## MEM50222 - Diploma of Engineering - Technical

This qualification consists of **5 core** and **15 elective** competencies. You are required to complete all five (5) core units, a minimum of four (4) to a maximum of eight (8) Group A elective units, and a minimum of seven (7) Group B elective units. On successful completion of all **20 units**, you will receive a **Diploma of Engineering - Technical**. Students should **NOT** enrol in to more than one unit at a time, unless otherwise advised. For distance enrolments, you will have up to six months to complete each unit from the date of enrolment. For On Campus enrolments; either 15 weeks, or 25 weeks per unit.

POS (Preferred Order of Study) - The first column is the recommended order of study

• The second column marks units that can be done anytime outside of the recommended order of study as long as pre-requisites are met and they are completed in marked order (1-4)

| POS |       | Unit Code        | Unit Name  | Pre-requisite                                      | Unit Type  | Duration  |                         | Location        |                  |               |          |  |
|-----|-------|------------------|--|--|------------|-----------|-------------------------|-----------------|------------------|---------------|----------|--|
|     |       | Enrol into one u | nit at a time, unless approved by teacher                    |  |            | On Campus | Distance                | Acacia<br>Ridge | Bracken<br>Ridge | Eagle<br>Farm | Distance |  |
| 1   |       | MEM13015         | Work safely and effectively in manufacturing and engineering |  | Elective A | 15 weeks  | 6 months<br>(eLearning) | ✓               | ✓                | ✓             | ✓        |  |
| 2   | • (1) | MEM09229         | Read and interpret technical engineering drawings            |  | Elective A | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 3   |       | MEM16006         | Organise and communicate information                         | MEM13015   | Core       | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 4   |       | MEM12023         | Perform engineering measurements                             | MEM13015,<br>MEM16006                              | Elective B | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 5   |       | MEM16008         | Interact with computing technology                           | MEM13015,<br>MEM16006                              | Core       | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 6   | • (2) | MEM30031         | CAD system basic draw element                                |  | Elective A | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 7   | • (3) | MEM30033         | Use CAD create display 3D models                             | MEM30031   | Elective A | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 8   | • (4) | MEM30032         | Produce basic engineering draw                               |  | Elective A | 25 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 9   |       | MEM09204         | Produce basic engineering detail drawings                    | MEM09229<br>MEM30031A*<br>MEM30032A*<br>MEM30033A* | Elective A | 25 weeks  |                         | ✓               | <b>✓</b>         | ✓             | <b>✓</b> |  |
| 10  |       | MEM12024         | Perform computations   | MEM13015,<br>MEM16006                              | Elective A | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |

<sup>\*</sup> It is a requirement by TAFE faculty that units MEM30031, MEM30032 and MEM30033 are completed prior to undertaking unit MEM09204.



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POS (Preferred Order of Study) - The first column is the recommended order of study

• The second column marks units that can be done anytime outside of the recommended order of study as long as pre-requisites are met and they are completed in marked order (1-4)

| POS |   | Unit Code        | Unit Name   | Pre-requisite                      | Unit Type  | Dura      | ation                   | Location        |                  |               |          |  |
|-----|---|------------------|---|------------------------------------|------------|-----------|-------------------------|-----------------|------------------|---------------|----------|--|
|     |   | Enrol into one u | nit at a time, unless approved by teacher   |                                    |            | On Campus | Distance                | Acacia<br>Ridge | Bracken<br>Ridge | Eagle<br>Farm | Distance |  |
| 11  |   | MEM30012         | Apply mathematical techniques in a manufacturing engineering or related environment | MEM12024*                          | Core       | 25 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 12  |   | MEM12025         | Use graphical techniques and perform simple statistical computations                | MEM13015,<br>MEM16006,<br>MEM12024 | Elective B |           | 6 months<br>(eLearning) |                 |                  |               | ✓        |  |
| 13  |   | MEM23004         | Apply technical mathematics   |                                    | Elective B |           |                         | ✓               |                  |               | ✓        |  |
| 14  |   | MEM23109         | Apply engineering mechanics principles  | MEM23004                           | Elective B |           |                         | ✓               |                  |               | ✓        |  |
| 15  |   | MEM30006         | Calculate stresses in simple structures   | MEM30012                           | Elective A |           |                         |                 |                  |               | ✓        |  |
| 16  |   | MEM09210         | Create 3-D solid models using computer-aided design (CAD) system                    | MEM09229,<br>MEM30031              | Elective B | 25 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 17  |   | MEM09220         | Apply surface modelling techniques to 3-D drawings                                  | MEM09229,<br>MEM30031              | Elective B | 25 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 18  |   | MEM09221         | Create 3-D model assemblies using computer-aided design (CAD) system                | MEM09229,<br>MEM30031              | Elective B | 25 weeks  |                         | ✓               | ✓                | <b>✓</b>      | ✓        |  |
| 19  |   | MSMENV272        | Participate in environmentally sustainable work practices                           |                                    | Core       | 15 weeks  |                         | ✓               | ✓                | ✓             | ✓        |  |
| 20  | · | MEM22002         | Manage self in the engineering environment  | MEM16006                           | Core       |           |                         |                 |                  |               | ✓        |  |

<sup>\*</sup> It is a requirement by TAFE faculty that unit MEM12024 is completed prior to undertaking unit MEM30012.

