needs that will guide the development  
C. Conducting a thrust test on existing motors  
D. Selecting a motor controller

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*The online testing system provides a built-in, five-function calculator. However, a scientific calculator is recommended for this assessment.*