# Skills Assessment

**Event 2 of 2**

## Criteria

### Unit code, name and release number

MEM14005A - Plan a complete activity (1)

\*\*\*This unit sits in the qualifications below – This assessment is not to be amended\*\*

### Qualification/Course code, name and release number

MEM30205 – Certificate III in Engineering – Mechanical Trade (3)

MEM30305 – Certificate III in Engineering – Fabrication trade (4)

\*\*\* Amend the qualification box before distributing to the student. The information here should only contain the qualification the student is enrolled in\*\*

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *3 July 2018*

Date modified: *04/02/2020*

For queries, please contact:

IMRS SkillsPoint

Building B, Level 1

Hamilton Campus, 91 Parry St Newcastle West, NSW 2302

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## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your skills as would be required to plan a complete activity whilst following established procedures to produce an item. |
| **Assessment Event number** | 2 of 2 |
| **Instructions for this assessment** | This is a skill based assessment and will be assessing you on your ability to demonstrate skills required in the unit.  This assessment is in 3 parts:   1. Practical Task 2. Observation Checklist 3. Assessment Feedback |
| **Submission instructions** | On completion of this assessment, you are required to upload it to your Learning Management System or hand it to your assessor for marking  Ensure you have written your name at the bottom of each page of this assessment.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To successfully complete this assessment the student will be available at the arranged time to complete all the assessment criteria as outlined in the assessment instructions.  All parts of the observable task must be performed to a satisfactory level as indicated in the criteria section of the Observation Checklist.  Assessors may ask questions to clarify understanding. |
| **What do I need to provide?** | PPE: Long sleeve cotton drill shirt, cotton drill trousers, approved safety boots, approved safety glasses.  Pen, calculator. |
| **Due date/time allowed/venue** | 90 minutes |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Students Guide to Assessment. |

## Specific task instructions

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required skills and knowledge.

If this assessment requires you to record information, your assessor will provide you with an appropriate document/template.

To complete the practical task will include the following steps:

* **Part 1: Pre-assessment Meeting**
* Attend a pre-task meeting with your trainer and complete Checklist 1.0.
* **Part 2: Practical task**
* Complete your practical activity including all steps outlined in the Observation Checklist provided in Part 2.
* All documentation to be completed.
* Submit your assessment tasks as indicated – Submit Point 1 and 2.
* **Part 3: Make Amendments**
* Amendments are made to meet conditions.
* All documentation to be completed.

## Part 1: Pre-Task Meeting

## Tick the boxes in the checklist below to confirm you have attended the pre-task meeting with your assessor and the following information has been discussed, received and understood:

#### Checklist 1.0

* Verbal explanation of the assessment process has been provided by assessor
* Figure 1.0 Drawing has printed clearly and in full
* Table 1.0 Job Specification has been provided and general tolerance explained
* Table 2.0 Material cutting list identifies material size, type and thickness
* Table 3.0 Organise tools and equipment has been provided for completion
* Table 4.0 Job Procedure Gantt Chart has been provided for completion
* Table 5.0 Task Tracking table has been provided for completion
* Table 6.0 Amendments/Modifications/Changes has been provided for completion
* Table 7.0 Suggestions/Improvements has been provided for completion
* Standard Operating Procedure (S.O.P figure 2.0) Workshop Operations has been provided

Before ticking the boxes above ensure you have gathered and understood all the task related information. **Be sure to discuss and clarify anything you do not understand with your assessor before proceeding.**

## Part 2: Practical Task

To complete this part of the assessment, you will be required to participate in a practical demonstration of how to complete a task or activity.

These practicals will be observed by your assessor, or can be digitally recorded and submitted as evidence.

Your responses will be used as part of the overall evidence requirements of the unit.

You should refer to the list of criteria in the Observation Checklist to understand what you need to demonstrate in this section of the assessment. This Checklist outlines the assessment criteria used to assess your performance.

Once completed you will need to submit this assessment and the tasks and activities you are required to complete to your assessor for marking.

**Contingency Management:**

While undertaking this task a number of unforeseen circumstances may arise. The assessor will have the opportunity to question each learner to gather an understanding of how the student will respond to these events. Below is a table with examples of possible questions and acceptable responses.

The assessor has the opportunity in the observation checklist to record relevant questions and responses in the table ***“Table 3 Additional Questions”***

Table 4 Unforeseen Circumstances

|  |  |  |
| --- | --- | --- |
| Scenario | Assessors question | Acceptable students response |
| Power failure in workshop | What is the correct action in the case of power failure? |  |
| Equipment failure | What do you need to do if the equipment fails and prevents you from carrying out the task? |  |
| Emergency evacuation | What do you do if an emergency evacuation drill happens during the assessment? |  |

**Task 2: Plan and mark out a sheet metal template**

The student is required to carry out and record the required steps in the marking out of a sheet metal template as detailed Figure 1.0 Sheetmetal Template Drawing.

The plan must cover the steps to mark out the sheetmetal template form task identification through to completion including any modifications required.

Simulated Environment Conditions

***Note: The assessor may direct you to use different welding equipment in different welding bays/space to ensure competency is applied in new and different situations.***

The assessment is to be carried out in the workshop complying with all WHS requirements and compliance with Standard Operating Procedures (Figure 2.0: Workshop Operations attached).

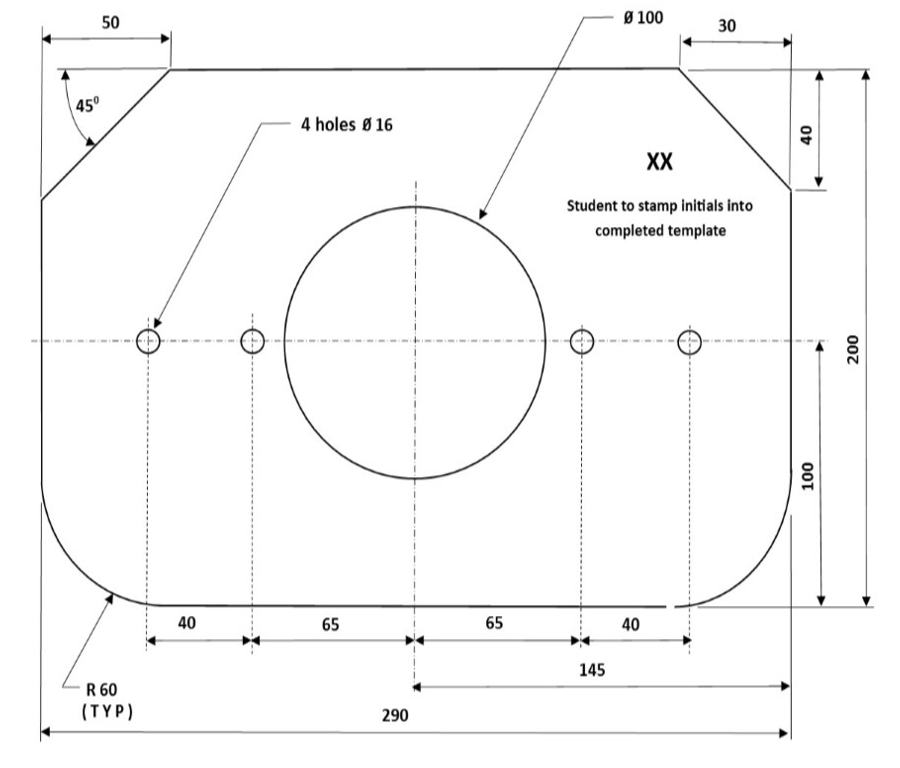
**Sheet Metal Template Specifications**

* Material 0.6mm sheet metal. No specific grade
* Tolerance on measurements + - 1.0 mm UNO
* All measurements in mm UNO
* Student to stamp initials into template as shown on plan.
* Template to be finished all sharp edges removed

The assessment including the marking out of template and documentation is 90 minutes.

**Note:** Included in the 90 minute duration is a requirement to complete an amendment to the plan. This amendment will be issued to the student at Submit Point 1. The student will be required to modify the plan and carry out a mathematical calculation.

**Job Name:** Sheet metal template



**Figure 1.0 Sheet Metal Template** ©TAFE NSW 2018

#### Table 1.0: Job Specifications:

|  |  |  |  |
| --- | --- | --- | --- |
| Quantity | Material | Finish | General Tolerance |
|  |  |  |  |

#### Table 2.0 Cutting list (referred to as a material list in the assessment)

Complete the following table listing material required to mark out the sheet metal template.

|  |  |  |
| --- | --- | --- |
| Material | Dimensions | Quantity |
|  |  |  |

#### Table 3.0: Organise tools and equipment

Complete the following table listing all equipment required to mark out and letter stamp the sheet metal template.

|  |  |
| --- | --- |
| Item # | Tools and Equipment |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 |  |

|  |  |
| --- | --- |
| Workshop PPE Requirements (Refer to Figure 2.0 Workshop Operations SOP) | |
| 1 |  |
| 2 |  |
| 3 |  |

**Activity:** Complete the following information on the Job procedure and Gantt chart required to produce the sheet metal template.

#### Table 4.0: Job Procedure Gantt Chart

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Step # | Tasks | | | | Planned Task Durations ( 90 minutes allocated) | | | | | |
| **Job Name:** | | **Material Size:** | **Required Finish:** | **Tolerance:** | 15 | 15 | 15 | 15 | 15 | 15 |
| 1 | *Pre assessment meeting and instructions* | | | | *X* | *X* |  |  |  |  |
| 2 |  | | | |  |  |  |  |  |  |
| 3 |  | | | |  |  |  |  |  |  |
| 4 |  | | | |  |  |  |  |  |  |
| 6 |  | | | |  |  |  |  |  |  |
| 7 |  | | | |  |  |  |  |  |  |
| 8 |  | | | |  |  |  |  |  |  |
| 9 |  | | | |  |  |  |  |  |  |
| 10 |  | | | |  |  |  |  |  |  |
| 11 |  | | | |  |  |  |  |  |  |
| 13 |  | | | |  |  |  |  |  |  |
| 14 |  | | | |  |  |  |  |  |  |

#### STOP, CHECK AND SUBMIT POINT 1

Use the checklist below to confirm:

**Checklist 2.0**

* I have completed Table 2.0 Organise Tools and Equipment including PPE requirements
* I have completed Table 3.0 Job Procedure Gantt Chart including:
  + A list of tasks required to complete the plan
  + Each task is numbered in the step column
  + Each task has been allocated a duration marked with an X
  + The total duration of the plan does not exceed 90 minutes
* I have checked my progress against the planned duration and on track or need to make adjustments in order to complete in time

Once the checklist above is complete submit to your assessor for checking. **DO NOT PROCEED UNTIL YOUR PLAN HAS BEEN CHECKED BY YOUR ASSESSOR.**

#### Plan Modification

At this point the assessor checks the plan to check table 2.0 and 3.0 have been completed and adds a new task.

#### Amend the plan

As part of the planning process the student is required to complete the following material cost estimate from the information provided below:

* Material Sheet Dimensions: 1800 x 900 x 0.6mm sheetmetal
* Material Sheet Cost: $88.00
* Template Material Dimensions: 310 x 220 mm x 0.6
* Number of Templates cut from sheet: 22

What is the cost of material for 1 template?

= Material Sheet Cost

Number of Templates cut from sheet

=

= Copy this answer to table 6.0

#### Table 5.0: Time Management/Task Tracking

Complete the following table by recording time taken to complete specified tasks.

|  |  |  |
| --- | --- | --- |
| Task | Planned Duration | Actual Duration |
| Pre-Assessment Meeting | 30 minutes (from Gantt Chart) |  |
| Planning the tasks |  |  |
| Checking and submitting the plan |  |  |
| Completing additional mathematical task |  |  |
| Obtain materials and equipment |  |  |
| Mark out template as per drawing specifications |  |  |
|  | **TOTAL**: **90 minutes** (allocated to assessment) | **TOTAL:** |

#### Table 6.0: Amendments/Modifications/Changes

Complete the following table listing all amendments, modifications changes required to produce the sheet metal template.

|  |  |
| --- | --- |
|  | Amendment/Modification/ Change Description |
| *1* |  |
| *2* | *The cost of material for 1 template =* |

#### Table 7.0: Suggestions/Improvements

Complete the following table listing any suggestions or improvements to improve the plan or procedure to produce the sheet metal template.

|  |  |
| --- | --- |
| Description | Suggestion/Improvement |
|  |  |
|  |  |
|  |  |

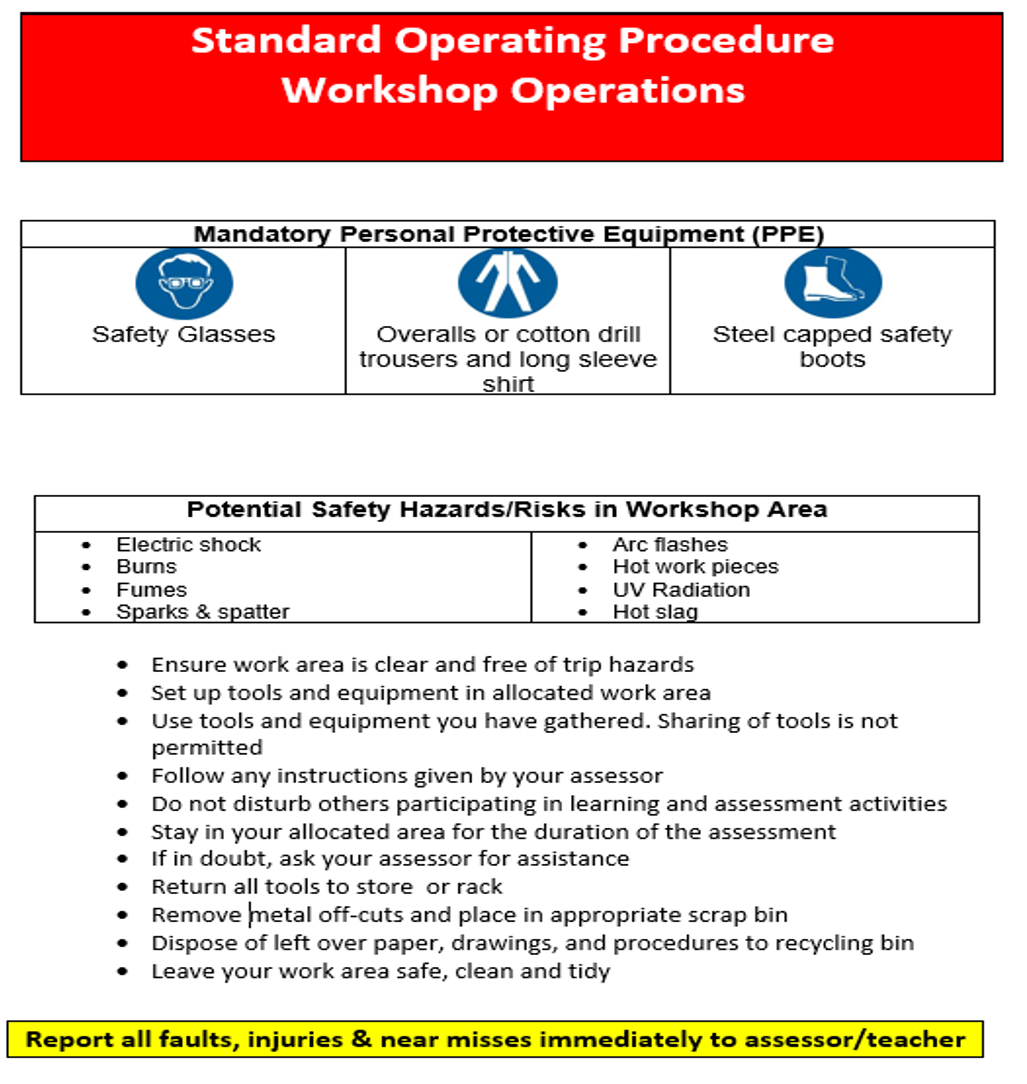
STOP, CHECK AND SUBMIT POINT2

Use the checklist below to confirm:

#### Checklist 3.0

* I have completed the additional task as detailed
* I have completed table 6.0 summarising the additional task and calculated material cost
* I have provided improvements that could be made to my plan in table 7.0
* I have entered planned and actual durations for tasks into table 5.0
* The I have completed the template marking out to drawing tolerances
* I have letter stamped the template with my initials
* I have finished the cut edges on the template as specified in table 1.0

#### Figure 2.0 SOP Workshop Operations



**Part 2: Practical Task: Observation Checklist**

The Observation Checklist will be used by you to mark the student’s performance in any of the previous three event types. Use this Checklist to understand what skills the student is required to demonstrate in this section of the assessment. This Checklist outlines the Performance Criteria, Performance Evidence and Assessment Conditions you will be marking the student on. All the criteria must be met. The student’s demonstration will be used as part of the overall evidence requirements of the unit. You may ask questions while the demonstration is taking place or if appropriate directly after the task/activity has been completed. These questions and responses are to be documented in the ***Table 3 Additional Questions*** table following the observation checklists

Table 2 Observation Checklist

| Item # | | Task requirements | S | U/S | Assessor Comments (Describe the student’s ability in demonstrating the required skills and knowledge) |
| --- | --- | --- | --- | --- | --- |
| 1 | Student demonstrates contingency planning skills during or after Task 2: Plan and mark out sheetmetal template.   * Respond to verbal questions asked by assessor | |  |  |  |
| 2 | Task outcomes and objectives are discussed and clarified with the assessor:   * *Student participates in pre task production meeting with assessor and completes Checklist 1.0 confirming the following has been discussed and understood:* * *Drawing (figure 1.0) details and tolerances* * *Tables 1.0 to 7.0* * *Standard Operating Procedures (figure 2.0)*   **Note:** during this meeting inform the student, there will be an additional activity given at submission point 1. | |  |  |  |
| 3 | Standard Operating Procedures (SOP) Job procedure sheets, job specification sheets, drawings, reference documents are referred to and used to develop the plan.  Student refers to, and considers the following documents   * *SOP (Figure 2.0)*   *Identifies PPE requirements in SOP and details in Table 3.0*  *Adheres to SOP during template marking out process*   * *Job specifications (table 1.0)*   *Submits template to correct cut size and finish as specified Table 1.0*   * *Drawing (Figure 1.0)*   *Template is marked out to dimensions as detailed on Figure 1* | |  |  |  |
| 4 | Identify material requirements as per job specifications to produce sheet metal template.   * *Student completes: Table 2.0: Cutting list with correct sizes from Table 1.0 Job Specification* | |  |  |  |
| 5 | Student refers to job procedure and detailed drawing to identify and complete a list of appropriate tools and equipment required to complete the task.   * *Student completes Table 3.0 Organise tools and equipment listing all tools and PPE required for the marking out task.* | |  |  |  |
| 6 | A detailed and sequenced job procedure is completed for the marking out of the sheet metal template.   * *Student completes Table 4.0 Job Procedure Gantt Chart:* * *Job steps are separated and listed into separate tasks* * *Each task is in sequential order* * *Each task has a duration allocated* * *Total duration of tasks does not exceed 90 minutes* | |  |  |  |
| 7 | Material is obtained and marked out as per job specifications using appropriate tools and equipment as identified.   * *Student interprets drawing and specification:* * *Sources correct material* * *Cuts material to size specified in Table 1.0 Job Specification* * *Marks out template using own equipment listed in Table 3.0 Organise tools and equipment* | |  |  |  |
| 8 | Plan is followed, tasks are prioritised and time is managed and recorded for the purpose of review.   * Student completes: * Checklist 1 STOP, CHECK, SUBMIT POINT 1 * Table 4.0 Job Procedure Gantt Chart * Table 5.0 Task Tracking table | |  |  |  |
| 9 | Template that has been marked out, is checked against engineering drawing for conformance to specifications.   * Student completes checklist 3.0   at STOP, CHECK AND SUBMIT POINT 2 | |  |  |  |
| 10 | Amendments, modifications or changes to plan are identified and recorded as required.   * Student completes table for amendments, modifications and changes Table 6.0 Amendments/ modifications/changes: * Summary of extra task is detailed * Correct answer for material cost calculation given | |  |  |  |
| 11 | Modified plan is reviewed for accuracy. Suggestions and modifications are listed.   * Student completes the information in the table for amendments, modifications and changes * Table 7.0: Suggestions/Improvements | |  |  |  |

|  |
| --- |
| Additional Questions |
| Assessors may ask additional questions to clarify student understanding. List here any additional questions that were asked during this assessment event.  *Record all additional questions that were asked of the student during the assessment event.* |
| **Student Reponses to Additional Questions** |
| List here the student responses to any additional questions that were asked during this assessment event.  *Record the student responses to any additional questions that were asked during this assessment event.* |

Table 3 Additional Questions

## Part 3: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***