

Manufacturing and Engineering (MEM) Release 2.1

Frequently Asked Questions

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Training package development and advice

What is the MEM Industry Reference Committee?

- The Manufacturing and Engineering IRC is responsible for the development and ongoing review of the MEM Training Package. The Training Package establishes the skill standards for people working in manufacturing and engineering industries. The qualifications and competencies that comprise the Training Package are designed to specify the skills and knowledge required to work in the respective occupations in manufacturing engineering.
- The IRC is comprised of industry experts from a broad range of industry subsectors including employer organisations, unions, industry associations and individuals with specific sector expertise. [View the membership of the MEM IRC here.](#)
- Membership of the IRC is determined by the Australian Industry and Skills Committee (AISC).

What role does IBSA Manufacturing play in the development of the MEM Training Package?

- IBSA Manufacturing is a Skills Service Organisation (SSO) funded by the Australian Government to provide support and secretariat services to the MEM Industry Reference Committee throughout the review and development of qualifications and the Training Package. In providing that support, IBSA undertakes research and analysis, manages consultation processes and prepares documentation for the IRC's approval and submission to the AISC for endorsement.

Overview

What has changed in the Manufacturing and Engineering Training Package Release 2.1?

The MEM Manufacturing and Engineering Training Package Release 2.0/2.1 consists of changes to:

- seventeen (17) new qualifications, & one (1) updated qualification
- four hundred and forty-six (446) units of competency
- fifty-five (55) imported units of competency.
- Delivery requirements for engineering trade qualifications
- Units of competency and qualifications to strengthen their alignment with jobs and occupations in the workplace

Does the MEM Manufacturing and Engineering Training Package (Release 2.0/2.1) completely supersede the MEM05 Metal and Engineering Training Package?

- No. The MEM Manufacturing and Engineering Training Package (Release 2.1) **does not** completely supersede the MEM05 Metal and Engineering Training Package.
- Detailed mapping and equivalence tables are provided at Appendix 3 of the MEM Release 2 Companion Volume Implementation Guide – Volume 2.
- It is intended that Release 3 of the Training Package will include a significant number of MEM05 units of competency that will be transitioned into the MEM Training Package, completing the comprehensive review of the MEM05 Package that commenced some years ago.

Are there licensing implications for qualifications and units of competency included in the MEM Manufacturing and Engineering Training Package Release 2.1?

- Yes, however licensing requirements for the manufacturing and engineering trades vary considerably across jurisdictions.
- There may be some units of competency in qualifications that have licensing or regulatory requirements based on the work context and these may change from time to time.
- In all cases, local state and territory regulations and licensing requirements should be verified.

What are the general compliance requirements for businesses operating within the manufacturing and engineering industries?

- Businesses in the manufacturing and engineering industries must comply with:
 - federal, state and local government environmental standards
 - product safety standards
 - occupational health and safety regulations.

What is the MEM Release 2.1 – Companion Volume Implementation Guide?

- The Implementation Guide is a mandatory requirement of the AISC and it contains information to help Registered Training Organisations (RTOs) and other users implement the training package, and comprises two (2) volumes:
- **The MEM Release 2.1 Companion Volume Implementation Guide – Volume 1 provides:**
 - specific information and advice about the structure of the qualifications and their key features, implementation advice and information on licensing and regulatory requirements.
- **The MEM Release 2.1 Companion Volume Implementation Guide – Volume 2: Appendix, contains detailed information about:**
 - qualifications and units of competency
 - prerequisites and points weighting
 - mapping information for qualifications and units of competency
 - qualification and certificate level descriptors
 - career pathways.

What is the MEM Training Package – Essentials Features Guide?

- The Essential Features Guide provides broader detail that goes beyond the information contained in the mandatory Companion Volume Implementation Guide. It is designed to explain the background and rationale associated with key features and strategies used in the MEM Training Package. It provides advice about why some of the features of the training package were designed the way they were.
- It is also intended to provide an insight into the importance of the relationship between the training package and its application in the workplace, and the competency-based industrial relations structures that drove the development of competency standards in the industry in the early 1990's.
- The Guide responds to concerns raised by (mostly) Training Providers about some of the features of MEM R2.1, and provides an industry view about how the package should be implemented.

Where can I find the *MEM Training Package – Essentials Features Guide*?

- You can find the *MEM Training Package – Essentials Features Guide* at training.gov.au or click on the link below.
- [MEM Essential Features Guide](#)

Training requirements in the Manufacturing and Engineering industries

What is the key change to delivery requirements for the 13 engineering trade qualifications included in MEM Manufacturing and Engineering Training Package Release 2.1?

- It is a requirement of this Release that the 13 engineering trade qualifications be undertaken through a formal Training Contract associated with an Australian Trade Apprenticeship or through formal skills recognition.
- The engineering trade qualifications in this release were specifically designed to reflect the knowledge and skill requirements for successful completion of a trade apprenticeship and to meet the requirements of the respective trades/callings declared around the country.
- They assume the integration of both learning from structured workplace practice and formal training delivery as specified in the Training Plan associated with the Contract of Training between an employer and an apprentice.

Are any of the qualifications contained in MEM Manufacturing and Engineering Training Package Release 2.1 suitable for delivery as VET in Schools programs or pre-employment/pre-apprenticeship programs?

- The Certificate I in Engineering ([MEM10119](#)) contained in MEM Training Package, and the Certificate II in Engineering Pathways ([MEM20413](#)) qualifications (currently contained in MEM05) were specifically designed for delivery as VET in Schools programs and pre-employment/pre-apprenticeship training. Both of these qualifications are current and will be transitioned in release 3 of the MEM training package.
- The other current Certificate II qualifications contained in MEM05 and the MEM Manufacturing and Engineering Training Package are not suitable for, and should not be delivered institutionally as, VET in Schools programs or pre-employment/pre-apprenticeship programs. They are qualifications specifically designed to reflect the skills and knowledge required by people employed in engineering/manufacturing production roles.

Can trade qualifications within the MEM Manufacturing and Engineering Training Package Release 2.1 be delivered offshore?

MEM Manufacturing and Engineering trade qualifications are designed to reflect the requirements of the respective engineering tradespeople employed in the Australian manufacturing, engineering and related industries.

These qualifications must be undertaken through a Training Contract or achieved through formal trade recognition processes.

Units of competency

Why do many of the MEM units of competency have prerequisites?

- The MEM Manufacturing and Engineering Training Package continues the practice established in the very first set of competency standards in the early 1990s of designing competency hierarchies based on accumulated skills and knowledge.
- The generic nature of MEM units means that many of them they have broad application across a range of jobs and circumstances. Overwhelmingly, units of competency are not used in isolation, nor can they be achieved in isolation. It is combinations of units that, together, combine to reflect the capability required in the workplace.
- For example, the assembly of fabricated components to the standard required in the workplace cannot be successfully carried out without other key skills in combination, including work health & safety skills, manual handling, the use of hand tools, planning and a range of other skills upon which the assembly of fabricated components is dependent.
- The alternative would be to duplicate the skills and knowledge associated with those skills in each unit that requires them.
- The use of prerequisites in MEM predates current training package development standards, funding and regulatory developments that have complicated delivery and assessment against the standard.

Is it a requirement that prerequisite skills and knowledge be achieved individually and prior to training for the competency they underpin?

- No. The IRC has developed prerequisite strings on the assumption that prerequisite skills will be developed and accumulated concurrently, and as part of, the development and acquisition of the specific competency they underpin.
- The specification of a unit as a prerequisite is intended to indicate the reliance that each of the units shares with the other units rather than a particular sequence in which they must be delivered or assessed. Competency in the primary unit cannot be achieved unless all of the prerequisite units have been achieved, either before or concurrently with the primary unit.

Why are many of the units of competency divided into 'Bands'?

- The allocation of certain units to different Bands recognises the relative complexity of skills used in the industry.
- Band B units generally represent skills and experience with more depth and complexity than Band A units.
- Banding is identified in both the individual unit and in the unit Group it is allocated to in qualification packaging rules. This requires users to select appropriate units from the respective groups to properly reflect the depth and complexity required to maintain consistency with the Training Package qualifications, the AQF and the Award classification structure.

- Banding is also used for the purposes of industrial classification in the Manufacturing & Associated Industries & Occupations Award 2020 which determines the pay of workers in the Award.

Why so some Qualifications specify a mandatory training contract pathway?

- The specification of training delivery through a mandatory training contract requirement appears in 13 engineering trade qualifications. This was implemented after a decision by Commonwealth and State Skills Ministers in December of 2020.
- This means that the achievement of any of the 13 engineering trade qualifications must be through either a formal Training Contract associated with an Australian Trade Apprenticeship or through formal skills recognition. This reinforces the industry expectation that workplace practice is a critical part of the learning process for meeting the requirement of the trade.

Why does industry believe it is necessary to mandate a training contract in specified trade qualifications?

- This requirement was established in response to growing concerns by industry that the quality, certainty and consistency of outcomes of trade training were declining, and a desire to prevent institutional only delivery of trade training at all levels.
- Industry has identified significant risk in cases where learners have not gained competencies in the context of the workplace and that 'on-the-job' performance, productivity and safety has been compromised. The mandated training contract for the trade qualifications enables the key component of workplace practice to be central to trade skills development.

Is it possible for training providers to enlist the help of others to collect evidence of skills application in the workplace?

- Yes. Involving another party such as a supervisor, work colleague or client enables assessors to gather evidence that is authentic, valid and current and is a legitimate strategy for collecting evidence of the demonstration of skills in the workplace.
- It is important to note that, if other parties are asked to assist in the collection of evidence of workplace practice, they are not making any assessment decisions, nor are they involved in a co-assessment arrangement. They are simply collecting evidence because they can regularly observe and monitor the learner in a real workplace setting.

Can a trade qualification have a total points accumulation of greater than 96 points?

- The points requirement for Certificate III qualifications in the MEM Training Package is 96 points and, along with the packing rules associated with Core, Stream and elective units, is important in order to ensure that there is consistency with the AQF and also consistency with the industrial value of the qualification under the Award Classification Structure.
- Qualification delivery that exceeds the 96 point requirement has implications for funding and also for industrial classification and pay outcomes which is undesirable.

Implementation

What are the mandatory entry requirements for MEM Manufacturing and Engineering Training Package Release 2.1 qualifications?

- There are no entry requirements for any of the MEM Manufacturing and Engineering Training Package qualifications. The mandating of delivery through a Training Contract in the 13 engineering trade qualifications has been included to specify how the qualification will be delivered. It does not constitute an entry requirement.

Can qualifications in the MEM Manufacturing and Engineering Training Package Release 2.1 be customised?

- Yes. All qualifications in the MEM Manufacturing and Engineering Training Package have the capacity for contextualisation using elective choice of units to suit the needs of enterprises and learners within the limits set by the packaging rules assuming the packaging rules have been met.
- The generic nature of the units of competency provides opportunities to contextualise units for the specific applications that best suit the needs of the learner.

Will MEM20105 Certificate II in engineering still be able to be used?

- This qualification was specifically designed to reflect the skills associated with employment as a Engineering/Manufacturing job role. It has been the subject of much controversy with training providers marketing the qualification as a pre-vocational, pre-apprenticeship or pre-employment program.
- It is not intended to be used as a pre-vocational, pre-apprenticeship or pre-employment qualification. It is not suited for, and should not be delivered to, people whose goal is not employment as a Engineering/Manufacturing Employee Level II in a manufacturing production environment as defined in the Award.
- It is not suited for, and should not be institutionally delivered to school students unless they are formally engaged in a traineeship under a Training Contract in accordance with the Australian Apprenticeships policy.
- Currently MEM20105 is still available in the MEM05 release of the training package, though all of the units within the qualification have been superseded.
- Those providers that have been using MEM20105 as a pre-vocational, pre-apprenticeship or pre-employment program should direct their students to [MEM10119](#) Certificate I in Engineering or [MEM20413](#) Certificate II in Engineering Pathways which are more appropriate for those purposes.

Additional information and feedback

Where can I get more detailed information on the MEM Manufacturing and Engineering Training Package Release 2.1?

For additional information relating to key features and practical implementation of the MEM Training Package (Release 2.0), please refer to:

- The MEM Release 2.1 – [Companion Volume Implementation Guide \(Vol 1 & 2\)](#), and
- The MEM Training Package – [Essential Features Guide](#)

How can I provide feedback on current projects associated with the MEM Manufacturing and Engineering Training Package I and companion materials?

Feedback and enquiries about training packages is welcomed at any time. If you would like to provide feedback please contact us on:

- [MEM Release 3 & Release 4](#)
- Phone: +61 (03) 9815 7099
- Email: manufacturing@ibsa.org.au