

Level 3 Engineering Technician Standard

Pathway: Mechatronics Maintenance Technician



Role profile

Mechatronics Maintenance Technicians ensure that plant and equipment perform to the required standard to facilitate production targets regarding Safety, Quality, Delivery and Cost within High Value Manufacturing environments.

Maintenance Technicians will be expected to:

- cover a broad range of activities include installation, testing, fault finding and the on-going planned maintenance of complex automated equipment.
- apply a complex blend of skills, knowledge and occupational behaviours across the electrical, electronic, mechanical, fluid power and control systems disciplines.
- Delivery: Delivered over 42 months (plus) up to 3 months for End Point Assessment (EPA) completion
- Delivery method: Day release to LEMA Academy for classroom and workshop training and assessment plus work-based assessment. Apprentices receive a work-based progress review every 8 weeks

Mechatronics Maintenance Technician – The Journey:

	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	Work-based progress reviews every 8 weeks for programme duration				
Mechatronics Maintenance Pathway	EAL Level 2 Diploma in Advanced Manufacturing Engineering <ul style="list-style-type: none"> • Duration: 34 weeks • Frequency: 1 day per week in Academy • Total days: 68 	EAL Level 2 Diploma in Advanced Manufacturing Engineering – Mechatronics Units; plus <ul style="list-style-type: none"> • Gateway Assessment • Duration: 26 weeks • Frequency: 1 day per week in Academy plus 1 block week for Gateway • Total No of Days: 31 	EAL Level 3 Diploma in Advanced Manufacturing Engineering <ul style="list-style-type: none"> • Duration: 48 weeks • Frequency: 1 day per week in Academy • Total number of days :48 	EAL Level 3 Diploma in Advanced Manufacturing and Engineering – Mechatronics Maintenance Technician <ul style="list-style-type: none"> • Duration: 52 weeks • Frequency: 1 day per month in Academy plus monthly workplace visits • Total number of days: 12 Academy days, 12 workplace visits 	EPA Preparation <ul style="list-style-type: none"> • Duration: 3 months • Frequency: 2 days per month in month 1 & 2, • 1 block week in month 3.
	9 months	6 months	12 months	12 months	3 months
42 months in learning in total including 3 months for End point assessment					

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Units



Programme Phase	Content
Phase 1	EAL Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competence) 601/7179/0A
	Mandatory Units:
	1. Complying with Statutory regulations and organizational safety requirements
	2. Working efficiently and effectively in an engineering environment
	3. Using and communicating technical information
	4. Conducting business improvement activities
	5. Producing components using hand fitting techniques
	6. Producing Mechanical assemblies
Phase 2	EAL Level 2 Diploma in Advanced Manufacturing Engineering Maintenance Specialist Pathway
	Units:
	1. Maintaining mechanical devices and equipment
	2. Maintaining electrical equipment/systems
	3. Wiring and testing electrical equipment and circuits
	EAL Level 2 Award for Foundation Gateway Assessment 601/9035/8 (3 units from):
	1. Producing Components using Hand Fitting Techniques
	2. Maintaining Mechanical Devices & Equipment
	3. Maintaining Fluid Power Equipment
	4. Maintaining Electrical Equipment / Systems
	5. Wiring and Testing Electrical Equipment & Circuits
	6. Wiring and Testing Programmable Controller Based Systems
	7. Producing Mechanical Assemblies
	8. Assembling and Testing Electronic Circuits
9. General Turning, Milling & Welding Applications	
Phase 3	EAL Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) 603/1354/7
	Units:
	1. Health and Safety in the Engineering Workplace
	2. Communications for Engineering Technicians
	3. Mathematics for Engineering Technicians
	4. Engineering Project
	5. Mechanical Principles of Engineering systems
	6. Maintenance of Mechanical systems
	7. Mechanical measurement and Inspection techniques
	8. Monitoring and fault Diagnosis of Engineering systems
	9. Computer aided design (CAD) techniques
10. Electrical and Electronic Principles in Engineering	
Phase 4	EAL Level 3 Diploma in Advanced Manufacturing and Engineering Mechatronics Maintenance Technician (Development Competence) 603/2290/1
	Units:
	1. Complying with statutory regulations and organisational safety requirements
	2. Using and Interpreting Engineering Data and Documentation
	3. Working efficiently and Effectively in Advanced Manufacturing Engineering
	4. Handing Over and Confirming Completion of Maintenance activity
	5. Carry out Fault Diagnosis on Engineered Systems
	6. Carry out Preventative Planned maintenance on Engineered systems
	7. Maintaining Electrical equipment
	8. Maintaining mechanical equipment
	9. Carry out fault diagnosis on Mechanical equipment
	10. Carry out condition monitoring of plant and equipment
Phase 5	End Point Assessment
	Employer led portfolio based Occupational Competence Validation Interview (Viva)
	Professional Competence Engtech Application