

	Bachelor of Science (Nanotechnology) (Flinders University - Australia)	Graduate Diploma in Nanotechnology (Flinders University - Australia)	Certificate III in Laboratory Skills (MSL30118)	Certificate IV in Laboratory Techniques (MSL40118)	Diploma of Laboratory Technology (MSL50118)	Advanced Diploma of Laboratory Operations (MSL60118)	Certificate III in Manufacturing Technology (MSA30208)	Diploma of Manufacturing Technology (MSA50108)	Certificate III in Engineering (Mechanical Trade) (MEM30205)	Certificate III in Engineering (Fabrication) (MEM30319)	Diploma of Engineering – Advanced Trade (MEM50119)
Workplace Health and Safety (WHS) Skills											
Safety Practices											
Common Hazards and Risks											
Controls											
PPE											
Process Operations											
Preparation											
During Operations											
Shut down and clean up											
Assembly and Packaging											
Packaging & Testing											
Product Manufacturing											
Equipment Operations and Types of Equipment											
Lab Equipment											
Microscopy											
Vacuum Systems											
Pumps											
Attitudes											
Basic Scientific Knowledge and Mathematics											
Chemistry											
Chemical Structure											
Chemical Reactivity											
Maths											
Technical Maths / Applied											
Algebra											
Trigonometry											
Calculus											
Statistics											
Physics											
Electrical											
Electronics											
Biology											
Polymer Science											
Material Science											
Nanotechnology Topics											
Characterisation											
Ethics											
Intro											
Thin Films											
Nano Materials											
Properties and applications											
Deposition											
Lithography											
Etching											
Cleanroom Standards											
Cleanroom											
Training (workplace training)											
Reporting and Record Keeping											
Quality Standards											
ISO / IPC / FED STD											
Lean six sigma											
Project and Quality Management											
Engineering Topics											
Engineering											
Mechanical Engineering											
Technical Engineering											
Chemical Engineering											
Electrical Engineering											
Bio Engineering											
Engineering Materials											
Mechanical Trade Skills / Maintenance and Repair											
Specific Maintenance and Repair tasks											
Process Improvement											
Fault finding											
Software and Computing Skills											
Computer Aided Design (CAD)											
Microsoft Office											
Programming											
Equipment Application Software											
Industry 4.0 Skills											
PLCs (programmable logic controller)											
3D Printing											

Topics	23	22	21	26	31	33	18	25	16	6	15
	0	0	3	5	6	6	15	12	8	7	7

Key Headings											
Key KSA Areas Highly Aligned to course content	3	3	6	6	7	8	3	5	6	1	3
Key KSA Areas partially align to course content	3	5	4	6	7	6	8	7	7	7	7
Not Aligned to Key KSA Areas	9	7	6	4	2	2	4	3	2	7	5

Certificate III in Engineering – Technical (MEM30505)	Diploma of Engineering – Technical (MEM50212)	Certificate III in Process Manufacturing (MSM30116)	Certificate IV in Process Manufacturing (MSM40116)	Certificate III in Electronics and Communications (UEE30920)	Enterprise Trainer and Assessor Skill Set (TAESS00015)	The Vacuum Lectures (Short Course) (Vacuum Society of Australia - Australia)		
							7	7
							12	0
							8	3
							7	0
							10	0
							4	10
							10	2
							10	4
							6	4
							3	2
							6	1
							5	3
							0	11
							4	3
							8	0
							5	0
							2	0
							0	7
							6	11
							8	1
							7	0
							7	0
							12	1
							8	3
							6	8
							4	8
							5	1
							13	0
							6	2
							7	3
							6	2
							7	0
							3	1
							4	1
							0	6
							5	0
							1	0
							1	0
							2	0
							2	0
							1	0
							2	0
							2	0
							0	0
							0	5
							0	3
							9	2
							14	0
							4	12
							5	0
							3	0
							8	7
							1	10
							8	2
							5	0
							4	0
							0	2
							3	0
							0	3
							0	6
							14	0
							14	0
							11	1
							11	1
							0	13
							6	0
							1	8
							0	4
							7	3
							2	2
							5	0
							2	0

Mapping Colour Legend
 Delivered in Course / Topic / UoC
 Partially deliver in Course / Topic / UoC
 No alignment to Course / Topic / UoC

11	13	13	26	12	3	6
6	5	10	5	6	0	0

3	4	4	6	2	2	0
6	6	6	5	7	1	3
6	5	5	4	6	12	12