



**Australian Government**

# **MEA30222 Certificate III in Aeroskills (Mechatronics)**

**Release 1**

## MEA30222 Certificate III in Aeroskills (Mechatronics)

### Modification History

Release 1. Supersedes and is equivalent to MEA30218 Certificate III in Aeroskills (Mechatronics). Core and elective unit codes updated.

### Qualification Description

This qualification applies to individuals employed within the General Aviation industry sector on the maintenance of small aircraft who are not seeking direct progression to a Civil Aviation Safety Authority (CASA) B1.2 Aircraft Maintenance Engineer Licence limited to basic small aircraft maintenance. It may also be of use as a first Aeroskills qualification for individuals transitioning from an allied trade to employment on small aircraft maintenance.

Depending on the choice of elective units credits may apply towards other qualifications at Certificate IV and Diploma levels.

### Entry Requirements

Nil

### Packaging Rules

To be awarded the MEA30222 Certificate III in Aeroskills (Mechatronics), competency must be demonstrated in 20 units of competency, as follows:

- 15 core units
- 5 elective units (technical stream units), chosen in accordance with the unit selection guidelines in column 4.

#### CORE UNITS

Unit code	Unit title	Prerequisites
MEA107	Interpret and use aviation maintenance industry manuals and specifications	
MEA118	Conduct self in the aviation maintenance environment	
MEA148	Apply mathematics and physics in aviation maintenance	
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	MEA107, MEA154,
MEA157	Complete aviation maintenance industry documentation	
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	
MEA201	Remove and install miscellaneous aircraft electrical hardware/components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEA246	Fabricate and/or repair aircraft electrical hardware or parts	MEA201, MEA296
MEA296	Use electrical test equipment in aviation maintenance activities	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEA301	Perform aircraft flight servicing	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC005 1	Maintain and repair small aircraft mechanical components and parts	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MEAMEC005 6	Inspect and maintain structures and related components of non-pressurised small aircraft	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158
MSMENV272	Participate in environmentally sustainable work practices	

## ELECTIVE UNITS

Unit code	Unit title	Prerequisites	Unit Selection Guidelines
MEA3000	Maintain small piston engine aircraft pressurisation systems		

Unit code	Unit title	Prerequisites	Unit Selection Guidelines
MEA304	Remove and install non-pressurised aircraft structural and non-structural components	MEA398	Do not take with MEA317 – MEA363 provides credits towards this unit
MEA306	Remove and install engines and engine system components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Applicable to piston and gas turbine engines
MEA307	Remove and install propeller systems and components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Required for variable pitch propellers
MEA308	Remove and install rotary wing rotor and flight control system components	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Required for helicopters with powered flight controls – do not take with MEA352
MEA309	Inspect, test and troubleshoot aircraft hydro-mechanical and landing gear systems and components	MEA398	Required for hydraulic retractable undercarriage maintenance
MEA313	Inspect, test and troubleshoot piston engine systems and components	MEA306	Required for supercharged and turbocharged engines
MEA315	Inspect, test and troubleshoot propeller systems and components	MEA307	Required for variable pitch propellers
MEA316	Inspect, test and troubleshoot rotary wing rotor and control systems and components	MEA308	Required for helicopters with powered flight controls – count as 2 units - do not take with MEAMEC0041
MEA357	Inspect, test and repair aircraft fabric surfaces	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>	<b>Unit Selection Guidelines</b>
MEA359	Inspect and repair aircraft wooden structures	MEA154, MEA155 MEA156, MEA107 MEA157, MEA158	
MEA362	Maintain aircraft vapour cycle air conditioning systems	MEA201, MEA246	
MEA398	Remove and install aircraft hydro-mechanical and landing gear system components	MEA154	Required for hydraulic retractable undercarriage maintenance
MEAAVI0002	Remove and install basic aircraft electrical system components	MEA201	Required for electrical retractable undercarriage maintenance – do not take with MEAAVI0044
MEAAVI0008	Inspect, test and troubleshoot basic aircraft electrical systems and components	MEA246, MEAAVI0002	Required for electrical retractable undercarriage maintenance – do not take with MEAAVI0044
MEAAVI0044	Maintain basic light aircraft electrical systems and components	MEA246	Required for 100 hourly inspection on basic light aircraft or helicopters
MEAAVI0045	Maintain basic light aircraft instrument systems and components	MEA246	Required for 100 hourly inspection on basic light aircraft or helicopters
MEAAVI0046	Maintain basic light aircraft communication and radio navigation systems and components	MEA246	Required for 100 hourly inspection on basic light aircraft or helicopters
MEAMEC0013	Inspect, test and troubleshoot gas turbine engine systems and components	MEA306	Required for gas turbine engines

Unit code	Unit title	Prerequisites	Unit Selection Guidelines
MEAMEC0040	Maintain airframe systems of basic light fixed wing aircraft	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Required for 100 hourly inspection on basic light aircraft
MEAMEC0041	Maintain basic rotary wing aircraft systems	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Required for 100 hourly inspection on basic helicopters
MEAMEC0042	Maintain basic light aircraft engines and propellers	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	Required for 100 hourly inspection on basic light aircraft or helicopters
MEAMEC0043	Maintain light aircraft pneumatic systems	MEA107, MEA154, MEA155, MEA156, MEA157, MEA158	
MEAMEC0044	Maintain light aircraft air cycle air conditioning systems	MEA201, MEA246	
MEAMEC0048	Maintain aircraft diesel engines	MEAMEC0042	
MEAMEC0049	Maintain aircraft two stroke petrol engines	MEAMEC0042	
MEAMEC0054	Modify and repair aircraft composite structure using cold bonding	MEAMEC0056	Do not take with MEASTR0002
MEAMEC0057	Repair the structure of non-pressurised small aircraft	MEAMEC0056	
MEAMEC0058	Perform major modifications and repairs to small aircraft metal structure	MEAMEC0056, MEAMEC0057	
MEASTR0001	Inspect aircraft structure	MEA154, MEA155, MEA156, MEA107, MEA157, MEA158	Must be taken with MEASTR0002

<b>Unit code</b>	<b>Unit title</b>	<b>Prerequisites</b>	<b>Unit Selection Guidelines</b>
MEASTR0002	Modify and repair aircraft composite materials structures and components	MEASTR0001	Required for repairs to composite primary and secondary structure

## Qualification Mapping Information

Release 1 Supersedes and is equivalent to MEA30218 Certificate III in Aeroskills (Mechatronics)

## Links

Companion Volume implementation guides are found in VETNet - -

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