Australian Government

MEA11 Aeroskills Training Package

Release: 2.0

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

CONTENTS

MEA11 Aeroskills Training Package

Modification History

The version details of this endorsed Training Package are in the table below.

Version	Release Date	Comments
Version 2	23 August 2013	**Endorsement**: • Addition of eight (8) new elective units of competency • One (1) unit of competency not carried forward • One (1) revised qualification **ISC upgrades**: • New electives included in existing qualifications • Minor editorial corrections to some existing units of competency • Licensing requirements clarified in qualifications • Twelve (12) new Skill Sets • Three (3) revised Skill Sets - One typographical error corrected; one unit code updated; and one unit replaced • Imported unit codes updated to current versions • Appendix 1: Cross reference to CASA licensing syllabus amended to align it with changes in CASA/EASA licensing examination Refer to mapping for details.
Version 1	25 January 2012	Primary release

Disclaimer

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MEA11v2 Mapping

Qualifications – mapping of changes

MEA11v1	MEA11v2	Title	Comment
MEA20411	MEA20411	Certificate II in Aeroskills	Release 2 – Licensing requirements clarified - equivalent
MEA20511	MEA20511	Certificate II in Aircraft Line Maintenance	Release 2 – Licensing requirements clarified - equivalent
MEA20611	MEA20611	Certificate II in Aircraft Surface Finishing	Release 2 – Licensing requirements clarified - equivalent
MEA30111	MEA30111	Certificate III in Aircraft Surface Finishing	Release 2 – Licensing requirements clarified. Imported units updated to current versions - equivalent
MEA30211	MEA30211	Certificate III in Aeroskills (Mechatronics)	Release 2 – Licensing requirements clarified - equivalent
MEA30311	MEA30311	Certificate III in Aircraft Life Support and Furnishing	Release 2 – Licensing requirements clarified. Imported units updated to current versions - equivalent
MEA40611	MEA40611	Certificate IV in Aeroskills (Avionics)	Release 2 – Licensing requirements clarified - equivalent
MEA40711	MEA40711	Certificate IV in Aeroskills (Mechanical)	Release 2 – Licensing requirements clarified. MEA388A replaced by elective units MEA392A, 393A, 394A, 395A, 396A and 397A (no change to qualification outcomes) - equivalent
MEA40911	MEA40911	Certificate IV in Aircraft Surface Finishing	Release 2 – Licensing requirements clarified. Imported units updated to

			current versions - equivalent
MEA41011	MEA41011	Certificate IV in Aeroskills (Mechatronics)	Release 2 – Licensing requirements clarified - equivalent
MEA41111	MEA41111	Certificate IV in Aircraft Life Support and Furnishing	Release 2 – Licensing requirements clarified. Imported units updated to current versions - equivalent
MEA41211	MEA41213	Certificate IV in Aeroskills (Armament)	Release 1 - Unit MEA262B Modify/repair single layer printed circuit boards has been deleted and the required number of units reduced to 21 (technical stream units reduced to 13) Imported unit and references to other Training Packages updated – Not equivalent
MEA41311	MEA41311	Certificate IV in Aeroskills (Structures)	Release 2 – Licensing requirements clarified. Unit MEA425A added to Elective Units Group A - equivalent
MEA50111	MEA50111	Diploma of Aeroskills (Avionics)	Release 2 – Licensing requirements clarified - equivalent
MEA50211	MEA50211	Diploma of Aeroskills (Mechanical)	Release 2 – Licensing requirements clarified - equivalent
MEA50311	MEA50311	Diploma of Aviation Maintenance Management (Avionics)	Release 2 – Licensing requirements clarified. New elective MEA147A added to Group A - equivalent
MEA50411	MEA50411	Diploma of Aviation Maintenance Management (Mechanical)	Release 2 – Licensing requirements clarified. New elective MEA147A added to Group A - equivalent
MEA50511	MEA50511	Diploma of Aeroskills (Non-Destructive Testing)	Release 2 – Licensing requirements clarified - equivalent

MEA60111	MEA60111	Advanced Diploma of Aviation Maintenance Management (Avionics)	Release 2 – Licensing requirements clarified. New elective MEA147A added to Group A - equivalent
MEA60211	MEA60211	Advanced Diploma of Aviation Maintenance Management (Mechanical)	Release 2 – Licensing requirements clarified. New elective MEA147A added to Group A - equivalent
MEA60311	MEA60311	Advanced Diploma of Aviation Non-Destructive Testing	Release 2 – Licensing requirements clarified - equivalent

MEA11v2 - new units of competency

MEA11v2	**Comment**
MEA147A Perform airworthiness management and maintenance program tasks	New unit
MEA392A Disassemble aircraft piston engines	New unit. Covers components of MEA388A (not equivalent).
MEA393A Repair and/or overhaul aircraft piston engine cylinder assembly components	New unit. Covers components of MEA388A (not equivalent).
MEA394A Repair and/or overhaul aircraft piston engine crankcase assembly components	New unit. Covers components of MEA388A (not equivalent).
MEA395A Reassemble aircraft piston engines	New unit. Covers components of MEA388A (not equivalent).
MEA396A Assemble aircraft piston engine quick engine change unit	New unit. Covers components of MEA388A (not equivalent).
MEA397A Test aircraft piston engines after repair or overhaul	New unit. Covers components of MEA388A (not equivalent).
MEA425A Perform bolted composite skin repairs	New unit. Added as an elective to Group A in MEA41311

Unit not carried forward

Code and title	**Comment**

MEA388A Repair and/or overhaul piston engines	Content subsumed in following units: MEA392A, MEA393A, MEA394A, MEA395A, MEA396A and MEA397A. Not equivalent

MEA11v2 - units of competency updated

Units of competency	Comment
MEA108B Complete aviation maintenance industry documentation	Release 3 – equivalent. Correction of one typo in Required Skills
MEA203C Remove and install advanced aircraft electrical system components	Release 3 – equivalent. Updates to Skills, Knowledge and Range regarding Halon fire-extinguisher regulations.
MEA286A Repair or overhaul aircraft electrical/electro-mechanical components	Release 3 – equivalent. Included specific mention of magnetos and distributor blocks in Skills, Knowledge and Range.
MEA303D Remove and install aircraft pneumatic system components	Release 2 – equivalent. Updates to S&K and variables regarding Halon fire extinguisher regulations.
MEA310C Inspect, test and troubleshoot aircraft pneumatic systems and components	Release 3– equivalent. Range and Assessment Requirements amended to allow omission where pressurisation systems are not applicable to the enterprise.
MEA313C Inspect, test and troubleshoot piston engine systems and components	Release 3 – equivalent. Descriptor and application revised to clarify that this unit covers larger engines with super/turbocharging while MEA353A covers normally aspirated engines.
MEA321C Test and troubleshoot aircraft fixed wing flight control systems	Release 2 – equivalent. Range statements clarified and a complementary change to Critical aspects for assessment and evidence required to demonstrate competency.

Units of competency	Comment
MEA339C Inspect, repair and maintain aircraft structures	Release 2 – equivalent. Bolted composite repairs included in Knowledge, Skills and Range Statement.
MEA363B Inspect, repair and maintain structures and related components	Release 2 – equivalent. Bolted composite repairs added to Knowledge, Skill and Range Statement. Corrupted numbering of Range Statement items corrected.
MEA382A Repair and/or overhaul aircraft fuel system components	Release 3 – equivalent. Unit application clarified and Range statement expanded to make clear inclusion of fuel injection systems and carburettors.
MEA601A Maintain aircraft egress systems	Release 3 – Equivalent. Imported prerequisite unit code updated to current version.
MEA602A Remove and install aircraft stores management system components	Release 3 – Equivalent. Imported prerequisite unit code updated to current version.
MEA603A Remove and install aircraft stores suspension system components	Release 3 – Equivalent. Imported prerequisite unit code updated to current version.

Imported units updated

Original code	Original title	Updated code	Update title	Comment
AURV229749A	Prepare spray painting materials and equipment	AURVTP2003	Prepare spray painting materials and equipment	Equivalent
AURV231208A	Carry out trimming of vehicle components	AURVTT2004	Trim vehicle components	Equivalent
AURV231268A	Select and apply trim/fabric materials	AURVTT2005	Select and apply trim and fabric	Equivalent

	and determine attachment methods		materials	
AURV231368A	Select and apply trim/fabric adhesives	AURVTT2006	Select and apply trim and fabric adhesives	Equivalent
AURV329603DA	Apply air dry and polyurethane enamel refinishing materials	AURVTP3012	Apply air dry and polyurethane enamel refinishing materials	Equivalent
PUADEFEO101D	Work safely with explosive ordnance	DEFEO101D	Work safely with explosive ordnance	Equivalent
PUADEFEO501D	Conduct explosive ordnance inspection	DEFEO501D	Conduct explosive ordnance inspection	Equivalent

Revised Skill sets

Title	**Comment**
MEASS00082 Aircraft egress system maintenance	Release 2 – Equivalent. Imported unit updated to current version.
MEASS00165 Electrical – B2 Licence Exclusions E1 and E4 (when competencies are being gained on basic light aircraft or helicopters)	Release 2 – Equivalent. Typographical error corrected in title.
MEASS0024 Piston engine repair_overhaul	Release 2 - MEA388A replaced by MEA392A, MEA393A, MEA394A, MEA395A, MEA396A and MEA397A

New Skill Sets

MEASS00233 A1 Licence Skill Set if Certificate IV in Aeroskills (Mechanical) is held
MEASS00234 A2 Licence Skill Set if Certificate IV in Aeroskills (Mechanical) is held
MEASS00235 A3 Licence Skill Set if Certificate IV in Aeroskills (Mechanical) is held
MEASS00236 A4 Licence Skill Set if Certificate IV in Aeroskills (Mechanical) is held
MEASS00237 A1 Licence Skill Set if Certificate IV in Aeroskills (Avionics) is held
MEASS00238 A2 Licence Skill Set if Certificate IV in Aeroskills (Avionics) is held
MEASS00239 A3 Licence Skill Set if Certificate IV in Aeroskills (Avionics) is held
MEASS00240 A4 Licence Skill Set if Certificate IV in Aeroskills (Avionics) is held
MEASS00241 A1 Licence Skill Set if a B2 Licence is held
MEASS00242 A2 Licence Skill Set if a B2 Licence is held
MEASS00243 A3 Licence Skill Set if a B2 Licence is held

MEASS00244 A4 Licence Skill Set if a B2 Licence is held

Preliminary information

Important Note to Users
Training Packages are not static documents; they are amended periodically to reflect the latest industry practices and are version controlled. It is essential that the latest version is always used.

Check the version number before commencing training or assessment
This Training Package is Version 2 – check whether this is the latest version by going to Training.gov.au (www.training.gov.au) and locating information about the Training Package. Alternatively, contact Manufacturing Skills Australia www.mskills.com.au to confirm the latest version number.

Explanation of version number conventions
The primary release Training Package is Version 1. When changes are made to a Training Package, sometimes the version number is changed and sometimes it is not, depending on the extent of the change. When a Training Package is reviewed it is considered to be a new Training Package for the purposes of version control, and is Version 1. Do not confuse the version number with the Training Package's national code (which remains the same during its period of endorsement).

Explanation of the review date
The review date (shown on the title page and in the footer of each page) indicates when the Training Package is expected to be reviewed in the light of changes such as changing technologies and circumstances. The review date is not an expiry date. Endorsed Training Packages and their components remain current until they are reviewed or replaced.

Training Package Overview

What is a Training Package?

A Training Package is an integrated set of nationally endorsed competency standards, assessment guidelines and Australian Qualifications Framework (AQF) qualifications for a specific industry, industry sector or enterprise.
Each Training Package:

- provides a consistent and reliable set of components for training, recognising and assessing peoples skills, and may also have optional support materials
- enables nationally recognised qualifications to be awarded through direct assessment of workplace competencies
- encourages the development and delivery of flexible training which suits individual and industry requirements
- encourages learning and assessment in a work-related environment which leads to verifiable workplace outcomes.

How do Training Packages fit within the National Skills Framework?

The National Skills Framework applies nationally, is endorsed by the Ministerial Council for Vocational and Technical Education, and comprises the Australian Quality Training Framework 2010 (AQTF 2010), and Training Packages endorsed by the National Skills Stanards Council (NSSC).

How are Training Packages developed?

Training Packages are developed by Industry Skills Councils (ISCs) or enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement of Training Packages, developers must provide evidence of extensive research, consultation and support within the industry area or enterprise.

How do Training Packages encourage flexibility?

Training Packages describe the skills and knowledge needed to perform effectively in the workplace without prescribing how people should be trained.
Training Packages acknowledge that people can achieve vocational competency in many ways by emphasising what the learner can do, not how or where they learned to do it. For example, some experienced workers might be able to demonstrate competency against the units of competency, and even gain a qualification, without completing a formal training program.
With Training Packages, assessment and training may be conducted at the workplace, off-the-job, at a training organisation, during regular work, or through work experience, work placement, work simulation or any combination of these.

Who can deliver and assess using Training Packages?

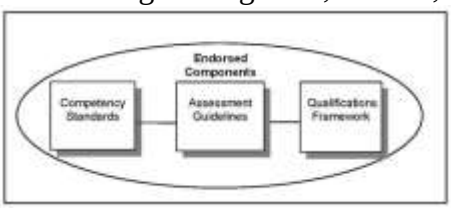
Training and assessment using Training Packages must be conducted by a Registered Training Organisation (RTO) that has the qualifications or specific units of competency on its scope of registration, or that works in partnership with another RTO, as specified in the AQTF 2010.

Training Package Components

Training Packages are made up of mandatory components endorsed by the NSSC, and optional support materials.

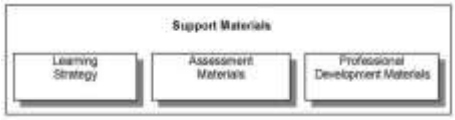
Training Package Endorsed Components

The nationally endorsed components include the Competency Standards, Assessment Guidelines and Qualifications Framework. These form the basis of training and assessment in the Training Package and, as such, they must be used.



Competency Standards
Each unit of competency identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy; and occupational health and safety requirements. The units of competency must be adhered to in training and assessment to ensure consistency of outcomes.
Assessment Guidelines
The Assessment Guidelines provide an industry framework to ensure all assessments meet industry needs and nationally agreed standards as expressed in the Training Package and the AQTF 2010. The Assessment Guidelines must be followed to ensure the integrity of assessment leading to nationally recognised qualifications.
Qualifications Framework
Each Training Package provides details of those units of competency that must be achieved to award AQF qualifications. The rules around which units of competency can be combined to make up a valid AQF qualification in the Training Package are referred to as the 'packaging rules'. The packaging rules must be followed to ensure the integrity of nationally recognised qualifications issued.

Training Package Support Materials
The endorsed components of Training Packages are complemented and supported by optional support materials that provide for choice in the design of training and assessment to meet the needs of industry and learners.
Training Package support materials can relate to single or multiple units of competency, an industry sector, a qualification or the whole Training Package. They tend to fall into one or more of the categories illustrated below.



Training Package support materials are produced by a range of stakeholders such as RTOs, individual trainers and assessors, private and commercial developers and Government agencies.

Training Package, Qualification and Unit of Competency Codes

There are agreed conventions for the national codes used for Training Packages and their components. Always use the correct codes, exactly as they appear in the Training Package, and with the code always before the title.

Training Package Codes

Each Training Package has a unique five-character national code assigned when the Training Package is endorsed, for example, *MEA11*. The first three characters are letters identifying the Training Package industry coverage and the last two characters are numbers identifying the year of endorsement.

Qualification Codes

Within each Training Package, each qualification has a unique eight-character code, for example, *MEA20411*. Qualification codes are developed as follows:

- the first three letters identify the Training Package;
- the first number identifies the qualification level (noting that, in the qualification titles themselves, arabic numbers are not used);
- the next two numbers identify the position in the sequence of the qualification at that level; and
- the last two numbers identify the year in which the qualification was endorsed. (Where qualifications are added after the initial Training Package endorsement, the last two numbers may differ from other Training Package qualifications as they identify the year in which those particular qualifications were endorsed.)

Unit of Competency Codes

Within each Training Package, each unit of competency has a unique code. Unit of competency codes are assigned when the Training Package is endorsed, or when new units of competency are added to an existing endorsed Training Package. Unit codes are developed as follows:

- a typical code is made up of up to 12 characters, normally a mixture of uppercase letters and numbers, as in *MEA101B*;
- the first three characters signify the Training Package – *MEA Aeroskills Training Package* – in the above example, and up to eight characters, relating to an industry sector, function or skill area, follow;
- the last character is always a letter and identifies the unit of competency version. An ‘A’ at the end of the code indicates that this is the original unit of competency. ‘B’, or another incremented version identifier means that minor changes have been made. Typically this would mean that wording has changed in the range statement or evidence guide, providing clearer intent; and
- where changes are made that alter the outcome, a new code is assigned and the title is changed.

Training Package, Qualification and Unit of Competency Titles

There are agreed conventions for titling Training Packages and their components. Always use the correct titles, exactly as they appear in the Training Package, and with the code always placed before the title.

Training Package Titles

The title of each endorsed Training Package is unique and relates the Training Packages broad industry coverage.

Qualification Titles

The title of each endorsed Training Package qualification is unique. Qualification titles use the following sequence:

- first, the qualification is identified as either Certificate I, Certificate II, Certificate III, Certificate IV, Diploma, Advanced Diploma, Vocational Graduate Certificate, or Vocational Graduate Diploma;
- this is followed by the words 'in' for Certificates I to IV, and 'of' for Diploma, Advanced Diploma, Vocational Graduate Certificate and Vocational Graduate Diploma;
- then, the industry descriptor, for example, Telecommunications; and
- then, if applicable, the occupational or functional stream in brackets, for example (Computer Systems).

For example:
MEA40711 Certificate IV in Aeroskills (Mechanical)

Unit of Competency Titles

Each unit of competency title is unique. Unit of competency titles describe the competency outcome concisely, and are written in sentence case.
For example:
MEA112B Plan and implement civil aircraft maintenance activities

Australian Qualifications Framework

The Australian Qualifications Framework

What is the Australian Qualifications Framework?

A brief overview of the Australian Qualifications Framework (AQF) follows. For a full explanation of the AQF, see the AQF Implementation Handbook.
http://www.aqf.edu.au/Portals/0/Documents/Handbook/AQF_Handbook_07.pdf
The AQF provides a comprehensive, nationally consistent framework for all qualifications in post-compulsory education and training in Australia. In the vocational education and training (VET) sector it assists national consistency for all trainees, learners, employers and providers by enabling national recognition of qualifications and Statements of Attainment.
Training Package qualifications in the VET sector must comply with the titles and guidelines of the AQF. Endorsed Training Packages provide a unique title for each AQF qualification which must always be reproduced accurately.

Qualifications

Training Packages can incorporate the following eight AQF qualifications.

- Certificate I in ...

- Certificate II in ...
- Certificate III in ...
- Certificate IV in ...
- Diploma of ...
- Advanced Diploma of ...
- Vocational Graduate Certificate in ...
- Vocational Graduate Diploma of ...

On completion of the requirements defined in the Training Package, a Registered Training Organisation (RTO) may issue a nationally recognised AQF qualification. Issuance of AQF qualifications must comply with the advice provided in the AQF Implementation Handbook and the AQTF 2010 Essential Standards for Initial and Continuing Registration.

Statement of Attainment

A Statement of Attainment is issued by a RTO when an individual has completed one or more units of competency from nationally recognised qualification(s)/courses(s). Issuance of Statements of Attainment must comply with the advice provided in the current AQF Implementation Handbook and the AQTF 2010 Essential Standards for Initial and Continuing Registration.

Under the AQTF 2010, RTOs must recognise the achievement of competencies as recorded on a qualification or Statement of Attainment issued by other RTOs. Given this, recognised competencies can progressively build towards a full AQF qualification.

AQF Guidelines and Learning Outcomes

The AQF Implementation Handbook provides a comprehensive guideline for each AQF qualification. A summary of the learning outcome characteristics and their distinguishing features for each VET related AQF qualification is provided below.

Certificate I

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and skills would prepare a person to perform a defined range of activities most of which may be routine and predictable.

Applications may include a variety of employment related skills including preparatory access and participation skills, broad-based induction skills and/or specific workplace skills. They may also include participation in a team or work group.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate knowledge by recall in a narrow range of areas
- demonstrate basic practical skills, such as the use of relevant tools
- perform a sequence of routine tasks given clear direction
- receive and pass on messages/information.

Certificate II

Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and skills would prepare a person to perform in a range of varied activities or knowledge application where there is a clearly defined range of contexts in which the choice of actions required is usually clear and there is limited complexity in the range of operations to be applied.
Performance of a prescribed range of functions involving known routines and procedures and some accountability for the quality of outcomes.
Applications may include some complex or non-routine activities involving individual responsibility or autonomy and/or collaboration with others as part of a group or team.
Distinguishing Features of Learning Outcomes
Do the competencies enable an individual with this qualification to:

- demonstrate basic operational knowledge in a moderate range of areas
- apply a defined range of skills
- apply known solutions to a limited range of predictable problems
- perform a range of tasks where choice between a limited range of options is required
- assess and record information from varied sources
- take limited responsibility for own outputs in work and learning.

Certificate III
Characteristics of Learning Outcomes
Breadth, depth and complexity of knowledge and competencies would cover selecting, adapting and transferring skills and knowledge to new environments and providing technical advice and some leadership in resolution of specified problems. This would be applied across a range of roles in a variety of contexts with some complexity in the extent and choice of options available.
Performance of a defined range of skilled operations, usually within a range of broader related activities involving known routines, methods and procedures, where some discretion and judgement is required in the section of equipment, services or contingency measures and within known time constraints.
Applications may involve some responsibility for others. Participation in teams including group or team coordination may be involved.
Distinguishing Features of Learning Outcomes
Do the competencies enable an individual with this qualification to:

- demonstrate some relevant theoretical knowledge
- apply a range of well-developed skills
- apply known solutions to a variety of predictable problems
- perform processes that require a range of well-developed skills where some discretion and judgement is required
- interpret available information, using discretion and judgement
- take responsibility for own outputs in work and learning
- take limited responsibility for the output of others.

Certificate IV
Characteristics of Learning Outcomes

Breadth, depth and complexity of knowledge and competencies would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance are involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature. Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and provision of some leadership and guidance to others in the application and planning of the skills. Applications involve responsibility for, and limited organisation of, others.

Distinguishing Features of Learning Outcomes

Do the competencies enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating some theoretical concepts
- apply solutions to a defined range of unpredictable problems
- identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas
- identify, analyse and evaluate information from a variety of sources
- take responsibility for own outputs in relation to specified quality standards
- take limited responsibility for the quantity and quality of the output of others.

Diploma

Characteristics of Learning Outcomes

Breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination.

The self directed application of knowledge and skills, with substantial depth in some areas where judgment is required in planning and selecting appropriate equipment, services and techniques for self and others.

Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team coordination may be involved.

The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.

Distinguishing Features of Learning Outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas
- analyse and plan approaches to technical problems or management requirements
- transfer and apply theoretical concepts and/or technical or creative skills to a range of situations
- evaluate information, using it to forecast for planning or research purposes
- take responsibility for own outputs in relation to broad quantity and quality parameters
- take some responsibility for the achievement of group outcomes.

Advanced Diploma

Characteristics of Learning Outcomes
Breadth, depth and complexity involving analysis, design, planning, execution and evaluation across a range of technical and/or management functions including development of new criteria or applications or knowledge or procedures.
The application of a significant range of fundamental principles and complex techniques across a wide and often unpredictable variety of contexts in relation to either varied or highly specific functions. Contribution to the development of a broad plan, budget or strategy is involved and accountability and responsibility for self and others in achieving the outcomes is involved.
Applications involve significant judgement in planning, design, technical or leadership/guidance functions related to products, services, operations or procedures.
The degree of emphasis on breadth as against depth of knowledge and skills may vary between qualifications granted at this level.
Distinguishing Features of Learning Outcomes
Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate understanding of specialised knowledge with depth in some areas
- analyse, diagnose, design and execute judgements across a broad range of technical or management functions
- generate ideas through the analysis of information and concepts at an abstract level
- demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills
- demonstrate accountability for personal outputs within broad parameters
- demonstrate accountability for personal and group outcomes within broad parameters.

Vocational Graduate Certificate
Characteristics of competencies or learning outcomes
The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.
Substantial breadth and complexity involving the initiation, analysis, design, planning, execution and evaluation of technical and management functions in highly varied and highly specialised contexts.
Applications involve making significant, high-level, independent judgements in major broad or planning, design, operational, technical and management functions in highly varied and specialised contexts. They may include responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.
The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.
Distinguishing features of learning outcomes
Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate the self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills
- initiate, analyse, design, plan, execute and evaluate major broad or technical and management functions in highly varied and highly specialised contexts
- generate and evaluate ideas through the analysis of information and concepts at an abstract level
- demonstrate a command of wide-ranging, highly specialised technical, creative or conceptual skills in complex contexts

- demonstrate responsibility and broad-ranging accountability for the structure, management and output of the work or functions of others.

Vocational Graduate Diploma

Characteristics of competencies or learning outcomes

The self-directed development and achievement of broad and specialised areas of knowledge and skills, building on prior knowledge and skills.

Substantial breadth, depth and complexity involving the initiation, analysis, design, planning, execution and evaluation of major functions, both broad and highly specialised, in highly varied and highly specialised contexts.

Further specialisation within a systematic and coherent body of knowledge.

Applications involve making high-level, fully independent, complex judgements in broad planning, design, operational, technical and management functions in highly varied and highly specialised contexts. They may include full responsibility and accountability for all aspects of work and functions of others, including planning, budgeting and strategy development.

The degree of emphasis on breadth, as opposed to depth, of knowledge and skills may vary between qualifications granted at this level.

Distinguishing features of learning outcomes

Do the competencies or learning outcomes enable an individual with this qualification to:

- demonstrate the self-directed development and achievement of broad and highly specialised areas of knowledge and skills, building on prior knowledge and skills
- initiate, analyse, design, plan, execute and evaluate major functions, both broad and within highly varied and highly specialised contexts
- generate and evaluate complex ideas through the analysis of information and concepts at an abstract level
- demonstrate an expert command of wide-ranging, highly specialised, technical, creative or conceptual skills in complex and highly specialised or varied contexts
- demonstrate full responsibility and accountability for personal outputs
- demonstrate full responsibility and accountability for all aspects of the work or functions of others, including planning, budgeting and strategy.

Qualification Pathways

For more information about qualifications and pathways contact Manufacturing Skills Australia (MSA) www.mskills.com.au

Competency Standards

What is competency?

The broad concept of industry competency concerns the ability to perform particular tasks and duties to the standard of performance expected in the workplace. Competency requires the application of specified skills, knowledge and attitudes relevant to effective participation in an industry, industry sector or enterprise.
Competency covers all aspects of workplace performance and involves performing individual tasks; managing a range of different tasks; responding to contingencies or breakdowns; and, dealing with the responsibilities of the workplace, including working with others. Workplace competency requires the ability to apply relevant skills, knowledge and attitudes consistently over time and in the required workplace situations and environments. In line with this concept of competency Training Packages focus on what is expected of a competent individual in the workplace as an outcome of learning, rather than focussing on the learning process itself.
Competency standards in Training Packages are determined by industry to meet identified industry skill needs. Competency standards are made up of a number of units of competency each of which describes a key function or role in a particular job function or occupation. Each unit of competency within a Training Package is linked to one or more AQF qualifications.

Contextualisation of units of competency by RTOs
Registered Training Organisations (RTOs) may contextualise units of competency in this endorsed Training Package to reflect required local outcomes. Contextualisation could involve additions or amendments to the unit of competency to suit particular delivery methods, learner profiles, specific enterprise equipment requirements, or to otherwise meet local needs. However, the integrity of the overall intended outcome of the unit of competency must be maintained.
Any contextualisation of units of competency in this Training Package must be within the bounds of the following advice:

- RTOs must not remove or add to the number and content of elements and performance criteria.
- RTOs can include specific industry terminology in the range statement.
- Any amendments and additions to the range statement made by RTOs must not diminish the breadth of application of the competency, or reduce its portability.
- RTOs may add detail to the evidence guide in areas such as the critical aspects of evidence or required resources and infrastructure—but only where these expand the breadth of the competency and do not limit its use.

Components of units of competency

The components of units of competency are summarised below, in the order in which they appear in each unit of competency.

Unit Title
The unit title is a succinct statement of the outcome of the unit of competency. Each unit of competency title is unique, both within and across Training Packages.
Unit Descriptor

The unit descriptor broadly communicates the content of the unit of competency and the skill area it addresses. Where units of competency have been contextualised from units of competency from other endorsed Training Packages, summary information is provided. There may also be a brief second paragraph that describes its relationship with other units of competency, and any licensing requirements.

Employability Skills

This sub-section contains a statement that the unit contains Employability skills.

Prerequisite Units (optional)

If there are any units of competency that must be completed before the unit, these will be listed.

Application of the Unit

This sub-section fleshes out the unit of competency's scope, purpose and operation in different contexts, for example, by showing how it applies in the workplace.

Competency Field (Optional)

The competency field either reflects the way the units of competency are categorised in the Training Package or denotes the industry sector, specialisation or function. It is an optional component of the unit of competency.

Sector (optional)

The industry sector is a further categorisation of the competency field and identifies the next classification, for example an elective or supervision field.

Elements of Competency

The elements of competency are the basic building blocks of the unit of competency. They describe in terms of outcomes the significant functions and tasks that make up the competency.

Performance Criteria

The performance criteria specify the required performance in relevant tasks, roles, skills and in the applied knowledge that enables competent performance. They are usually written in passive voice. Critical terms or phrases may be written in bold italics and then defined in range statement, in the order of their appearance in the performance criteria.

Required Skills and Knowledge

The essential skills and knowledge are either identified separately or combined. Knowledge identifies what a person needs to know to perform the work in an informed and effective manner. Skills describe the application of knowledge to situations where understanding is converted into a workplace outcome.

Range Statement

The range statement provides a context for the unit of competency, describing essential operating conditions that may be present with training and assessment, depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts. As applicable, the meanings of key terms used in the performance criteria will also be explained in the range statement.

Evidence Guide

The evidence guide is critical in assessment as it provides information to the Registered Training Organisation (RTO) and assessor about how the described competency may be demonstrated. The evidence guide does this by providing a range of evidence for the assessor to make determinations, and by providing the assessment context. The evidence guide describes:

- conditions under which competency must be assessed including variables such as the assessment environment or necessary equipment;

- relationships with the assessment of any other units of competency;
- suitable methodologies for conducting assessment including the potential for workplace simulation;
- resource implications, for example access to particular equipment, infrastructure or situations;
- how consistency in performance can be assessed over time, various contexts and with a range of evidence; and
- the required underpinning knowledge and skills.

Employability Skills in Units of Competency

The detail and application of Employability Skills facets will vary according to the job role requirements of each industry. In developing Training Packages, industry stakeholders are consulted to identify appropriate facets of Employability Skills which are incorporated into the relevant units of competency and qualifications.
Employability Skills are not a discrete requirement contained in units of competency (as was the case with Key Competencies). Employability Skills are specifically expressed in the context of the work outcomes described in units of competency and will appear in elements, performance criteria, range statements and evidence guides. As a result, users of Training Packages are required to review the entire unit of competency in order to accurately determine Employability Skills requirements.

How Employability Skills relate to the Key Competencies

The eight nationally agreed Employability Skills now replace the seven Key Competencies in Training Packages. Trainers and assessors who have used Training Packages prior to the introduction of Employability Skills may find the following comparison useful.

Employability Skills	Mayer Key Competencies
Communication	Communicating ideas and information
Teamwork	Working with others and in teams
Problem solving	Solving problems Using mathematical ideas and techniques
Initiative and enterprise	
Planning and organising	Collecting, analysing and organising information Planning and organising activities
Self-management	
Learning	
Technology	Using technology

When analysing the above table it is important to consider the relationship and natural overlap of Employability Skills. For example, using technology may involve communication skills and combine the understanding of mathematical concepts.

Explicitly embedding Employability Skills in units of competency
This Training Package seeks to ensure that industry-endorsed Employability Skills are explicitly embedded in units of competency. The application of each skill and the level of detail included in each part of the unit will vary according to industry requirements and the nature of the unit of competency.
Employability Skills must be both explicit and embedded within units of competency. This means that Employability Skills will be:

- embedded in units of competency as part of the other performance requirements that make up the competency as a whole
- explicitly described within units of competency to enable Training Packages users to identify accurately the performance requirements of each unit with regards to Employability Skills.

This Training Package also seeks to ensure that Employability Skills are well-defined and written into units of competency so that they are apparent, clear and can be delivered and assessed as an essential component of unit work outcomes.

Sample unit of competency components showing Employability Skills
The following table shows the sequence of a unit of competency, and each cell contains text taken from a range of units. It provides examples of where and how various Employability Skills could be embedded in each component.
Please note that in the example, the bracketed Employability Skills are provided for clarification only and would not be present in units of competency within this Training Package.

Unit Title	Give formal presentations and take part in meetings (Communication)
Unit Descriptor	This unit covers the skills and knowledge required to promote the use and implementation of innovative work practices to effect change (*Initiative and enterprise*)
Element	Proactively resolve issues (*Problem solving*)
Performance Criteria	Information is organised in a format suitable for analysis and dissemination in accordance with organisational requirements (*Planning and organising*)
Range Statement	Software applications may include email, internet, word processing, spreadsheet, database or accounting packages (*Technology*)
Required Skills and Knowledge	Modify activities depending on differing workplace contexts, risk situations and environments (*Learning*) Work collaboratively with others during a fire emergency (*Teamwork*) Instructions, procedures and other information relevant the maintenance

	of vessel and port security (*Communication*)
Evidence Guide	Evidence of having worked constructively with a wide range of community groups and stakeholders to solve problems and adapt or design new solutions to meet identified needs in crime prevention. In particular, evidence must be obtained on the ability to: • assess response options to identified crime-prevention needs and determine the optimal action to be implemented • in consultation with relevant others, design an initiative to address identified issues (*Initiative and enterprise*)

Employability Skills Summaries and units of competency
An Employability Skills Summary exists for each qualification. Summaries include broad advice on industry expectations with regard to Employability Skills at the qualification level. Summaries should be used by trainers and assessors to assist in identifying the Employability Skills requirements contained within units of competency.

Assessment Guidelines

Section 1

Introduction

These Assessment Guidelines provide the endorsed framework for assessment of units of competency in this Training Package. They are designed to ensure that assessment is consistent with the *Australian Quality Training Framework (AQTF) Essential Standards for Initial and Continuing Registration*. Assessments against the units of competency in this Training Package must be carried out in accordance with these Assessment Guidelines.

Assessment System Overview

This section provides an overview of the requirements for assessment when using this Training Package, including a summary of the AQTF requirements, licensing and registration requirements, and assessment pathways.
Quality assessment underpins the credibility of the vocational education and training sector. The Assessment Guidelines of a Training Package are an important tool in supporting quality assessment.
Assessment within the National Skills Framework is the process of collecting evidence and making judgements about whether competency has been achieved to confirm whether an individual can perform to the standards expected in the workplace, as expressed in the relevant endorsed unit of competency.
Assessment must be carried out in accordance with the:

- benchmarks for assessment
- principles of assessment
- rules of evidence
- assessment requirements set out in the AQTF.

Benchmarks for Assessment

The endorsed units of competency in this Training Package are the benchmarks for assessment. As such, they provide the basis for nationally recognised Australian Qualifications Framework (AQF) qualifications and Statements of Attainment issued by Registered Training Organisations (RTOs).

Principles of Assessment

All assessments carried out by RTOs are required to demonstrate compliance with the principles of assessment:

- validity
- reliability
- flexibility
- fairness
- sufficiency.

These principles must be addressed in the:

- design, establishment and management of the assessment system for this Training Package
- development of assessment tools
- the conduct of assessment.

Validity
Assessment is valid when the process is sound and assesses what it claims to assess. Validity requires that:

a) assessment against the units of competency must cover the broad range of skills and knowledge that are essential to competent performance
b) assessment of knowledge and skills must be integrated with their practical application
c) judgement of competence must be based on sufficient evidence (that is, evidence gathered on a number of occasions and in a range of contexts using different assessment methods). The specific evidence requirements of each unit of competency provide advice on sufficiency.

Reliability
Reliability refers to the degree to which evidence presented for assessment is consistently interpreted and results in consistent assessment outcomes. Reliability requires the assessor to have the required competencies in assessment and relevant vocational competencies (or to assess in conjunction with someone who has the vocational competencies). It can only be achieved when assessors share a common interpretation of the assessment requirements of the unit(s) being assessed.
Flexibility
To be flexible, assessment should reflect the candidate's needs; provide for recognition of competencies no matter how, where or when they have been acquired; draw on a range of methods appropriate to the context, competency and the candidate; and support continuous competency development.
Fairness

Fairness in assessment requires consideration of the individual candidate's needs and characteristics, and any reasonable adjustments that need to be applied to take account of them. It requires clear communication between the assessor and the candidate to ensure that the candidate is fully informed about, understands and is able to participate in, the assessment process, and agrees that the process is appropriate. It also includes an opportunity for the person being assessed to challenge the result of the assessment and to be reassessed if necessary.

Sufficiency

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough appropriate evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency. Sufficiency is also one of the rules of evidence.

Rules of Evidence

The rules of evidence guide the collection of evidence that address the principles of validity and reliability, guiding the collection of evidence to ensure that it is valid, sufficient, current and authentic.

Valid

Valid evidence must relate directly to the requirements of the unit of competency. In ensuring evidence is valid, assessors must ensure that the evidence collected supports demonstration of the outcomes and performance requirements of the unit of competency together with the knowledge and skills necessary for competent performance. Valid evidence must encapsulate the breadth and depth of the unit of competency, which will necessitate using a number of different assessment methods.

Sufficient

Sufficiency relates to the quality and quantity of evidence assessed. It requires collection of enough appropriate evidence to ensure that all aspects of competency have been satisfied and that competency can be demonstrated repeatedly. Supplementary sources of evidence may be necessary. The specific evidence requirements of each unit of competency provide advice on sufficiency.

Current

In assessment, currency relates to the age of the evidence presented by a candidate to demonstrate that they are still competent. Competency requires demonstration of current performance, so the evidence collected must be from either the present or the very recent past.

Authentic

To accept evidence as authentic, an assessor must be assured that the evidence presented for assessment is the candidate's own work.

Section 2

Assessment Requirements of the Australian Quality Training Framework

Assessment leading to nationally recognised AQF qualifications and Statements of Attainment in the vocational education and training sector must meet the requirements of the AQTF as expressed in the AQTF 2010 Essential Standards for Registration.

The AQTF 2010 Essential Standards for Initial and Continuing Registration can be downloaded from <www.training.com.au>.
The following points summarise the assessment requirements.

Registration of Training Organisations
Assessment must be conducted by, or on behalf of, an RTO formally registered by a State or Territory Registering Body in accordance with the AQTF. The RTO must have the specific units of competency and/or AQF qualifications on its scope of registration.
Quality Training and Assessment
Each RTO must provide quality training and assessment across all its operations. See the AQTF 2010 Essential Standards for Initial and Continuing Registration, Standard 1.
Assessor Competency Requirements
Each person involved in training and assessment must be competent for the functions they perform. See the AQTF 2010 Essential Standards for Initial and Continuing Registration, Standard 1 for assessor (and trainer) competency requirements. See also the AQTF 2010 Users' Guide to the Essential Standards for Registration – Appendix 2.
Assessment Requirements
The RTOs assessments, including RPL, must meet the requirements of the relevant endorsed Training Package. See the AQTF 2010 Essential Standards for Initial and Continuing Registration.
Assessment Strategies
Each RTO must have strategies for training and assessment that meet the requirements of the relevant Training Package or accredited course and are developed in consultation with industry stakeholders. See the AQTF 2010 Essential Standards for Initial and Continuing Registration.
National Recognition
Each RTO must recognise the AQF qualifications and Statements of Attainment issued by any other RTO. See the AQTF 2010 Essential Standards for Initial and Continuing Registration.
Access and Equity and Client Outcomes
Each RTO must adhere to the principles of access and equity and maximise outcomes for its clients. See the AQTF 2010 Essential Standards for Initial and Continuing Registration.
Monitoring Assessments
Training and/or assessment provided on behalf of the RTO must be monitored to ensure that it is in accordance with all aspects of the AQTF 2010 Essential Standards for Initial and Continuing Registration.
Recording Assessment Outcomes
Each TO must manage records to ensure their accuracy and integrity. See the AQTF 2010 Essential Standards for Initial and Continuing Registration.
Issuing AQF qualifications and Statement of Attainment
Each RTO must issue AQF qualifications and Statements of Attainment that meet the requirements of the current AQF Implementation Handbook and the endorsed Training Packages within the scope of its registration. An AQF qualification is issued once the full requirements for a qualification, as specified in the nationally endorsed Training Package are met. A Statement of Attainment is issued when an individual has completed one or more units of competency from nationally recognised qualification(s)/courses(s). See the AQTF and the edition of the AQF Implementation Handbook—available on the AQF Council website <www.aqf.edu.au >

Section 3

Licensing/Registration Requirements

This section provides information on licensing/registration requirements for this Training Package, with the following important disclaimer.

Licensing and registration requirements that apply to specific industries, and VET, vary between each state and territory, and can regularly change. The developers of this Training Package consider that the licensing/registration requirements described in this section apply to RTOs, assessors or candidates with respect to this Training Package. While reasonable care has been taken in its preparation, the developers of this Training Package and the Department cannot guarantee that the list is definitive or accurate at the time of reading; the information in this section is provided in good faith on that basis.
Contact the relevant state or territory department(s) to check if the licensing/registration requirements described below still apply, and to check if there are any others with which you must comply. For further information contact the Civil Aviation Safety Authority (CASA) in accordance with the advice provided below.

1) Advice to contact CASA for authoritative information on licensing requirements

Selected units of competency and qualifications in this Training Package have been designed to satisfy CASA requirements for Licensed Aircraft Maintenance Engineers specified in Civil Aviation Safety Regulation Part 66.
Training programs will allow entry to optional licensing pathways leading to both trade recognition and preparation for CASA licensing. These programs will be conducted by Registered Training Organisations which will also have complementary CASA approval as maintenance training organisations under Civil Aviation Safety Regulation Part 147.
Authoritative information on licensing, current and proposed compliance requirements can be obtained from CASA on telephone 131 757 or at www.casa.gov.au.

2) Requirements for Assessors

In order to conduct assessment for statutory licensing or other industry registration requirements, assessors must meet the requirements outlined in the following chart, in addition to the AQTF requirements.

Licence/Registration	Jurisdiction	Requirements
A1 A2 A3 A4 B1.1 B1.2 B1.3 B1.4	Commonwealth	Assessors must have been appointed by a Maintenance Training Organisation that is operating under the provisions of Civil Aviation Safety Regulation Part 147.

B2		

3) Requirements for RTOs

Selected units of competency and qualifications in this Training Package provide the basis for a range of statutory licensing and industry registration arrangements. To satisfy these licensing and registration arrangements, RTOs must meet the additional requirements detailed in the following chart.

Licence/Registration	Jurisdiction	Requirements
A1 A2 A3 A4 B1.1 B1.2 B1.3 B1.4 B2	Commonwealth	RTOs delivering training leading to the grant of an Aircraft Maintenance Engineer Licence must be Maintenance Training Organisations operating under the provisions of Civil Aviation Safety Regulation Part 147. Underpinning skills and knowledge must fully cover the Civil Aviation Safety Regulation Part 66 licensing topics as listed by licence and unit of competency in Appendix 1 to this Training Package.

4) Requirements for Candidates

Individuals being assessed under statutory licensing and industry registration systems must comply with training and experience requirements additional to the minimum requirements identified in this Training Package. These additional requirements are specified in Civil Aviation Safety Regulation Part 66 and include:

- For an A Licence, attainment of all units of competency specified in Section 2 for MEA20511 Certificate II in Aircraft Line Maintenance with elective units selected according to the licence (A1, A2, A3 or A4) sought
- For a B1 Licence, attainment of all units of competency specified in Section 2 for MEA50211 Diploma of Aeroskills (Mechanical) with elective units selected according to the licence (B1.1, B1.2, B1.3 or B1.4) sought
- For a B2 Licence, attainment of all units of competency specified in Section 2 for MEA50111 Diploma of Aeroskills (Avionics)
- In all cases, one of the requirements to demonstrate eligibility will be the presentation of a Log of Industrial Experience and Achievement in which experience and attainment of units of competency have been correctly certified.

Where units of competency have been attained other than through an RTO that is also a Maintenance Training Organisation under Civil Aviation Safety Regulation Part 147 and a licence is being sought, the individual will be required to undergo an RPL assessment conducted by a Maintenance Training Organisation.

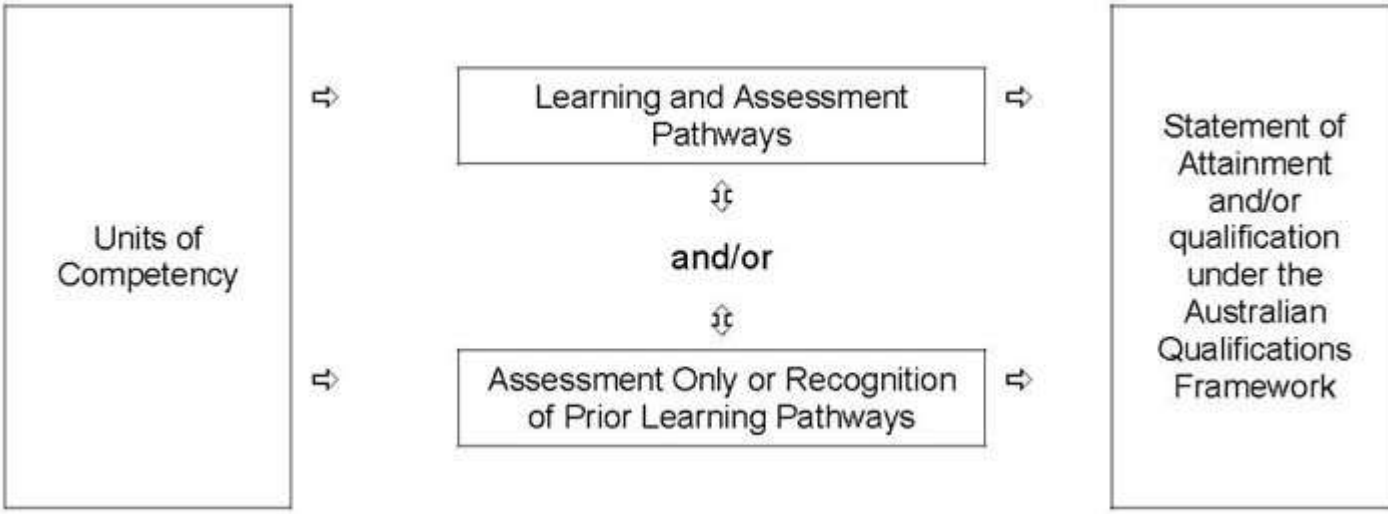
Section 4

Pathways

The competencies in this Training Package may be attained in a number of ways including through:

- formal or informal education and training
- experiences in the workplace
- general life experience, and/or
- any combination of the above.

Assessment under this Training Package leading to an AQF qualification or Statement of Attainment may follow a learning and assessment pathway, or a recognition pathway, or a combination of the two as illustrated in the following diagram.



Each of these assessment pathways leads to full recognition of competencies held – the critical issue is that the candidate is competent, not how the competency was acquired. Assessment, by any pathway, must comply with the assessment requirements set out in the Assessment Guidelines of the Training Package, the AQTF and, where relevant, the Australian Qualifications Framework.

Learning and Assessment Pathways

Usually, learning and assessment are integrated, with evidence being collected and feedback provided to the candidate at any time throughout the learning and assessment process.

Learning and assessment pathways may include structured programs in a variety of contexts using a range of strategies to meet different learner needs. Structured learning and assessment programs could be: group-based, work-based, project-based, self-paced, action learning-based; conducted by distance or e-learning; and/or involve practice and experience in the workplace.

Learning and assessment pathways to suit Australian Apprenticeships have a mix of formal structured training and structured workplace experience with formative assessment activities through which candidates can acquire and demonstrate skills and knowledge from the relevant units of competency.

Credit Pathways

Credit is the value assigned for the recognition of equivalence in content between different types of learning and/or qualifications which reduces the volume of learning required to achieve a qualification.

Credit arrangements must be offered by all RTOs that offer Training Package qualifications. Each RTO must have a systematic institutional approach with clear, accessible and transparent policies and procedures.

Competencies already held by individuals can be formally assessed against the units of competency in this Training Package, and should be recognised regardless of how, when or where they were acquired, provided that the learning is relevant to the unit of competency outcomes.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is an assessment process which determines the credit outcomes of an individual application for credit.

The availability of RPL provides all potential learners with access to credit opportunities. The recognition of prior learning pathway is appropriate for candidates who have previously attained skills and knowledge and who, when enrolling in qualifications, seek to shorten the duration of their training and either continue or commence working. This may include the following groups of people:

- existing workers;
- individuals with overseas qualifications;
- recent migrants with established work histories;
- people returning to the workplace; and
- people with disabilities or injuries requiring a change in career.

As with all assessment, RPL assessment should be undertaken by academic or teaching staff with expertise in the subject, content of skills area, as well as knowledge of and expertise in RPL assessment policies and procedures.
Assessment methods used for RPL should provide a range of ways for individuals to demonstrate that they have met the required outcomes and can be granted credit. These might include:

- questioning (oral or written)
- consideration of a portfolio and review of contents
- consideration of third party reports and/or other documentation such as documentation such as articles, reports, project material, papers, testimonials or other products prepared by the RPL applicant that relate to the learning outcomes of the relevant qualification component
- mapping of learning outcomes from prior formal or non-formal learning to the relevant qualification components
- observation of performance, and
- participation in structured assessment activities the individual would normally be required to undertake if they were enrolled in the qualification component/s.

In a RPL pathway, the candidate provides current, quality evidence of their competency against the relevant unit of competency. This process may be directed by the candidate and verified by the assessor. Where the outcomes of this process indicate that the candidate is competent, structured training is not required. The RPL requirements of the AQTF must be met.
As with all assessment, the assessor must be confident that the evidence indicates that the candidate is currently competent against the endorsed unit of competency. This evidence may take a variety of forms and might include certification, references from past employers, testimonials from clients, work samples and/or observation of the candidate. The onus is on candidates to provide sufficient evidence to satisfy assessors that they currently hold the relevant competencies. In judging evidence, the assessor must ensure that the evidence of prior learning is:

- authentic (the candidate's own work);
- valid (directly related to the current version of the relevant endorsed unit of competency);
- reliable (shows that the candidate consistently meets the endorsed unit of competency);
- current (reflects the candidate's current capacity to perform the aspect of the work covered by the endorsed unit of competency); and
- sufficient (covers the full range of elements in the relevant unit of competency and addresses the four dimensions of competency, namely task skills, task management skills, contingency management skills, and job/role environment skills).

Credit Transfer

Credit transfer is a process which provides learners with agreed and consistent credit outcomes based on equivalences in content between matched qualifications.
This process involves education institutions:

- mapping, comparing and evaluating the extent to which the defined learning outcomes and assessment requirements of the individual components of one qualification are equivalent to the learning outcomes and assessment requirements of the individual components of another qualification

- making an educational judgment of the credit outcomes to be assigned between the matched components of the two qualifications
- setting out the agreed credit outcomes in a documented arrangement or agreement, and
- publicising the arrangement/agreement and credit available.

Combination of Pathways

Credit may be awarded on the basis of a combination of credit transfer plus an individual RPL assessment for additional learning. Once credit has been awarded on the basis of RPL, subsequent credit transfer based on these learning outcomes should not include revisiting the RPL assessment but should be based on credit transfer or articulation or other arrangements between providers.

Where candidates for assessment have gained competencies through work and life experience and gaps in their competence are identified, or where they require training in new areas, a combination of pathways may be appropriate.

In such situations, the candidate may undertake an initial assessment to determine their current competency. Once current competency is identified, a structured learning and assessment program ensures that the candidate acquires the required additional competencies identified as gaps.

Section 5

Assessor Requirements

This section identifies the specific requirements on the vocational competence and experience for assessors, to ensure that they meet the needs of industry and their obligations under AQTF, and clarifies how others may contribute to the assessment process where one person alone does not hold all the required competencies.

Assessor Competencies

The AQTF specifies mandatory competency requirements for assessors. For information, Element 1.4 from the AQTF 2010 Essential Standards for Registration follows:

1.4 Training and assessment are conducted by trainers and assessors who:

- have the necessary training and assessment competencies as determined by the National Quality Council or its successors, and
- have the relevant vocational competencies at least to the level being delivered or assessed, and
- can demonstrate current industry skills directly relevant to the training/assessment being undertaken, and
- continue to develop their Vocational Education and Training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

* See AQTF 2010 Users' Guide to the Essential Standards for Registration – Appendix 2

Section 6

Designing Assessment Tools

This section provides an overview on the use and development of assessment tools.

Use of Assessment Tools

Assessment tools provide a means of collecting the evidence that assessors use in making judgements about whether candidates have achieved competency.

There is no set format or process for the design, production or development of assessment tools. Assessors may use prepared assessment tools, such as those specifically developed to support this Training Package, or they may develop their own.

Using Prepared Assessment Tools

If using prepared assessment tools, assessors should ensure these relate to the current version of the relevant unit of competency. The current unit of competency can be checked on the National Register <www.ntis.gov.au>.

Developing Assessment Tools

When developing their own assessment tools, assessors must ensure that the tools:

- are benchmarked against the relevant unit or units of competency;
- are reviewed as part of the validation of assessment strategies required under the AQTF; and
- meet the assessment requirements expressed in the AQTF 2010 Essential Standards for Initial and Continuing Registration.

A key reference for assessors developing assessment tools is TAE10 Training and Education Training Package.

Language, Literacy and Numeracy

The design of assessment tools must reflect the language, literacy and numeracy competencies required for the performance of a task in the workplace and not exceed these expectations.

Section 7

Conducting Assessment

This section details the mandatory assessment requirements and provides information on equity in assessment including reasonable adjustment.

Mandatory Assessment Requirements

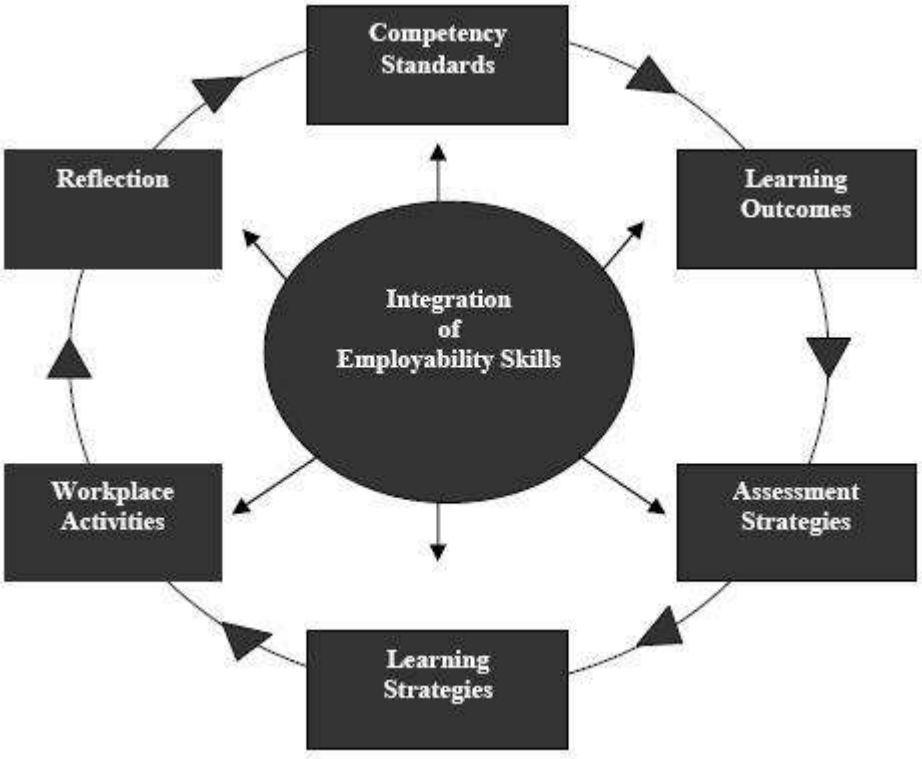
Assessments must meet the criteria set out in the AQTF 2010 Essential Standards for Initial and Continuing Registration. For information, the mandatory assessment requirements from Standard 1 from the AQTF 2010 Essential Standards for Initial and Continuing Registration are as follows:

1.5 Assessment, including Recognition of Prior Learning (RPL):

- meets the requirements of the relevant Training Package or accredited course
- is conducted in accordance with the principles of assessment and the rules of evidence
- meets workplace and, where relevant, regulatory requirements
- is systematically validated.

Assessment of Employability Skills

Employability Skills are integral to workplace competency. As such, they must be considered in the design, customisation, delivery and assessment of vocational education and training programs in an integrated and holistic way, as represented diagrammatically below.



Employability Skills are embedded within each unit of competency, and an Employability Skills Summary is available for each qualification. Training providers must use Employability Skills information in order to design valid and reliable training and assessment strategies. This analysis could include:

- reviewing units of competency to locate relevant Employability Skills and determine how they are applied within the unit
- analysing the Employability Skills Summary for the qualification in which the unit or units are packaged to help clarify relevant industry and workplace contexts and the application of Employability Skills at that qualification outcome
- designing training and assessment to address Employability Skills requirements.

The NQC has endorsed a model for assessing and reporting Employability Skills, which contains further suggestions about good practice strategies in teaching, assessing, learning and reporting Employability Skills. The model is available from <http://www.training.com.au/>. The endorsed approach includes learners downloading qualification specific Employability Skills Summaries for Training Package qualifications from an online repository at <http://employabilityskills.training.com.au>
For more information on Employability Skills in Manufacturing Skills Australia (MSA) Training Packages go to the MSA website at www.mskills.com.au.
Employability Skills are reported on each qualification using the following statement on the qualification testamur: "A summary of the Employability Skills developed through this qualification can be downloaded from http://employabilityskills.training.com.au "

Access and Equity
An individual's access to the assessment process should not be adversely affected by restrictions placed on the location or context of assessment beyond the requirements specified in this Training Package: training and assessment must be bias-free.
Under the rules for their development, Training Packages must reflect and cater for the increasing diversity of Australia's VET clients and Australia's current and future workforce. The flexibilities offered by Training Packages should enhance opportunities and potential outcomes for all people so that we can all benefit from a wider national skills base and a shared contribution to Australia's economic development and social and cultural life.

Reasonable Adjustments
It is important that education providers take meaningful, transparent and reasonable steps to consult, consider and implement reasonable adjustments for students with disability.
Under the Disability Standards for Education 2005, education providers must make reasonable adjustments for people with disability to the maximum extent that those adjustments do not cause that provider unjustifiable hardship. While 'reasonable adjustment' and 'unjustifiable hardship' are different concepts and involve different considerations, they both seek to strike a balance between the interests of education providers and the interests of students with and without disability.
An adjustment is any measure or action that a student requires because of their disability, and which has the effect of assisting the student to access and participate in education and training on the same basis as students without a disability. An adjustment is reasonable if it achieves this purpose while taking into account factors such as the nature of the student's disability, the views of the student, the potential effect of the adjustment on the student and others who might be affected, and the costs and benefits of making the adjustment.

An education provider is also entitled to maintain the academic integrity of a course or program and to consider the requirements or components that are inherent or essential to its nature when assessing whether an adjustment is reasonable. There may be more than one adjustment that is reasonable in a given set of circumstances; education providers are required to make adjustments that are reasonable and that do not cause them unjustifiable hardship. The Training Package Guidelines provides more information on reasonable adjustment, including examples of adjustments. Go to http://www.deewr.gov.au/tpdh/Pages/home.aspx .

Further Sources of Information

The section provides a listing of useful contacts and resources to assist assessors in planning, designing, conducting and reviewing of assessments against this Training Package.

Contacts

Manufacturing Skills Australia
Level 8, 80 Arthur Street
North Sydney NSW 2060

PO Box 289
North Sydney NSW 2059

Ph: 02 9955 5500
Fx: 02 9955 8044
Web: www.mskills.com.ai

Technical and Vocational Education and Training (TVET) Australia Limited
Level 21, 390 St Kilda Road, Melbourne VIC 3150
PO Box 12211, A'Beckett Street Post Office, Melbourne, Victoria, 8006
Ph: +61 3 9832 8100
Fax: +61 3 9832 8198
Email: sales@tvetaustralia.com.au
Web: www.tvetaustralia.com.au

For information on the TAE10 Training and Education Training Package contact:

Innovation & Business Skills Australia

Telephone: (03) 9815 7000
Facsimile: (03) 9815 7001
Email: virtual@ibsa.org.au

Web: www.ibsa.org.au

General Resources

AQF Implementation Handbook, Fourth Edition 2007. Australian Qualifications Framework Advisory Board, 2002 <www.aqf.edu.au>
Australian Quality Training Framework (AQTF) and AQTF 2010 Users' Guide to the Essential Standards for Registration – http://www.training.com.au/pages/menuitem5cbe14d51b49dd34b225261017a62dbc.aspx
For general information and resources go to http://www.training.com.au/
The National Register is an electronic database providing comprehensive information about RTOs, Training Packages and accredited courses - <www.training.gov.au>

The Training Package Development Handbook site provides NSSC policy for the development of Training Packages. The site also provides guidance material for the application of that policy, and other useful information and links.
http://www.deewr.gov.au/Skills/Overview/Policy/TPDH/Pages/main.aspx

Assessment Resources

RTOs are at the forefront of vocational education and training (VET) in Australia. They translate the needs of industry into relevant, quality, client-focussed training and assessment. RTOs should strive for innovation in VET teaching and learning practices and develop highly flexible approaches to assessment which take cognisance of specific needs of learners, in order to improve delivery and outcomes of training.
Resources can be purchased or accessed from:

- TVET Australia – provides an integrated service to enable users of the national training system to identify and acquire training materials, identify copyright requirements and enter licenses for use of that material consistent with the scope and direction of the NQC.

  http://www.productservices.tvetaustralia.com.au/

- www.mskills.com.au
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Introduction to MEA11

Introduction to MEA11 Version 2

Summary of changes – units and qualifications

- One new unit covering employment in CAMOs to be added to Diploma and Advanced Diploma qualifications as an additional elective
- One new unit covering bolted repairs to composite aircraft skin to be added to a Certificate IV qualification as an additional elective
- Six new units covering the repair and overhaul of piston engines, subsuming content in an existing unit
- One revised qualification: MEA41213 Certificate IV in Aeroskills (Armament).

Industry priorities and expectations

Industry representatives and RTOs see the new units as meeting an existing need. It is expected the units will be accessed by industry and RTOs immediately following endorsement.

Impact of newly endorsed components

STAs, RTOs and industry stakeholders have been consulted during the development process and have been kept informed of the changes. The new units will be accessed by RTOs specialising in delivery of maintenance management and trade training in the mechanical and structures fields. MSA is not aware of any issues that need addressing to ensure successful implementation.
As the new units are packaged as electives in existing pathways in MEA11 Aeroskills Training Package, no changes to scope or registration will be required for RTOs.
The unit relating to CAMO employment will be delivered to individuals enrolled in Diploma and Advanced Diplomas of Aviation Maintenance Management where the individuals are to be employed within CAMOs in positions defined in CASR Part 42.

The unit relating to bolted repairs to composite skin will be delivered to individuals enrolled in Certificate IV in Aeroskills (Structures) where the competency is required in the workplace, and is also likely to be delivered post-graduate where the introduction of new aircraft types necessitates the competency.
The six units covering piston engine repair and overhaul may be taken by those enrolled in Certificate IV in Aeroskills (Mechanical) in the workshop stream where they are employed on piston engine repair and overhaul. The units may also be used by individuals from allied trades who are converting from automotive or stationary engines to aircraft.
RTOs delivering the current MEA41211 should be able to transfer to MEA41213 without having to extend scope. The number of units required has been reduced by one to 21, however, the overall workplace outcomes have not changed. The unit (MEA261B) remains available in other qualifications in MEA11.

Introduction to the MEA11 Aeroskills Training Package Version 1

The MEA11 Aeroskills Training Package replaces the MEA07v3 Aeroskills Training Package. Changes to the Training Package include:

- introduction of the MEA50511 Diploma of Aeroskills (Non-Destructive Testing) and the MEA60311 Advanced Diploma of Aviation Non-Destructive Testing
- introduction of units of competency required for compliance with regulations relating to aircraft welding
- introduction of a MEA30211 Certificate III in Aeroskills (Mechatronics) and a MEA41011 Certificate IV in Aeroskills (Mechatronics) to cover the maintenance of small aircraft and to provide a transitional pathway over the period to 2015 from the CASA CAR 31 licensing system to a competency-based system similar to that covered in CASR Part 66 for the large aircraft B1 and B2 licences
- inclusion of additional electives in the MEA40711 Certificate IV in Aeroskills (Mechanical) to increase flexibility in the component workshop stream
- revision of a number of Structures units and the introduction of a composites cold bonding unit in line with stakeholder input
- updating and standardisation of a number of existing units
- acronyms and definition of terms have been consolidated into the new Appendix 2 Glossary of terms used in units of competency.

The draft MEA11 Aeroskills Training Package has been processed through the standard Manufacturing Skills Australia (MSA) processes involving quality and equity reviews, review by State and Territory Training Authorities (STAs) and by the Aerospace Education and Training Reference Group.

Introduction to the industry

The Australian Aerospace Industry Aviation Maintenance Sector

The MEA11 Aeroskills Training Package covers the Aviation Maintenance Sector of the Australian Aerospace Industry. This sector covers maintenance performed on aircraft and their components in support of both civil and military aviation by a workforce of about 15,000 civilian and ADF personnel.

On the civil side, the workforce ranges from airlines employing large numbers of maintenance personnel to medium and small general aviation organisations that may employ as few as two or three individuals. In both the airline and general aviation areas there are third party maintenance organisations that support aircraft operators on a contractual basis. Again, these organisations vary in size from hundreds of maintenance personnel down to organisations with fewer than 10 personnel. Some maintenance organisations maintain both aircraft and their components while others maintain either complete aircraft or a range of aircraft components.

Military aviation consists of the three Services of the ADF where maintenance work is performed by uniformed personnel, plus a large network of contractors with civilian workforces that perform the deeper maintenance of most aircraft types and contractors also perform most component maintenance. The defence contractors are typically large aerospace organisations, or subsidiaries thereof. Many have a number of contracts and operate from a number of sites that may be geographically remote from one another.

Those involved in the maintenance of civil aircraft work under an extensive range of regulations that are aimed at ensuring a high level of flight safety and rely on licensed and specifically authorised individuals for the certification of maintenance. Those involved in the maintenance of State (military) aircraft and their components operate under a range of ADF regulations and standards that are also aimed at ensuring a high level of flight safety. Under the ADF system the certification of maintenance is based on task authorisation and levels of maintenance quality inspection. In both cases, the level of regulation relates to the old adage in aviation maintenance that 'in the air you can't get out and fix something that has gone wrong and seemingly minor maintenance errors can have catastrophic consequences'.

The importance of safe and efficient aviation services to the national economy cannot be overstated.

Aviation is of considerable importance in the use of often complex and very expensive equipment for the rapid transportation of people and cargo, in the provision of aerial work services to agriculture and in fire fighting. Military aviation is of considerable importance to national defence, and in the provision of services to the community at times of natural disaster.

Aviation maintenance is thus a key national industry sector. It is diverse, highly technical and uses advanced technologies. It operates in a multi-billion dollar capital equipment environment and high quality and maximum safety requirements and standards are critical.

Structure of the Aerospace Industry Competency Standards

Within this Training Package the units of competency are divided into two types:

- Common units – these indicate competencies that apply across the majority of MEA11 Aeroskills Training Package qualifications at one or more levels of qualification. These units may or may not be core units, depending on the individual packaging rules.
- Technical stream units – these are either core or elective units that relate to individual technical streams and related qualifications. Units may be core in one qualification and elective in another because of regulatory and licensing requirements.

The unit numbering system is as follows:

- Common unit numbers begin with '1', e.g. MEA101B
- Avionics technical stream units begin with '2,' e.g. MEA201B
- Mechanical technical stream units begin with '3', e.g. MEA301B

- Structures technical stream units begin with ‘4’, e.g. MEA401C
- Aircraft Life Support and Furnishing units begin with ‘5’, e.g. MEA501A
- Armament units begin with ‘6’, e.g. MEA601A.
-

MEA11 Qualification Pathways

The Aeroskills Training Package Qualifications

The MEA11 Aeroskills Training Package Version 2 includes national qualifications at Certificate II, Certificate III, Certificate IV, Diploma and Advanced Diploma levels. The Training Package provides national qualification outcomes based on recognition of competency achievement as specified under the Competency Standards section of this Training Package. These qualifications can be accessed through traineeship and apprenticeship pathways, or through other pathways that do not involve a contract of training, such as recognition of prior learning.

Packaging units of competency for a qualification
Qualifications may be achieved in a number of ways, but regardless of how they are attained, they must be based on the achievement of a package of competency standards.
Each qualification is made up of core and elective units drawn from common, technical stream and imported units:

- the mandatory core of common, technical stream and imported units for each qualification ensure the integrity of the qualification and effective alignment with CASA and ADF regulatory requirements
- the ability to select from a range of elective units that may be packaged into alternate training pathways provides flexibility and, where applicable, a means of alignment with regulatory requirements in areas such as licensing sub-sets in the CASA system and task authorisation in the ADF system.

The units of competency to be achieved for each qualification have been determined in consultation with industry and the Regulators (CASA and the ADF). Any RTO issuing a qualification will need to comply with this framework. However, RTOs are encouraged to offer flexible learning delivery formats to suit industry needs (what is taught, how, when, where delivered etc).
People with experience in related industries, such as Manufacturing, Engineering, Automotive and Electrotechnology, may be able to achieve competence in component workshop units from the Aerospace Industry Competency Standards with limited levels of ‘gap’ training and experience. This process is facilitated through a common ‘conversion’ unit of competency (MEA145A) relating to specific component workshop employment areas.

Certificate II Aeroskills qualifications

The MEA11 Aeroskills Training Package includes the following qualifications at Certificate II level:

- MEA20411 Certificate II in Aeroskills

- MEA20511 Certificate II in Aircraft Line Maintenance
- MEA20611 Certificate II in Aircraft Surface Finishing.

MEA20411 Certificate II in Aeroskills

The MEA20411 Certificate II in Aeroskills articulates with, and provides credit towards, the Aeroskills Training Package 'trade' qualifications at AQF Certificate IV level with common units given full recognition at the higher level. The elective units may provide partial credit towards related higher level units as people progress from AQF level II to the higher qualification. The relationship between the AQF level II and AQF level IV elective units is as follows:

MEA20411 units of competency	**Related AQF IV units of competency**
MEA238B Perform routine removal and installation of miscellaneous aircraft electrical hardware/components	MEA201B Remove and install miscellaneous aircraft electrical hardware/components
MEA239B Fabricate aircraft electrical looms and harnesses	MEA246C Fabricate and/or repair aircraft electrical hardware or parts
MEA240B Use electrical test equipment to perform basic electrical tests	MEA260B Use electrical test equipment
MEA329B Dismantle, inspect, maintain and assemble aircraft basic hydraulic and pneumatic components or parts	MEA380A Repair and/or overhaul aircraft hydraulic system components MEA381A Repair and/or overhaul aircraft pneumatic system components MEA382A Repair and/or overhaul aircraft fuel system components
MEA330B Dismantle, inspect, maintain and assemble aircraft non-primary structural removable components or parts and internal fittings	MEA328C Maintain and/or repair aircraft mechanical components or parts
MEA331B Dismantle, inspect, maintain and assemble aircraft gas turbine engine components or parts	MEA383A Repair and/or overhaul gas turbine engine air inlet and compressor components and/or modules MEA384A Repair and/or overhaul gas turbine engine combustion section components and/or modules MEA385A Repair and/or overhaul gas turbine engine turbine and exhaust section components MEA386A Repair and/or overhaul gas turbine engine ancillary section components

MEA332B Dismantle, inspect, maintain and assemble aircraft mechanical components or parts	MEA328C Maintain and/or repair aircraft mechanical components or parts
MEA333B Dismantle, inspect, maintain and assemble aircraft piston engine components or parts	MEA388A Repair and/or overhaul piston engines
MEA406B Repair/modify aircraft non-primary structural sheetmetal components	MEA423A Repair/modify aircraft metal structure
MEA407B Repair/modify aircraft non-primary structural non-metallic components	MEA405B Repair/modify aircraft composite material structure/components

The MEA20411 Certificate II in Aeroskills has a set of packaging rules that provide multiple pathways in three technical areas of Avionics, Mechanical and Structures. This design promotes the achievement of a multi-skilled qualification that can directly lead to the three established aircraft 'trade' areas and provide the maximum credit transfer.
The qualification has been designed to allow maximum flexibility to enable enterprises to choose the most appropriate pathway/s for their needs. The technical focus and application of the qualification achieved by each learner can be easily determined through reference to the Log of Industrial Experience and Achievement.
To achieve a MEA20411 Certificate II in Aeroskills, both common and elective units must be completed. The technical units are presented in ways such that the qualification will have a dominant technical area (a primary area of Avionic, Mechanical or Structures) and a complementary supporting component (the 'minor' component).
The 'major' and 'minor' components of the qualification must be drawn from different technical areas.

Common units + **technical units (major component)** + **technical unit (minor component)** = **MEA20411 Certificate II in Aeroskills**

MEA20511 Certificate II in Aircraft Line Maintenance
This qualification was developed to meet CASA requirements for the grant of an Aircraft Maintenance Engineer A Licence (A1, A2, A3 or A4) in accordance with Civil Aviation Safety Regulation (CASR) Part 66, and with transitional arrangements under CAO 100.66, in accordance with which maintenance authorities equivalent to the A licences may be granted. The qualification requirements must be met also in accordance with the requirements of CAO 100.66 pending the issue of CASR Part 66, including full coverage of CASA syllabus requirements as listed in Appendix 1. Training delivery is also required to be in accordance with CASR Part 147.

Because of the need to comply with licensing requirements there is no flexibility in the selection of units, other than for the purpose of meeting the specified requirements for the grant of an A1, A2, A3 or A4 licence.

Advice to contact CASA for authoritative information on licensing requirements
This Aeroskills Training Package publication provides advisory information based on discussions with CASA, including their anticipated future requirements. All possible care has been taken in the preparation of this material however persons should not rely solely on this publication on matters involving CASA's current or proposed licensing requirements or arrangements.
Precise information on licensing, current and proposed compliance requirements can be obtained from CASA on telephone 131 757 or at www.casa.gov.au.

The MEA20511 Certificate II in Aircraft Line Maintenance articulates with, and provides credit towards, the Aeroskills Training Package 'trade' qualifications at AQF Certificate IV level, with common units given full recognition at the higher level. The elective units may be credited as follows:

MEA20511 elective units	**Possible credit**
MEA240B Use electrical test equipment to perform basic electrical tests	Partial towards MEA260B Use electrical test equipment
MEA264A Remove and install aircraft electrical/avionic components during line maintenance	Partial towards MEA202C Remove and install basic aircraft electrical system components and MEA203C Remove and install advanced aircraft electrical system components
MEA265A Remove and install general aircraft electrical hardware	Partial towards MEA201B Remove and install miscellaneous aircraft electrical hardware/components
MEA344A Remove and install aircraft components	Partial towards MEA302C Remove and install aircraft hydro mechanical and landing gear system components
MEA345A Perform scheduled line maintenance activities on gas turbine engine fixed wing aircraft	Full credit for MEA301C Perform aircraft flight servicing
MEA346A Perform scheduled line maintenance activities on gas turbine engine rotary wing aircraft	
MEA347A Perform scheduled line maintenance activities on piston engine fixed wing aircraft	

MEA348A Perform scheduled line maintenance activities on piston engine rotary wing aircraft	
MEA418A Perform basic repair of aircraft internal fittings during line maintenance	Partial towards MEA339C Inspect, repair and maintain aircraft structures

MEA20611 Certificate II in Aircraft Surface Finishing

This qualification was developed to meet industry and ADF requirements for qualifications and competencies to cover the surface finishing of aircraft and aircraft components. There is a limited degree of flexibility in the selection of units to cover a range of multi-skilling activities required by industry organisations.

The MEA20611 Certificate II in Aircraft Surface Finishing articulates with, and provides credit towards, the surface finishing qualifications at AQF Certificate III and IV levels. In addition, the core common units provide credit towards other MEA11 Aeroskills Training Package qualifications at AQF Certificate III, IV and Diploma levels, and the electives that provide multi-skilling would provide significant credit towards other MEA11 Aeroskills Training Package qualifications at AQF Certificate II level. The elective units may be credited as follows:

MEA20611 elective units	**Possible credit**
MEA330B Dismantle, inspect, maintain and assemble aircraft non-primary structural removable components or parts and internal fittings	Full credit towards MEA20411 Certificate II in Aeroskills
MEA406B Repair/modify aircraft non-primary structural sheetmetal components	Full credit towards MEA20411 Certificate II in Aeroskills
MEA407B Repair/modify aircraft non-primary structural non-metallic components	Full credit towards MEA20411 Certificate II in Aeroskills

Certificate III Aeroskills qualifications

There are three qualifications at Certificate III in the MEA11 Aeroskills Training Package Version 1. They are:

- MEA30111 Certificate III in Aircraft Surface Finishing
- MEA30211 Certificate III in Aeroskills (Mechatronics)
- MEA30311 Certificate III in Aircraft Life Support and Furnishing.

MEA30111 Certificate III in Aircraft Surface Finishing

A number of industry organisations and the ADF train and employ aircraft surface finishers. In some cases these individuals are trained from entry level and in other cases they are recruited and converted from automotive spray painting to aircraft surface finishing. The combination of competencies in surface finishing tasks and the level of multi-skilling required by the relevant organisations resulted in MEA30111 Certificate III in Aircraft Surface Finishing.
The MEA30111 Certificate III in Aircraft Surface Finishing articulates with, and provides credit towards, the surface finishing qualification at AQF Certificate IV level. In addition, the common units and unit MEA401C Inspect aircraft structures would provide significant credit towards other MEA11 Aeroskills Training Package qualifications at AQF Certificate IV level.

MEA30211 Certificate III in Aeroskills (Mechatronics)
The MEA30211 Certificate III in Aeroskills (Mechatronics) is introduced with MEA11 Aeroskills Training Package to cover maintenance of small aircraft within the General Aviation industry sector by non-licensed individuals. It may also be of use as a first Aeroskills qualification for individuals transitioning from an allied trade to employment on small aircraft maintenance. The core common, technical stream and imported units provide credit towards other Aeroskills qualifications at AQF Certificate IV and, in some cases, at Diploma level. There is a wide choice of elective technical stream units that are intended to meet the needs of the full range of General Aviation maintenance organisations and will also provide credits towards Aeroskills qualifications at AQF Certificate IV and, in some cases, Diploma levels. With an appropriate choice of electives this qualification fully articulates with MEA41011 Certificate IV in Aeroskills (Mechatronics).

MEA30311 Certificate III in Aircraft Life Support and Furnishing
The MEA30311 Certificate III in Aircraft Life Support and Furnishing is based on the PUA31706 Certificate III in Public Safety (Aviation Life Support Maintenance) which was to be deleted from that Training Package after MEA07 Version 2 was implemented. RTOs were expected to transfer within 12 months from release date of MEA07v2.
In developing the qualification for the MEA11 Aeroskills Training Package there was extensive consultation with the ADF (for whom PUA31706 was developed), and with the civil aviation maintenance industry which resulted in the coverage of aircraft furnishing maintenance being increased. The qualification now covers the maintenance of aircrew equipment (such as helmets, oxygen masks, Anti-G suits and immersion suits), parachutes, survival vests for aircrew and passengers, life rafts, aircraft internal fittings and soft furnishings. In the case of soft furnishings, both fabrication and maintenance is covered. Multi-skilling is also provided for in the inspection and repair of non-structural metallic and non-metallic components, and for limited maintenance of electrical and electronic systems and components in passenger seats and pods.
The MEA30311 Certificate III in Aircraft Life Support and Furnishing fully articulates towards the MEA41111 Certificate IV in Aircraft Life Support and Furnishing. It also includes a number of common units of competency that are common to other qualifications at AQF Certificate III and Certificate IV levels. The relationship between the units required for this qualification and those applicable to the PUA31706 Certificate III in Public Safety (Aviation Life Support Maintenance) is as follows:

MEA30311 units	**PUA31706 units**

MEA101B Interpret occupational health and safety practices in aviation maintenance	Same (alternative of BSBCMN211A Participate in workplace safety procedures provides partial coverage)
MEA103B Plan and organise aviation maintenance work activities	Same
MEA105C Apply quality standards applicable to aviation maintenance processes	MEA105B Apply quality standards applicable to aviation maintenance processes
MEA107B Interpret and use aviation maintenance industry manuals and specifications	Same
MEA108B Complete aviation maintenance industry documentation	Same
MEA109B Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	Same
MEA118A Conduct self in the aviation maintenance environment	Covered in part by each of PUADEFEQ001A Work with equity and diversity, PUACOM001B Communicate in the workplace, PUATEA001A Work in a team
MEA240B Use electrical test equipment to perform basic electrical tests	
MEA304C Remove and install non-pressurised aircraft structural and non-structural components	
MEA317C Remove and install pressurised aircraft structural and non-structural components	
MEA411A Remove surface coatings from aircraft or aircraft components	
MEA412A Pre-treat aluminium alloy surfaces	
MEA414A Remove light corrosion	
MEA416A Apply aircraft identification markings, graphics and decals	
MEA419A Inspect and repair/modify	

aircraft cabin/cockpit non-primary structure components	
MEA501A Maintain and fit anti-G suits	Equivalent to PUADEFLS001A
MEA502A Maintain and fit helmets	Equivalent to PUADEFLS002A
MEA503A Maintain and fit immersion suits	Equivalent to PUADEFLS003A
MEA504A Maintain and fit oxygen masks	Equivalent to PUADEFLS004A
MEA505A Maintain and pack parachutes	Equivalent to PUADEFLS005A
MEA506A Maintain and pack survival inflatable life rafts and escape slides	Equivalent to PUADEFLS006A
MEA507A Maintain, pack and fit survival inflatable buoyancy vests	Equivalent to PUADEFLS007A
MEA508A Maintain, install and remove restraint systems	Equivalent to PUADEFLS008A
MEA509A Manufacture, repair and alter aircraft related fabric components	Equivalent to PUADEFLS009A
MEA510A Maintain seat and pod electrical and electronic systems	
MEA511A Operate and maintain sewing machines and overlockers	Equivalent to LMTPRTF05CA
AURV231208A Carry out trimming of vehicle components	
AURV231268A Select and apply trim/fabric materials and determine attachment methods	Equivalent to AUR31268B Select and apply trim/fabric materials
AURV231368A Select and apply trim/fabric adhesives	Part covered by LMTPRTF09BA Use adhesives - 2
LMFSF2001B Cut single layer fabrics	Same
LMFSF2002B Machine sew materials	Same
LMFUP3012B Apply marine sewing and installation techniques	Same
LMTTF2008A Use adhesives	Equivalent to LMTPRTF09BA Use adhesives - 2
MEM12001B Use comparison and basic	Same as MEM12.1B Use comparison and basic

measuring devices	measuring devices
PUADEFEO101D Work safely with explosive ordnance	Same
PUADEFEO501D Conduct explosive ordnance inspection	Same

Certificate IV Aeroskills qualifications

The MEA11 Aeroskills Training Package includes seven Certificate IV qualifications:

- MEA40611 Certificate IV in Aeroskills (Avionics)
- MEA40711 Certificate IV in Aeroskills (Mechanical)
- MEA40911 Certificate IV in Aircraft Surface Finishing
- MEA41011 Certificate IV in Aeroskills (Mechatronics)
- MEA41111 Certificate IV in Aircraft Life Support and Furnishing
- MEA41213 Certificate IV in Aeroskills (Armament)
- MEA41311 Certificate IV in Aeroskills (Structures).

Certificate IV qualifications outcomes

The Certificate IV qualifications in Aeroskills contained in the MEA11 Aeroskills Training Package Version 1 specify competencies required for trade-level outcomes in maintenance, repair and overhaul for the aerospace engineering industry. They have been structured to produce a competent base-level aerospace engineering technician; the level expected on completion of an aerospace apprenticeship in Avionics, Mechanical, Mechatronics, Structures or Armament streams, or following training beyond trade-level in Aircraft Surface Finishing or in Aircraft Life Support and Furnishing. Traineeship pathways are also included, enabling the greatest possible access to careers in the aerospace industry.

Credit transfer and articulation

Details of credit transfer and articulation from AQF Certificate II and III levels to Certificate IV have already been provided. Where credit cannot be allocated on a whole unit basis, the relationship with Certificate IV level units will be clearly mapped and identified in separate documentation at a later date. In addition, from MEA11 Aeroskills Training Package Version 1 there is guidance information for assessment in units of competency where experience associated with another unit may be used also as evidence for the unit being assessed. This will assist learners, enterprises and RTOs in realising the greatest possible efficiencies in terms of learning and skills acquisition.

A separate mapping exercise to document the level of credit transfer available from, and to, competencies under other related industry Training Packages, such as MEM05 Metal and Engineering, UEE07 Electrotechnology and AUR05 Automotive Industry Retail, Service and Repair, towards the Aeroskills Certificate IV qualifications has resulted in the development of a common ‘conversion’ unit.

The Certificate IV qualifications articulate with, and provide credit towards, the qualifications at AQF Diploma and Advanced Diploma levels. This provides avenues towards meeting the full CASA requirements for the grant of B1 and B2 licences, and to prepare individuals to work in maintenance management and maintenance-related integrated logistic support (ILS) activities within both the ADF and CASA regulatory environments.
The MEA41211 Certificate IV in Aeroskills (Armament) is somewhat different since, at present, training is available only to trainees who have enlisted in the RAAF and ongoing career development involves, in part, the attainment of additional qualifications from the PUA00 Public Safety Training Package that cover weapons and explosive ordnance.

Certificate IV structure and packaging rules
Each Certificate IV qualification is comprised of core and elective units. Electives may be grouped according to industry and regulatory need.
The core consists of common units, mandatory technical stream units required for regulatory compliance and mandatory imported units.
Elective units consist of common, technical stream and imported units that may be grouped to meet defined industry or specific regulatory requirements as described in each qualification. Elective units provide the greatest possible degree of flexibility to the extent permitted by regulatory compliance.

Meeting CASA regulatory requirements
Revised CASA maintenance regulations applicable to the maintenance of large aircraft, such as those operated by the airlines, came into force in the middle of 2011. The applicable regulations are CASR Parts 42, 66, 145 and 147. Maintenance of small aircraft over the period 2011 to 2015 will continue to be covered by the existing CAR 30 and 31, with an extended Part 42 and the other regulations being applied to General Aviation after that time. Units of competency and qualification pathways required to support compliance with these regulations have been introduced into the MEA11 Aeroskills Training Package, primarily at Diploma and Advanced Diploma levels with regard to large aircraft maintenance.
As stated, new regulations will not be applied to General Aviation until after 2015 and a revised system of licensing is still to be finalised. However, beyond 2015 the pathway to licence will be via the attainment of MEA11 Aeroskills Training Package units of competency and a qualification at Certificate IV level which is expected to be attained primarily through an apprenticeship. To have individuals able to be licensed through this approach from 2015/2016 onwards requires the introduction of a qualification in MEA11 Aeroskills Training Package Version 1. Accordingly, MEA41011 Certificate IV in Aeroskills (Mechatronics) is introduced to operate in tandem with the CASA Basic Examinations and Schedule of Experience (required by CAR 31) through to 2015. If necessary, qualification pathways will be revised once the final form of small aircraft maintenance certification licensing has been determined.

Diploma level Aeroskills qualifications

The MEA11 Aeroskills Training Package includes five Diploma level qualifications:

- MEA50111 Diploma of Aeroskills (Avionics)
- MEA50211 Diploma of Aeroskills (Mechanical)
- MEA50311 Diploma of Aviation Maintenance Management (Avionics)

- MEA50411 Diploma of Aviation Maintenance Management (Mechanical)
- MEA50511 Diploma of Aeroskills (Non-Destructive Testing).

The Diplomas of Aeroskills in the avionic and mechanical fields provide competency pathways which cover a combination of Certificate IV and 'beyond trade' Diploma-level competencies that together fully meet proposed CASA licensing requirements for the B1 (MEA50211 refers) and B2 (MEA50111 refers) licences that may be granted under CASR Part 66. Individuals who obtain one of these Diplomas under the training provisions of CASR Part 147 and having met the CASR Part 66 licensing syllabus requirements, as shown in Appendix 1, will have met the specified criteria for the grant of the applicable licence.
The two Diplomas of Aviation Maintenance Management provide para-professional qualifications that meet aviation maintenance industry needs for junior maintenance managers and for employment in maintenance-related ILS activities within either the ADF or CASA regulatory systems.
The MEA50511 Diploma of Aeroskills (Non-Destructive Testing) is a qualification that provides for full qualification at AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace Level 2.

Credit transfer and articulation
The Certificate IV qualifications in Aeroskills in Avionics and Mechanical (MEA40611 and MEA40711) articulate with or provide substantial credit towards the four Diploma level qualifications MEA50111 Diploma of Aeroskills (Avionics), MEA50211 Diploma of Aeroskills (Mechanical), MEA50311 Diploma of Aviation Maintenance Management (Avionics) and MEA50411 Diploma of Aviation Maintenance Management (Mechanical).
The MEA41011 Certificate IV in Aeroskills (Mechatronics) also provides significant credit towards these Diplomas.
The MEA41311 Certificate IV in Aeroskills (Structures), MEA40911 Certificate IV in Aircraft Surface Finishing and MEA41111 Certificate IV in Aircraft Life Support and Furnishing qualifications do not articulate with the Diplomas, but individuals with one of those qualifications would be entitled to credit for a number of common units of competency.
All of the Certificate IV qualifications provide a limited number of credits towards the MEA50511 Diploma of Aeroskills (Non-Destructive Testing).

Qualification structure – flexibility
In the case of the Diplomas of Aeroskills in the Avionic and Mechanical fields, flexibility is limited by the requirement to precisely meet the specified licensing criteria of CASR Part 66. However, in the case of the Diplomas of Aviation Maintenance Management there is considerable flexibility so that organisations and individuals can tailor the qualification to employment areas, such as:

- maintenance team leaders in either the ADF or CASA regulatory environment
- employment within CASR Part 42 continuing airworthiness management organisations
- specialist employment in maintenance-related ILS areas in the ADF regulatory environment.

Training and qualifications pathways including Apprenticeships

The Diploma qualifications can be accessed through apprenticeship pathways, through a traineeship or through later post-graduate study. In the case of the Diplomas of Aviation Maintenance Management the qualifications could be also be accessed through direct entry onto a course run by an RTO. These qualifications may also be achieved through a process of recognition of prior learning.
Details of indicative training pathways (or competency profiles) will be made available for use by enterprises, RTOs, NACs etc. as part of the non-endorsed Training Package information. These pathways cover different job types including options providing licensing preparation. However, it is stressed that they are intended for illustrative purposes and should not be viewed as limiting. A diagram showing the various pathways to all qualifications in the MEA11 Aeroskills Training Package may be found at the end of this section.

Structure and packaging rules
The Diplomas of Aeroskills in the avionic and mechanical fields provide competency pathways which include specified embedded 'trade' competency units meeting requirements for Certificate IV plus 'beyond trade' licensing requirements which combine to fully meet CASA requirements for issue of particular maintenance engineer licences as specified under CASR Part 66.
Each Diploma qualification (avionics or mechanical) is comprised of core units of competency (common to all licence streams) and specified elective stream units specific to a given licence. Both core and elective streams include both Certificate IV and additional 'beyond trade' obligatory units supporting achievement of the particular maintenance engineer licence sought.
The structure of each qualification can be represented in a generic form as follows:

Specified Certificate IV requirements	**+**	**Specified licensing requirements**	**=**	**Diploma of Aeroskills**

The two Diplomas of Aviation Maintenance Management consist of a number of common para-professional units that apply to both qualifications, plus some that are chosen according to the intended area of employment. In addition, there are a number of imported elective para-professional engineering units. Also provided are a number of preliminary units that must be attained where the individual is not articulating from MEA40611 Certificate IV in Aeroskills (Avionics) or MEA40711 Certificate IV in Aeroskills (Mechanical).
The structure of each qualification can be represented in a generic form as follows:

Preliminary units (if required)	**+**	**Applicable common units**	**+**	**Elective engineering units**	**=**	**Diploma of Aviation Maintenance Management**

The MEA50511 Diploma of Aeroskills (Non-Destructive Testing) is structured to provide qualification to *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* Level 2 in the following NDT methods:

- penetrant
- magnetic particle
- eddy current
- ultrasonic
- radiographic.

Units are also included to provide competency in compliance with regulatory requirements regarding the certification and reporting of test results.

Advanced Diploma level Aeroskills qualifications

The MEA11 Aeroskills Training Package includes three Advanced Diploma level qualifications:

- MEA60111 Advanced Diploma of Aviation Maintenance Management (Avionics)
- MEA60211 Advanced Diploma of Aviation Maintenance Management (Mechanical)
- MEA60311 Advanced Diploma of Aviation Non-Destructive Testing.

The qualifications in maintenance management provide competencies required to work at the higher para-professional and maintenance manager levels in civil aviation maintenance organisations operating under both the CASA and the ADF airworthiness regulatory systems, and within the ADF. Through selection of elective units within the framework of the packaging rules for each qualification individuals and organisations can adapt the qualifications for employment as managers within aviation maintenance organisations, or as managers within engineering support organisations dealing with aspects of ILS and within continuing airworthiness management organisations.
The qualification in NDT enables individuals to meet the requirements for *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* Level 3.

Credit transfer and articulation

There are articulation pathways to the MEA60111 Advanced Diploma of Aviation Maintenance Management (Avionics) from the following three qualifications:

- MEA50111 Diploma of Aeroskills (Avionics)
- MEA50311 Diploma of Aviation Maintenance Management (Avionics)
- MEA40611 Certificate IV in Aeroskills (Avionics).

Similarly, there are articulation pathways to MEA60211 Advanced Diploma of Aviation Maintenance Management (Mechanical) from:

- MEA50211 Diploma of Aeroskills (Mechanical)
- MEA50411 Diploma of Aviation Maintenance Management (Mechanical)
- MEA40711 Certificate IV in Aeroskills (Mechanical).

In the case of MEA60311 Advanced Diploma of Aviation Non-Destructive Testing there is an articulation pathway from the MEA50511 Diploma of Aeroskills (Non-Destructive Testing).

Qualification structure – flexibility

Through appropriate selection of elective units the two Advanced Diplomas of Aviation Maintenance Management can be adapted to prepare individuals for employment in maintenance organisation positions, such as Accountable Manager, Senior Maintenance Manager, Maintenance Manager and designated management positions in continuing airworthiness management organisations, or as managers of a range of activities in engineering support organisations, such as spares assessing management, repairable item management and aviation maintenance publication management.
In the case of the MEA60311 Advanced Diploma of Aviation Non-Destructive Testing flexibility is limited by the need to align with the required qualifications and employment areas specified in *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* for Level 3 personnel.

Training and qualification pathways
The Advanced Diploma qualifications in Maintenance Management can be accessed through training provided by an RTO that articulates from either Diploma of Aviation Maintenance Management, either Diploma of Aeroskills or from an applicable Certificate IV in Aeroskills. A direct entry pathway is not available because of regulatory requirements associated with the areas of employment relevant to the qualifications. The qualifications may also be attained either wholly or in part through a process of recognition of prior learning.
The MEA60311 Advanced Diploma of Aviation Non-Destructive Testing must be accessed through a training pathway that complies with *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* for authorisation at Level 3.

Structure and packaging rules
The two Advanced Diplomas of Aviation Maintenance Management consist of a number of common para-professional units that apply to both qualifications, plus some that are chosen according to the intended area of employment. In addition, there are a number of imported elective para-professional engineering units that are in either aeronautical or avionic specialist streams.
The MEA60311 Advanced Diploma of Aviation Non-Destructive Testing consists of common units relating to aircraft maintenance, units required to attain competence in all NDT methods covered by *AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace* plus units required to provide competency in training development, delivery and assessment. There is also a limited range of electives that relate to the regulatory environment in which the individual is employed.

MEA11 Qualifications

List of all qualifications in MEA11

Qualification code	Title
MEA20411	Certificate II in Aeroskills
MEA20511	Certificate II in Aircraft Line Maintenance

Qualification code	Title
MEA20611	Certificate II in Aircraft Surface Finishing
MEA30111	Certificate III in Aircraft Surface Finishing
MEA30211	Certificate III in Aeroskills (Mechatronics)
MEA30311	Certificate III in Aircraft Life Support and Furnishing
MEA40611	Certificate IV in Aeroskills (Avionics)
MEA40711	Certificate IV in Aeroskills (Mechanical)
MEA40911	Certificate IV in Aircraft Surface Finishing
MEA41011	Certificate IV in Aeroskills (Mechatronics)
MEA41111	Certificate IV in Aircraft Life Support and Furnishing
MEA41213	Certificate IV in Aeroskills (Armament)
MEA41311	Certificate IV in Aeroskills (Structures)
MEA50111	Diploma of Aeroskills (Avionics)
MEA50211	Diploma of Aeroskills (Mechanical)
MEA50311	Diploma of Aviation Maintenance Management (Avionics)
MEA50411	Diploma of Aviation Maintenance Management (Mechanical)
MEA50511	Diploma of Aeroskills (Non-Destructive Testing)
MEA60111	Advanced Diploma of Aviation Maintenance Management (Avionics)
MEA60211	Advanced Diploma of Aviation Maintenance Management (Mechanical)
MEA60311	Advanced Diploma of Aviation Non-Destructive Testing

MEA11 Skill Sets Information

The MEA11v2 Skill Sets are in eight groups that relate to their purpose, as follows:

- Group 1 contains Skill Sets applicable to individuals with relevant allied trade Certificate III or Certificate IV qualifications that provide competencies required for employment in aviation component maintenance workshops operating under either the CASA or the ADF regulatory systems.

- Group 2 contains Skill Sets that specify CASA requirements for the removal of exclusions from B1 and B2 aircraft maintenance engineer licences and for the grant of A licences to holders of a B2 licence or a Certificvate IV in Aeroskills (Mechanical).
- Group 3 contains Skill Sets that specify CASA requirements for the grant of maintenance authorisations to individuals working in CASR Part 145 maintenance organisations.
- Group 4 contains Skill Sets for Aircraft welding authorisations.
- Group 5 contains Skill Sets for NDT authorisations.
- Group 6 contains Skill Sets for aircraft component electroplating authorisations.
- Group 7 contains Skill Sets for aircraft machining authorisations.
- Group 8 contains Skill Sets for Aircraft tyre retreading authorisations.

Group 1 – Skill Sets for Employment in Aviation Maintenance Workshops

The Skill Sets in this group have been developed as a means of qualifying individuals from allied trades to work in specific areas of aircraft component repair and overhaul. They could also be used to qualify individuals with Aeroskills AME qualifications to work on component repair and overhaul. Allied trades are as follows:

- Allied trades related to avionic and electrical component work are electro-technology, telecommunications and automotive. A metals and engineering background may also qualify where competencies held and work experience is in the electrical and/or electronic fields.
- Allied trades related to mechanical component work are automotive and metals and engineering where competencies held and work experience is in mechanical maintenance fields.

Many of the units of competency listed in the Skill Sets have the following common core Aeroskills units as prerequisites:

- MEA101B Interpret occupational health and safety practices in aviation maintenance
- MEA103B Plan and organise aviation maintenance work activity
- MEA105C Apply quality standards applicable to aviation maintenance processes
- MEA107B Interpret and use aviation maintenance industry manuals and specifications
- MEA109B Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance.

Much of the general content in these units is also covered by units that will be held by individuals in allied trades. To facilitate the movement of such individuals to aviation component workshop employment the parts of these units that are peculiar to Aeroskills have been identified and have been included in MEA145A Conversion from allied trades for employment in aviation maintenance workshops which is listed in each Skill Set. Through attainment of MEA145A individuals may be deemed to be competent in each of the listed common core units.

Avionics

- Electrical component repair/overhaul
- Mechanical and electro-mechanical instrument component repair/overhaul
- Aircraft display, control and distribution system component repair/overhaul
- Oxygen system component repair/overhaul
- Aircraft radio frequency communication and navigation system component repair/overhaul

- Aircraft pulse system component repair/overhaul
- Aircraft audio and visual system and reproducer repair/overhaul

Mechanical

- Hydraulic system component repair/overhaul
- Electro-hydraulic component repair/overhaul
- Pneumatic system component repair/overhaul
- Electro-pneumatic component repair/overhaul
- Fuel system component repair/overhaul
- Gas turbine engine air inlet and compressor module/component repair/overhaul
- Gas turbine engine combustion section module/component repair/overhaul
- Gas turbine engine turbine and exhaust module/component repair/overhaul
- Gas turbine engine ancillary section module/component repair/overhaul
- Piston engine repair/overhaul
- Propeller repair/overhaul
- Rotary wing dynamic component repair/overhaul
- Mechanical system component repair/overhaul
- Composite structure maintenance

Group 2 - Skill Sets for Removal of B1 and B2 Licence Exclusions

In the process of transitioning from the CAR 31 aircraft maintenance engineer licensing system to the new CASR Part 66 system many existing CAR 31 licence holders will be granted a B1 or B2 licence with a range of exclusions.

To provide a mechanism for the removal of these exclusions, the Skill Sets in this group have been developed in consultation with CASA. For the purpose of exclusion removal, they must be delivered by RTOs that also hold Maintenance Training Organisation status under CASR Part 147.

CASA has also issued Airworthiness Advisory Circular AAC 9-66 in which it has been specified that CASA regards the grant of a B1 or B2 licence as signifying that all competencies relating to the specific licence privileges granted are held by the individual.

Under these provisions, all holders of a B1 licence may be deemed to hold the following units of competency:

- MEA101B Interpret occupational health and safety practices in aviation maintenance
- MEA103B Plan and organise aviation maintenance work activity
- MEA105C Apply quality standards applicable to aviation maintenance processes
- MEA107B Interpret and use aviation maintenance industry manuals and specifications
- MEA108B Complete aviation maintenance industry documentation
- MEA109B Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
- MEA301B Perform aircraft flight servicing.

All holders of a B2 licence may be deemed to hold the following units of competency:

- MEA101B Interpret occupational health and safety practices in aviation maintenance
- MEA103B Plan and organise aviation maintenance work activity
- MEA105C Apply quality standards applicable to aviation maintenance processes

- MEA107B Interpret and use aviation maintenance industry manuals and specifications
- MEA108B Complete aviation maintenance industry documentation
- MEA109B Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
- MEA201B Remove and install miscellaneous aircraft electrical hardware/components
- MEA246C Fabricate and/or repair aircraft electrical hardware or parts
- MEA260B Use electrical test equipment.

For this reason, the above units are not listed against the Skill Sets where they are specified as prerequisites for listed units.
Where any RPL action is required with regard to any of the units of competency listed in the Skill Sets in this group, RTOs are encouraged to undertake an efficient RPL assessment (in line with CASA guidance in AAC9-66) to determine required gap training (if any) in order to provide an integrated learning program for the units in the applicable Skill Set.

- Electrical – B1.1 Licence Exclusions E1 and E4 Removal
- Electrical – B1.1 Licence Exclusions E1 and E4 Removal (when competencies are being gained on basic light aircraft with gas turbine engine)
- Electrical – B1.2, B1.3 or B1.4 Licence Exclusions E1 and E4 Removal
- Electrical – B1.2 or B1.4 Licence Exclusions E1 and E4 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Electrical – B2 Licence Exclusions E1 and E4 Removal
- Electrical – B2 Licence Exclusions E1 and E4 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Airframe – B1.1 Licence Exclusion E2 Removal
- Airframe – B1.1 Licence Exclusion E2 Removal (when competencies are being gained on basic light aircraft with gas turbine engine)
- Airframe – B1.2 Licence Exclusion E2 Removal
- Airframe – B1.2 Licence Exclusion E2 Removal (when competencies are being gained on basic light aircraft)
- Airframe – B1.3 and B1.4 Licence Exclusion E2 Removal
- Airframe – B1.4 Licence Exclusion E2 Removal (when competencies are being gained on basic helicopters)
- Power Plant – B1.1 Licence Exclusion E3 Removal
- Power Plant – B1.2 Licence Exclusion E3 Removal
- Power Plant – B1.2 Licence Exclusion E3 Removal (when competencies are being gained on basic light aircraft)
- Power Plant – B1.3 Licence Exclusion E3 Removal
- Power Plant – B1.4 Licence Exclusion E3 Removal
- Power Plant – B1.4 Licence Exclusion E3 Removal (when competencies are being gained on basic helicopters)
- Instrument – B1 Licence Exclusions E5 and E7 Removal
- Instrument – B1.2 and B1.4 Licence Exclusions E5 and E7 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Instrument – B2 Licence Exclusions E5 and E7 Removal
- Instrument and Radio – B1 Licence Exclusion E6 Removal

- Instrument and Radio – B1.2 and B1.4 Licence Exclusion E6 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Instrument and Radio – B2 Licence Exclusion E6 Removal
- Instrument and Radio – B2 Licence Exclusion E6 Removal (non-type rated aircraft and helicopters only)
- Radio – B1 Licence Exclusion E8 Removal
- Radio – B1.2 and B1.4 Licence Exclusion E8 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Radio – B2 Licence Exclusion E8 Removal
- Radio – B2 Licence Exclusion E8 Removal (when competencies are being gained on non-type rated aircraft and helicopters)
- Airframe – B1 Licence Exclusion E9 and E43 Removal
- Airframe – B1 Licence Exclusion E10 Removal
- Radio – B2 Licence Exclusion E11 Removal
- Airframe/Engine – B1.1 and B1.2 Licence Exclusion E12 Removal
- Airframe – B1 Licence Exclusion E13 Removal
- Airframe – B1 Licence Exclusion E14 Removal
- Airframe – B1.1 and B1.3 Licence Exclusion E15 Removal
- Airframe – B1.1 Licence Exclusion E15 Removal
- Airframe – B1.1 Licence Exclusion E16 Removal
- Airframe – B1.2 Licence Exclusion E16 Removal
- Radio – B2 Licence Exclusion E18 Removal
- Radio – B2 Licence Exclusion E19 Removal
- Radio – B2 Licence Exclusion E20 Removal
- Radio – B2 Licence Exclusion E21 Removal
- Radio – B2 Licence Exclusion E22 Removal
- Radio – B2 Licence Exclusion E23 Removal
- Radio – B2 Licence Exclusion E24 Removal
- Radio – B2 Licence Exclusion E25 Removal
- Radio – B2 Licence Exclusion E26 Removal
- Instrument – B2 Licence Exclusion E27 Removal
- Instrument – B2 Licence Exclusion E28 Removal
- Instrument – B2 Licence Exclusion E29 Removal
- Instrument – B2 Licence Exclusion E30 Removal
- Instrument – B2 Licence Exclusion E31 Removal
- Electrical – B2 Licence Exclusion E32 Removal
- Engine – B1.2 or B1.4 Licence Exclusions E33 and E38 Removal
- Electrical/Instrument/Radio – B2 Licence Exclusion E34 Removal
- Airframe – B1.1 or B1.2 Licence Exclusion E35 Removal
- Engine – B1.2 or B1.4 Licence Exclusions E36 and E37 Removal
- Engine – B1.2 or B1.4 Licence Exclusions E36 and E37 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Airframe – B1.1 or B1.3 Licence Exclusions E39 Removal
- Airframe – B1.2 or B1.4 Licence Exclusion E39 Removal (when competencies are being gained on basic light aircraft or helicopters)
- Airframe – B1 Licences Exclusions E40 Removal
- Airframe - B1 Licences Exclusions E41 Removal
- Airframe – B1 Licences Exclusions E42 Removal

- Electrical – B1 Licences Exclusion E44 Removal

Group 3 – Skill Sets for Individual Maintenance Authorisations

- Aircraft egress system maintenance
- In-flight entertainment system maintenance
- Borescope inspection approval
- Aircraft composite structure repair/modification using hot and cold bonding
- Aircraft composite structure repair/modification using cold bonding only

Group 4 - Skill Sets for Aircraft Welding Authorisations

There is a Skill Set for each of the relevant aircraft welding processes in each parent metal group. An individual can meet Regulatory requirements for approvals by meeting the requirements and being given a Statement of Attainment for the specific Skill Set that covers the welding method and the relevant parent metal group.

The Skill Sets provide for the required welding skills to be delivered through the applicable MEM code welding units (except for plasma arc welding where it has been necessary to base the skill development on the MEM Gas Tungsten Arc Welding code welding unit). The listed MEA welding units cover the test pieces that must be completed and tested for aircraft welding approval. Also included in the Skill Sets are common MEA units that relate to aircraft OHS, publications, documentation, work practices and quality processes.

- Aircraft welding using the gas welding process – aluminium alloys
- Aircraft welding using the gas welding process – magnesium alloys
- Aircraft welding using the gas welding process – carbon and low alloy steels
- Aircraft welding using the gas welding process – corrosion and heat resisting steels
- Aircraft welding using the gas welding process – nickel alloys
- Aircraft welding using the gas welding process – copper based alloys
- Aircraft welding using the gas welding process – titanium alloys
- Aircraft welding using the braze welding process - aluminium alloys
- Aircraft welding using the braze welding process - magnesium alloys
- Aircraft welding using the braze welding process - carbon and low alloy steels
- Aircraft welding using the braze welding process - corrosion and heat resisting steels
- Aircraft welding using the braze welding process - nickel alloys
- Aircraft welding using the braze welding process - copper based alloys
- Aircraft welding using the braze welding process - titanium alloys
- Aircraft welding using the gas metal arc welding process - aluminium alloys
- Aircraft welding using the gas metal arc welding process - magnesium alloys
- Aircraft welding using the gas metal arc welding process - carbon and low alloy steels
- Aircraft welding using the gas metal arc welding process - corrosion and heat resisting steels
- Aircraft welding using the gas metal arc welding process - nickel alloys
- Aircraft welding using the gas metal arc welding process - copper based alloys
- Aircraft welding using the gas metal arc welding process - titanium alloys
- Aircraft welding using the gas tungsten arc welding process - aluminium alloys
- Aircraft welding using the gas tungsten arc welding process - magnesium alloys

- Aircraft welding using the gas tungsten arc welding process - carbon and low alloy steels
- Aircraft welding using the gas tungsten arc welding process - corrosion and heat resisting steels
- Aircraft welding using the gas tungsten arc welding process - nickel alloys
- Aircraft welding using the plasma arc welding process - aluminium alloys
- Aircraft welding using the plasma arc welding process - magnesium alloys
- Aircraft welding using the plasma arc welding process - carbon and low alloy steels
- Aircraft welding using the plasma arc welding process - corrosion and heat resisting steels
- Aircraft welding using the plasma arc welding process - nickel alloys
- Aircraft welding using the plasma arc welding process - copper based alloys
- Aircraft welding using the plasma arc welding process - titanium alloys
- Aircraft welding using the manual metal arc welding process - aluminium alloys
- Aircraft welding using the manual metal arc welding process - magnesium alloys
- Aircraft welding using the manual metal arc welding process - carbon and low alloy steels
- Aircraft welding using the manual metal arc welding process - corrosion and heat resisting steels
- Aircraft welding using the manual metal arc welding process - nickel alloys
- Aircraft welding using the manual metal arc welding process - copper based alloys
- Aircraft welding using the manual metal arc welding process - titanium alloys

Group 5 - Skill Sets for NDT Authorisations

There is a Skill Set for each of the relevant NDT methods at AS 3669-2006 Non-destructive testing – Qualification and approval of personnel – Aerospace Level 2 and at a basic level. An individual can meet Regulatory requirements for approvals by meeting the requirements and being given a statement of attainment for the specific Skill Set that covers the relevant NDT method.

- Liquid penetrant inspection approval for aerospace
- Magnetic particle inspection approval for aerospace
- Eddy current inspection approval for aerospace
- Ultrasonic inspection approval for aerospace
- Radiographic inspection approval for aerospace
- Basic visual liquid dye penetrant inspection approval for aerospace
- Basic magnetic particle inspection approval for aerospace
- Basic eddy current inspection approval for aerospace
- Ultrasonic thickness testing inspection approval for aerospace
- Basic radiographic inspection approval for aerospace

Group 6 - Skill Sets for Aircraft Component Electroplating Authorisations

An individual can meet Regulatory requirements for approvals by meeting the requirements and being given a statement of attainment for the specific Skill Set that covers the applicable electroplating, anodising or metal spraying operation.

- Electroplate aeronautical product component parts
- Produce anodised film on aluminium alloy components
- Metal spray aeronautical product component parts

Group 7 - Skill Sets for Aircraft Machining Authorisations
An individual can meet Regulatory requirements for approvals by meeting the requirements and being given a statement of attainment for the specific Skill Set that covers the applicable machining operation.

- Machine aeronautical product component parts (general)
- Grind aeronautical product component parts
- Precision jig boring of aeronautical product component parts
- Complex milling of aeronautical product component parts
- Machine aeronautical product component parts using horizontal and/or vertical boring machines
- Machine aeronautical product component parts using NC/CNC machines
- Machine aeronautical product component parts using NC/CNC machining centres
- Machine plastic aeronautical product component parts
- Aeronautical product component parts – metal spinning lathe operations

Group 8 - Skill Sets for Aircraft Tyre Retreading Authorisations
An individual can meet Regulatory requirements for approvals by meeting the requirements and being given a statement of attainment for the specific Skill Set that covers the applicable aircraft tyre retreading operation.

- Aircraft tyre retreading (basic)
- Aircraft tyre retreading (advanced)
-

MEA11 Employability Skills

Industry Requirements for Employability Skills

Aviation maintenance involves dealing with a wide range of technology in a highly regulated environment and consistently working to high standards in order to ensure flight safety. There is therefore a particular emphasis on all areas of employability skills. For example, communication skills are vital to being able to operate in a highly regulated environment with extensive work involving recording and reporting, environments and problem solving across a range of technologies is vital. Also, with ongoing mandatory training associated with many types of aircraft a high level of personal commitment to learning is essential.

Examples from this Training Package of Employability Skills embedded within unit components

Unit component	**Example of embedded Employability Skill**
Unit Title	Test and troubleshoot aircraft electrical systems and components (*problem solving and technology*)
Unit Descriptor	It covers the competencies required to correctly interpret and

Unit component	Example of embedded Employability Skill
	apply CASA airworthiness and certification requirements during aircraft maintenance (*communication*)
Element	Identify task requirements (*planning and organising*)
Performance Criteria	Work individually or as a team member to complete maintenance tasks in a timely manner and in accordance with enterprise procedures and requirements (*communication, teamwork, initiative and enterprise and self-management*)
Range Statement	Troubleshooting involves the use of fault finding charts or similar, to line replacement level (*communication and problem solving*)
Required Skills and Knowledge	Applying logic processes, taking and interpreting electrical measurements, using test equipment and appropriate wiring diagrams and manuals to isolate electrical system malfunctions of the above components and systems (*problem solving, communication and technology*)
Evidence Guide	A person who demonstrates competency in this unit must be able to demonstrate initiative, effectively manage their own workload and contribute to the ongoing development of their skills, knowledge and competencies in the applicable field of aviation maintenance (*initiative and enterprise, self-management and learning*)

MEA11 Units of competency

List of all units within MEA11

Unit code	Unit title
MEA101B	Interpret occupational health and safety practices in aviation maintenance
MEA103B	Plan and organise aviation maintenance work activities
MEA105C	Apply quality standards applicable to aviation maintenance processes
MEA107B	Interpret and use aviation maintenance industry manuals and specifications
MEA108B	Complete aviation maintenance industry documentation
MEA109B	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance
MEA111C	Perform administrative processes to prepare for certification of civil aircraft maintenance
MEA112B	Plan and implement civil aircraft maintenance activities
MEA113C	Supervise civil aircraft maintenance activities and manage human resources in the workplace
MEA114A	Certify aeronautical product maintenance
MEA115A	Plan and implement aeronautical product maintenance activities
MEA116B	Apply occupational health and safety procedures at supervisor level in aviation maintenance
MEA117A	Apply self in the aviation maintenance environment
MEA118A	Conduct self in the aviation maintenance environment
MEA119A	Perform administrative processes to prepare for certification of civil aircraft A level line maintenance
MEA120B	Manage an aviation maintenance quality system
MEA121B	Manage aircraft/aeronautical product configuration
MEA122B	Manage aircraft/equipment system performance testing
MEA123B	Manage aviation maintenance work environment policy and practices

Unit code	Unit title
MEA124B	Coordinate change programs in the aviation maintenance environment
MEA125B	Develop aviation maintenance personnel
MEA126B	Manage aircraft maintenance activities
MEA127B	Provide technical advice in the maintenance and management of aircraft and aeronautical product
MEA128B	Provide engineering advice in the modification, maintenance and management of aircraft systems
MEA129A	Investigate technical aspects of aviation occurrences
MEA130A	Manage deployed/detached aviation maintenance activities
MEA131B	Manage the custody, transfer and disposal of aircraft, aeronautical product and support equipment
MEA132A	Manage budgetary resources in the aviation maintenance environment
MEA133B	Communicate aviation technical and maintenance management knowledge
MEA134B	Establish, maintain and evaluate the organisation's occupational health and safety system
MEA135A	Use computers in aviation maintenance-related integrated logistic support activities
MEA136A	Assess aviation maintenance spares and manage repairable items
MEA137A	Write aviation technical publications
MEA138B	Perform aviation technical publication management activities
MEA139A	Perform aviation maintenance – related integrated logistic support management activities
MEA140A	Supervise aviation maintenance teams and perform maintenance quality inspections
MEA141B	Manage risk in aviation maintenance
MEA142B	Manage self in the aviation maintenance environment
MEA143B	Develop and manage maintenance error management programs

Unit code	Unit title
MEA145A	Conversion from allied trades for employment in aviation maintenance workshops
MEA146A	Prepare and manage aviation maintenance organisation budgets and financial plans
MEA147A	Perform airworthiness management and maintenance program tasks
MEA201B	Remove and install miscellaneous aircraft electrical hardware/components
MEA202C	Remove and install basic aircraft electrical system components
MEA203C	Remove and install advanced aircraft electrical system components
MEA204C	Remove and install basic aircraft instrument system components
MEA205C	Remove and install advanced aircraft instrument system components
MEA206C	Remove and install aircraft basic radio communication and navigation system components
MEA207C	Remove and install aircraft electronic system components
MEA208C	Remove and install aircraft pressurisation control system components
MEA209C	Remove and install aircraft oxygen system components
MEA210C	Inspect, test and troubleshoot basic aircraft electrical systems and components
MEA211C	Inspect, test and troubleshoot advanced aircraft electrical systems and components
MEA212C	Inspect, test and troubleshoot basic aircraft instrument systems and components
MEA213C	Inspect, test and troubleshoot advanced aircraft instrument systems
MEA214C	Inspect, test and troubleshoot aircraft basic communication and radio navigation systems and components
MEA215C	Inspect, test and troubleshoot advanced aircraft communications systems and components
MEA216C	Inspect, test and troubleshoot instrument landing systems and components
MEA217C	Inspect, test and troubleshoot fixed wing autopilot systems and components
MEA218C	Inspect, test and troubleshoot rotary wing autopilot systems and components

Unit code	Unit title
MEA219C	Inspect, test and troubleshoot aircraft pressurisation control systems and components
MEA220C	Inspect, test and troubleshoot aircraft primary radar systems and components
MEA221C	Inspect, test and troubleshoot aircraft secondary radar systems and components
MEA222C	Inspect, test and troubleshoot aircraft oxygen systems and components
MEA223D	Inspect aircraft electrical systems and components
MEA224C	Inspect aircraft instrument systems and components
MEA225C	Inspect fixed wing aircraft automatic flight control systems and components
MEA226D	Inspect aircraft electronic systems and components
MEA227D	Test and troubleshoot aircraft electrical systems and components
MEA228D	Test and troubleshoot aircraft instrument systems and components
MEA229D	Test and troubleshoot aircraft radio frequency navigation and communications systems and components
MEA230C	Test and troubleshoot fixed wing aircraft automatic flight control systems and components
MEA231C	Inspect, test and troubleshoot rotary wing aircraft automatic flight control systems and components
MEA232C	Test and troubleshoot aircraft pulse systems and components
MEA233C	Inspect, test and troubleshoot aircraft inertial navigation and reference systems and components
MEA234C	Inspect, test and troubleshoot aircraft global navigation systems and components
MEA235B	Perform advanced troubleshooting in aircraft avionic maintenance
MEA238B	Perform routine removal and installation of miscellaneous aircraft electrical hardware/components
MEA239B	Fabricate aircraft electrical looms and harnesses
MEA240B	Use electrical test equipment to perform basic electrical tests
MEA241C	Perform aircraft weight and balance calculations as a result of modifications

Unit code	Unit title
MEA246C	Fabricate and/or repair aircraft electrical hardware or parts
MEA252B	Test, align and troubleshoot aircraft synchro and servo system components
MEA260B	Use electrical test equipment
MEA261C	Use electronic test equipment
MEA262B	Modify/repair aircraft component single layer printed circuit boards
MEA263B	Modify/repair aircraft component multi-layer printed circuit boards
MEA264A	Remove and install aircraft electrical/avionic components during line maintenance
MEA265A	Remove and install general aircraft electrical hardware
MEA270A	Lay out avionic systems
MEA271A	Lay out avionic flight management systems
MEA272B	Apply basic scientific principles and techniques in avionic engineering situations
MEA273A	Select and test avionic engineering materials
MEA274A	Maintain basic light aircraft electrical systems and components
MEA275A	Maintain basic light aircraft instrument systems and components
MEA276A	Maintain basic aircraft communication and radio navigation systems and components
MEA277A	Maintain twin engine aircraft electrical systems and components
MEA278A	Inspect, test and troubleshoot instrument display systems and components
MEA279A	Inspect, test and troubleshoot full authority digital engine control systems
MEA280A	Inspect, test and troubleshoot flight management systems and components
MEA281A	Maintain light aircraft AC powered instrument systems and components
MEA282A	Repair or overhaul aircraft pulse system components
MEA283A	Repair or overhaul aircraft display, control and distribution system components
MEA284A	Repair or overhaul aircraft instrument system components

Unit code	Unit title
MEA285A	Repair or overhaul aircraft radio frequency communication and navigation system components
MEA286A	Repair or overhaul aircraft electrical/electro-mechanical components
MEA287A	Repair or overhaul aircraft oxygen system components
MEA288A	Repair or overhaul aircraft audio and visual systems and reproducers
MEA289A	Maintain basic light aircraft avionic systems and components
MEA290A	Fit avionic modification sheetmetal components
MEA291A	Inspect, test and troubleshoot fixed wing single axis autopilot systems and components
MEA301C	Perform aircraft flight servicing
MEA302C	Remove and install aircraft hydro-mechanical and landing gear system components
MEA303D	Remove and install aircraft pneumatic system components
MEA304C	Remove and install non-pressurised aircraft structural and non-structural components
MEA305C	Remove and install aircraft fixed wing flight control system components
MEA306C	Remove and install engines and engine system components
MEA307C	Remove and install propeller systems and components
MEA308C	Remove and install rotary wing rotor and flight control system components
MEA309C	Inspect, test and troubleshoot aircraft hydro-mechanical and landing gear systems and components
MEA310C	Inspect, test and troubleshoot aircraft pneumatic systems and components
MEA311D	Inspect and repair/modify aircraft structures
MEA312C	Inspect, test and troubleshoot aircraft fixed wing flight control systems and components
MEA313C	Inspect, test and troubleshoot piston engine systems and components
MEA314C	Inspect, test and troubleshoot gas turbine engine systems and components

Unit code	Unit title
MEA315C	Inspect, test and troubleshoot propeller systems and components
MEA316C	Inspect, test and troubleshoot rotary wing rotor and control systems and components
MEA317C	Remove and install pressurised aircraft structural and non-structural components
MEA318C	Inspect aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components
MEA319C	Inspect gas turbine engine systems and components
MEA320C	Test and troubleshoot aircraft hydro-mechanical, mechanical, gaseous and landing gear systems and components
MEA321C	Test and troubleshoot aircraft fixed wing flight control systems and components
MEA322C	Test and troubleshoot gas turbine engine systems and components
MEA323B	Perform advanced troubleshooting in aircraft mechanical maintenance
MEA325B	Weigh aircraft and perform aircraft weight and balance calculations as a result of modifications
MEA327B	Fabricate and/or repair aircraft mechanical components or parts
MEA328C	Maintain and/or repair aircraft mechanical components or parts
MEA329B	Dismantle, inspect, maintain and assemble aircraft basic hydraulic and pneumatic components or parts
MEA330B	Dismantle, inspect, maintain and assemble aircraft non-primary structural removable components or parts and internal fittings
MEA331B	Dismantle, inspect, maintain and assemble aircraft gas turbine engine components or parts
MEA332B	Dismantle, inspect, maintain and assemble aircraft mechanical components or parts
MEA333B	Dismantle, inspect, maintain and assemble aircraft piston engine components or parts
MEA339C	Inspect, repair and maintain aircraft structures
MEA340A	Lay out and set up aircraft systems

Unit code	Unit title
MEA341A	Apply basic aircraft design characteristics
MEA342A	Apply basic aircraft power plant design characteristics
MEA343B	Remove and install avionic system components
MEA344A	Remove and install aircraft components
MEA345A	Perform scheduled line maintenance activities on gas turbine engine fixed wing aircraft
MEA346A	Perform scheduled line maintenance activities on gas turbine engine rotary wing aircraft
MEA347A	Perform scheduled line maintenance activities on piston engine fixed wing aircraft
MEA348A	Perform scheduled line maintenance activities on piston engine rotary wing aircraft
MEA349B	Apply basic scientific principles and techniques in aeronautical engineering situations
MEA350A	Select and test aeronautical engineering materials
MEA351A	Maintain airframe systems of basic light fixed wing aircraft
MEA352A	Maintain basic rotary wing aircraft systems
MEA353A	Maintain basic light aircraft engines and propellers
MEA354A	Maintain light aircraft pneumatic systems
MEA355A	Maintain light aircraft air cycle air conditioning systems
MEA356A	Maintain light piston engine aircraft pressurisation systems
MEA357A	Inspect, test and repair aircraft fabric surfaces
MEA358A	Re-cover aircraft fabric surfaces
MEA359A	Inspect and repair aircraft wooden structures
MEA360A	Maintain aircraft diesel engines
MEA361A	Maintain aircraft two stroke petrol engines

Unit code	Unit title
MEA362A	Maintain aircraft vapour cycle air conditioning systems
MEA363B	Inspect, repair and maintain structures and related components of non-pressurised small aircraft
MEA364A	Maintain and/or repair small aircraft mechanical components or parts
MEA365A	Assess structural repair/modification requirements and evaluate structural repairs and modifications
MEA366A	Perform borescope inspections
MEA367A	Repair/modify aircraft composite structure using cold bonding
MEA368A	Shot peen aircraft components
MEA380A	Repair and/or overhaul aircraft hydraulic system components
MEA381A	Repair and/or overhaul aircraft pneumatic system components
MEA382A	Repair and/or overhaul aircraft fuel system components
MEA383A	Repair and/or overhaul gas turbine engine air inlet and compressor components and/or modules
MEA384A	Repair and/or overhaul gas turbine engine combustion section components and/or modules
MEA385A	Repair and/or overhaul gas turbine engine turbine and exhaust section components
MEA386A	Repair and/or overhaul gas turbine engine ancillary section components
MEA387A	Test gas turbine engines and engine modules after overhaul or repair
MEA389A	Repair and/or overhaul propellers
MEA390A	Repair and/or overhaul rotary wing dynamic components
MEA391A	Repair and/or overhaul aircraft mechanical system components
MEA392A	Disassemble aircraft piston engines
MEA393A	Repair and/or overhaul aircraft piston engine cylinder assembly components
MEA394A	Repair and/or overhaul aircraft piston engine crankcase assembly components

Unit code	Unit title
MEA395A	Reassemble aircraft piston engines
MEA396A	Assemble aircraft piston engine quick engine change unit
MEA397A	Test aircraft piston engines after repair or overhaul
MEA401C	Inspect aircraft structures
MEA405B	Repair/modify aircraft composite material structure/components
MEA406B	Repair/modify aircraft non-primary structural sheetmetal components
MEA407B	Repair/modify aircraft non-primary structural non-metallic components
MEA410C	Maintain aircraft structure/components
MEA411A	Remove surface coatings from aircraft or aircraft components
MEA412A	Pre-treat aluminium alloy surfaces
MEA413A	Seal aircraft and aircraft component structural seams
MEA414A	Remove light corrosion from aircraft
MEA415A	Paint aircraft surfaces
MEA416A	Apply aircraft identification markings, graphics and decals
MEA417A	Apply specialty coatings to aircraft
MEA418A	Perform basic repair of aircraft internal fittings during line maintenance
MEA419A	Inspect and repair/modify aircraft cabin/cockpit non-primary structure components
MEA420A	Fabricate basic structural components for aircraft
MEA421A	Fabricate advanced structural components for aircraft
MEA422A	Repair/modify aircraft metal structure
MEA423A	Aircraft structure major disassembly and reassembly
MEA424A	Evaluate aircraft non-destructive tests
MEA425A	Perform bolted composite skin repairs

Unit code	Unit title
MEA430A	Gas weld aircraft components
MEA431A	Braze weld aircraft components
MEA432A	Weld aircraft components using the gas tungsten arc welding process
MEA433A	Weld aircraft components using the gas metal arc welding process
MEA434A	Weld aircraft components using the plasma arc welding process
MEA435A	Weld aircraft components using the manual metal arc welding process
MEA501A	Maintain and fit anti-G suits
MEA502A	Maintain and fit helmets
MEA503A	Maintain and fit immersion suits
MEA504A	Maintain and fit oxygen masks
MEA505A	Maintain and pack parachutes
MEA506A	Maintain and pack survival inflatable life rafts and escape slides
MEA507A	Maintain, pack and fit survival inflatable buoyancy vests
MEA508A	Maintain, install and remove restraint systems
MEA509A	Manufacture, repair and alter aircraft related fabric components
MEA510A	Maintain seat and pod electrical and electronic systems
MEA511A	Operate and maintain sewing machines and overlockers
MEA601A	Maintain aircraft egress systems
MEA602A	Remove and install aircraft stores management system components
MEA603A	Remove and install aircraft stores suspension systems and components
MEA604A	Inspect, test and troubleshoot aircraft stores management systems and components
MEA605A	Inspect, test and troubleshoot aircraft stores suspension systems and components

Imported units of competency

Unit code	Unit title
AURVTP2003	Prepare spray painting materials and equipment
AURVTP3012	Apply air dry and polyurethane enamel refinishing material
AURVTT2004	Trim vehicle components
AURVTT2005	Select and apply trim and fabric materials
AURVTT2006	Select and apply trim and fabric adhesives
DEFEO101D	Work safely with explosive ordnance
DEFEO501D	Conduct explosive ordnance inspection
LMFSF2001B	Cut single layer fabrics
LMFSF2002B	Machine sew materials
LMFUP3012B	Apply marine sewing and installation techniques
LMTTF2008A	Use adhesives
MEM05004C	Perform routine oxy acetylene welding
MEM05006C	Perform brazing and/or silver soldering
MEM05007C	Perform manual heating and thermal cutting
MEM05012C	Perform routine manual metal arc welding
MEM05015D	Weld using manual metal arc welding process
MEM05016C	Perform advanced welding using manual metal arc welding process
MEM05017D	Weld using gas metal arc welding process
MEM05018C	Perform advanced welding using gas metal arc welding process
MEM05019D	Weld using gas tungsten arc welding process
MEM05020C	Perform advanced welding using gas tungsten arc welding process
MEM05022C	Perform advanced welding using oxy acetylene welding process
MEM05026C	Apply welding principles
MEM05043B	Perform welds to code standards using gas metal arc welding process

Unit code	Unit title
MEM05044B	Perform welds to code standards using gas tungsten arc welding process
MEM05046B	Perform welds to code standards using manual metal arc welding process
MEM05049B	Perform routine gas tungsten arc welding
MEM05050B	Perform routine gas metal arc welding
MEM05051A	Select welding processes
MEM05052A	Apply safe welding processes
MEM08012B	Prepare surfaces by abrasive blasting (basic)
MEM08013B	Prepare surfaces by abrasive blasting (advanced)
MEM08016B	Conduct blast coating by-products, materials and emissions
MEM09002B	Interpret technical drawing
MEM09003B	Prepare basic engineering drawing
MEM09009C	Create 2D drawings using computer aided design systems
MEM11011B	Undertake manual handling
MEM12001B	Use comparison and basic measuring devices
MEM12003B	Perform precision mechanical measurement
MEM12005B	Calibrate measuring equipment
MEM12023A	Perform engineering measurement
MEM13003B	Work safely with industrial chemicals and materials
MEM13013B	Work safely with ionising radiation
MEM15010B	Perform laboratory procedures
MEM15017B	Use and maintain reference standards
MEM16002C	Conduct formal interviews and negotiations
MEM16010A	Write reports
MEM17002B	Conduct workplace assessment

Unit code	Unit title
MEM18001C	Use hand tools
MEM18002B	Use power tools/hand held operations
MEM24001B	Perform basic penetrant testing
MEM24002B	Perform penetrant testing
MEM24003B	Perform basic magnetic particle testing
MEM24004B	Perform magnetic particle testing
MEM24005B	Perform basic eddy current testing
MEM24006B	Perform eddy current testing
MEM24007B	Perform ultrasonic thickness testing
MEM24008B	Perform ultrasonic testing
MEM24009B	Perform basic radiographic testing
MEM24010B	Perform radiographic testing
MEM24011B	Establish non-destructive tests
MEM24012C	Apply metallurgy principles
MEM30007A	Select common engineering materials
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment
PSPMNGT610A	Manage public sector financial resources
PUADEFEO101D	Work safely with explosive ordnance
MSAENV272B	Participate in environmentally sustainable work practices
MSAENV472B	Implement and monitor environmentally sustainable work practices
MSAENV672B	Develop workplace policy and procedures for environmental sustainability
TAEDEL301A	Provide work skill instruction
TAEDEL402A	Plan, organise and facilitate learning in the workplace

Unit code	Unit title
TAEASS401B	Plan assessment activities and processes
TAEASS402B	Assess competence
TAEASS403B	Participate in assessment validation
TAEASS502B	Design and develop assessment tools
TAEDES401A	Design and develop learning programs

Additional Imported Units for MEA11v1

The units listed below are required for the additional Skill Sets added to meet CASA requirements. They have no applicability to any qualification and none of them have been contextualised.

Unit code	Unit title
MEM07001B	Perform operational maintenance of machines equipment
MEM07002B	Perform precision shaping/planning/slotting operations
MEM07005C	Perform general machining
MEM07006C	Perform lathe operations
MEM07007C	Perform milling operations
MEM07008D	Perform grinding operations
MEM07009B	Perform precision jig boring operations
MEM07010B	Perform tool and cutter grinding operations
MEM07011B	Perform complex milling operations
MEM07012B	Perform complex grinding operations
MEM07013B	Perform machining operations using horizontal and/or vertical boring machines
MEM07015B	Set computer controlled machines/processes
MEM07016C	Set and edit computer controlled machines/processes
MEM07018C	Write basic NC/CNC programs

MEM07019C	Program NC/CNC machine centre
MEM07020C	Program multiple spindle and/or multiple axis NC/CNC machining centre
MEM07021B	Perform complex lathe operations
MEM07022C	Program CNC wire cut machine
MEM07024B	Operate and monitor machine processes
MEM07028B	Operate computer controlled machine processes
MEM07030C	Perform metal spinning lathe operations (basic)
MEM07031C	Perform metal spinning lathe operations (complex)
MEM07032B	Use workshop machines for basic operations
MEM08001B	Perform wire, jig and barrel load unload work
MEM08002C	Pre-treat work for subsequent surface coating
MEM08003C	Perform electroplating operations
MEM08004B	Finish work using wet, dry and vapour deposition methods
MEM08006B	Produce clear and/or coloured and/or sealed anodised film on aluminium
MEM08018B	Electroplate engineering coatings
MEM12024A	Perform computations
MEM15004B	Perform inspection
MEM16006A	Organise and communicate information
PMBPROD262B	Operate tyre curing equipment
PMBPROD263B	Operate tyre retread curing equipment
PMBPROD264C	Check recycle wash process
PMBPROD265C	Operate portable vulcanising equipment
PMBPROD266B	Prepare tyre casing for retreading
PMBPROD324B	Inspect tyres for retreading
PMBPROD325B	Lay on tyre retreads

PMBPROD326B	Inspect tyres

Appendix 1: Cross-reference to CASA Licensing Syllabus

For the purpose of establishing parity with the licensing system of the European Aviation Safety Authority (EASA) the Civil Aviation Safety Authority (CASA) includes in CAO 100.66 and in the proposed Civil Aviation Safety Regulation Part 66 a licensing examination syllabus. Where individuals are seeking the grant of an Aircraft Maintenance Engineer Licence (or interim maintenance authority under the transitional arrangements of CAO 100.66) in Categories A, B1 or B2 it must be demonstrated that the knowledge requirements of the syllabus were fully covered in the underpinning knowledge applicable to the units of competency relevant to the licence sought.
In this Appendix there is a table for each A and B1 Licence, and for the B2 Licence (or the equivalent maintenance authorities) in which syllabus modules and topics applicable to each licence are listed, along with the units of competency that are expected to provide the required knowledge. RTOs operating as Maintenance Training Organisations under Civil Aviation Safety Regulation Part 147 (or CAO 100.66 during the transitional period) are required to ensure that the modules and topics are fully covered in the off-job training applicable to each listed unit of competency.
Refer also to Licensing/Registration Requirements in Section 3, Assessment Guidelines.

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – A1 Licence

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
Module 1 Mathematics	MEA345A
Module 2 Physics	MEA345A
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA265A
3.2 Static Electricity and Conduction	MEA265A
3.3 Electrical Terminology	MEA265A
3.4 Generation of Electricity	MEA265A
3.5 DC Sources of Electricity	MEA265A
3.6 DC Circuits	Not required
3.7 Resistance/Resistor	Not required
3.8 Power	Not required
3.9 Capacitance/Capacitor	Not required
3.10 Magnetism	Not required

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
3.11 Inductance/Inductor	Not required
3.12 DC Motor/Generator Theory	Not required
3.13 AC Theory	MEA264A
3.14 Resistive, Capacitive and Inductive Circuits	Not required
3.15 Transformers	Not required
3.16 Filters	Not required
3.17 AC Generators	Not required
3.18 AC Motors	Not required
Module 4 Electronic Fundamentals	
4.1 Semiconductors	Not required
4.2 Printed Circuit Boards	Not required
4.3 Sevomechanisms	Not required
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA345A
5.2 Numbering Systems	Not required
5.3 Data Conversion	Not required
5.4 Data Buses	Not required
5.5 Logic Circuits	Not required
5.6 Basic Computer Structure	MEA345A
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	Not required

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
5.11 Electronic Displays	Not required
5.12 Electrostatic Sensitive Devices	MEA264A
5.13 Software Management Control	Not required
5.14 Electromagnetic Environment	Not required
5.15 Typical Electronic/Digital Aircraft Systems	Not required
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA418A
6.4 Corrosion	MEA345A
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA344A
6.9 Transmissions	MEA344A, MEA345A
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA265A
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA240B
7.4 Avionic General Test Equipment	Not required
7.5 Engineering Drawings, Diagrams and	MEA107B

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
Standards	
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA265A
7.8 Riveting	MEA418A
7.9 Pipes and Hoses	MEA344A, MEA345A
7.10 Springs	MEA344A
7.11 Bearings	MEA344A
7.12 Transmissions	MEA344A, MEA345A
7.13 Control Cables	MEA345A
7.14 Material Handling	Not required
7.15 Welding, Brazing, Soldering and Bonding	Not required
7.16 Aircraft Weight and Balance	Not required
7.17 Aircraft Handling and Storage	MEA345A
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA345A
7.19 Abnormal Events	MEA119A
7.20 Maintenance Procedures	MEA119A, MEA345A
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA345A
8.2 Aerodynamics	MEA345A
8.3 Theory of Flight	MEA345A
8.4 Flight Stability and Dynamics	MEA345A
Module 9 Human Factors	
9.1 General	MEA103B

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
9.2 Human Performance and Limitations	MEA103B
9.3 Social Psychology	MEA103B
9.4 Factors Affecting Performance	MEA103B
9.5 Physical Environment	MEA103B
9.6 Tasks	MEA103B
9.7 Communication	MEA103B
9.8 Human Error	MEA103B
9.9 Hazards in the Workplace	MEA101B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA119B
10.2 Part 66 Certifying Staff	MEA119B
10.3 Part 145 – Approved Maintenance Organisations	MEA119B
10.4 Air Operations	Not required
10.5 Certification of Aircraft, Parts and Appliances	Not required
10.6 Parts 21 and 42	Not required
10.7 Applicable National and International requirements	Not required
Module 11 Aeroplane Aerodynamics, Structure and Systems	
11.1 Theory of Flight	MEA345A
11.2 Airframe Structures – General concepts	MEA345A
11.3 Airframe Structures – Aeroplanes	MEA345A
11.4 Air Conditioning and Cabin Pressurisation	MEA345A
11.5 Instruments and Avionic Systems	MEA264A

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
11.6 Electrical Power	MEA264A
11.7 Equipment and Furnishings	MEA264A, MEA344A, MEA345A
11.8 Fire Protection	MEA345A
11.9 Flight Controls	MEA345A
11.10 Fuel Systems	MEA345A
11.11 Hydraulic Power	MEA345A
11.12 Ice and Rain Protection	MEA345A
11.13 Landing Gear	MEA344A, MEA345A
11.14 Lights	MEA264A
11.15 Oxygen	MEA345A
11.16 Pneumatic and Vacuum	MEA345A
11.17 Water and Waste	MEA344A, MEA345A
11.18 On-Board Maintenance Systems	MEA345A
11.19 Integrated modular avionics	MEA264A
11.20 Cabin systems	MEA264A
11.21 Information systems such as air traffic and information management systems and network server systems	MEA264A
Module 15 Gas Turbine Engine	
15.1 Fundamentals	MEA345A
15.2 Engine Performance	Not required
15.3 Inlet	MEA345A
15.4 Compressors	MEA345A
15.5 Combustion Section	MEA345A

Syllabus Reference A1 Licence	**Units of Competency Providing Full Coverage**
15.6 Turbine Section	MEA345A
15.7 Exhaust	MEA345A
15.8 Bearings and Seals	Not required
15.9 Lubricants and Fuels	MEA345A
15.10 Lubrication Systems	MEA345A
15.11 Fuel Systems	MEA345A
15.12 Air Systems	MEA345A
15.13 Starting and Ignition Systems	MEA345A
15.14 Engine Indication Systems	MEA345A
15.15 Power Augmentation Systems	Not required
15.16 Turbo Prop Engines	MEA345A
15.17 Turbo-Shaft Engines	MEA345A
15.18 Auxiliary Power Units	MEA345A
15.19 Power plant Installation	MEA345A
15.20 Fire Protection Systems	MEA345A
15.21 Engine Monitoring and Ground Operation	MEA345A
15.22 Engine Storage and Preservation	Not required
Module 17 Propeller	
17.1 Fundamentals	MEA345A
17.2 Propeller Construction	MEA345A
17.3 Propeller Pitch Control	MEA345A
17.4 Propeller Synchronising	Not required
17.5 Propeller Ice Protection	MEA345A

Syllabus Reference A1 Licence	Units of Competency Providing Full Coverage
17.6 Propeller Maintenance	MEA345A
17.7 Propeller Storage and Preservation	MEA345A

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – A2 Licence

Syllabus Reference A2 Licence	Units of Competency Providing Full Coverage
Module 1 Mathematics	MEA347A
Module 2 Physics	MEA347A
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA265A
3.2 Static Electricity and Conduction	MEA265A
3.3 Electrical Terminology	MEA265A
3.4 Generation of Electricity	MEA265A
3.5 DC Sources of Electricity	MEA265A
3.6 DC Circuits	Not required
3.7 Resistance/Resistor	Not required
3.8 Power	Not required
3.9 Capacitance/Capacitor	Not required
3.10 Magnetism	Not required
3.11 Inductance/Inductor	Not required
3.12 DC Motor/Generator Theory	Not required
3.13 AC Theory	MEA264A
3.14 Resistive, Capacitive and Inductive Circuits	Not required
3.15 Transformers	Not required

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
3.16 Filters	Not required
3.17 AC Generators	Not required
3.18 AC Motors	Not required
Module 4 Electronic Fundamentals	
4.1 Semiconductors	Not required
4.2 Printed Circuit Boards	Not required
4.3 Sevomechanisms	Not required
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA347A
5.2 Numbering Systems	Not required
5.3 Data Conversion	Not required
5.4 Data Buses	Not required
5.5 Logic Circuits	Not required
5.6 Basic Computer Structure	MEA347A
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	Not required
5.11 Electronic Displays	Not required
5.12 Electrostatic Sensitive Devices	MEA264A
5.13 Software Management Control	Not required
5.14 Electromagnetic Environment	Not required
5.15 Typical Electronic/Digital Aircraft Systems	Not required

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA418A
6.4 Corrosion	MEA347A
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA347A
6.9 Transmissions	MEA344A, MEA347A
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA265A
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA240B
7.4 Avionic General Test Equipment	Not required
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA265A
7.8 Riveting	MEA418A
7.9 Pipes and Hoses	MEA344A, MEA347A

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
7.10 Springs	MEA344A
7.11 Bearings	MEA344A
7.12 Transmissions	MEA344A, MEA347A
7.13 Control Cables	MEA347A
7.14 Material Handling	Not required
7.15 Welding, Brazing, Soldering and Bonding	Not required
7.16 Aircraft Weight and Balance	Not required
7.17 Aircraft Handling and Storage	MEA347A
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA347A
7.19 Abnormal Events	MEA119A
7.20 Maintenance Procedures	MEA119A, MEA347A
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA347A
8.2 Aerodynamics	MEA347A
8.3 Theory of Flight	MEA347A
8.4 Flight Stability and Dynamics	MEA347A
Module 9 Human Factors	
9.1 General	MEA103B
9.2 Human Performance and Limitations	MEA103B
9.3 Social Psychology	MEA103B
9.4 Factors Affecting Performance	MEA103B
9.5 Physical Environment	MEA103B
9.6 Tasks	MEA103B

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
9.7 Communication	MEA103B
9.8 Human Error	MEA103B
9.9 Hazards in the Workplace	MEA101B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA119B
10.2 Part 66 Certifying Staff	MEA119B
10.3 Part 145 – Approved Maintenance Organisations	MEA119B
10.4 Air Operations	Not required
10.5 Certification of Aircraft, Parts and Appliances	Not required
10.6 Parts 21 and 42	Not required
10.7 Applicable National and International requirements	Not required
Module 11 Aeroplane Aerodynamics, Structure and Systems	
11.1 Theory of Flight	MEA347A
11.2 Airframe Structures – General concepts	MEA347A
11.3 Airframe Structures – Aeroplanes	MEA347A
11.4 Air Conditioning and Cabin Pressurisation	MEA347A
11.5 Instruments and Avionic Systems	MEA264A
11.6 Electrical Power	MEA264A
11.7 Equipment and Furnishings	MEA264A, MEA344A, MEA347A
11.8 Fire Protection	MEA347A
11.9 Flight Controls	MEA347A
11.10 Fuel Systems	MEA347A

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
11.11 Hydraulic Power	MEA347A
11.12 Ice and Rain Protection	MEA347A
11.13 Landing Gear	MEA344A, MEA347A
11.14 Lights	MEA264A, MEA347A
11.15 Oxygen	MEA347A
11.16 Pneumatic and Vacuum	MEA347A
11.17 Water and Waste	MEA344A, MEA347A
11.18 On Board Maintenance Systems	MEA347A
11.19 Integrated modular avionics	MEA264A
11.20 Cabin systems	MEA264A
11.21 Information systems such as air traffic and information management systems and network server systems	MEA264A
Module 16 Piston Engine	
16.1 Fundamentals	MEA347A
16.2 Engine Performance	MEA347A
16.3 Engine Construction	MEA347A
16.4 Engine Fuel Systems	MEA347A
16.5 Starting and ignition system	MEA347A
16.6 Induction, Exhaust and Cooling Systems	MEA347A
16.7 Supercharging/Turbocharging	MEA347A
16.8 Lubricants and Fuels	MEA347A
16.9 Lubrication Systems	MEA347A
16.10 Engine Indication Systems	MEA347A

Syllabus Reference A2 Licence	**Units of Competency Providing Full Coverage**
16.11 Power plant Installation	MEA347A
16.12 Engine Monitoring and Ground Operation	MEA347A
16.13 Engine Storage and Preservation	Not required
Module 17 Propeller	
17.1 Fundamentals	MEA347A
17.2 Propeller Construction	MEA347A
17.3 Propeller Pitch Control	MEA347A
17.4 Propeller Synchronising	Not required
17.5 Propeller Ice Protection	MEA347A
17.6 Propeller Maintenance	MEA347A
17.7 Propeller Storage and Preservation	MEA347A

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – A3 Licence

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
Module 1 Mathematics	MEA346A
Module 2 Physics	MEA346A
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA265A
3.2 Static Electricity and Conduction	MEA265A
3.3 Electrical Terminology	MEA265A
3.4 Generation of Electricity	MEA265A
3.5 DC Sources of Electricity	MEA265A
3.6 DC Circuits	Not required

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
3.7 Resistance/Resistor	Not required
3.8 Power	Not required
3.9 Capacitance/Capacitor	Not required
3.10 Magnetism	Not required
3.11 Inductance/Inductor	Not required
3.12 DC Motor/Generator Theory	Not required
3.13 AC Theory	MEA264A
3.14 Resistive, Capacitive and Inductive Circuits	Not required
3.15 Transformers	Not required
3.16 Filters	Not required
3.17 AC Generators	Not required
3.18 AC Motors	Not required
Module 4 Electronic Fundamentals	
4.1 Semiconductors	Not required
4.2 Printed Circuit Boards	Not required
4.3 Servomechanisms	Not required
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA346A
5.2 Numbering Systems	Not required
5.3 Data Conversion	Not required
5.4 Data Buses	Not required
5.5 Logic Circuits	Not required
5.6 Basic Computer Structure	MEA346A

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	Not required
5.11 Electronic Displays	Not required
5.12 Electrostatic Sensitive Devices	MEA264A
5.13 Software Management Control	Not required
5.14 Electromagnetic Environment	Not required
Typical Electronic/Digital Aircraft Systems	Not required
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA418A
6.4 Corrosion	MEA346A
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA344A
6.9 Transmissions	MEA344A, MEA346A
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA265A
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA240B
7.4 Avionic General Test Equipment	Not required
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA265A
7.8 Riveting	MEA418A
7.9 Pipes and Hoses	MEA344A, MEA346A
7.10 Springs	MEA344A
7.11 Bearings	MEA344A
7.12 Transmissions	MEA344A, MEA346A
7.13 Control Cables	MEA346A
7.14 Material Handling	Not required
7.15 Welding, Brazing, Soldering and Bonding	Not required
7.16 Aircraft Weight and Balance	Not required
7.17 Aircraft Handling and Storage	MEA346A
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA346A
7.19 Abnormal Events	MEA119A
7.20 Maintenance Procedures	MEA119A, MEA346A
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA346A
8.2 Aerodynamics	MEA346A

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
8.3 Theory of Flight	MEA346A
8.4 Flight Stability and Dynamics	MEA346A
Module 9 Human Factors	
9.1 General	MEA103B
9.2 Human Performance and Limitations	MEA103B
9.3 Social Psychology	MEA103B
9.4 Factors Affecting Performance	MEA103B
9.5 Physical Environment	MEA103B
9.6 Tasks	MEA103B
9.7 Communication	MEA103B
9.8 Human Error	MEA103B
9.9 Hazards in the Workplace	MEA101B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA119B
10.2 Part 66 Certifying Staff	MEA119B
10.3 Part 145 – Approved Maintenance Organisations	MEA119B
10.4 Air Operations	Not required
10.5 Certification of Aircraft, Parts and Appliances	Not required
10.6 Parts 21 and 42	Not required
10.7 Applicable National and International requirements	Not required
Module 12 Helicopter Aerodynamics, Structure and Systems	
12.1 Theory of Flight – Rotary Wing	MEA346A

Syllabus Reference A3 Licence	**Units of Competency Providing Full Coverage**
Aerodynamics	
12.2 Flight control Systems	MEA346A
12.3 Blade Tracking and Vibration Analysis	MEA346A
12.4 Transmission	MEA346A
12.5 Airframe Structures	MEA346A
12.6 Air Conditioning	MEA346A
12.7 Instruments/Avionic Systems	MEA264A
12.8 Electrical Power	MEA264A
12.9 Equipment and Furnishings	MEA264A, MEA344A, MEA346A
12.10 Fire Protection	MEA346A
12.11 Fuel Systems	MEA346A
12.12 Hydraulic Power	MEA346A
12.13 Ice and Rain Protection	MEA346A
12.14 Landing Gear	MEA344A, MEA346A
12.15 Lights	MEA264A
12.16 Pneumatic and Vacuum	MEA346A
12.17 Integrated modular avionics	MEA264A
12.18 On Board Maintenance Systems	MEA346A
12.19 Information systems such as air traffic and information management systems and network server systems	MEA264A
Module 15 Gas Turbine Engine	
15.1 Fundamentals	MEA346A
15.2 Engine Performance	Not required
15.3 Inlet	MEA346A

Syllabus Reference A3 Licence	Units of Competency Providing Full Coverage
15.4 Compressors	MEA346A
15.5 Combustion Section	MEA346A
15.6 Turbine Section	MEA346A
15.7 Exhaust	MEA346A
15.8 Bearings and Seals	Not required
15.9 Lubricants and Fuels	MEA346A
15.10 Lubrication Systems	MEA346A
15.11 Fuel Systems	MEA346A
15.12 Air Systems	MEA346A
15.13 Starting and Ignition Systems	MEA346A
15.14 Engine Indication Systems	MEA346A
15.15 Power Augmentation Systems	Not required
15.16 Turbo Prop Engines	MEA346A
15.17 Turbo-Shaft Engines	MEA346A
15.18 Auxiliary Power Units	MEA346A
15.19 Power plant Installation	MEA346A
15.20 Fire Protection Systems	MEA346A
15.21 Engine Monitoring and Ground Operation	MEA346A
15.22 Engine Storage and Preservation	Not required

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – A4 Licence

Syllabus Reference A4 Licence	Units of Competency Providing Full Coverage
Module 1 Mathematics	MEA348A

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
Module 2 Physics	MEA348A
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA265A
3.2 Static Electricity and Conduction	MEA265A
3.3 Electrical Terminology	MEA265A
3.4 Generation of Electricity	MEA265A
3.5 DC Sources of Electricity	MEA265A
3.6 DC Circuits	Not required
3.7 Resistance/Resistor	Not required
3.8 Power	Not required
3.9 Capacitance/Capacitor	Not required
3.10 Magnetism	Not required
3.11 Inductance/Inductor	Not required
3.12 DC Motor/Generator Theory	Not required
3.13 AC Theory	MEA264A
3.14 Resistive, Capacitive and Inductive Circuits	Not required
3.15 Transformers	Not required
3.16 Filters	Not required
3.17 AC Generators	Not required
3.18 AC Motors	Not required
Module 4 Electronic Fundamentals	
4.1 Semiconductors	Not required
4.2 Printed Circuit Boards	Not required

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
4.3 Servomechanisms	Not required
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA348A
5.2 Numbering Systems	Not required
5.3 Data Conversion	Not required
5.4 Data Buses	Not required
5.5 Logic Circuits	Not required
5.6 Basic Computer Structure	MEA348A
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	Not required
5.11 Electronic Displays	Not required
5.12 Electrostatic Sensitive Devices	MEA264A
5.13 Software Management Control	Not required
5.14 Electromagnetic Environment	Not required
Typical Electronic/Digital Aircraft Systems	Not required
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA418A
6.4 Corrosion	MEA348A

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA344A
6.9 Transmissions	MEA344A, MEA348A
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA265A
Module 7 Maintenance Practices	
7.1 Safety Practices – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA240B
7.4 Avionic General Test Equipment	Not required
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA265A
7.8 Riveting	MEA418A
7.9 Pipes and Hoses	MEA344A, MEA348A
7.10 Springs	MEA344A
7.11 Bearings	MEA344A
7.12 Transmissions	MEA344A, MEA348A
7.13 Control Cables	MEA348A
7.14 Material Handling	Not required
7.15 Welding, Brazing, Soldering and Bonding	Not required

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
7.16 Aircraft Weight and Balance	Not required
7.17 Aircraft Handling and Storage	MEA348A
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA348A
7.19 Abnormal Events	MEA119A
7.20 Maintenance Procedures	MEA119A, MEA348A
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA348A
8.2 Aerodynamics	MEA348A
8.3 Theory of Flight	MEA348A
8.4 Flight Stability and Dynamics	MEA348A
Module 9 Human Factors	
9.1 General	MEA103B
9.2 Human Performance and Limitations	MEA103B
9.3 Social Psychology	MEA103B
9.4 Factors Affecting Performance	MEA103B
9.5 Physical Environment	MEA103B
9.6 Tasks	MEA103B
9.7 Communication	MEA103B
9.8 Human Error	MEA103B
9.9 Hazards in the Workplace	MEA101B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA119B
10.2 Part 66 Certifying Staff	MEA119B

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
10.3 Part 145 – Approved Maintenance Organisations	MEA119B
10.4 Air Operations	Not required
10.5 Certification of Aircraft, Parts and Appliances	Not required
10.6 Parts 21 and 42	Not required
10.7 Applicable National and International requirements	Not required
Module 12 Helicopter Aerodynamics, Structure and Systems	
12.1 Theory of Flight – Rotary Wing Aerodynamics	MEA348A
12.2 Flight control Systems	MEA348A
12.3 Blade Tracking and Vibration Analysis	MEA348A
12.4 Transmission	MEA348A
12.5 Airframe Structures	MEA348A
12.6 Air Conditioning	MEA348A
12.7 Instruments/Avionic Systems	MEA348A
12.8 Electrical Power	MEA264A
12.9 Equipment and Furnishings	MEA264A, MEA344A, MEA348A
12.10 Fire Protection	MEA348A
12.11 Fuel Systems	MEA348A
12.12 Hydraulic Power	MEA348A
12.13 Ice and Rain Protection	MEA348A
12.14 Landing Gear	MEA344A, MEA348A
12.15 Lights	MEA264A, MEA348A

Syllabus Reference A4 Licence	**Units of Competency Providing Full Coverage**
12.16 Pneumatic and Vacuum	MEA348A
12.17 Integrated modular avionics	MEA264A
12.18 On Board Maintenance Systems	MEA348A
12.19 Information systems such as air traffic and information management systems and network server systems	MEA264A
Module 16 Piston Engine	
16.1 Fundamentals	MEA348A
16.2 Engine Performance	MEA348A
16.3 Engine Construction	MEA348A
16.4 Engine Fuel System	MEA348A
16.5 Starting and Ignition Systems	MEA348A
16.6 Induction, Exhaust and Cooling Systems	MEA348A
16.7 Supercharging/Turbocharging	MEA348A
16.8 Lubricants and Fuels	MEA348A
16.9 Lubrication Systems	MEA348A
16.10 Engine Indication Systems	MEA348A
16.11 Power plant Installation	MEA348A
16.12 Engine Monitoring and Ground Operation	MEA348A
16.13 Engine Storage and Preservation	Not required

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – B1.1 Licence

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
Module 1 Mathematics	MEA201B

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
Module 2 Physics	MEA201B
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA201B
3.2 Static Electricity and Conduction	MEA201B
3.3 Electrical Terminology	MEA201B
3.4 Generation of Electricity	MEA201B
3.5 DC Sources of Electricity	MEA201B
3.6 DC Circuits	MEA201B
3.7 Resistance/Resistor	MEA201B
3.8 Power	MEA201B
3.9 Capacitance/Capacitor	MEA201B
3.10 Magnetism	MEA201B
3.11 Inductance/Inductor	MEA201B
3.12 DC Motor/Generator Theory	MEA203C
3.13 AC Theory	MEA203C
3.14 Resistive, Capacitive and Inductive Circuits	MEA203C
3.15 Transformers	MEA203C
3.16 Filters	MEA203C
3.17 AC Generators	MEA203C
3.18 AC Motors	MEA203C
Module 4 Electronic Fundamentals	
4.1 Semiconductors	MEA343B
4.2 Printed Circuit Boards	MEA343B

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
4.3 Servomechanisms	MEA343B
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA343B
5.2 Numbering Systems	MEA343B
5.3 Data Conversion	MEA343B
5.4 Data Buses	MEA343B
5.5 Logic Circuits	MEA343B
5.6 Basic Computer Structure	MEA343B
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	MEA343B
5.11 Electronic Displays	MEA343B
5.12 Electrostatic Sensitive Devices	MEA343B
5.13 Software Management Control	MEA343B
5.14 Electromagnetic Environment	MEA343B
5.15 Typical Electronic/Digital Aircraft Systems	MEA343B
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA339C
6.4 Corrosion	MEA339C

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA302C
6.9 Transmissions	MEA306C
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA201B, MEA246C
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA260B
7.4 Avionic General Test Equipment	MEA260B
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA246C
7.8 Riveting	MEA339C
7.9 Pipes and Hoses	MEA302C, MEA303D, MEA328C
7.10 Springs	MEA318C, MEA328C
7.11 Bearings	MEA318C, MEA319C
7.12 Transmissions	MEA318C, MEA319C
7.13 Control Cables	MEA318C, MEA328C
7.14 Material Handling	MEA339C
7.15 Welding, Brazing, Soldering and Bonding	MEA201B, MEA339C, MEA365A

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
7.16 Aircraft Weight and Balance	MEA325B
7.17 Aircraft Handling and Storage	MEA301C
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA227D, MEA320C, MEA321C, MEA322C, MEA328C, MEA339C, MEA365A
7.19 Abnormal Events	MEA112B
7.20 Maintenance Procedures	MEA112B
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA321C, MEA322C
8.2 Aerodynamics	MEA321C
8.3 Theory of Flight	MEA321C
8.4 Flight Stability and Dynamics	MEA321C
Module 9 Human Factors	
9.1 General	MEA103B, MEA113C
9.2 Human Performance and Limitations	MEA103B, MEA113C
9.3 Social Psychology	MEA103B, MEA113C
9.4 Factors Affecting Performance	MEA103B, MEA113C
9.5 Physical Environment	MEA103B, MEA113C
9.6 Tasks	MEA103B, MEA113C
9.7 Communication	MEA103B, MEA113C
9.8 Human Error	MEA103B, MEA113C
9.9 Hazards in the Workplace	MEA101B, MEA116B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA111C

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
10.2 Part 66 Certifying Staff	MEA111C
10.3 Part 145 – Approved Maintenance Organisations	MEA111C
10.4 Air Operations	MEA111C
10.5 Certification of Aircraft, Parts and Appliances	MEA111C
10.6 Parts 21 and 42	MEA111C
10.7 Applicable National and International requirements	MEA111C
Module 11 Aeroplane Aerodynamics, Structure and Systems	
11.1 Theory of Flight	MEA321C
11.2 Airframe Structures – General concepts	MEA339C
11.3 Airframe Structures – Aeroplanes	MEA339C
11.4 Air Conditioning and Cabin Pressurisation	MEA219C, MEA223D, MEA318C
11.5 Instruments and Avionic Systems	MEA343B
11.6 Electrical Power	MEA203C, MEA301C
11.7 Equipment and Furnishings	MEA317C
11.8 Fire Protection	MEA223D, MEA318C
11.9 Flight Controls	MEA223D, MEA318C, MEA320C
11.10 Fuel Systems	MEA223D, MEA301C, MEA318C
11.11 Hydraulic Power	MEA223D, MEA301C, MEA318C
11.12 Ice and Rain Protection	MEA223D, MEA301C, MEA318C
11.13 Landing Gear	MEA223D, MEA318C
11.14 Lights	MEA223D
11.15 Oxygen	MEA222B

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
11.16 Pneumatic and Vacuum	MEA223D, MEA318C
11.17 Water and Waste	MEA223D, MEA318C
11.18 On-Board Maintenance Systems	MEA343B
11.19 Integrated modular avionics	MEA343B
11.20 Cabin systems	MEA343B
11.21 Information systems such as air traffic and information management systems and network server systems	MEA343B
Module 15 Gas Turbine Engine	
15.1 Fundamentals	MEA322C
15.2 Engine Performance	MEA322C
15.3 Inlet	MEA223D, MEA322C
15.4 Compressors	MEA322C
15.5 Combustion Section	MEA322C
15.6 Turbine Section	MEA322C
15.7 Exhaust	MEA322C
15.8 Bearings and Seals	MEA322C
15.9 Lubricants and Fuels	MEA301C
15.10 Lubrication Systems	MEA322C
15.11 Fuel Systems	MEA223D, MEA322C
15.12 Air Systems	MEA223D, MEA322C
15.13 Starting and Ignition Systems	MEA223D, MEA322C
15.14 Engine Indication Systems	MEA223D, MEA322C, MEA343B
15.15 Power Augmentation Systems	MEA322C

Syllabus Reference B1.1 Licence	**Units of Competency Providing Full Coverage**
15.16 Turbo Prop Engines	MEA223D, MEA322C
15.17 Turbo-Shaft Engines	MEA223D, MEA322C
15.18 Auxiliary Power Units	MEA223D, MEA322C
15.19 Power plant Installation	MEA203C, MEA306C
15.20 Fire Protection Systems	MEA223D, MEA318C
15.21 Engine Monitoring and Ground Operation	MEA322C, MEA323B
15.22 Engine Storage and Preservation	MEA306C
Module 17 Propeller	
17.1 Fundamentals	MEA315C
17.2 Propeller Construction	MEA315C
17.3 Propeller Pitch Control	MEA223D, MEA315C
17.4 Propeller Synchronising	MEA223D, MEA315C
17.5 Propeller Ice Protection	MEA223D, MEA315C
17.6 Propeller Maintenance	MEA315C
17.7 Propeller Storage and Preservation	MEA307C

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – B1.2 Licence

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
Module 1 Mathematics	MEA201B
Module 2 Physics	MEA201B
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA201B
3.2 Static Electricity and Conduction	MEA201B

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
3.3 Electrical Terminology	MEA201B
3.4 Generation of Electricity	MEA201B
3.5 DC Sources of Electricity	MEA201B
3.6 DC Circuits	MEA201B
3.7 Resistance/Resistor	MEA201B
3.8 Power	MEA201B
3.9 Capacitance/Capacitor	MEA201B
3.10 Magnetism	MEA201B
3.11 Inductance/Inductor	MEA201B
3.12 DC Motor/Generator Theory	MEA203C
3.13 AC Theory	MEA203C
3.14 Resistive, Capacitive and Inductive Circuits	MEA203C
3.15 Transformers	MEA203C
3.16 Filters	MEA203C
3.17 AC Generators	MEA203C
3.18 AC Motors	MEA203C
Module 4 Electronic Fundamentals	
4.1 Semiconductors	MEA343B
4.2 Printed Circuit Boards	MEA343B
4.3 Servomechanisms	MEA343B
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA343B
5.2 Numbering Systems	MEA343B

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
5.3 Data Conversion	MEA343B
5.4 Data Buses	MEA343B
5.5 Logic Circuits	MEA343B
5.6 Basic Computer Structure	MEA343B
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	MEA343B
5.11 Electronic Displays	MEA343B
5.12 Electrostatic Sensitive Devices	MEA343B
5.13 Software Management Control	MEA343B
5.14 Electromagnetic Environment	MEA343B
5.15 Typical Electronic/Digital Aircraft Systems	MEA343B
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA339C
6.4 Corrosion	MEA339C
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA302C
6.9 Transmissions	MEA306C

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA201B, MEA246C
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA260B
7.4 Avionic General Test Equipment	MEA260B
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, 109B
7.7 Electrical cables and Connectors	MEA246C
7.8 Riveting	MEA339C
7.9 Pipes and Hoses	MEA302C, MEA303D, MEA328C
7.10 Springs	MEA309C, MEA328C
7.11 Bearings	MEA309C, MEA313C
7.12 Transmissions	MEA309C, MEA313C
7.13 Control Cables	MEA309C, MEA328C
7.14 Material Handling	MEA339C
7.15 Welding, Brazing, Soldering and Bonding	MEA201B, MEA339C, MEA365A
7.16 Aircraft Weight and Balance	MEA325B
7.17 Aircraft Handling and Storage	MEA301C
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA211B, MEA309C, MEA313C, MEA323B, MEA328C, MEA339C, MEA365A
7.19 Abnormal Events	MEA112B

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
7.20 Maintenance Procedures	MEA112B
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA312C
8.2 Aerodynamics	MEA312C
8.3 Theory of Flight	MEA312C
8.4 Flight Stability and Dynamics	MEA312C
Module 9 Human Factors	
9.1 General	MEA103B, MEA113C
9.2 Human Performance and Limitations	MEA103B, MEA113C
9.3 Social Psychology	MEA103B, MEA113C
9.4 Factors Affecting Performance	MEA103B, MEA113C
9.5 Physical Environment	MEA103B, MEA113C
9.6 Tasks	MEA103B, MEA113C
9.7 Communication	MEA103B, MEA113C
9.8 Human Error	MEA103B, MEA113C
9.9 Hazards in the Workplace	MEA101B, MEA116B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA111C
10.2 Part 66 Certifying Staff	MEA111C
10.3 Part 145 – Approved Maintenance Organisations	MEA111C
10.4 Air Operations	MEA111C
10.5 Certification of Aircraft, Parts and Appliances	MEA111C
10.6 Parts 21 and 42	MEA111C

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
10.7 Applicable National and International requirements	MEA111C
Module 11 Aeroplane Aerodynamics, Structure and Systems	
11.1 Theory of Flight	MEA312C
11.2 Airframe Structures – General concepts	MEA339C
11.3 Airframe Structures – Aeroplanes	MEA339C
11.4 Air Conditioning and Cabin Pressurisation	MEA211C, MEA219C, MEA309C
11.5 Instruments and Avionic Systems	MEA343B
11.6 Electrical Power	MEA211C, MEA301C
11.7 Equipment and Furnishings	MEA304C or MEA317C
11.8 Fire Protection	MEA211C, MEA309C
11.9 Flight Controls	MEA211C, MEA312C
11.10 Fuel Systems	MEA211C, MEA301C, MEA309C
11.11 Hydraulic Power	MEA211C, MEA301C, MEA309C
11.12 Ice and Rain Protection	MEA211C, MEA301C, MEA309C
11.13 Landing Gear	MEA211C, MEA309C
11.14 Lights	MEA211C
11.15 Oxygen	MEA222C
11.16 Pneumatic and Vacuum	MEA211C, MEA310C
11.17 Water and Waste	MEA211C, MEA309C
11.18 On Board Maintenance Systems	MEA343B
11.19 Integrated modular avionics	MEA343B
11.20 Cabin systems	MEA343B

Syllabus Reference B1.2 Licence	**Units of Competency Providing Full Coverage**
11.21 Information systems such as air traffic and information management systems and network server systems	MEA343B
Module 16 Piston Engine	
16.1 Fundamentals	MEA313C
16.2 Engine Performance	MEA313C
16.3 Engine Construction	MEA313C
16.4 Engine Fuel Systems	MEA211C, MEA313C, MEA343B
16.5 Starting and Ignition Systems	MEA211C, MEA313C
16.6 Induction, Exhaust and Cooling Systems	MEA313C
16.7 Supercharging/Turbocharging	MEA313C
16.8 Lubricants and Fuels	MEA301C, MEA313C
16.9 Lubrication Systems	MEA313C
16.10 Engine Indication Systems	MEA211C, MEA313C, MEA343B
16.11 Power plant Installation	MEA203C, MEA306C
16.12 Engine Monitoring and Ground Operation	MEA313C
16.13 Engine Storage and Preservation	MEA306C
Module 17 Propeller	
17.1 Fundamentals	MEA315C
17.2 Propeller Construction	MEA315C
17.3 Propeller Pitch Control	MEA211C, MEA315C
17.4 Propeller Synchronising	MEA211C, MEA315C
17.5 Propeller Ice Protection	MEA211C, MEA315C
17.6 Propeller Maintenance	MEA315C

Syllabus Reference B1.2 Licence	Units of Competency Providing Full Coverage
17.7 Propeller Storage and Preservation	MEA307C

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – B1.3 Licence

Syllabus Reference B1.3 Licence	Units of Competency Providing Full Coverage
Module 1 Mathematics	MEA201B
Module 2 Physics	MEA201B
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA201B
3.2 Static Electricity and Conduction	MEA201B
3.3 Electrical Terminology	MEA201B
3.4 Generation of Electricity	MEA201B
3.5 DC Sources of Electricity	MEA201B
3.6 DC Circuits	MEA201B
3.7 Resistance/Resistor	MEA201B
3.8 Power	MEA201B
3.9 Capacitance/Capacitor	MEA201B
3.10 Magnetism	MEA201B
3.11 Inductance/Inductor	MEA201B
3.12 DC Motor/Generator Theory	MEA203C
3.13 AC Theory	MEA203C
3.14 Resistive, Capacitive and Inductive Circuits	MEA203C
3.15 Transformers	MEA203C
3.16 Filters	MEA203C

Syllabus Reference B1.3 Licence	**Units of Competency Providing Full Coverage**
3.17 AC Generators	MEA203C
3.18 AC Motors	MEA203C
Module 4 Electronic Fundamentals	
4.1 Semiconductors	MEA343B
4.2 Printed Circuit Boards	MEA343B
4.3 Servomechanisms	MEA343B
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA343B
5.2 Numbering Systems	MEA343B
5.3 Data Conversion	MEA343B
5.4 Data Buses	MEA343B
5.5 Logic Circuits	MEA343B
5.6 Basic Computer Structure	MEA343B
5.7 Microprocessors	Not required
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	MEA343B
5.11 Electronic Displays	MEA343B
5.12 Electrostatic Sensitive Devices	MEA343B
5.13 Software Management Control	MEA343B
5.14 Electromagnetic Environment	MEA343B
Typical Electronic/Digital Aircraft Systems	MEA343B
Module 6 Materials and Handling	

Syllabus Reference B1.3 Licence	**Units of Competency Providing Full Coverage**
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA339C
6.4 Corrosion	MEA339C
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA302C
6.9 Transmissions	MEA306C
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA201B, MEA246C
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B
7.3 Tools	MEA109B, MEA260B
7.4 Avionic General Test Equipment	MEA260B
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA246C
7.8 Riveting	MEA339C
7.9 Pipes and Hoses	MEA302C, MEA303D, MEA328C
7.10 Springs	MEA309C, MEA328C

Syllabus Reference B1.3 Licence	**Units of Competency Providing Full Coverage**
7.11 Bearings	MEA309C, MEA319C
7.12 Transmissions	MEA309C, MEA316C
7.13 Control Cables	MEA316C, MEA328C
7.14 Material Handling	MEA339C
7.15 Welding, Brazing, Soldering and Bonding	MEA201B, MEA339C, MEA365A
7.16 Aircraft Weight and Balance	MEA325B
7.17 Aircraft Handling and Storage	MEA301C
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA309C, MEA322C, MEA323B, MEA328C, MEA339C, MEA365A
7.19 Abnormal Events	MEA112B
7.20 Maintenance Procedures	MEA112B
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA316C, MEA322C
8.2 Aerodynamics	MEA316C
8.3 Theory of Flight	MEA316C
8.4 Flight Stability and Dynamics	MEA316C
Module 9 Human Factors	
9.1 General	MEA103B, MEA113C
9.2 Human Performance and Limitations	MEA103B, MEA113C
9.3 Social Psychology	MEA103B, MEA113C
9.4 Factors Affecting Performance	MEA103B, MEA113C
9.5 Physical Environment	MEA103B, MEA113C
9.6 Tasks	MEA103B, MEA113C
9.7 Communication	MEA103B, MEA113C

Syllabus Reference B1.3 Licence	**Units of Competency Providing Full Coverage**
9.8 Human Error	MEA103B, MEA113C
9.9 Hazards in the Workplace	MEA101B, MEA116B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA111C
10.2 Part 66 Certifying Staff	MEA111C
10.3 Part 145 – Approved Maintenance Organisations	MEA111C
10.4 Air Operations	MEA111C
10.5 Certification of Aircraft, Parts and Appliances	MEA111C
10.6 Parts 21 and 42	MEA111C
10.7 Applicable National and International requirements	MEA111C
Module 12 Helicopter Aerodynamics, Structures and Systems	
12.1 Theory of Flight – Rotary Wing Aerodynamics	MEA316C
12.2 Flight Control Systems	MEA316C
12.3 Blade Tracking and Vibration Analysis	MEA316C
12.4 Transmissions	MEA316C
12.5 Airframe Structures	MEA304C, MEA339C
12.6 Air Conditioning	MEA310C
12.7 Instruments and Avionic Systems	MEA343B
12.8 Electrical Power	MEA223D, MEA301C
12.9 Equipment and Furnishings	MEA304C
12.10 Fire Protection	MEA223D, MEA318C

Syllabus Reference B1.3 Licence	**Units of Competency Providing Full Coverage**
12.11 Fuel Systems	MEA223D, MEA301C, MEA309C
12.12 Hydraulic Power	MEA223D, MEA309C
12.13 Ice and Rain Protection	MEA223D, MEA310C
12.14 Landing Gear	MEA223D, MEA309C
12.15 Lights	MEA223D
12.16 Pneumatic and Vacuum	MEA223D, MEA310C
12.17 Integrated modular avionics	MEA343B
12.18 On Board Maintenance Systems	MEA343B
12.19 Information systems such as air traffic and information management systems and network server systems	MEA343B
Module 15 Gas Turbine Engine	
15.1 Fundamentals	MEA322C
15.2 Engine Performance	MEA322C
15.3 Inlet	MEA223D, MEA322C
15.4 Compressors	MEA322C
15.5 Combustion Section	MEA322C
15.6 Turbine Section	MEA322C
15.7 Exhaust	MEA322C
15.8 Bearings and Seals	MEA322C
15.9 Lubricants and Fuels	MEA301C
15.10 Lubrication Systems	MEA322C
15.11 Fuel Systems	MEA223D, MEA322C
15.12 Air Systems	MEA223D, MEA322C

Syllabus Reference B1.3 Licence	Units of Competency Providing Full Coverage
15.13 Starting and Ignition Systems	MEA223D, MEA322C
15.14 Engine Indication Systems	MEA322C, MEA343B
15.15 Power Augmentation Systems	MEA322C
15.16 Turbo Prop Engines	MEA223D, MEA322C
15.17 Turbo-Shaft Engines	MEA223D, MEA322C
15.18 Auxiliary Power Units	MEA223D, MEA322C
15.19 Power plant Installation	MEA203C, MEA306C
15.20 Fire Protection Systems	MEA223D, MEA310C
15.21 Engine Monitoring and Ground Operation	MEA322C, MEA323B
15.22 Engine Storage and Preservation	MEA306C

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – B1.4 Licence

Syllabus Reference B1.4 Licence	Units of Competency Providing Full Coverage
Module 1 Mathematics	MEA201B
Module 2 Physics	MEA201B
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA201B
3.2 Static Electricity and Conduction	MEA201B
3.3 Electrical Terminology	MEA201B
3.4 Generation of Electricity	MEA201B
3.5 DC Sources of Electricity	MEA201B
3.6 DC Circuits	MEA201B
3.7 Resistance/Resistor	MEA201B

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
3.8 Power	MEA201B
3.9 Capacitance/Capacitor	MEA201B
3.10 Magnetism	MEA201B
3.11 Inductance/Inductor	MEA201B
3.12 DC Motor/Generator Theory	MEA203C
3.13 AC Theory	MEA203C
3.14 Resistive, Capacitive and Inductive Circuits	MEA203C
3.15 Transformers	MEA203C
3.16 Filters	MEA203C
3.17 AC Generators	MEA203C
3.18 AC Motors	MEA203C
Module 4 Electronic Fundamentals	
4.1 Semiconductors	MEA343B
4.2 Printed Circuit Boards	MEA343B
4.3 Servomechanisms	MEA343B
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA343B
5.2 Numbering Systems	MEA343B
5.3 Data Conversion	MEA343B
5.4 Data Buses	MEA343B
5.5 Logic Circuits	MEA343B
5.6 Basic Computer Structure	MEA343B
5.7 Microprocessors	Not required

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
5.8 Integrated Circuits	Not required
5.9 Multiplexing	Not required
5.10 Fibre Optics	MEA343B
5.11 Electronic Displays	MEA343B
5.12 Electrostatic Sensitive Devices	MEA343B
5.13 Software Management Control	MEA343B
5.14 Electromagnetic Environment	MEA343B
5.15 Typical Electronic/Digital Aircraft Systems	MEA343B
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA339C
6.4 Corrosion	MEA339C
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA302B
6.9 Transmissions	MEA306B
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA201B, MEA246C
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
7.3 Tools	MEA109B, MEA260B
7.4 Avionic General Test Equipment	MEA260B
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA246C
7.8 Riveting	MEA339C
7.9 Pipes and Hoses	MEA302C, MEA303D, MEA328C
7.10 Springs	MEA309C, MEA328C
7.11 Bearings	MEA309C, MEA313C, MEA316C
7.12 Transmissions	MEA309C, MEA316C
7.13 Control Cables	MEA309C, MEA328C
7.14 Material Handling	MEA339C
7.15 Welding, Brazing, Soldering and Bonding	MEA201B, MEA339C, MEA365A
7.16 Aircraft Weight and Balance	MEA325B
7.17 Aircraft Handling and Storage	MEA301C
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA211C, MEA309C, MEA313C, MEA316C, MEA323B, MEA328C, MEA339C, MEA365A
7.19 Abnormal Events	MEA112B
7.20 Maintenance Procedures	MEA112B
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA316C
8.2 Aerodynamics	MEA316C
8.3 Theory of Flight	MEA316C

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
8.4 Flight Stability and Dynamics	MEA316C
Module 9 Human Factors	
9.1 General	MEA103B, MEA113C
9.2 Human Performance and Limitations	MEA103B, MEA113C
9.3 Social Psychology	MEA103B, MEA113C
9.4 Factors Affecting Performance	MEA103B, MEA113C
9.5 Physical Environment	MEA103B, MEA113C
9.6 Tasks	MEA103B, MEA113C
9.7 Communication	MEA103B, MEA113C
9.8 Human Error	MEA103B, MEA113C
9.9 Hazards in the Workplace	MEA101B, MEA116B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA111C
10.2 Part 66 Certifying Staff	MEA111C
10.3 Part 145 – Approved Maintenance Organisations	MEA111C
10.4 Air Operations	MEA111C
10.5 Certification of Aircraft, Parts and Appliances	MEA111C
10.6 Parts 21 and 42	MEA111C
10.7 Applicable National and International requirements	MEA111C
Module 12 Helicopter Aerodynamics, Structures and Systems	
12.1 Theory of Flight – Rotary Wing Aerodynamics	MEA316C

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
12.2 Flight Control Systems	MEA316C
12.3 Blade Tracking and Vibration Analysis	MEA316C
12.4 Transmissions	MEA316C
12.5 Airframe Structures	MEA304C, MEA339C
12.6 Air Conditioning	MEA310C
12.7 Instruments and Avionic Systems	MEA343B
12.8 Electrical Power	MEA223D, MEA301C
12.9 Equipment and Furnishings	MEA304C
12.10 Fire Protection	MEA223D, 310C
12.11 Fuel Systems	MEA223D, MEA301C, MEA309C
12.12 Hydraulic Power	MEA223D, MEA309C
12.13 Ice and Rain Protection	MEA223D, MEA310C
12.14 Landing Gear	MEA223D, MEA309C
12.15 Lights	MEA223D
12.16 Pneumatic/Vacuum	MEA223D, MEA310C
12.17 Integrated modular avionics	MEA343B
12.18 On Board Maintenance Systems	MEA343B
12.19 Information systems such as air traffic and information management systems and network server systems	MEA343B
Module 16 Piston Engine	
16.1 Fundamentals	MEA313C
16.2 Engine Performance	MEA313C
16.3 Engine Construction	MEA313C

Syllabus Reference B1.4 Licence	**Units of Competency Providing Full Coverage**
16.4 Engine Fuel Systems	MEA211C, MEA313C, MEA343B
16.5 Starting and Ignition Systems	MEA211C, MEA313C
16.6 Induction, Exhaust and Cooling Systems	MEA313C
16.7 Supercharging/Turbocharging	MEA313C
16.8 Lubricants and Fuels	MEA301C, MEA313C
16.9 Lubrication Systems	MEA313C
16.10 Engine Indication Systems	MEA211C, MEA313C, MEA340A
16.11 Power plant Installation	MEA203C, MEA306C
16.12 Engine Monitoring and Ground Operation	MEA313C
16.13 Engine Storage and Preservation	MEA306C

Alignment between CASA Licensing Syllabus and Aeroskills Units of Competency – B2 Licence

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
Module 1 Mathematics	MEA201B
Module 2 Physics	MEA201B
Module 3 Electrical Fundamentals	
3.1 Electron Theory	MEA201B
3.2 Static Electricity and Conduction	MEA201B
3.3 Electrical Terminology	MEA201B
3.4 Generation of Electricity	MEA201B
3.5 DC Sources of Electricity	MEA201B
3.6 DC Circuits	MEA201B
3.7 Resistance/Resistor	MEA201B

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
3.8 Power	MEA201B
3.9 Capacitance/Capacitor	MEA201B
3.10 Magnetism	MEA201B
3.11 Inductance/Inductor	MEA201B
3.12 DC Motor/Generator Theory	MEA203C
3.13 AC Theory	MEA203C
3.14 Resistive, Capacitive and Inductive Circuits	MEA203C
3.15 Transformers	MEA203C
3.16 Filters	MEA203C
3.17 AC Generators	MEA203C
3.18 AC Motors	MEA203C
Module 4 Electronic Fundamentals	
4.1 Semiconductors	MEA228D
4.2 Printed Circuit Boards	MEA207C
4.3 Servomechanisms	MEA228D, MEA230C
Module 5 Digital Techniques Electronic Instrument Systems	
5.1 Electronic Instrument Systems	MEA228D
5.2 Numbering Systems	MEA228D
5.3 Data Conversion	MEA228D
5.4 Data Buses	MEA228D
5.5 Logic Circuits	MEA228D
5.6 Basic Computer Structure	MEA228D
5.7 Microprocessors	MEA228D

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
5.8 Integrated Circuits	MEA228D
5.9 Multiplexing	MEA228D
5.10 Fibre Optics	MEA228D
5.11 Electronic Displays	MEA228D
5.12 Electrostatic Sensitive Devices	MEA207C
5.13 Software Management Control	MEA228D
5.14 Electromagnetic Environment	MEA207C
5.15 Typical Electronic/Digital Aircraft Systems	MEA228D, MEA230C, MEA232C
Module 6 Materials and Handling	
6.1 Aircraft Materials – Ferrous	MEA109B
6.2 Aircraft Materials – Non-Ferrous	MEA109B
6.3 Aircraft Materials – Composite and Non-Metallic	MEA109B
6.4 Corrosion	MEA223D
6.5 Fasteners	MEA109B
6.6 Pipes and Unions	MEA109B
6.7 Springs	MEA109B
6.8 Bearings	MEA203C
6.9 Transmissions	MEA203C
6.10 Control Cables	MEA109B
6.11 Electrical Cables and Connectors	MEA201B, MEA246C
Module 7 Maintenance Practices	
7.1 Safety Precautions – Aircraft and Workshop	MEA101B
7.2 Workshop Practices	MEA107B, MEA109B

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
7.3 Tools	MEA109B, MEA260B
7.4 Avionic General Test Equipment	MEA260B
7.5 Engineering Drawings, Diagrams and Standards	MEA107B
7.6 Fits and Clearances	MEA107B, MEA109B
7.7 Electrical cables and Connectors	MEA246B
7.8 Riveting	Not required
7.9 Pipes and Hoses	Not required
7.10 Springs	Not required
7.11 Bearings	Not required
7.12 Transmissions	Not required
7.13 Control Cables	Not required
7.14 Material Handling	Not required
7.15 Welding, Brazing, Soldering and Bonding (a) only	MEA201B
7.16 Aircraft Weight and Balance (a) only	MEA241C
7.17 Aircraft Handling and Storage	MEA301C
7.18 Disassembly, Inspection, Repair and Assembly Techniques	MEA227D, MEA228D, MEA229D, MEA230C, MEA232C, MEA235B
7.19 Abnormal Events	MEA112B
7.20 Maintenance Procedures	MEA112B
Module 8 Basic Aerodynamics	
8.1 Physics of the Atmosphere	MEA228D, MEA230C
8.2 Aerodynamics	MEA230C
8.3 Theory of Flight	MEA230C

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
8.4 Flight Stability and Dynamics	MEA230C
Module 9 Human Factors	
9.1 General	MEA103B, MEA113C
9.2 Human Performance and Limitations	MEA103B, MEA113C
9.3 Social Psychology	MEA103B, MEA113C
9.4 Factors Affecting Performance	MEA103B, MEA113C
9.5 Physical Environment	MEA103B, MEA113C
9.6 Tasks	MEA103B, MEA113C
9.7 Communication	MEA103B, MEA113C
9.8 Human Error	MEA103B, MEA113C
9.9 Hazards in the Workplace	MEA101B, MEA116B
Module 10 Aviation Legislation	
10.1 Regulatory framework	MEA111C
10.2 Part 66 Certifying Staff	MEA111C
10.3 Part 145 – Approved Maintenance Organisations	MEA111C
10.4 Air Operations	MEA111C
10.5 Certification of Aircraft, Parts and Appliances	MEA111C
10.6 Parts 21 and 42	MEA111C
10.7 Applicable National and International requirements	MEA111C
Module 13 Aircraft Aerodynamics, Structures and Systems	
13.1 Theory of Flight	MEA230C or MEA218B
13.2 Structures – General Concepts	MEA103B, MEA203C, MEA223D

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
13.3 Autoflight	MEA230C or MEA231C
13.4 Communication/Navigation	MEA228D, MEA229D, MEA232C
13.5 Electrical Power	MEA223D
13.6 Equipment and Furnishings	MEA226D
13.7 Flight Controls	MEA223D, MEA230C, MEA227D or MEA211C, MEA231C, MEA235B
13.8 Instrument Systems	MEA227D, MEA228D
13.9 Lights	MEA223D
13.10 On Board Maintenance Systems	MEA228D
13.11 Air conditioning and cabin pressurisation	MEA223D, MEA224C, MEA227D, MEA228D
13.12 Fire protection	MEA223D, MEA227D, MEA301C
13.13 Fuel systems	MEA223D, MEA224C, MEA227D, MEA228D, MEA301C
13.14 Hydraulic power	MEA223D, MEA224C, MEA227D, MEA228D, MEA301C
13.15 Ice and rain protection	MEA223D, MEA227D, MEA301C
13.16 Landing gear	MEA223D, MEA227D, MEA301C
13.17 Oxygen	MEA209C, MEA223D, MEA224C, MEA227D, MEA228D
13.18 Pneumatic and vacuum	MEA223D, MEA224C, MEA227D, MEA228D, MEA301C
13.19 Water and waste	MEA223D, MEA227D
13.20 Integrated modular avionics	MEA226D, MEA228D
13.21 Cabin systems	MEA226D, MEA229D
13.22 Information systems such as air traffic and information management systems and network	MEA226D, MEA229D

Syllabus Reference B2 Licence	**Units of Competency Providing Full Coverage**
server systems	
Module 14 Propulsion	
14.1 Turbine Engines	MEA227D, MEA224C
14.2 Engine Indicating Systems	MEA224C

Appendix 2: Glossary of Terms and Definitions

Acronyms

A	
AC	Advisory Circular or Alternating current
ACAS	Aircraft collision avoidance system
ACARS	Aircraft communications addressing and reporting system
AD	Airworthiness Directive
ADF	Australian Defence Force or Automatic direction finder
AFCS	Automatic flight control system
AH	Artificial horizon
AHRS	Attitude and heading reference system
AM	Amplitude modulated
AMO	Approved Maintenance Organisation (CASA) or Authorised Maintenance Organisation (ADF)
APU	Auxiliary power unit
AQF	Australian Qualification Framework
ARINC	Aeronautical Radio Incorporated (avionic data bus)
ASI	Airspeed indicator
ATA	Air Transport Association
ATC	Air traffic control
ATSB	Australian Transport Safety Bureau
B	
BCF	Bromochlorodifluoromethane (fire extinguisher)

C	
CAMO	Continuing airworthiness management organisation
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulation
CAIR	Confidential aviation incident report
CAR	Civil Aviation Regulation
CG	Centre of gravity
CRO	Cathode ray oscilloscope
CRT	Cathode ray tube
CVR	Cockpit voice recorder
D	
DC	Direct current
DG	Directional gyro
DME	Distance measuring equipment
DRABC	Danger, Respond, Airway, Breathing, Circulation
DTP	Desk top publishing

E	
ECAM	Electronic central aircraft monitor system
EFIS	Electronic flight instrument system
EICAS	Engine indicating and crew alerting system
ELT	Emergency location transmitter
EPA	Environmental Protection Agency
EROPS	Extended Range Operations
F	
FADEC	Full authority digital engine control
FDR	Flight data recorder
FLIR	Forward-looking infra-red
FM	Frequency modulated
FMS	Flight management system
FMCS	Flight management computer system
FOD	Foreign Object Damage
FRP	Fibre reinforced plastic
G	
GPS	Global positioning system
GPWS	Ground proximity warning system
GNS	Global navigation system

H	
HEIU	High energy ignition unit
HF	High frequency
HUD	Head-up display
I	
IAS	Indicated airspeed
ILS	Integrated logistic support or instrument landing system
INS	Inertial navigation system
J	

K	

L	
LCR	Inductance, capacitance and resistance (type of electrical circuit)
LDBO	Liquid dry breathing oxygen
LRU	Line replaceable unit
LSA	Logistic support analysis

M	
MCS	Maintenance control section
MDR	Major defect report
MEL	Minimum equipment list
MRB	Maintenance Review Board
MTO	Maintenance Training Organisation (CASR Part 147)
MQI	Maintenance Quality Inspector (ADF airworthiness system)
MSDS	Material safety data sheet
MSG	Maintenance Standards Group
N	
NDT	Non-destructive testing
O	
OAT	Outside air temperature
P	
PCB	Printed circuit board
PCT	Practical consolidation of training
PCU	Passenger control unit
PPE	Personal protective equipment
Q	

R	
RADALT	Radio altimeter
RAM	Reliability, availability and maintainability
RF	Radio frequency
RTO	Registered Training Organisation
S	
SATCOM	Satellite communications
SDR	Service difficulty report
SMS	Stores management system
SSS	Stores suspension system
T	
TACAN	Tactical Aerial Navigation
TAMM	Technical Airworthiness Maintenance Manual (AAP 7001.053)
TAS	True airspeed
TRU	Transformer rectifier unit
U	
UHF	Ultra high frequency

V	
VCR	Video cassette recorder
VHF	Very high frequency
VOR	Very high frequency omni-directional range
VSI	Vertical speed indicator
W	

X	

Y	

Z	

Definitions

Term	Definition
Aeroskills Education and Training Reference Group (part of MSA)	The Aerospace industry body providing advice on training and skill needs for aircraft engineering maintenance and manufacture. The Reference Group is part of the Manufacturing Skills Council which operates as MSA.
Analyse	The ability to break down material into component parts, explain relationships between parts and to recognise the organisational principles involved.
Application	The ability to use learned material in new and concrete situations, the application of rules, methods, concepts, principles, laws, theories and skills.
Apprentice/trainee	Any person who is undertaking off-job training courses and/or completing on-job competency standards.
Approved aerospace assessor	A person who is authorised by the particular RTO to assess whether an individual has achieved all of the specified competency requirements for attainment of Aeroskills Training Package units of competency.
Assessment by simulation	Where system or component reliability on some types of aircraft or equipment has resulted in few opportunities to develop competency on-job assessment may be carried out through task simulation, with the circumstances defined as follows: • In an off-job training situation, competency assessment under simulated conditions may be carried out where simulated aircraft maintenance trainers are available, or where training aid aircraft or components are adequate for the development and demonstration of competency. • In a maintenance workplace, competency assessment under simulated conditions may be carried out where a candidate has attained competency in the majority of units relevant to the qualification being sought; sufficient to demonstrate a broad application of basic trade skills and theory. Under such circumstances the candidate could be required to assemble required manuals and documentation and then describe in detail to the assessor how the task would be performed so as to satisfy the prescribed conditions of assessment for the unit of competency.
Classify	To be able to sort and place into groups having common

	characteristics.
Comprehension	The ability to grasp the meaning of material: translating material from one form to another: by interpreting material (explaining or summarising); predicting consequences or effects.
Component	Any self-contained part, combination of parts, sub-assemblies or units, which perform a distinctive function necessary to the operation of a system.
Construct	To draw, make, design, assemble, prepare or build.
Defect	Any confirmed abnormal condition of an item whether or not this could ultimately result in a failure.
Demonstrate	To perform a set of procedures with or without verbal explanation.
Describe	To supply a verbal account (orally or in writing) that gives the essential categories, properties or relationships.
Equipment	Equipment (including test equipment) required to support the maintenance or manufacture of aircraft or aircraft components. Specific application may be further defined by reference to relevant illustrated tool and equipment manuals. Ground support equipment would refer to items, such as trestles, ladders, docking stands, slings and lifting booms, and so on, and a range of high access mobile equipment.
Fabricate/assemble	To take raw stock and make detailed parts by a variety of methods, such as cutting, bending, attaching, and so on. It may be applied to metal and composite structures, electrical parts, and so on.
Generic skill	The fundamental, non-trade specific, skills which are transferable to enable a person to perform a wide variety of similar or related tasks. For example, the ‘generic skill’ of using a screwdriver implies that the apprentice/trainee can use a range of screwdrivers to perform a variety of tasks.
Industry practice(s)	Procedures and specifications which are generally applicable in aircraft maintenance activities, as specified by standard practice manuals and accepted industry requirements.
Industry standard	Specification or pre-determined procedure or outcome defined by aircraft, component or equipment manufacturers, or regulatory authorities. It may be in the form of manuals, service bulletins, special instruction, civil aviation orders or regulations.
Inspect	To examine or check a system assembly, component or part by visual or physical means, for the purpose of identifying defects or

	limits.
Licensed Aircraft Maintenance Engineer	The LAME holds a licence issued by CASA allowing him/her to certify or sign for aircraft maintenance as covered by the licence. The LAME certifies (within the limits of the licence) that maintenance, testing or inspection has been carried out to approved data and that the aircraft is airworthy and still meets its type design standard. CASA's new licensing requirements mean that (from a notified date and allowing for transition steps as specified in CAO 100.66) persons will have to complete specified vocational competency pathways prior to applying to CASA for issue of the particular licence sought.
Line replaceable unit	A unit (component) that can be readily changed on an aircraft during line maintenance operations.
Maintenance (scheduled)	That maintenance performed at defined intervals to retain a system, component or part in a serviceable condition by systematic inspection, detection, replacement of worn-out items, adjustment, calibration, cleaning, and so on.
Maintenance (unscheduled)	That maintenance performed to restore a system, component or part to a satisfactory condition by providing correction of a known or suspected malfunction and/or defect.
Manual	A document or publication that provides data relative to a special subject or equipment. Information covered by manuals may include aircraft maintenance, component maintenance, fault isolation, structural repair, system schematics, wiring, weight and balance, illustrated parts catalogues, tools and equipment.
Modify	Change or alter through re-work and/or through the installation or removal of an assembly, component or part.
Overhaul	The work necessary to return an aircraft component back to a zero time condition. In this context, overhaul generally refers to 'off-aircraft' workshop activities.
Part	One piece, or two or more pieces joined together which are not normally subject to disassembly without destruction of designed use.
Procedure	A step-by-step sequence of events or actions, which may also include a process.
Process	To make, alter or finish aircraft parts by bonding, metal spraying, brush cadmium plating, brush alodine, anodising, (flap, rotor and shot) peening, grit blasting, cold hole working, perma and cable

	swaging, electroplating, heat treatment, photo-etching, welding/machining, and so on.
Regulatory authority	Any organisation or department which has a responsibility for establishing and monitoring adherence to procedures, specifications or standards within the aerospace industry, either nationally or internationally, where applicable.
Remove/install	To take off or attach a sub-assembly, component or part from, or to a larger assembly. It may include assemblies, sub-assemblies, components or equipment.
Repair	To make a failed, damaged or worn component or part serviceable by dismantling assessing serviceability, modifying, rectifying, replacing piece parts and reassembling.
Rig	Adjust to a specified position or condition.
Supervision (of an apprentice/trainee)	Direct: working under direct supervision means an apprentice/trainee receives detailed instruction on the tasks to be performed, is subject to progress checks as to those tasks, and has those tasks reviewed on completion. Routine: the task was performed with the apprentice/trainee working independently and only standard inspection requirements or guidance was performed during the task. With this level of supervision, the apprentice/trainee may have been under constant observation during the performance of the task. However, he/she did not require a level of interaction above that of a tradesperson undertaking the same task. Additionally, all associated sub-tasks (paperwork, tool control, and so on) were completed.
System	A combination of interrelated assemblies, components or parts arranged to perform a specific function.
Test	To test and/or function (operate) an assembly, component or part to make sure that it agrees with the applicable specifications. In this definition, testing provides a way in which adjustment and/or troubleshooting/diagnosis can occur.
Troubleshoot/fault diagnosis	To locate and determine the reason for a fault in a system, component or part by means of a systematic checking or analysis.
Tune/adjust/calibrate	Correct or alter a system, circuit, components or indicator to provide a specified outcome or condition.