

Level 2 Lean Manufacturing Operative **New Apprenticeship Standard**

At Skills Training UK we go further in fully understanding what it is that our employer clients want to achieve from their training. We work as their partner in delivering on that vision, developing stronger employees who work well as an individual and as part of a team.



Lean Manufacturing Operatives are responsible for safely carrying out manufacturing activities for one or many products, ensuring quality is adhered to and specifications are met. They contribute, develop and support improvement in manufacturing operations using continuous improvement methods, kaizen tools, process visualisation, lean principles and problem solving tools and techniques.

Typical Job Roles: Team Member Production; Manufacturing Production Operative; Manufacturing Assembly Operative; Manufacturing Inspection/Quality Assurance Operative; Manufacturing Logistics Operative; Manufacturing Process/Finishing Operative.

Employer Commitment

The employer must be prepared to provide the learner with the opportunity to carry out work and be part of projects which will enable them to produce the substantial evidence required for completion. In order to ensure successful progression we request that employers participate in joint reviews of the learner's progress at regular intervals throughout the apprenticeship and have some involvement with the project(s) being undertaken.

Duration

Typically this apprenticeship will take 12 to 18 months to complete.

Training and Support from Skills Training UK

During the apprenticeship the learner will have a dedicated trainer-assessor who will visit them within the work place at least once per month in order to support their learning, development of competency and generation of evidence. The knowledge modules will require formal teaching sessions which may take place within an appropriate area within the workplace or off site. This will also be supported between visits by off-site information, advice, online learning, guidance and academic progress support. The trainer-assessor will work with the learner and the employer in order to ensure that all learning needs are being met for both parties, in order to ensure successful progression against all elements of the apprenticeship.

Eligibility

Apprentices without Level 1 English and maths will need to achieve this level and take the test for Level 2 English and maths prior to taking the Independent End Point Assessment.

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<< Requirements: Knowledge, Skills and Behaviours

Below are examples of what's required for Level 2 Lean Manufacturing Operative.

Knowledge

- **Health & Safety:** Relevant statutory, organisational and health and safety regulations relating to lean manufacturing operations and safe practices
- **Environmental:** Compliance procedures / systems in line with regulatory requirements e.g. ISO 14001
- **Production:** Roles / responsibilities within the organisation and the flexibility required to deliver products to meet customers' costs/delivery targets / requirements e.g. Just in time (JIT)
- **Lean Manufacturing Operations:** Manufacturing standard operation procedures (SOPs) adherence and development of lean processes
- **Quality Control:** Process equipment monitoring, data collection, error proofing and operating procedures e.g. ISO 9002
- **Problem Solving:** The tools and methods of effective problem solving using data, reports and documents to resolve production related issues e.g. A3 report, graphs and matrices
- **Continuous Improvement:** How to study and identify ways to improve the safety, quality, cost or process efficiency using lean manufacturing tools e.g. kaizen
- **Communication:** How to share information using a range of methods within the manufacturing environment e.g. oral, written, electronic, information boards, visual displays
- **Work Place Organisation:** How to maintain a safe and efficient work site through work place organisation e.g. 5s and process ownership

Skills

- **Health & Safety:** Work safely at all times, complying with health and safety legislation, regulations, and other relevant guidelines. Identify risks and support/carry out counter measure activities to improve safe working.
- **Environmental:** Comply with environmental procedures and systems and contribute to the achievement of specific standards e.g. ISO 14001.
- **Production:** Demonstrate ability to carry out role effectively, efficiently and flexibly maintaining lean manufacturing principles to meet customer's demands e.g. JIT
- **Lean Manufacturing Operations:** Demonstrate skill and knowledge following SOPs and build versatility across a number of processes and process areas. Select and use

Training in a different class

appropriate tools, equipment and materials to carry out the manufacturing operation

- **Quality Control:** Demonstrate appropriate process documentation control. Accurately completing check sheets, monitoring process and equipment data efficiently and legibly using the correct terminology required to meet the quality standard e.g. ISO 9002
- **Problem Solving:** Demonstrate ability to identify and resolve problems within the lean manufacturing environment using effective problem solving tools and techniques
- **Continuous Improvement:** Generate ideas and contribute to process improvement activities individually or as part of a team through fact finding and analysis to improve the safety, environment, quality, cost or production process.
- **Communication:** Demonstrate communication skills which include oral, written, electronic (PC), information boards or visual displays to effectively share information
- **Workplace Organisation:** Maintain and monitor the work site efficiently and effectively at all times using the elements of sifting, sorting, sweeping, spick & span (5's) within the lean manufacturing environment

Behaviours

- Punctual, reliable and taking responsibility for own actions
- Shows respect for others, having regard for diversity and equality
- Responds positively to change in the working environment
- Can work well as part of a team and independently
- Maintains quality of work under pressure
- A positive and respectful attitude
- Follows instructions and guidance and demonstrates attention to detail
- Seeks opportunities to adapt to different situations, environments or technologies

Independent End Point Assessment

To successfully complete the apprenticeship, the learner needs to pass an independent End Point Assessment which consists of two distinct assessment methods:

- Portfolio of evidence
- Observation (which could include production/assembly, inspection/quality, logistics or process/finishing) with Q&A.

Qualification

Apprentices who complete the programme will receive a Level 2 Diploma in Manufacturing (certified through EAL), IFA Lean Manufacturing Level 2 accreditation and an Industrial Environmental Awareness certificate.

Lean Manufacturing Operative Level 2

Delivery

	Induction	Session 1	Session 2	Session 3	Session 4	Session 5
Teaching and Learning/ Tutor Led	Enrolment Paperwork, Initial Assessment, Introduction to Qualification, Appeals etc.	Health & Safety Brief. Support with Risk Assessment Findings	Introduction to Effective Communication and Team Working Skills	Introduction to IEA Workbook - Discussion of Observation Process with Reference to EPA Process	Theory Discussion of Relationships on Productivity, Managing Relationships	Introduction to Workplace Organisation and 5 "S" Techniques
Expected hours	2	4	4	4	8	4
Embedded Characteristics						
Assignments, Projects & Portfolio	Issue of Course Portfolio, Standards and End Point Assessment Requirements Reviewed	Health & Safety within a Manufacturing Environment	Communicating & Working Effectively within a Manufacturing Environment	Industrial Environment Awareness Overview & Units 1 & 2; Observation and Feedback on Units 1 & 2.	Working Relationships & Individual Rights and Responsibilities within a Manufacturing Environment	Workplace Organisation Techniques
Expected hours	6	8	8	8	8	8
Self Study/ Reflective Logs	Portfolio Content Review, Pre First Session Reading. Workplace Improvement Project Thought Development	Knowledge Assessment Unit 1 - Workplace Improvement Project Development	Knowledge Assessment Unit 2 - Workplace Improvement Project Development	IEA Workbook Units 1 & 2. Reflection and Feedback on Observations	Knowledge Assessment Unit 3 - Workplace Improvement Project Development	Knowledge Assessment Unit 4 - Workplace Improvement Project Development
Expected hours	8	9	9	9	9	9
Employer/On Site Employer/ Learner	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.
Expected hours	4	5	5	5	6	6
Tick on Completion						
Learner Initials						
Date						

Embedded Characteristics Key

Equality & Diversity

Health & Safety

British Values

Safeguarding

Session 6	Session 7	Session 8	Session 9	Session 10	Session 11	Session 12
Review of IEA Progression. Observation Process with Reference to EPA Process & Feedback	Introduction to, and Practical Demonstration of, Problem Solving Techniques & Tools	Theory Discussion of Set Ups, SOP's, Change Overs, SMED	Review of IEA Progression. Observation Process with Reference to EPA Process & Feedback	Workplace Improvement Project Review with Final Actions Confirmed. Theory Discussion of Shut Downs	Workplace Improvement Project Evaluation and Mapping. Introduction to Standardisation & Process Deviation	Portfolio Evidence Review. Final EPA requirement Confirmation. Final Observation Preparation & Guidance
4	8	8	4	4	4	4
Industrial Environment Awareness Overview & Units 3 & 4; Observation and Feedback on Units 3 & 4	Work Related Problem Solving Techniques	Preparing for Manufacturing Operations	Industrial Environment Awareness Overview & Unit 5; Mock IEA Exam Preparation. Observation and Feedback on Units 5 & 6	Concluding Manufacturing Operations	Producing Products by Processing. IEA External Exam	Final Phase Gate Review to EPA Process
8	8	8	8	8	8	8
IEA Workbook Units 3 & 4. Reflection and Feedback on Observations	Knowledge Assessment Unit 5 - Workplace Improvement Project Development	Knowledge Assessment Unit 6 - Workplace Improvement Project Development	IEA Workbook Unit 5. IEA Mock Exam. Reflection and Feedback on Observations	Knowledge Assessment Unit 8 - Workplace Improvement Project Final Actions	Knowledge Assessment Unit 12 - Portfolio EPA Check & Preparation	Final Phase Gate Review Participation. Observation and Q&A Practice Observation
10	10	10	10	10	10	10
Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions.	Employer mentoring, Supporting Learner with agreed actions. Project Presentation Participation	EPA Phase Gate Review Participation and Sign Off
6	6	6	6	6	6	6