

COURSE OUTLINE



RTO	Aviation Australia Pty Ltd		RTO number	30770
			CASR Part 147	CASA.147MTO.0025
Course Details	Code	MEA40618		
	Title	Certificate IV in Aeroskills (Avionics)		
Purpose of Course	<p>This course provides students with the underpinning knowledge and skill requirements to progress to an Avionics technician, enabling them to:</p> <ul style="list-style-type: none"> • perform scheduled inspections; • fault diagnosis and repair; and • modification of aircraft electrical, instrument and radio systems and system components. <p>The qualification defines the exit from an apprenticeship (for domestic students) and may apply to either aircraft maintenance performed on flight lines/ramps and in hangars, or to avionic component repair and overhaul performed in workshops.</p> <p>This qualification articulates with the MEA50118 Diploma of Aeroskills (Avionics).</p> <p>The qualification also provides credits towards the MEA50318 Diploma of Aviation Maintenance Management (Avionics) and the MEA60118 Advanced Diploma of Aviation Maintenance Management (Avionics).</p>			
Target Group	<p>This qualification may apply to employees of civil aviation maintenance organisations or to individuals that wish to gain employment in the aviation industry who perform scheduled inspections, fault diagnosis and repair, and modification of aircraft electrical, instrument and radio systems and system components.</p> <p>The qualification may apply to either aircraft maintenance performed on flight lines/ramps and in hangars, or to avionic component repair and overhaul performed in workshops.</p>			
Packaging Rules	<p>To be awarded the MEA40618 Certificate IV in Aeroskills (Avionics) competency must be demonstrated in:</p> <p>Aircraft Maintenance Stream:</p> <ul style="list-style-type: none"> • Twelve (12) Core units consisting of common, imported and some avionic technical stream units. • Thirteen (13) Elective technical stream units chosen from Group A. <p>Total: Twenty-five (25) units.</p> <p>Component Maintenance Workshop Stream:</p> <ul style="list-style-type: none"> • Thirteen (13) Core units consisting of common, imported and some avionic technical stream units. • Three (3) Elective technical stream units chosen from Group B. <p>Total: Sixteen (16) units.</p>			



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Core Units of Competency (Aircraft Maintenance Stream)			
Competency Unit(s)	National Code	Title	Core / Elective
	MEA107	Interpret and use aviation maintenance industry manuals and specifications	Core
	MEA118	Conduct self in the aviation maintenance environment	Core
	MEA148	Apply mathematics and physics in aviation maintenance	Core
	MEA154	Apply work health and safety practices in aviation maintenance	Core
	MEA155	Plan and organise aviation maintenance work activities	Core
	MEA156	Apply quality standards applicable to aviation maintenance processes	Core
	MEA157	Complete aviation maintenance industry documentation	Core
	MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	Core
	MEA201	Remove and install miscellaneous aircraft electrical hardware/components	Core
	MEA246	Fabricate and/or repair aircraft electrical hardware or parts	Core
	MEA296	Use electrical test equipment in aviation maintenance activities	Core
	MSMENV272	Participate in environmentally sustainable work practices	Core

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Core Units of Competency (Component Maintenance Workshop Stream)

Competency Unit(s)	National Code	Title	Core / Elective
	MEA107	Interpret and use aviation maintenance industry manuals and specifications	Core
	MEA118	Conduct self in the aviation maintenance environment	Core
	MEA148	Apply mathematics and physics in aviation maintenance	Core
	MEA154	Apply work health and safety practices in aviation maintenance	Core
	MEA155	Plan and organise aviation maintenance work activities	Core
	MEA156	Apply quality standards applicable to aviation maintenance processes	Core
	MEA157	Complete aviation maintenance industry documentation	Core
	MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	Core
	MEA201	Remove and install miscellaneous aircraft electrical hardware/components	Core
	MEA246	Fabricate and/or repair aircraft electrical hardware or parts	Core
	MEA261	Use electronic test equipment	Core
	MEA296	Use electrical test equipment in aviation maintenance activities	Core
	MSMENV272	Participate in environmentally sustainable work practices	Core

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Elective Units of Competency Group A (Aircraft Maintenance Stream)			
Unit/s of Competency	National Code	Title	Core / Elective
	MEA202	Remove and install basic aircraft electrical system components	Elective
	MEA203	Remove and install advanced aircraft electrical system components	Elective
	MEA204	Remove and install basic aircraft instrument system components	Elective
	MEA206	Remove and install aircraft basic radio communication and navigation system components	Elective
	MEA208	Remove and install aircraft pressurisation control system components	Elective
	MEA209	Remove and install aircraft oxygen system components	Elective
	MEA210	Inspect, test and troubleshoot basic aircraft electrical systems and components	Elective
	MEA212	Inspect, test and troubleshoot basic aircraft instrument systems and components	Elective
	MEA213	Inspect, test and troubleshoot advanced aircraft instrument systems and components	Elective
	MEA214	Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and components	Elective
	MEA215	Inspect, test and troubleshoot advanced aircraft communications systems and components	Elective
	MEA216	Inspect, test and troubleshoot instrument landing systems and components	Elective
	MEA217	Inspect, test and troubleshoot fixed wing autopilot systems and components	Elective
	MEA218	Inspect, test and troubleshoot rotary wing autopilot systems and components	Elective
	MEA219	Inspect, test and troubleshoot aircraft pressurisation control systems and components	Elective
	MEA220	Inspect, test and troubleshoot aircraft primary radar systems and components	Elective
	MEA221	Inspect, test and troubleshoot aircraft secondary radar systems and components	Elective
	MEA222	Inspect, test and troubleshoot aircraft oxygen systems and components	Elective
	MEA223	Inspect aircraft electrical systems and components	Elective
	MEA224	Inspect aircraft instrument systems and components	Elective
	MEA225	Inspect fixed wing aircraft automatic flight control systems and components	Elective
	MEA226	Inspect aircraft electronic systems and components	Elective
	MEA227	Test and troubleshoot aircraft electrical systems and components	Elective



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Elective Units of Competency Group A (Aircraft Maintenance Stream - Continued)

Unit/s of Competency	National Code	Title	Core / Elective
	MEA228	Test and troubleshoot aircraft instrument systems and components	Elective
	MEA229	Test and troubleshoot aircraft radio frequency navigation and communications systems and components	Elective
	MEA230	Test and troubleshoot fixed wing aircraft automatic flight control systems and components	Elective
	MEA231	Inspect, test and troubleshoot rotary wing aircraft automatic flight control systems and components	Elective
	MEA232	Test and troubleshoot aircraft pulse systems and components	Elective
	MEA233	Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components	Elective
	MEA234	Inspect, test and troubleshoot aircraft global navigation systems and components	Elective
	MEA261	Use electronic test equipment	Elective
	MEA262	Modify/repair aircraft component single layer printed circuit boards	Elective
	MEA263	Modify/repair aircraft component multi-layer printed circuit boards	Elective
	MEA266	Terminate and repair aircraft	Elective
	MEA278	Inspect, test and troubleshoot instrument display systems and components	Elective
	MEA279	Inspect, test and troubleshoot full authority digital engine control systems	Elective
	MEA280	Inspect, test and troubleshoot flight management systems and components	Elective
	MEA292	Remove and install advanced aircraft instrument system components	Elective
	MEA293	Remove and install aircraft electronic system components	Elective
	MEA294	Inspect, test and troubleshoot advanced aircraft electrical systems and components	Elective
	MEA301	Perform aircraft flight servicing	Elective



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Elective Units of Competency Group B (Component Workshop Stream)

Unit/s of Competency	National Code	Title	Core / Elective
	MEA252	Test, align and troubleshoot synchro and servo system components	Elective
	MEA262	Modify/repair aircraft component single layer printed circuit boards	Elective
	MEA263	Modify/repair aircraft component multi-layer printed circuit boards	Elective
	MEA266	Terminate and repair aircraft optical fibre cable	Elective
	MEA282	Repair or overhaul aircraft pulse system components	Elective
	MEA283	Repair or overhaul aircraft display, control and distribution system components	Elective
	MEA284	Repair or overhaul aircraft instrument system components	Elective
	MEA285	Repair or overhaul aircraft radio frequency communication and navigation system components	Elective
	MEA286	Repair or overhaul aircraft electrical/electro-mechanical components	Elective
	MEA287	Repair or overhaul aircraft oxygen system components	Elective
	MEA288	Repair or overhaul aircraft audio and visual systems and reproducers	Elective

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Assessment Method and Delivery Mode	<p>Apprenticeship Pathway The traditional apprenticeship model includes a 11 month on-campus program (approximately) combining instructor-led theory classes, computer self-paced learning and practical sessions involving small group and individual activities.</p> <p>Subsequent to the completion of the underpinning program, depending on the success of the student gaining employment, the student will enter an apprenticeship and complete his/her work-based component (generally 3 or more years in duration). On successful completion of the work-based component, the student will be awarded with a Certificate IV qualification.</p> <p>CASR Part 66 The course delivery is in line with the CASR Part 66 basic knowledge syllabus. Delivered in a modular format with CASR Part 66 Multi-Choice-Question examinations as summative assessments. Please see Annex A.</p> <p>As per the CASR Part 66 Manual of Standards, if a candidate passes the examinations at over 75% then they receive a 10 year credit for that particular module/sub-module towards the applicable category/sub-category of licence.</p>
Course Length	<p>Approximately 11 months on-campus plus 3 to 4 years in the workplace under an apprenticeship arrangement. Course length will vary depending on Public Holidays and Aviation Australia's Term Breaks.</p>
QLD State Government Funding	<p>Eligibility</p> <ul style="list-style-type: none"> • Australian citizens or permanent residents of Australia living in Queensland. • Permanent residents of Australia living in Queensland that are New Zealand citizens. • Refugee and humanitarian visa holders living in Queensland. <p>Evidence required</p> <ul style="list-style-type: none"> • A valid Australian Passport, <i>or</i> an Australian Birth Certificate, <i>or</i> an International Passport with accompanying Visa Grant Notification/VEVO documentation; and • Queensland Drivers Licence and/or a valid QLD Adult Proof of Age Card (18+ card).
Course Costing	<ul style="list-style-type: none"> • \$5,000 (Post QLD State Government Funding).
Prerequisites	<ul style="list-style-type: none"> • Year 10 (or equivalent) completion of high school, preferably year 12, with evidence of studies in English, Mathematics and Physics. • Successful completion of Aviation Australia's Language, Literacy and Numeracy aptitude testing.
Outcome	<ul style="list-style-type: none"> • Statement of Results towards MEA40718 Certificate IV in Aeroskills (Avionics) upon successful completion of the prevocational Aeroskills program. • If students are successful in gaining and completing an apprenticeship, a Certificate IV in Aeroskills qualification will be awarded. • CASR Part 147 Certificate of Recognition for CASR Part 66 basic knowledge examinations passed at over 75%.



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Annex A CASR Part 66 basic knowledge syllabus

Subject Module	Title
1	Mathematics
2	Physics
3	Electrical Fundamentals
4	Electronic Fundamentals
5	Digital Techniques Electronic Instrument Systems
6	Aircraft Materials and Hardware
7	Maintenance Practices
8	Aerodynamics
13	Aircraft Structures and Systems
14	Propulsion – Avionic Systems

