Australian Government

Department of Education, Employment and Workplace Relations

MEA50410 Diploma of Aviation Maintenance Management (Mechanical)

Revision Number: 1

MEA50410 Diploma of Aviation Maintenance Management (Mechanical)

Modification History

Not applicable.

Description

This qualification may be of use to individuals employed in aviation maintenance management fields in both the civil and Australian defence Force regulatory environments in jobs such as mechanical maintenance team leaders, maintenance planners, spares assessors, repairable item managers and technical authors. While a direct entry training pathway is provided it must be emphasised that many of the maintenance management positions applicable to the qualification have additional experience requirements specified in airworthiness regulations and only a limited range of employment opportunities may be available to those who do not have extensive prior aviation maintenance experience.

The qualification consists of:

- ten (10) units from MEA40710 Certificate IV in Aeroskills (Mechanical) that provide a baseline of skills and knowledge
- eight (8) common units, three (3) of which are elective, that provide competencies applicable to aviation maintenance managers
- four (4) para-professional aeronautical engineering units
- one imported sustainability unit

Credit is provided towards the MEA60210 Advanced Diploma of Aviation Maintenance Management (Mechanical).

Pathways Information

Not applicable.

Licensing/Regulatory Information

Not applicable.

Entry Requirements

Not applicable.

Employability Skills Summary

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
Employability Skill	**Industry/enterprise requirements for this qualification include**:
Communication	• Understanding complex directions from senior managers • Understanding input from professional engineers, specialist personnel and technical representatives • Liaising with maintenance personnel, aircrew and specialists regarding maintenance problems • Talking to senior mangers about maintenance and maintenance management problems and making presentations • Providing guidance to others and describing clearly faults, problems and spares requirements • Negotiating with team members, senior managers and aircraft owners/operators regarding timing and progress of work activities • Negotiating with potential suppliers of items of aeronautical product, piece parts and consumables • Negotiating with clients regarding the drafting of technical publications and maintenance data • Understanding and interpreting regulations, procedures, instructions and maintenance publications • Giving written instructions and completing maintenance documentation and component tags • Writing reports and proposals as required by regulations and organisational procedures • Interpreting organisational charts, wiring diagrams and system schematics, reading drawings relating to maintenance activities and interpreting fault diagnosis guides and logic charts • Using computers to obtain maintenance and maintenance management data, complete documentation and correspond using email • Networking with other maintenance managers and with others involved in maintenance-related integrated logistic support activities
Teamwork	• Performing tasks as an individual while being responsive to team members or colleagues and senior managers and allowing for relevant human factors • Working effectively with others who may be of different ages, gender, race, religion and political persuasion • Assisting team members with task definition and providing advice on work processes and troubleshooting

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	• Providing leadership and development of team commitment and dynamics • Monitoring and assessing team performance and providing mentoring and performance feedback • Gaining the trust and confidence of team members and resolving conflict within the team • Providing team members with the opportunity for ongoing competency development
Problem solving	• Identifying problems in a timely manner and developing practical solutions to maintenance problems not fully covered by maintenance data and to maintenance management problems • Proposing solutions to problems as repair schemes, modifications or as amendments to specified maintenance processes • Assisting with the resolution of complex problems as a team effort • Constantly reviewing problem solving skills and ability to effectively apply competencies to solve problems within the limits permitted by regulatory and organisational guidelines • Responding to emergencies or accidents in accordance with legislative, regulatory and organisational requirements • Using mathematical techniques to relate test results to system or component performance, to convert values between systems of measurement, to calculate weight and balance, to develop management solutions to problems, and in performing integrated logistic support procedures
Initiative and enterprise	• Adapting to new situations that arise as a consequence of regulatory changes, technology, contractual requirements, personnel management changes, operational circumstances, revised maintenance data, practices and procedures • Varying work practices and behaviour as a result of performance feedback from subordinates, peers and managers • Evaluating ideas to ensure that technical and regulatory aspects have been fully covered before proposing action that may result in modifications or changes to work processes • Applying human factors to avoid maintenance errors and maintain quality standards • Adapting competencies to the performance of a wide range of maintenance tasks • Contributing to a process of continuous improvement and a willingness to initiate, support and participate in the effective introduction of new work practices
Planning and organising	• Clarifying task objectives and required outcomes through

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	discussion with managers and team members • Planning the use of resources and allocating personnel and resources to tasks • Monitoring the time taken to complete tasks against team requirements or targets provided by management • Assessing work requirements for quotations • Collecting, analysing and organising information relating to assigned maintenance tasks and confirming the purpose and required work outcomes • Identifying contingency situations and taking action to resolve problems • Identifying the extent of impact on assigned work of changes in procedures, work instructions or regulatory requirements
Self-management	• Accepting responsibility for managing individual workload to meet target completion times or fit in with team milestones • Assessing personal knowledge and skills when assisting team members with complex tasks and when proposing modifications, repair schemes or changes to maintenance practices • Actively seeking opportunities to develop competencies and to apply them across a range of tasks and application of legislation, regulations, policy and procedures to achieve required outcomes and build confidence in own ideas and vision • Effectively manage personal work priorities and professional development • Identifying career paths and training opportunities that will assist in attaining career goals
Learning	• Taking advantage of learning opportunities that arise through training courses provided by the organisation or external providers and through mentoring and on-the-job training • Adapting competencies to accommodate new ideas and techniques • Using feedback from subordinates, peers and managers to identify ways in which competence can be improved • Mentoring and providing on-the-job training and induction training to team members • Interpreting units of competency and applying them to attainment of identified career goals
Technology	• Operating aircraft and avionic systems, test equipment and ground support equipment, ground running engines and troubleshooting faults • Using on-board maintenance systems and using maintenance-related software

EMPLOYABILITY SKILLS QUALIFICATION SUMMARY	
	• Maintaining aircraft systems, components and test stands • Performance testing of aircraft systems and engines • Storing and caring for components, parts, tools, test equipment and support equipment • Complying with requirements to complete maintenance records, develop and revise maintenance data and propose amendments to technical publications • Amending various forms of maintenance data • Using computers and microfiche to obtain maintenance data and using computers to complete records, reports and documentation

Packaging Rules

Packaging Rules

To be awarded a Diploma of Aviation Maintenance Management (Mechanical) competency must be demonstrated in a total of **twenty one** (**21**) units. Those articulating from a Certificate IV in Aeroskills (Mechanical) will require only **eleven** (**11**) units

All units must be chosen as specified under the conditions set out below:

- 20 Core units consisting of 10 preliminary common and avionic technical stream units for those who do not have a Certificate IV in Aeroskills (Avionics) and 10 Core Diploma level common, engineering and imported units
- One Elective Diploma level common unit from Group A

Core Units

10 preliminary Certificate IV level units for those who do not have a Certificate IV in Aeroskills (Avionics)

Unit code	Unit title	Prerequisite units
MEA101B	Interpret occupational health and safety practices in aviation maintenance	Nil
MEA105B	Apply quality standards applicable to aviation maintenance processes	MEA101B, MEA107B
MEA107B	Interpret and use aviation maintenance industry manuals and	Nil

Unit code	Unit title	Prerequisite units
	specifications	
MEA108B	Complete aviation maintenance industry documentation	MEA105B
MEA109B	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance	MEA105B, MEA108B
MEA260B	Use electrical test equipment	MEA101B, MEA105B, MEA107B, MEA108B, MEA109B
MEA327B	Fabricate and/or repair aircraft mechanical components or parts	MEA101B, MEA105B, MEA107B, MEA108B, MEA109B
MEA340A	Lay out and set up aircraft systems	MEA101B, MEA107B, MEA109B
MEA341A	Apply basic aircraft design characteristics	MEA101B, MEA107B, MEA109B
MEA342A	Apply basic aircraft power plant design characteristics	MEA101B, MEA107B, MEA109B

Complete the following **five** (**5**) common Diploma units, **four** (**4**) para-professional engineering units and **one** (**1**) imported sustainability unit listed below.

Unit code	Unit title	Prerequisite units
MEA116B	Apply occupational health and safety procedures at supervisor level in aviation maintenance	Nil
MEA121B	Manage aircraft/aeronautical product configuration	Nil
MEA133B	Communicate aviation technical and maintenance knowledge	Nil
MEA135A	Use computers in aviation maintenance-related integrated logistic support activities	Nil

Unit code	Unit title	Prerequisite units
MEA142B	Manage self in the aviation maintenance environment	Nil
MEA349A	Apply basic scientific principles and techniques in aeronautical engineering situations	Nil
MEA350A	Select and test aeronautical engineering materials	Nil
MEM30007A	Select common engineering materials	Nil
MEM30012A	Apply mathematical techniques in a manufacturing engineering or related environment	Nil
MSAENV472B	Implement and monitor environmentally sustainable work practices	Nil

Elective Units Group A

Plus **one** (**1**) of the following elective common units selected in accordance with the guidance in column four.

Unit code	Unit title	Prerequisite units	Unit selection guidance
MEA136A	Assess aviation spares and manage repairable items	MEA135A	Elective - for spares assessors and repairable item managers
MEA137A	Write aviation maintenance technical publications	MEA135A	Elective - for aviation technical authors
MEA140A	Supervise aviation maintenance teams and perform maintenance quality inspections	Nil	Elective - for supervisors within the Australian Defence Force regulatory system