



Australian Government

MEA60515 Advanced Diploma of Avionic Engineering

Release 1

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Modification History

Release 1 - New qualification

Qualification Description

This qualification applies to individuals employed in senior paraprofessional engineering and in managerial positions in both the Civil Aviation Safety Authority (CASA) and the Australian Defence Force (ADF) regulatory environments in the fields of avionic engineering and engineering management. It should also be noted that many of the positions applicable to this qualification also have airworthiness regulatory requirements regarding prior aviation experience.

There are a total of forty-three (44) units of which twenty-eight (28) are core units and the remainder are electives from which units must be chosen in accordance with the selection guidance provided.

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 MEA60515 Advanced Diploma of Avionic Engineering, competency must be demonstrated in a total of **thirty-two (32)** or **thirty-four (34)** units of competency, consisting of:

- **twenty-eight (28)** core units
- **four (4)** or **six (6)** elective units from Group A chosen in accordance with the unit selection guidelines.

Core units of competency

Unit code	Unit title	Prerequisites
MEA101	Interpret work health and safety practices in aviation maintenance	
MEA103	Plan and organise aviation maintenance work activities	MEA101, MEA105, MEA107, MEA108
MEA105	Apply quality standards applicable to aviation maintenance processes	MEA101, MEA107
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA108	Complete aviation maintenance industry documentation	MEA105
MEA109	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA105, MEA108
MEA133	Communicate aviation technical and maintenance knowledge	
MEA135	Use computers in aviation maintenance-related integrated logistic support activities	
MEA137	Write aviation maintenance technical publications	MEA135
MEA142	Manage self in the aviation maintenance environment	
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA246	Fabricate and/or repair aircraft electrical hardware	MEA201, MEA260

Unit code	Unit title	Prerequisites
	or parts	
MEA260	Use electrical test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA261	Use electronic test equipment	MEA101, MEA103 MEA105, MEA107 MEA108, MEA109
MEA262	Modify/repair single layer printed circuit boards	MEA260, MEA261
MEA702	Produce aeronautical engineering related graphics	MEA137 MEM30007A MEM300012A
MEA704	Apply avionic modelling for computer-aided engineering	MEA702
MEA706	Apply basic scientific principles and techniques in avionic engineering situations	MEM23004A
MEA708	Select and test avionic engineering materials	
MEA711	Apply avionic analogue design techniques	MEA702, MEA708 MEA714, MEA725
MEA712	Apply avionic digital design techniques	MEA702, MEA708 MEA714, MEA725
MEA714	Integrate avionic fundamentals into an engineering task	MEA706, and MEM23004A, Plus MEM23007A OR MEA726
MEA725	Apply advanced scientific principles and techniques in avionic engineering situations	MEA706, MEA727
MEA727	Apply calculus in avionic engineering situations	MEM23004A
MEM30007A	Select common engineering materials	

Unit code	Unit title	Prerequisites
MEM23004A	Apply technical mathematics	
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment	
MSAENV672B	Develop workplace policy and procedures for environmental sustainability	

Elective units of competency

Group A

- Take **four (4)** of the elective Advanced Diploma/Diploma common and paraprofessional engineering units listed below. Where applicable, units should be selected using the guidance in column 4. In addition, take the **two (2)** additional units as indicated if either the Diploma of Avionic Engineering or the Certificate IV in Aeroskills (Avionics) is not held.

Unit code	Unit title	Prerequisites	Unit selection guidance
MEA127	Provide technical advice in the maintenance and management of aircraft and aeronautical product	MEA706, MEA708	Applicable to the CASA regulatory environment
MEA128	Provide engineering advice in the modification, maintenance and management of aircraft systems	MEA706, MEA708	Applicable to the ADF regulatory environment
MEA129	Investigate technical aspects of aviation occurrences		Applicable to the ADF regulatory environment
MEA138	Perform aviation technical publication management activities	MEA137	
MEA143	Develop and manage maintenance error management programs		Applicable to the CASA regulatory environment
MEA147	Perform airworthiness management and maintenance	MEA137	Applicable to the CASA regulatory

Unit code	Unit title	Prerequisites	Unit selection guidance
	program tasks		environment
MEA270	Lay out avionic systems	MEA101, MEA107 MEA109	Must be taken if Certificate IV in Aeroskills (Avionics) or the Diploma of Avionic Engineering is not held
MEA271	Lay out avionic flight management systems	MEA101, MEA107 MEA109, MEA270	Must be taken if Certificate IV in Aeroskills (Avionics) or the Diploma of Avionic Engineering is not held
MEA716	Evaluate avionic analogue systems	MEA711, MEA727	
MEA717	Evaluate avionic digital systems	MEA712, MEA727	
MEA719	Evaluate aircraft electrical systems	MEA726	
MEA726	Apply aircraft electrical system design techniques	MEA702, MEA706 MEA708, MEA714 MEA725	
MEA729	Apply configuration management procedures in airworthiness engineering management	MEA135, MEA138	
MEA730	Apply systems engineering procedures to airworthiness engineering design project management	MEA135, MEA137	
MEM22013A	Coordinate engineering projects		

Qualification Mapping Information

No equivalent qualification

Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>