



Australian Government

MEM09215 Supervise detail drafting projects

Release: 1

MEM09215 Supervise detail drafting projects

Modification History

Release 1. Supersedes and is equivalent to MEM09215A Supervise detail drafting projects.

Application

This unit of competency defines the skills and knowledge required to supervise work of detail draftspersons to confirm drafting projects are accurate and comply with Australian Standards and project briefs from clients and designers, including those related to budget, timeline and quality. The unit is suitable for those performing a supervisory role within a drafting work environment and can be applied across all areas of drafting.

Supervision can include identifying the computer-aided design (CAD) platform for a project from available options if this is not specified in the brief and assisting with aspects of draftspersons' work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

MEM09204 Produce basic engineering detail drawings

MEM09214 Perform advanced engineering detail drafting

MEM09229 Read and interpret technical engineering drawings

MEM30012 Apply mathematical techniques in a manufacturing engineering or related environment

MEM30031 Operate computer-aided design (CAD) system to produce basic drawing elements

Competency Field

Drawing, drafting and design

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Confirm detail drafting briefs	1.1 Follow standard operating procedures (SOPs) and comply with work health and safety (WHS) requirements 1.2 Interpret and verify objectives, scope, parameters and drawing requirements from available information

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 Identify and address further information needs 1.4 Identify any regulatory and commercial requirements 1.5 Identify whether project brief requires additional expertise or resources 1.6 Identify any skill or training needs to deliver detail drafting outcomes 1.7 Identify file and software requirements, including requirements to transfer to other file formats, and any required customisation
2. Lead detail drafting project	2.1 Confirm work plan, including timelines, roles and responsibilities 2.2 Identify CAD software platform to be used and implement required customisation 2.3 Select organisational files, library, templates and symbols as required for work 2.4 Check information accuracy and generate requests for further information (RFIs) 2.5 Confirm detail draftspersons understand work requirements clearly 2.6 Clarify that documentation requirements for detail drafting work are understood by detail draftspersons 2.7 Liaise with relevant personnel to provide progress updates and to confirm detail design requirements and other project information
3. Monitor detail drafting outcomes	3.1 Monitor progress of drafting work against timelines and brief 3.2 Provide support to detail drafting personnel as required 3.3 Document design variations 3.4 Review consistency of 3D models and detail drawings where multiple models or drawings are required 3.5 Check final models and drawings against Australian Standards and specifications 3.6 Monitor compliance with WHS and environmental procedures 3.7 Check that required sign-off for drawings is obtained 3.8 Check that project documents are stored and filed in accordance with SOPs 3.9 Provide detail draftspersons with feedback on project outcomes
4. Monitor presentation	4.1 Check that drawings are presented according to industry standard

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
of drawings	and that outcomes comply with the project brief 4.2 Check that all required documentation is completed and presented to engineers, designers or clients

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Available information includes one or more of the following:	• construction documents • building and coordination information • work specifications • information for plant services equipment • industry codes, standards and regulations • design brief.
Project parameters include:	• timelines • engineering specifications • drawing requirements Plus one or more of the following: • budget • content • relationship with other project elements • regulatory and quality standards • reporting requirements.
File types include one or more of the following:	• Hewlett-Packard Graphics Language (HP-GL) formatted circuit board • computer-aided manufacturing (CAM) files • drawing exchange format (DXF) files

	• initial graphics exchange specification (IGES) • AutoCAD drawing interchange format or DXF.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM09215A Supervise detail drafting projects.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM09215 Supervise detail drafting projects

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- determining purpose and scope for drawing requirements relevant to the project utilising all available information
- leading detail drafting project by identifying and confirming computer-aided design (CAD) software program, parameters and regulatory requirements for completion with appropriate personnel
- monitoring detail drafting projects and supervising detail drafts person on at least two occasions to confirm drafting work is compliant with project brief, Australian Standards and specifications, providing feedback on drafting outcomes
- identifying any additional skills or training needs required to deliver drafting outcomes
- monitoring presentation of required drawings to engineers, designers or clients
- documenting and storing drawings in accordance with SOPs
- complying with organisational policies and procedures including quality requirements.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures
- different approaches to detail drawing
- copyright and intellectual property issues and legislation in relation to drawing
- quality assurance procedures
- organisational standards and procedures for CAD and detail drafting work
- information needs associated with engineering detail drawings
- sources and range of reference material
- parameters for a project
- requirements of AS 1100.101 Technical drawing - General principles, or equivalent for drawings to be produced

- specifications of the components, materials or assemblies
- procedures for checking and approving detail drawings
- procedures for customising identified system variables and reasons for customisation
- reasons for customising the system variables
- range of file types and their features and uses
- CAD file types, their uses and transfer requirements.

Assessment Conditions

- Assessors must:
 - have vocational competency in supervising detail drafting projects at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions that cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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