Blue Bar



**Board Endorsed Course**

**Curriculum Information Guide**

**Manufacturing (Pathways)**

**MSM10216 Certificate I in Manufacturing Pathways**

**NESA Course:** [**Manufacturing (Pathways) Stage 5**](http://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/vet/vet-board-endorsed-courses/manufacturing-pathways)

# **Introduction**

Vocational education and training (VET) courses form an integral part of the secondary education curriculum in NSW. It is widely recognised that these courses perform a significant role in preparing students for a successful transition from school to work. Schools have ensured through sustained commitment that school delivered VET is valued by industry, further education providers and the community.

The continuation of these high quality vocational education opportunities for students in government schools is dependent on the successful implementation of the [**VET Quality Framework**](https://www.asqa.gov.au/about/australias-vet-sector/vet-quality-framework)**, which** includes the [**Standards for Registered Training Organisations 2015.**](https://www.asqa.gov.au/about/australias-vet-sector/standards-registered-training-organisations-rtos-2015)

The VET Quality Framework is aimed at achieving greater national consistency in the way providers are registered and monitored and in how standards in the vocational education and training (VET) sector are enforced.

This guide contains information that is essential to ensuring the delivery of high quality VET in schools. Through the implementation of quality assurance requirements in this guide, schools will ensure that they are implementing education and training that is valued and recognised by industry and complies with the VET Quality Framework.

# **Using the Course Information Guide**

This course information guide outlines the requirements that must be implemented by schools when delivering competency based training and assessment. The guide covers the following areas:

* Use of accredited trainers and assessors
* Assessment environments
* Integrated (holistic) assessment
* Volume of learning
* Student work placement
* Engaging with industry and employers
* Credentialing AQF qualifications
* Mandatory resources and equipment

As part of the annual quality assurance process schools are required to complete

* Checklist 1 Mandatory resources and equipment
* Checklist 3 Trainer and assessor requirements
* The School Principal Declaration

Schools may also be required to complete

* Checklist 2 Accessing resources and equipment off-site
* Checklist 4 Additional units of competency

The completed declaration and checklists are to be stored securely on the school site and in accordance with RTO procedures.

# **Requirements of schools delivering competency based training and assessment**

### **Use of accredited trainers and assessors**

All trainers and assessors used by the RTO must comply with the requirements of Clauses 1.13 - 1.16 of the Standards for Registered Training Organisations (RTOs) 2015. To meet this requirement schools must ensure training is only be delivered by teachers who are accredited to deliver Stage 6 Primary Industries, or are in training to deliver Stage 6 Primary Industries.

Trainers must have

* the vocational competencies at least to the level being delivered and assessed
* current industry skills directly relevant to the training and assessment being provided, and
* current knowledge and skills in vocational training and learning that informs their training and assessment

Assessment must be undertaken only by teachers who have gained

* TAE40110 Certificate IV in Training and Assessment

All trainers and assessors must:

* regularly undertake professional development in the fields of the knowledge and practice of vocational training, learning and assessment including competency based training and assessment

Schools must ensure the professional development plans of VET teachers address these requirements.

### **Assessment environments**

Assessment should 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.

The collection of performance evidence:

* should occur over a range of situations which include typical disruptions to normal, smooth operation
* will typically include a supervisor (third party) report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
* may use industry-based simulation for all or part of the unit, as specified in each unit, particularly where safety, lack of opportunity or significant cost is an issue.

### **Integrated (holistic) assessment**

Holistic assessment brings together a number of related units of competency, relevant to the workplace and job role, that reflect actual workplace practices. Industry sees this realistic approach as essential for both delivery and assessment.

### **Volume of learning**

Qualifications in a training package must comply with Standard 8 of the *Standards for Training Packages*. This Standard requires qualifications to comply with the AQF specification for that qualification type. Volume of learning is a mandated component of the AQF qualification specifications.

The volume of learning includes more than ‘delivery’ and is therefore different to ‘nominal hours’. Volume of Learning identifies the notional duration of all activities required for the achievement of the learning outcomes specified for a particular AQF qualification type, expressed in equivalent full-time years. The volume of learning allocated to a qualification should include all teaching, learning and assessment activities that are required to be undertaken by the typical student to achieve the learning outcomes. These activities may include some or all of the following:

* guided learning (such as classes, lectures, tutorials, on-line study or self-paced study guides)
* individual study
* research
* learning activities in the workplace
* assessment activities

**Engaging with industry and employers**

Engaging with industry stakeholders (such as employers) is critical to ensuring training and assessment is aligned to current methods, technology, products and performance expectations for the workplace tasks specified in the training package or VET accredited course.

Schools are to support VET teachers in participating in RTO industry engagement activities.

**Credentialing AQF qualifications**

In order to comply with requirements of Standard 3 of the Standards for Registered Training Organisations (RTOs) 2015, schools must enter student qualification and competency details and outcomes on eBOS-VCS via Schools Online in accordance with timelines and procedures identified by NESA.

Students are to supply the school with a Unique Student Identifier. The school must then verify the USI and upload verified USIs to eBOS-VCS via Schools Online. Where a school has uploaded an incorrect USI for a student the school must contact the RTO to arrange for the USI to be corrected.

Schools must also implement the RTO Recognition of Prior Learning policy in accordance with NESA requirements.

**Mandatory Resources and Equipment**

Schools delivering units of competency in this qualification must have access to specific resources/equipment as required by the training package. Students must have sufficient access to the specified resources/equipment to enable them to acquire and demonstrate competency.

Resources/equipment may be accessible either on-site (at school) or off-site. Where access to resources and/or equipment is off site a suitable access arrangement must be documented and recorded in Checklist 2.

All resources/equipment selected **MUST**:

* comply with RTO policy and procedures
* be appropriate to the unit of competency being assessed and the circumstances of the assessment

All resources/equipment lists are to be read in conjunction with

* The [MSM - Manufacturing Training Package (Release 2.1)](http://training.gov.au/Training/Details/MSM)
* [MSM Manufacturing Training Package Companion Volume Implementation Guide Release 2.1](file:///C:/Users/athompson64/Downloads/MSM%20Release%202.1%20Implementation%20Guide_January2017%20(1).pdf)
* NSW Education Standards Authority (NESA) [Manufacturing Pathways Stage 5 Syllabus](http://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/vet/vet-board-endorsed-courses/manufacturing-pathways)

The following pages outline the assessment environments as well as the mandatory equipment and resources required for the delivery of the units of competency held by teachers accredited to deliver MSM10216 Certificate I in Manufacturing (Pathways).

### **Mandatory Resources and Equipment**

Schools delivering units of competency in this qualification must have access to specific resources/equipment as required by the training package. Students must have sufficient access to the specified resources/equipment to enable them to acquire and demonstrate competency.

Resources/equipment may be accessible either on-site (at school) or off-site. Where access to resources and/or equipment is off site a suitable access arrangement must be documented and recorded in Checklist 2.

All resources/equipment selected **MUST**:

* comply with RTO policy and procedures
* be appropriate to the unit of competency being assessed and the circumstances of the assessment

All resources/equipment lists are to be read in conjunction with the:

* [MSM - Manufacturing Training Package (Release 2.1)](http://training.gov.au/Training/Details/MSM)
* [MSM Manufacturing Training Package Companion Volume Implementation Guide Release 2.1](file:///C:/Users/athompson64/Downloads/MSM%20Release%202.1%20Implementation%20Guide_January2017%20(1).pdf)
* [NSW Education Standards Authority (NESA) Manufacturing (Pathways) Stage 5 Syllabus](http://www.boardofstudies.nsw.edu.au/voc_ed/bec-stage5-description-17/manufacturing-pathways-stage-5.html)

The following pages outline the assessment environments as well as the mandatory equipment and resources required for the delivery of the units of competency held by teachers accredited to deliver qualifications from the Primary Industries Curriculum Framework.

Note: Teachers must refer to Equipment Safety in Schools to select only tools and machinery that are suitable for use by students.

Note: some equipment or tools listed may be banned for use in schools.

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| **MEM03001B Perform manual production assembly** | |
| Assessment Environment | * 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | Components/sub-assemblies   * parts that make up the sub-assembly and components   Tested/checked   * carried out according to specification of assembled product |
| Consumable and Other Resources | * Nil |
| Documents | Recorded/input   * by means of production schedules, job sheets, checklists |
| Other people | * workplace supervisor |

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| **MEM05007C Perform manual heating and thermal cutting** | |
| Assessment Environment | * 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | Cutting   * use of hand held and self-propelled straight line cutters   Material   * various thicknesses and types including ferrous, non-ferrous and non-metallic materials   Process   * fuel gas, oxy fuel gas and air fuel gas |
| Consumable and Other Resources | * Nil |
| Documents | * assembling procedures for equipment and accessories * procedures for adjusting heating and cutting equipment * procedures for minimising waste material * procedures for correcting cutting defects * safe work practices and procedures |
| Other People | * workplace supervisor |

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| **MEM05012C Perform routine manual metal arc welding** | |
| Assessment Environment | * This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, then appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate. * This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with performing routine manual metal arc welding or other units requiring the exercise of the skills and knowledge covered by this unit. |
| **Mandatory Equipment and Resources** | |
| Equipment | *Materials*   * Low and mild carbon steel or similar   *Cleaned*   * Slag and spatter, cleaning, using files and grinders   *Prepared*   * Cleaning, setting up jigs, fixtures, clamps, joint preparation   *Welding equipment*   * Welding leads, welding machines, electrode holder etc. |
| Consumable and Other Resources | * Nil |
| Documents | * MMAW processes and properties * reading and interpreting routine information on written job instructions, specifications and standard operating procedures |
| Other People | * workplace supervisor |

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| **MEM11011B Undertake manual handling** | |
| Assessment Environment | 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | *Appropriate equipment*   * hand trolleys, wheelbarrows, motorised/hand pallet trucks (not sit on), scissor lifts, boom lifts, hand carts, dedicated production or process lifting equipment such as baskets, spreader bars, cradles or the like attached to lifting equipment   *Lifting techniques*   * individual or team lifting, use of appropriate lifting equipment   *Material weight*   * material weight is determined using scales or interpreting signage |
| Consumable and Other Resources | * Nil |
| Documents | * hazards of incorrect procedures * NOHSC standards for manual handling * safe work practices and procedures |
| Other People | * workplace supervisor |

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| **MEM16008A Interact with computing technology** | |
| Assessment Environment | 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | *Access procedures*   * Logging on and security procedures, virus checks, start-up routines, application start-up   *Applications*   * Customised engineering and manufacturing applications * Material Resource Planning (MRP) * Predictive reliability and maintenance applications * Production data management applications * Warehousing inventory applications * Word processing spreadsheets and databases   *Data output*   * Report, email, chart, graph, printout, data transfer, labels   *Technology*   * Customised engineering and manufacturing applications * Hand held data recording devices, screen based equipment, personal computers, bar coders * Material Resource Planning (MRP) * Predictive reliability and maintenance applications * Production data management applications * Warehousing inventory applications * Word processing spreadsheets and databases   *Data output*   * Report, email, chart, graph, printout, data transfer, labels |
| Consumable and Other Resources | * Nil |
| Documents | * hazards and control measures associated with using computing technology, including housekeeping * safe work practices and procedures |
| Other People | * workplace supervisor |

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| **MEM18001C Use hand tools** | |
| Assessment Environment | 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | *Hand tools*   * chisels * files of all cross-sectional shapes and types * gouges * hacksaws * hammers * punches * scrapers * screwdrivers * sockets * wood planes * wrenches   *Job specifications*   * finish * size or shape etc * tension.   *Routine maintenance*   * Cleaning, lubricating, tightening, simple tool repairs, hand sharpening and adjustments using engineering principles, tools, equipment and procedures |
| Consumable and Other Resources | * Nil |
| Documents | * hazards and control measures associated with using hand tools * procedures for marking unsafe or faulty tools for repair * routine maintenance requirements for a range of hand tools * safe work practices and procedures * storage location and procedures for a range of hand tools * use and application of personal protective equipment |
| Other People | * workplace supervisor |

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| **MEM18002B Use power tools/ hand held operations** | |
| Assessment Environment | 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. The assessment environment should not disadvantage the candidate. |
| **Mandatory Equipment and Resources** | |
| Equipment | Clamping   * clamps etc. * jigs and fixtures * multigrips * vices   Job specifications   * finish, size or shape etc.   Operational maintenance   * Hand sharpening, cleaning, lubricating, tightening * Simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory   and regulatory requirements  Power tools   * cutting saws * electric or pneumatic/hydraulic drills * grinders * jigsaws * nibblers * pedestal drills and pedestal grinders * planers * routers * sanders |
| Consumable and Other Resources | * Nil |
| Documents | * hazards/control measures associated with power tools * procedures for marking unsafe or faulty power tools for repair * routine maintenance requirements of a range of power tools * safe work practices and procedures * storage location and procedures of a range of power tools * tool sharpening techniques for a range of power tools * use and application of personal protective equipment |
| Other People | * workplace supervisor |

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| **MSFFM1002 Operate basic woodworking machines** | |
| Assessment Environment | * Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines. * Access is required to basic woodworking machinery, standard operating procedures and materials. |
| **Mandatory Equipment and Resources** | |
| Equipment | * band saw * belt sander (finisher) – stroke and linisher * bobbin sander * cross cut saw * disc sander * horizontal borer (single bit) * manufactured board * Material safety management systems * panel planer (thicknesser) * panel saw * Personal Protective Equipment * rip saw * solid timber * surface planer (buzzer/jointer) * vertical drill press |
| Consumable and Other Resources | * belts * blades * drill bits * manufactured board * solid timber |
| Documents | * Building codes * Hazardous substances and dangerous goods code * Procedures for reporting machinery faults and material defects * Workplace safety legislation, policies and procedures |
| Other People | * other team members |

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| **MSFFM2001 Use furniture making sector hand and power tools** | |
| Assessment Environment | * Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines. * Access is required to furniture making sector hand and power tools, and materials used in the manufacturing and/or installation of furnishing products. |
| **Mandatory Equipment and Resources** | |
| Equipment | * biscuit machine * brad/nail and staple gun and sanders * chisels * circular power saw * drill * drop saw * files * hammers (claw, Warrington, tack and ball pein) * hand planes * hand saws * jig saw * mallet * marking-out tools * Personal protective equipment * planer * rasps * router * scraper * screwdrivers and hand drills * spokeshave * trimmer |
| Consumable and Other Resources | * drill bits |
| Documents | * environmental legislation * manual handling procedures * manufacturer’ s specifications * organisation insurance requirements * relevant health regulations * workplace health and safety legislation |
| Other People | * workplace supervisor |

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| **MSFFM2002 Assemble furnishing components** | |
| Assessment Environment | * Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines. * Access is required to tools, equipment and materials required to assemble furnishing components. |
| **Mandatory Equipment and Resources** | |
| Equipment | * bevels * carcasses * chisels * clamps/cramps * doors * drawers * ends * frames * hammers * hand saws * mallets * material safety management systems * measuring tapes or rulers * pincers * planes * power drills/screwdrivers * power saws * pneumatic tools, compressor and spray equipment * screwdrivers and/or spanners * shelves * squares * tops |
| Consumable and Other Resources | * dowels and knock down fittings * glues * manufactured board * nails * screws * timber |
| Documents | * building codes * environmental legislation * hazardous substances and dangerous goods code * local safe operating procedures * manual handling procedures * manufacturer’ s specifications * organisation insurance requirements * relevant health regulations * workplace health and safety legislation |
| Other People | * workplace supervisor |
| **MSFFM2003 Select and apply hardware** | |
| Assessment Environment | * Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines. * Access is required to plans, hand and/or power tools, equipment, hardware materials and woodworking machinery. |
| **Mandatory Equipment and Resources** | |
| Equipment | * bevels * chisels * clamps * drawer-runners * hammers * hand saws * handles * hinges * levelling devices * mallets * material safety management systems * measuring tapes or rulers * metal drawer systems * rotating storage systems and slide-out storage systems * pincers * planes * pneumatic tools, compressor and spray equipment * power saws * power drills/screwdrivers * screwdrivers * sliding rail systems * squares |
| Consumable and Other Resources | * cleaning chemicals and materials * hardware consumables * manufactured board * timber |
| Documents | * building codes * cutting lists * drawings and designs * environmental legislation * hazardous substances and dangerous goods code * job sheets * local safe operating procedures * manual handling procedures * manufacturer’ s specifications * organisation insurance requirements * plans * relevant health regulations * workplace health and safety legislation |
| Other People | * workplace supervisor |
| **MSFFM2005 Join solid timber** | |
| Assessment Environment | * Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines. * Access is required to plans, hand and/or power tools, equipment, joining and finishing materials and woodworking machinery. |
| **Mandatory Equipment and Resources** | |
| Equipment | * bevels * biscuit machines * chisels * clamps and pincers * cross-cut saw * dowel jigs * hammers * hand saws * hoses * mallets * measuring tapes or rulers * panel planer * panel saw * planes * pneumatic tools, compressor and spray equipment * power drills * power saws * rip saw * sanders and vertical and horizontal drills * spindle moulder * squares * surface planers |
| Consumable and Other Resources | * adhesives * abrasives and cleaning materials |
| Documents | * building codes * environmental legislation * hazardous substances and dangerous goods code * local safe operating procedures * manual handling procedures * manufacturer instructions for the use of equipment and materials * manufacturer’ s specifications * organisation insurance requirements * relevant health regulations * workplace health and safety legislation |
| Other People | * workplace supervisor |

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| **MSMOPS100 Use equipment** | |
| Assessment Environment | Assessment will occur on an appropriate item of equipment and will be undertaken in a work-like environment.  Competence in this unit may be assessed:  • by using a suitable simulation and/or a range of case studies/scenarios   * in a situation allowing the generation of evidence of the ability to respond to problems * on a processing plant allowing for operation under all normal and a range of abnormal conditions   • through a combination of these techniques |
| **Mandatory Equipment and Resources** | |
| Equipment | This competency may include:   * air conditioning units * blowers * compressors (packaged plant) * fans * other equipment with similar operating requirements * portable generators * refrigeration (packaged plant) |
| Consumable and Other Resources | * Nil |
| Documents | * Relevant industry and government standards and codes * Workplace procedures and instructions |
| Other People | * This unit requires students to interact with a range of people as part of the work or work like environment |

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| **MSMOPS101 Make measurements** | |
| Assessment Environment | Assessment should 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 reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.  Assessment in a simulated environment should use evidence collected from one or more of:  • demonstration of skills   * industry-based case studies/scenarios * pilot plant operation * walk-throughs   • ‘what ifs’. |
| **Mandatory Equipment and Resources** | |
| Equipment | * calculators * computers for recording results * measuring devices, including gauges, dip-sticks, thermometers, weighing scales, length/thickness measuring * relevant personal protective equipment |
| Consumable and Other Resources | * Nil |
| Documents | * Relevant industry and government standards and codes * Workplace procedures and instructions |
| Other People | * This unit requires students to interact with a range of people as part of the work or work like environment |

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| **MSMPCI101 Adapt to work in industry** | |
| Assessment Environment | * assessment of knowledge must be conducted through appropriate written/oral examinations and questions   Practical assessment must occur:   * in suitable simulations of a work environment organised by the registered training organisation, and/or in an appropriate workplace |
| **Mandatory Equipment and Resources** | |
| Equipment | * business technology * computer technology * hand tools * machinery * security systems |
| Consumable and Other Resources | * Nil |
| Documents | * manuals and training guides * organisational policies and procedures |
| Other People | * coaches and mentors * co-workers * Customers and co-workers from a range of cultural backgrounds * trainers * workplace supervisors |

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| **MSMPCI102 Apply effective work practices** | |
| Assessment Environment | * in an appropriate workplace * in suitable simulations of a work environment * within reasonable workplace timeframes |
| **Mandatory Equipment and Resources** | |
| Equipment | * business technology * computer technology * hand tools * machinery * security systems |
| Consumable and Other Resources | * Nil |
| Documents | * maintenance logs * organisational policies and procedures * work instructions |
| Other People | * co-workers * manager * workplace supervisor |

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| **MSMPCI103 Demonstrate care and apply safe practices at work** | |
| Assessment Environment | * assessment of knowledge must be conducted through appropriate written/oral examinations * appropriate practical assessment must occur: * in an appropriate workplace * in suitable simulations of a work environment organised by the registered training organisation, with a range of equipment suitable for the job role |
| **Mandatory Equipment and Resources** | |
| Equipment | Access is required to opportunities and appropriate resources to either:   * carry out a range of suitably simulated practical and knowledge assessments that demonstrate the skills and knowledge to work safely (usually as part of a holistic assessment involving other competency units), and/or * participate in actual workplace activities that demonstrate the skills and knowledge to work safely |
| Consumable and Other Resources | * Nil |
| Documents | * Nil |
| Other People | * Nil |
| **MSMPCII296 Make a small furniture item from timber** | | |
| Assessment Environment | * Assessment may occur on the job or in a workplace simulated facility with relevant equipment, materials, work instructions and deadlines. | |
| **Mandatory Equipment and Resources** | | |
| Equipment | Tools, equipment and materials may vary depending on the job but may include  *Equipment could include:*  • blades   * electric saw   • electric sander  • electric screw driver  • horizontal borers  • lathes   * panel planers * pedestal grinders * pencils and marking devices * power drills   • vertical drill presses  *Tools may include:*   * 90 degree angle * bevel * chisel * clamp * file * hacksaw * hammer or mallet * manual saw, jigsaw * measuring tapes/ rulers * mitre cutter * screw driver * paintbrush * pliers and pincers * punch * spirit level * staple gun   *Materials could include:*   * plastics * steel | |
| Consumable and Other Resources | * adhesives * bolts * glue * hinges and metal fasteners * manufactured boards * nails * paints and stains * primers * rags * sandpapers * screws * timber | |
| Documents | * check sheets * documenting equipment and/or material defects * drawings and sketches * job cards * job sheets * Material safety data sheets (MSDS) * patterns * plans * plant and maintenance records * reporting requirements * workplace procedures relating to the use of tools and equipment | |
| Other People | * communicate ideas and information * coordinate with other workers and the reporting of work outcomes and problems * obtain confirmation of work requirements and specifications | |

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| **MSMPCII298 Make an object from metal** | |
| Assessment Environment | * Assessment may occur on the job or in a workplace simulated facility with relevant equipment, materials, work instructions and deadlines. |
| **Mandatory Equipment and Resources** | |
| Equipment | * Equipment, tools and materials may vary depending on the job but may include those items listed below:   *Equipment may include:*  • band saws   * overalls or protective clothing * power drills * power saws * protective eye ware   • protective gloves  • vertical drill presses  *Tools may include:*  • bevels   * chisels * clamping devices * cordless drills/ screwdrivers   • files   * fixing and joining devices * hammers or mallets   • hand saws  • jigs   * measuring tapes or rulers   • planes  • pincers   * squares   *Materials may include:*  • adhesives   * bolts * hinges and metal fasteners * metal   • nuts   * screws |
| Consumable and Other Resources | * dust masks * paints * pencils and markers |
| Documents | Workplace documentation could include:   * check sheets * documenting equipment and/or material defects * drawings and sketches * job cards * job sheets * Material safety data sheets (MSDS) * patterns * plans * plant and maintenance records * reporting requirements * workplace procedures relating to the use of tools and equipment |
| Other People | This unit requires students to   * communicate ideas and information * coordinate with other workers and the reporting of work outcomes and problems * obtain confirmation of work requirements and specifications |

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| **Quality Assurance Declaration and Checklists**  **Manufacturing (Pathways)** |

### **The following checklists form part of the RTO’s quality assurance process as required under Standard 2 of the *Standards for Registered Training Organisations (RTOs) 2015*.**

### **This document is to be completed and filed securely at the school and in accordance with RTO requirements.**

# Declaration by the school principal:

* The course is marketed to students in accordance with RTO course information, the course delivery follows the RTO Training, and Assessment Strategy approved for this school.
* The school has a system for entering the intended qualification and units of competency on eBOS-VCS via Schools Online in accordance with the RTO’s Training and Assessment Strategy and the timeline advised by the NSW Education Standards Authority (NESA)
* The school has a process for collecting and verifying student USIs and uploading them to eBOS-VCS via Schools Online
* Mandatory Student Work Placement requirements can be completed in accordance with NESA requirements as outlined in this guide.
* Students have access to the assessment environments, equipment and resources required for each unit of competency as indicated on Checklist 1. Where equipment and resources are accessed off-site. Access arrangements are identified on [Checklist 2.](#_bookmark1)
* As part of the course enrolment process, students have completed the RTO’s course induction process and have been informed of the course assessment requirements. The school provides suitable adjustments to training and assessment to meet the needs of students
* All teachers timetabled on this course are accredited or in training as indicated on [Checklist 3](#_bookmark2).

### **School Site Sign Off**

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| **School Name** |  | | | |
| **RTO Name** |  | | | |
| **Name of person completing checklists** |  | **Signature** | |  |
| **Principal Name** |  | | | |
| **Principal Signature** |  | **Date** |  | |

**Checklist 1**

**Access to assessment environments, equipment and resources**

On the following checklist, indicate the units of competency to be delivered to students as per the RTO Training and Assessment Strategy for the relevant qualification at this site. The sign off in the declaration indicates your satisfaction that all the specified resources and equipment can be accessed on site unless otherwise indicated on the separate form for this purpose. (Checklist 2).

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| --- | --- | --- | --- |
| **Units of Competency** | | | **Access on site (All/Some/None)** |
|  | MSMPCI101 | Adapt to work in industry |  |
|  | MSMPCI102 | Apply effective work practices |  |
|  | MSMPCI103 | Demonstrate care and apply safe practices at work |  |
|  | MSMPCII296 | Make a small furniture item from timber |  |
|  | MSMPCII298 | Make an object from metal |  |
|  | MEM03001B | Perform manual production assembly |  |
|  | MEM05007C | Perform manual heating and thermal cutting |  |
|  | MEM05012C | Perform routine manual metal arc welding |  |
|  | MEM18001C | Use hand tools |  |
|  | MEM18002B | Use power tools/hand held operations |  |
|  | MSFFM1002 | Operate basic woodworking machines |  |
| ☐ | MSFFM2001 | Use furniture making sector hand and power tools |  |
| ☐ | MSFFM2002 | Assemble furnishing components |  |
| ☐ | MSFFM2003 | Select and apply hardware |  |
| ☐ | MSFFM2005 | Join solid timber |  |
| ☐ | MSMOPS100 | Use equipment |  |
| ☐ | MSMOPS101 | Make measurements |  |
| ☐ | MEM11011B | Undertake manual handling |  |
| ☐ | MEM16008A | Interact with computing technology |  |

**Checklist 2**

**Accessing Resources and Equipment Off-Site**

**(Complete only if required)**

Identify the codes and units of competencies where tools, equipment and resources are being accessed off-site. Clearly identify the access arrangement supporting the use the tools, equipment and resources that are being accessed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Unit code** | **Unit title** | **Tools, Equipment and Resources** | **Access Site** | **Access Arrangement** |
| e.g. SITHFAB204 | Prepare and serve espresso coffee | Point-of-sale system, including credit card and Electronic Funds Transfer at Point of Sale (EFTPOS) facilities Tables, chairs and customers in compliance with training package requirements for an operational F&B outlet | 1. Café Nosh Petersham 2. The Café Wests Ashfield Leagues Club   3. Petersham TAFE College | AA2017/1 AA2017/3 AA2017/6 |
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**Checklist 3**

**Trainer and Assessor Requirements**

Teachers wishing to deliver and assess qualification(s) from this course must:

* + be accredited with either teaching code for VET Metal and Engineering or VET Construction (“Willingness to teach” is not acceptable) or have been accepted into and undertaking the teacher training program for one of these courses.
  + be able to demonstrate current industry skills and knowledge at least to the level being delivered and assessed
  + be able to demonstrate how they are continuing to develop their knowledge and skills in vocational training and learning that informs their training and assessment
  + address in their professional learning plans, activities that support the maintenance of their VET accreditation including: qualification updates when required, the maintenance and development of current industry skills and knowledge and the development of their knowledge and skills in vocational training and learning that informs their training and assessment

Please complete the table below for any teacher who is timetabled onto the course this year:

**Manufacturing (Pathways) – Certificate I in Manufacturing (Pathways)**

|  |  |
| --- | --- |
| **Teacher name** | **Accredited/**  **In Training** |
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**Checklist 4**

**Additional Units included in the Training and Assessment Strategy approved for delivery at this site by the RTO. (Complete only if required)**

Teachers wishing to deliver any units of competency (from the course elective pool or specialisation study) that are not listed in Checklist 1 must:

* + discuss the delivery of the unit(s) of competency with the RTO prior to delivery; and
  + have achieved the unit(s) of competency and hold a transcript for the unit(s) of competency

If delivery is supported by the RTO, teachers must

* provide evidence of vocational competency for the additional unit(s) of competency to the RTO Manager to obtain approval to deliver the requested unit(s) of competency
* complete the Resources and Equipment table below (refer to the training package and companion volume implementation guide for information regarding resources and equipment for each unit of competency)
* where resources and/or equipment are accessed off-site, access arrangements are to be recorded in Checklist 2

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| --- | --- | --- |
| **Unit Code** | **Unit Name** | **Access on site**  ***(All/Some/None)*** |
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