

National Certificate Plastics Manufacturing NQF 5 (49448) 129 Credits

Overview: This qualification recognises the skills, knowledge and values acquired by learners to maintain all aspects of an efficient production system by:

- Optimising current processes and practices
- Implementing new products, materials or technology
- Interact with the workgroup, customers, suppliers in order to achieve the above

Qualifying learners will be able to:

- Maintain and optimise all aspects of the manufacturing process and determine processing conditions for new tooling, equipment or materials.
- Monitor and enforce systems relating to quality and safety, health and the environment.
- Counsel, lead, guide and develop the workgroup and workgroup members.
- Discuss and resolve issues with external customers and suppliers.

Unit standard 119163: Conduct tooling, material, or equipment trials in plastics manufacturing processes – 12 credits

Outcomes

- Collect and evaluate information relevant to the trials.
- Formulate a project plan, select, and brief project team and arrange for necessary resources.
- Prepare materials, tooling, and equipment for the trial.
- Set up and run trials, collect, and verify performance data and complete finishing procedures.
- Compile and present final report and recommendations.
- Engage in discussions with the workgroup and other partners on conducting tooling, material, or equipment trials.

Unit standard 9904: Coordinate work group to produce product – 8 credits

Outcomes

- Plan work activities.
- Set team goals.
- Allocate job assignments.
- Coordinate workflow with team members and other work groups.

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- Coach team members.
- Document all activities.

Unit standard 13256: Maintain business processes – 10 credits

Outcomes

- Identify internal and external customer needs.
- Request and negotiate production requirements with internal partners and management.
- Maintain supplier and customer relationships to ensure quality.
- Monitor customer satisfaction.
- Make recommendations for improvement of external customer and supplier relationships.

Unit standard 119159: Maintain manufacturing efficiencies – 12 credits

Outcomes

- Collect and analyse process-related information, maintain records, summarise information and generate reports.
- Set and agree targets and levels of efficiency.
- Identify and respond to deviations, problems and incidents which impact on production efficiencies.
- Monitor and evaluate activities, safety, product quality and housekeeping.
- Share and discuss information with relevant people and resolve external issues which impact on quality and output.

Unit standard 9897: Manage inventory – 3 credits

Outcomes

- Develop plan for location of materials during production process.
- Station materials for production flow.
- Document materials movement and inventory count.
- Establish lot sizes and reorder points.
- Conduct on-site inventory.
- Change logistics and update inventory to respond to production and engineering changes.

Unit standard 119166: Optimise manufacturing processes -24 credits

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Outcomes

- Collect and analyse data and identify opportunities for improvement.
- Identify the root cause of the problem; generate and test options to achieve improvement.
- Set objective(s), develop a plan, and implement the improvement(s).
- Monitor and evaluate the changes; review and adjust the optimisation process until objective(s) have been achieved.
- Adjust and update standards and report improvements.
- Engage in discussions on continuous improvement issues with the workgroup and other partners.

Unit standard 13237: Optimise the quality assurance system -6 credits

Outcomes

- Perform periodic internal quality audit activities.
- Monitor customer satisfaction.
- Benchmark quality assurance practices
- Suggest continuous improvements to quality assurance system.
- Evaluate changes made.
- Compile report on quality optimisation process

Unit standard 12459: Optimise the safety, health, and environmental protection system – 6 credits

Outcomes

- Communicate workplace safety, health and environmental protection policies and procedures.
- Conduct preventive safety, health, and environmental protection inspections.
- Benchmark safety, health, and environmental protection practices
- Determine priorities for safety, health, and environmental training.
- Respond to new concerns and implement changes to the safety, health, environmental protection system.

Unit standard 119180: Schedule and arrange maintenance and repairs for manufacturing operations - 4 credits

Outcomes

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- Consult and liaise with maintenance personnel and production personnel and schedule maintenance and repairs on machinery and equipment.
- Adapt the production plans to accommodate scheduled maintenance.
- Together with maintenance personnel, develop solutions for recurring faults and maintenance problems.
- Conduct post-maintenance reviews to ensure work done was effective, alert maintenance personnel to further problems and determine the cost-effectiveness of the maintenance processes.
- Evaluate maintenance documentation to identify problems.
- Coach production personnel on maintenance issues.

Unit standard 15219: Develop and implement a strategy and action plans for a team, department, or division – 4 credits

Outcomes

- Develop a strategy for the department/division/section.
- Develop action plans for the department/division/section.
- Implement action plans.
- Review action plans.

Unit standard 12433: Use communication techniques effectively -8 credits

Outcomes

- Discuss and explain a range of written and oral communication techniques used in the workplace.
- Lead discussions and chair meetings
- Generate a variety of workplace reports using various data gathering techniques.
- Deliver presentations.

Unit standard 12432: Use mathematical and statistical techniques effectively -20 credits

Outcomes

- Discuss and explain a range of mathematical and statistical techniques used in the workplace.
- Apply mathematical and statistical techniques.
- Perform costing, estimating and budget calculations.

Unit standard 15237: Build teams to meet set goals and objectives – 3 credits

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Outcomes

- Demonstrate knowledge of the principles and processes of team building in workplace activities.
- Obtain agreement from team members on objectives timeframes, rules, and guidelines for participation.
- Lead team to complete workplace activities.

Unit standard 119150: Co-ordinate the installation of plastics manufacturing and related equipment – 10 credits

Outcomes

- Plan the installation and liaise with the maintenance team responsible for installation and the production personnel.
- Co-ordinate the preparation of the work area and the installation or modification to services required for the installation or operation.
- Co-ordinate assembly of machine, connection of services and the commissioning of the equipment
- Coach operating personnel on operation of installed equipment.
- Run manufacturing trials; develop or adjust operation procedures and setting sheets based on the trials and handover to production.
- Document the installation process; discuss and explain the factors, variables and decisions associated with the installation of the equipment.

Unit standard 13203: Counsel workgroup members in respect of HIV/AIDS -3 credits

Outcomes

- Explain and discuss various approaches to counselling.
- Counsel workgroup members in respect of HIV/AIDS
- Refer workgroup members seeking further counselling to appropriate qualified staff.
- Reflect on counselling experiences and approaches taken.

Unit standard 12458: Develop the skills of a work team – 10 credits

Outcomes

- Discuss and explain the concept of skills development and associated individual and team skills.

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- Determine areas for improvement in performance and assess team members for skills gaps.
- Arrange individual and team skills development plans and programmes.
- Request training or other interventions
- Support team members in implementing new learning.
- Assess and evaluate the impact of new learning on individuals and the team.

Unit standard 119168: Order and ensure delivery from external suppliers for plastics manufacturing processes – 4 credits

Outcomes

- Determine requirements; plan logistics and order-required materials.
- Prepare for delivery and monitor delivery and storing of materials.
- Complete delivery documentation and complete documentation for processing payments.
- Identify deviations, determine their causes, and take corrective action.
- Communicate with suppliers, resolve issues, and maintain and improve customer-supplier relationships.
- Measure performance and report on the effectiveness and efficiency of the suppliers.

Unit standard 119170: Plan, schedule, and monitor plastics production -8 credits

Outcomes

- Collect, sort, and prioritise customer and internal orders.
- Calculate production times for each order; determine optimum sequence of production and schedule each order.
- Develop production orders and schedules for each line and communicate with relevant personnel.
- Monitor production progress, adapt the production schedule, or make changes in response to events.
- Calculate overall plant efficiency and productivity, report production progress and delays.
- Engage in discussions on planning and monitoring production with the workgroup and other partners.

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Unit standard 119183: Test and evaluate the quality of plastics raw materials and finished products – 10 credits

Outcomes

- Determine type of product to be tested and the type of test required and select appropriate test specifications.
- Prepare testing programme, set testing parameters if applicable and start and run the testing equipment.
- Monitor testing process, collate, and summarise data and compile and store reports.
- Store or dispose of samples used in the testing process.
- Report, discuss and explain issues related to and raised by the testing process and the tests results.