



Australian Government

Department of Education, Employment and Workplace Relations

MEM09215A Supervise detail drafting projects

Release: 1

MEM09215A Supervise detail drafting projects

Modification History

Release 1 - New unit of competency

Unit Descriptor

This unit of competency covers the skills and knowledge required to supervise work of other detail draftspersons to confirm drafting projects are accurate and comply with Australian Standards and project briefs from clients and designers.

Application of the Unit

This unit is suitable for those working within a drafting work environment and can be applied across all areas of drafting. It covers skills required by those responsible for confirming that detail drafting project outcomes are achieved. This 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 other draftspersons' work, including those related to complying with the detail drafting brief in relation to budget, timeline and quality.

Licensing/Regulatory Information

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

Pre-Requisites

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| MEM09002B | Interpret technical drawing |
| MEM09204A | Produce basic engineering detail drawings |
| MEM09214A | Perform advanced engineering detail drafting |
| MEM30012A | Apply mathematical techniques in a manufacturing, engineering or related environment |
| MEM30031A | Operate computer-aided design (CAD) system to produce basic drawing elements |

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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| 1 | Confirm client or designer detail drafting briefs | 1.1 | Interpret and verify objectives, scope, parameters and drawing requirements |
| | | 1.2 | Identify and address further information needs |
| | | 1.3 | Identify any regulatory and commercial requirements |
| | | 1.4 | Identify whether project brief requires additional expertise, or resource requirements |
| | | 1.5 | Identify any additional skill or training needs to deliver detail drafting outcomes |
| | | 1.6 | 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 conduct customisation, as required |
| | | 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), as required |
| | | 2.5 | Confirm other detail draft persons understand work requirements clearly |

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| | | 2.6 | Clarify that documentation requirements for detail drafting work are understood by detail draftspersons |
| | | 2.7 | Liaise with engineers, design draftspersons and/or clients, as required, to provide progress updates, confirm detail design requirements and other details |
| 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 | Check that design variations are documented |
| | | 3.4 | Review consistency of 3-D 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 workplace occupational health and safety (OHS) and environmental procedures |
| | | 3.7 | Check that required sign-off for drawings is obtained |
| | | 3.8 | Check that project documents are stored and filed according to organisational procedures |
| | | 3.9 | Provide detail draftspersons with feedback on project outcomes |
| 4 | Monitor presentation of drawings | 4.1 | Check that drawings are presented according to industry standard and that outcomes comply with the project brief |
| | | 4.2 | Check that all required documentation is completed and presented to engineers, designers and/or clients as required |

Required Skills and Knowledge

Required skills

Required skills include:

- literacy skills sufficient to read and interpret instructions, relevant codes of practice and specifications for drawing work and to compile project plans and documentation
- numeracy skills sufficient to interpret technical information and conduct mathematical problem solving as required in the scope of this unit
- interpersonal skills necessary to carry out face-to-face and telephone discussions
- using and maintaining drawing equipment and software programs
- teamwork and communication skills
- interpreting and applying AS 1100.101–1992 Technical drawing – General principles, and other relevant standards
- applying RFI procedures
- customising the relevant CAD program variables to suit the applicable drafting standards/procedures
- customising menus to suit the applicable drafting standards/procedures
- customising the system defaults to suit the applicable drafting standards/procedures
- developing macros
- storing drawing files according to workplace procedures
- evaluating detail drafting work progress and quality and identifying areas for improvement

Required knowledge

Required knowledge includes:

- general knowledge of different approaches to detail drawing
- awareness of copyright and intellectual property issues and legislation in relation to drawing
- environmental and OHS issues associated with detail drawings
- quality assurance procedures
- company standards and procedures for CAD and detail drafting work
- information needs associated with engineering detail drawings
- OHS and environmental standards and procedures
- sources and range of reference material
- requirements of AS 1100.101–1992 Technical drawing – General principles, or equivalent for drawings to be produced
- specifications of the components, materials and/or assemblies
- procedures for checking and approving detail drawings
- procedures for customising identified system variables
- reasons for customising the system variables
- range of file types and their features and uses
- CAD file types, their uses and transfer requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria required skills and knowledge range statement and the Assessment Guidelines for the Training Package.

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| Overview of assessment | A person who demonstrates competency in this unit must be able to lead detail draftspersons and confirm project outcomes are compliant with project brief and Australian Standards. |
| Critical aspects for assessment and evidence required to demonstrate competency in this unit | <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p> <p>Specifically the candidate must be able to:</p> <ul style="list-style-type: none"> • work within typical site/teamwork structures and methods • apply worksite communication procedures • comply with organisational policies and procedures, including quality requirements • participate in and lead work meetings • monitor and lead progress of detail drafting work and provide support to team members as required • comply with quality requirements • use industry terminology • apply appropriate safety procedures • monitor detail drafting projects and supervise detail draftsperson to confirm drafting work meets industry and client requirements. |
| Context of and specific resources for assessment | <p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team.</p> <p>Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</p> <p>Access must be provided to appropriate learning</p> |

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| | <p>and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities. This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, recording and reporting associated with drafting or other units requiring the exercise of the skills and knowledge covered by this unit.</p> |
| Method of assessment | <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways, including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p> |

Range Statement

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| Available information | Available information may include: <ul style="list-style-type: none">• construction documents• building and coordination information• work specifications• information for plant services equipment• industry codes, standards and regulations• design brief |
| Project parameters | Project parameters may include: <ul style="list-style-type: none">• budget• timelines• content• relationship with other project elements• engineering specifications• drawing requirements• regulatory and quality standards• reporting requirements |
| File types | File types may include, but are not limited to: <ul style="list-style-type: none">• Hewlett-Packard Graphics Language (HPGL) formatted circuit board, computer-aided manufacturing (CAM) files into Drawing Exchange Format (DXF) files• Initial Graphics Exchange Specification (IGES)• AutoCAD Drawing Interchange Format or DXF |

Unit Sector(s)

Drawing, drafting and design

Custom Content Section

Not applicable.