



**Australian Government**

# **MEA50618 Diploma of Aeronautical Engineering**

**Release: 1**

# MEA50618 Diploma of Aeronautical Engineering

## Modification History

Release 1. Supersedes and equivalent to MEA50615 Diploma of Aeronautical Engineering. Unit codes updated.

## Qualification Description

This qualification applies to individuals employed in engineering departments of manufacturers and aviation maintenance organisations in both the Civil Aviation Safety Authority (CASA) and Australian Defence Force (ADF) regulatory environments. Individuals could also be employed in Continuing Airworthiness Management Organisations (CAMOs) and in ADF Approved Engineering Organisations (AEOs). Typical jobs could be supporting professional engineers in design teams, members of airworthiness review teams, maintenance planners, spares assessors, repairable item managers and technical authors. While a direct entry training pathway is provided it must be emphasised that many of the maintenance management positions applicable to the qualification have additional experience requirements specified in airworthiness regulations and only a limited range of employment opportunities may be available to those who do not have extensive prior aviation maintenance experience.

The qualification consists of twenty-six (26) units, of which seventeen (17) are core units and the remaining nine (9) are electives of which either three (3) or six (6) units must be chosen in accordance with unit selection guidance provided in the Group A table.

Credit is provided towards the MEA60418 Advanced Diploma of Aeronautical Engineering.

This qualification applies to workplaces that operate under the airworthiness regulatory systems of the ADF and CASA. Any regulatory/licensing requirements associated with any MEA units of competency must be met.

## Entry Requirements

Not applicable.

## Packaging Rules

To be awarded the MEA50615 Diploma of Aeronautical Engineering, competency must be demonstrated in a total of **twenty (20)** or **twenty-three (23)** units of competency, consisting of:

- **seventeen (17)** core units

- **three (3)** electives chosen from Group A, for which unit selection guidelines have been provided. If Certificate IV in Aeroskills (Mechanical) is not held a further **three (3)** units must be taken from Group A, as specified in the unit selection guidelines.

### Core units of competency

Unit code	Unit title	Prerequisites
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA135	Use computers in aviation maintenance-related integrated logistic support activities	
MEA142	Manage self in the aviation maintenance environment	
MEA153	Communicate aviation technical and maintenance management knowledge	
MEA154	Apply work health and safety practices in aviation maintenance	
MEA155	Plan and organise aviation maintenance work activities	MEA154
MEA156	Apply quality standards during aviation maintenance activities	MEA154, MEA107
MEA157	Complete aviation maintenance industry documentation	
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	
MEA296	Use electrical test equipment in aviation maintenance activities	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158
MEA327	Fabricate and/or repair aircraft mechanical components or parts	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158
MEA705	Apply basic scientific principles and techniques in aeronautical engineering situations	MEM23004A
MEA707	Select and test aeronautical engineering materials	

Unit code	Unit title	Prerequisites
MEM23004A	Apply technical mathematics	
MEM30007A	Select common engineering materials	
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment	
MSMENV472	Implement and monitor environmentally sustainable work practices	

### Elective units of competency

#### Group A

- Take **three (3)** of the following elective units selected in accordance with the guidance in column 4. A further **three (3)** units is required if Certificate IV in Aeroskills (Mechanical) is not held.

Unit code	Unit title	Prerequisites	Unit selection guidance
MEA159	Manage aircraft and aeronautical product configuration		For employment within CAMOs and AEOs
MEA162	Write aviation technical publications		For employment within CAMOs and AEOs
MEA164	Perform airworthiness management and maintenance program tasks	MEA162	For employment within CAMOs and AEOs
MEA341	Apply basic aircraft design characteristics	MEA154, MEA107 MEA158	Must be taken if Certificate IV in Aeroskills (Mechanical) is not held
MEA342	Apply basic aircraft power plant design characteristics	MEA154, MEA107 MEA158	Must be taken if Certificate IV in Aeroskills (Mechanical) is not

Unit code	Unit title	Prerequisites	Unit selection guidance
			held
MEA399	Lay out and set up aircraft systems	MEA154	Must be taken if Certificate IV in Aeroskills (Mechanical) is not held
MEA701	Produce aeronautical engineering related graphics	MEA162 MEM30007A MEM30012A	For employment within engineering departments
MEA713	Integrate aeronautical fundamentals into an engineering task	MEA705 MEM23004A MEM23007A	For employment within engineering departments
MEA731	Perform aircraft weight control activities		
MEM23007A	Apply calculus to engineering tasks	MEM23004A	For employment within engineering departments

## Qualification Mapping Information

Release 1. Supersedes and equivalent to MEA50615 Diploma of Aeronautical Engineering.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?docId=ce216c9c-04d5-4b3b-9bcf-4e81d0950371&n=Aeroskills%20Training%20Package>