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**MECHATRONICS**

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| **Trade** | | **Mechatronics** | | |
| **AUSTRALIAN QUALIFICATION** | | MEM50105 Diploma of Engineering – Advanced Trade | | |
| **CORE UNITS OF COMPETENCY** | | | | |
| MEM12023A | | Perform engineering measurements | | |
| MEM12024A | | Perform computations | | |
| MEM12025A | | Use graphical techniques and perform simple statistical computations | | |
| MEM13014A | | Apply principles of occupational health and safety in the work environment | | |
| MEM14004A | | Plan to undertake a routine task | | |
| MEM14005A | | Plan a complete activity | | |
| MEM15002A | | Apply quality systems | | |
| MEM15024A | | Apply quality procedures | | |
| MEM16006A | | Organise and communicate information | | |
| MEM16007A | | Work with others in a manufacturing, engineering or related environment | | |
| MEM16008A | | Interact with computing technology | | |
| MEM16009A | | Research and analyse engineering information | | |
| MEM16011A | | Communicate with individuals and small groups | | |
| MEM16012A | | Interpret technical specifications and manuals | | |
| MEM16014A | | Report technical information | | |
| MEM17003A | | Assist in the provision of on the job training | | |
| MEM30012A | | Apply mathematical techniques in a manufacturing, engineering or related | | |
| MSAENV272B | | Participate in environmentally sustainable work practices | | |
| **ELECTIVE UNITS OF COMPETENCY TABLE A** | | | | |
| MEM05001B | | Perform manual soldering / desoldering - electrical / electronic components | 4 | |
| MEM07001B | | Perform operational maintenance of machines/equipment | 2 | |
| MEM07005C | | Perform general machining | 8 | |
| MEM07024B | | Operate and monitor machine/process | 4 | |
| MEM09002B | | Interpret technical drawing | 4 | |
| MEM10002B | | Terminate and connect electrical wiring | 3 | |
| MEM10004B | | Enter and change programmable contoller operational parameters | 2 | |
| MEM10005B | | Commission programmable controller programs | 4 | |
| MEM12002B | | Perform electrical / electronic measurement | 2 | |
| MEM12006C | | Mark off/out (general engineering) | 4 | |
| MEM13002B | | Undertake OH&S activities in the workplace | 3 | |
| MEM18001C | | Use hand tools | 2 | |
| MEM18002B | | Use power tools / hand held operation | 2 | |
| MEM18003C | | Use tools for precision work | 4 | |
| MEM18005B | | Perform fault diagonsis, installation & removal of bearings | 4 | |
| MEM18006C | | Repair and fit engineering components. | 6 | |
| MEM18007B | | Maintain and repair mechanical drives & mechanical transmission assemblies. | 4 | |
| MEM18009B | | Perform levelling and alignment of machines and engineering components | 4 | |
| MEM18018C | | Maintain pneumatic system components. | 4 | |
| MEM18020B | | Maintain hydraulic system components. | 4 | |
| MEM18055B | | Dismantle, replace & assemble engineering components. | 3 | |
| MEM18064B | | Maintain instrumentation system components | 6 | |
| Total Group A | | | 83 | |
| **ELECTIVE UNITS OF COMPETENCY TABLE B** | | | |
| MEM12004B | Perform precision electrical/electronic measurement | | 4 |
| MEM18054B | Fault find, test and calibrate instrumentation systems and equipment | | 8 |
| Total Group B | | | 12 |
| **ELECTIVE UNITS OF COMPETENCY TABLE C** | | | |
| MEM07039A | Write programs for industrial robots | | 4 |
| MEM16013A | Operate in a self-directed team | | 2 |
| MEM18019B | Maintain pneumatic systems | | 4 |
| MEM18021B | Maintain hydraulic systems | | 4 |
| MEM18022B | Maintain fluid power controls | | 8 |
| Total Group C | | | 22 |
| Total electives | | | 117 |

**CRICOS No 00881F RTO No 0260. Training is deliver with Victorian and Commonwealth Government funding**

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| **AUSTRALIAN QUALIFICATION** | | | MEM40105 Certificate IV in Engineering | | |
| **CORE UNITS OF COMPETENCY** | | | | | |
| MEM12023A | Perform engineering measurements | | | | |
| MEM12024A | Perform computations | | | | |
| MEM13014A | Apply principles of occupational health and safety in the work environment | | | | |
| MEM14004A | Plan to undertake a routine task | | | | |
| MEM14005A | Plan a complete activity | | | | |
| MEM15002A | Apply quality systems | | | | |
| MEM15024A | Apply quality procedures | | | | |
| MEM16006A | Organise and communicate information | | | | |
| MEM16007A | Work with others in a manufacturing, engineering or related environment | | | | |
| MEM16008A | Interact with computing technology | | | | |
| MEM17003A | Assist in the provision of on the job training | | | | |
| MSAENV272B | Participate in environmentally sustainable work practices | | | | |
| **ELECTIVE UNITS OF COMPETENCY TABLE A** | | | | | |
| A MEM12004B | Perform precision electrical/electronic measurement | | | | 4 |
| A MEM07039A | Write programs for industrial robots | | | | 4 |
| A MEM16013A | Operate in a self-directed team | | | | 2 |
| A MEM18019B | Maintain pneumatic systems | | | | 4 |
| A MEM18021B | Maintain hydraulic systems | | | | 4 |
| A MEM18022B | Maintain fluid power controls | | | | 8 |
| Total Group A | | | | | 26 |
| **ELECTIVE UNITS OF COMPETENCY TABLE B** | | | | | |
| MEM05001B | | Perform manual soldering / desoldering - electrical / electronic components | | 4 | |
| MEM07001B | | Perform operational maintenance of machines/equipment | | 2 | |
| MEM07005C | | Perform general machining | | 8 | |
| MEM07024B | | Operate and monitor machine/process | | 4 | |
| MEM09002B | | Interpret technical drawing | | 4 | |
| MEM10002B | | Terminate and connect electrical wiring | | 3 | |
| MEM10004B | | Enter and change programmable controller operational parameters | | 2 | |
| MEM10005B | | Commission programmable controller programs | | 4 | |
| MEM12002B | | Perform electrical / electronic measurement | | 2 | |
| MEM12006C | | Mark off/out (general engineering) | | 4 | |
| MEM13002B | | Undertake OH&S activities in the workplace | | 3 | |
| MEM18001C | | Use hand tools | | 2 | |
| MEM18002B | | Use power tools / hand held operation | | 2 | |
| MEM18003C | | Use tools for precision work | | 4 | |
| MEM18005B | | Perform fault diagonsis, installation & removal of bearings | | 4 | |
| MEM18006C | | Repair and fit engineering components. | | 6 | |
| MEM18007B | | Maintain and repair mechanical drives & mechanical transmission assemblies. | | 4 | |
| MEM18009B | | Perform levelling and alignment of machines and engineering components | | 4 | |
| MEM18018C | | Maintain pneumatic system components. | | 4 | |
| MEM18020B | | Maintain hydraulic system components. | | 4 | |
| MEM18055B | | Dismantle, replace & assemble engineering components. | | 3 | |
| MEM18064B | | Maintain instrumentation system components | | 6 | |
| Total Group B | | | | 83 | |
| Total electives | | | | 109 | |

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| **AUSTRALIAN QUALIFICATION** | | | MEM30205 Certificate III in Engineering – Mechanical Trade | |
| **CORE UNITS OF COMPETENCY** | | | | |
| MEM12023A | | Perform engineering measurements | | |
| MEM12024A | | Perform computations | | |
| MEM13014A | | Apply principles of occupational health and safety in the work environment | | |
| MEM14004A | | Plan to undertake a routine task | | |
| MEM14005A | | Plan a complete activity | | |
| MEM15002A | | Apply quality systems | | |
| MEM15024A | | Apply quality procedures | | |
| MEM16006A | | Organise and communicate information | | |
| MEM16007A | | Work with others in a manufacturing, engineering or related environment | | |
| MEM16008A | | Interact with computing technology | | |
| MEM17003A | | Assist in the provision of on the job training | | |
| MSAENV272B | | Participate in environmentally sustainable work practices | | |
| **ELECTIVE UNITS OF COMPETENCY TABLE A** | | | | |
| MEM07001B | Perform operational maintenance of machines/equipment | | | 2 |
| MEM07005C | Perform general machining | | | 8 |
| MEM07024B | Operate and monitor machine/process | | | 4 |
| MEM09002B | Interpret technical drawing | | | 4 |
| MEM10004B | Enter and change programmable contoller operational parameters | | | 2 |
| MEM12006C | Mark off/out (general engineering) | | | 4 |
| MEM18001C | Use hand tools | | | 2 |
| MEM18002B | Use power tools / hand held operation | | | 2 |
| MEM18003C | Use tools for precision work | | | 4 |
| MEM18005B | Perform fault diagonsis, installation & removal of bearings | | | 4 |
| MEM18006C | Repair and fit engineering components. | | | 6 |
| MEM18007B | Maintain and repair mechanical drives & mechanical transmission assemblies. | | | 4 |
| MEM18009B | Perform levelling and alignment of machines and engineering components | | | 4 |
| MEM18018C | Maintain pneumatic system components. | | | 4 |
| MEM18020B | Maintain hydraulic system components. | | | 4 |
| MEM18055B | Dismantle, replace & assemble engineering components. | | | 3 |
| Total Group A | | | | 61 |

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| **ELECTIVE UNITS OF COMPETENCY TABLE B** | | |
| MEM12004B | Perform precision electrical/electronic measurement | 4 |
| MEM18019B | Maintain pneumatic systems | 4 |
| MEM18021B | Maintain hydraulic systems | 4 |
| Total Group B | | 12 |
| Total electives | | 73 |

