



Australian Government

MEA148 Apply mathematics and physics in aviation maintenance

Release: 1

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Modification History

Release 1 - New unit of competency

Application

This unit of competency requires application of mathematics and physics principles required to support the development and application of aircraft, aircraft system and component maintenance competencies.

It also complies with the requirements of the licensing syllabus in the Civil Aviation Safety Regulation (CASR) Part 66 Manual of Standards.

Pre-requisite Unit

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element

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| 1. Apply mathematical techniques in aviation maintenance | 1.1 Arithmetic is used in calculations relating to aviation maintenance |
| | 1.2 Basic algebra is used to solve problems relating to aviation maintenance |
| | 1.3 Binary and other applicable numbering systems are used in aviation maintenance applications |
| | 1.4 Simple geometric constructions are used in aviation maintenance settings |
| | 1.5 Graphical representations are used in aviation maintenance settings |
| | 1.6 Simple trigonometric principles and methods are applied in aviation maintenance settings |

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| 2. | Apply physics laws and principles in aviation maintenance | 2.1 | Statics principles and techniques are applied in aviation maintenance settings |
| | | 2.2 | Kinetics principles and techniques are applied in aviation maintenance settings |
| | | 2.3 | Dynamics principles and techniques are applied in aviation maintenance settings |
| | | 2.4 | Fluid dynamics principles and techniques are applied in aviation maintenance settings |
| | | 2.5 | Thermodynamics principles, laws and techniques are applied in aviation maintenance settings |
| | | 2.6 | Typical applications of light characteristics and laws in aviation maintenance settings are explained |
| | | 2.7 | The application of the principles of wave motion and sound in aviation maintenance settings are explained |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Unit Mapping Information

New unit of competency

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>