

Further Education and Training Certificate Plastics Manufacturing NQF 4 (49451) - 163 Credits

Overview This qualification recognises the skills, knowledge and values acquired by learners. Qualified learners will also understand:

Unit standard 116714: Lead a team, plan, allocate and assess their work - credits

Outcomes

- Plan the work activities of a team.
- Assess and report on team member performance and issues within the team.
- Allocate work to team members.

Unit standard 119140: Changeover and set up tooling for plastics manufacturing processes – 10 credits

Outcomes

- Determine product and process requirements and plan the tooling changeover process.
- Inspect and prepare tooling.
- Co-ordinate the storing, transporting, lifting and lowering of tooling.
- Remove existing tooling; install and set up the replacement tooling and related services.
- Recognise and respond to problems related to tooling.
- Engage in discussions with other parties on issues related to the set up process and product requirements.

Unit standard 119184: Conduct laboratory tests on plastic raw materials and manufactured products – 10 credits

Outcomes

- Determine test criteria from procedures manual and develop a testing schedule.
- Collect and verify samples and related information.
- Select appropriate test method and prepare the samples and the equipment for testing.
- Complete tests, interpret results, draw conclusions and compile reports.
- Care for test equipment, store samples and archive data.
- Engage in discussions with other parties on issues related to the process of conducting laboratory tests on raw materials and manufactured products.

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Unit standard 13254: Contribute to the implementation and maintenance of business processes – 10 credits

Outcomes

- Discuss the purpose of implementing and maintaining business processes.
- Explain, implement and maintain the organisation's vision, mission and values.
- Explain, implement and maintain procedures related to legislation.
- Reflect on the role of the individual in contributing to implementation and maintenance.
- Engage in discussions with other parties on issues related to setting up ancillary process equipment.

Unit standard 13235: Maintain the quality assurance system -5 credits

Outcomes

- Monitor quality assurance in area of responsibility.
- Monitor the adherence to quality assurance standards and procedures by team members.
- Maintain quality documentation and instruments.
- Evaluate quality procedures, identifying areas of concern and suggest improvements.
- Develop and adapt quality procedures to address quality problems and/or meet changing requirements.
- Compile reports on quality assurance issues in area of responsibility

Unit standard 119187: Monitor maintenance of plastics manufacturing equipment, tooling and services – 4 credits

Outcomes

- Monitor the functioning of equipment, tooling and services during manufacturing operations and identify problems.
- Discuss maintenance requirements, evaluate options and agree maintenance requirements with appropriate maintenance personnel.
- Follow up on maintenance work done to ensure tooling, equipment and services are functioning optimally for production requirements.

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- Check and sign off all maintenance documentation.
- Explain and discuss incidents and problems related to maintenance.

Unit standard 13224: Monitor maintenance of plastics manufacturing equipment, tooling and services – 4 credits

Outcomes

- Monitor adherence to safe and environmentally friendly work practices by work team.
- Coach work team in their statutory rights and responsibilities and in safety indicators
- Promote and maintain preventive measures in area of responsibility.
- Evaluate and suggest changes to the system.
- Compile reports on safety, health and environmental issues in area of responsibility

Unit standard 119186: Prepare and process plastics materials for manufacturing – 12 credits

Outcomes

- Determine product, preparation and process requirements and obtain the materials.
- Prepare weighing and blending equipment and prepare material for the manufacturing process.
- Carry out quality checks on the prepared materials, label and store material.
- Monitor the use of the materials during the manufacturing process and arrange for material to be transported at appropriate intervals.
- Record summarise and report material-related data, incidents and events.
- Explain and discuss materials and material properties related to preparation, processing and end-product properties.

Unit standard 119155: Set and adjust plastics manufacturing machine conditions to produce quality finished product – 16 credits

Outcomes

- Determine product and process requirements, plan the setting process and collect the necessary tools, instruments and materials.
- Set process parameters and start up manufacturing equipment to manufacture first offs.

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- Conduct quality checks on manufactured products, determine conformance to standards and adjust machine settings for any deviations.
- Identify and resolve product-and process-related problems and respond to emergency situations or critical events.
- Hand-over the process to production staff, complete all relevant documentation and report incidents or issues.
- Engage in discussions with other parties on issues related to the setting process.

Unit standard 8968: Accommodate audience and context needs in oral communication – 5 credits

Outcomes

- Interact successfully with audience in oral communication.
- Use strategies that capture and retain the interest of an audience.
- Identify and respond to manipulative use of language

Unit standard 12488: Complete feasibility and commissioning reports -3 credits

Outcomes

- Demonstrate an understanding of the basic concepts used in the workplace when generating reports.
- Identify three different types of reports required in the work-environment and the type of information needed to compile the reports.
- Arrange information in such a way that the report is logical, easy to understand and applicable for use in the work environment.

Unit standard 8969: Interpret and use information from texts – 5 credits

Outcomes

- Use a range of reading and viewing strategies to understand the literal meaning of specific texts.
- Use strategies for extracting implicit messages in texts.
- Respond to selected texts in a manner appropriate to the context.
- Explore and explain how language structures and features may influence a reader.

Unit standard 9885: Read and interpret engineering drawings – 12 credits

Outcomes

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- Demonstrate an understanding of engineering drawings, sketches and material lists.
- Interpret engineering drawings, sketches and material lists.
- Transfer interpreted measurements and dimensions from drawings to workpiece.

Unit standard 8973: Use language and communication in occupational learning programmes -5 credits

Outcomes

- Access and use suitable learning resources.
- Use learning strategies.
- Manage occupational learning materials.
- Conduct basic research and analyse and present findings.
- Function in a team.
- Reflect on how characteristics of the workplace and occupational context affect learning.

Unit standard 8970: Write texts for a range of communicative contexts – 5 credits

Outcomes

- Write for a specified audience and purpose.
- Use language structures and features.
- Draft own writing and edit to improve clarity and correctness.

Unit standard 9015: Apply knowledge of statistics and probability to critically interrogate and effectively communicate findings on life related problems – 6 credits

Outcomes

- Critique and use techniques for collecting, organising and representing data.
- Use theoretical and experimental probability to develop models.
- Critically interrogate and use probability and statistical models.

Unit standard 13941: Apply the budget function in a business unit -5 credits

Outcomes

- Explain the concept of budgeting in a business unit.
- Analyse the budget needs of a business unit.
- Present and justify a proposed budget for a business unit.

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- Monitor and control actual expenses and revenue against projected expenses and revenue.

Unit standard 8974: Engage in sustained oral communication and evaluate spoken texts
-5 credits

Outcomes

- Respond critically yet sensitively as a listener.
- Analyse own responses to spoken texts and adjust as required.
- Use strategies to be an effective speaker in sustained oral interactions.
- Evaluate spoken discourse.

Unit standard 110023: Present information in report format -6 credits

Outcomes

- Relate the purpose, content, form, frequency and recipients of a range of reports.
- Identify information sources & organisational procedures for obtaining & distributing information.
- Compile reports related to a selected business function.
- Liase with relevant parties and verify that reported information is in accordance with requirements.

Unit standard 8975: Read analyse and respond to a variety of texts – 5 credits

Outcomes

- Analyse and criticise texts produced for a range of purposes, audiences and contexts.
- Identify and explain the values, attitudes and assumptions in texts.
- Evaluate the effects of content, language and style on readers' responses in specific texts.

Unit standard 9016: Represent analyse and calculate shape and motion in 2-and 3-
dimensional space in different contexts – 4 credits

Outcomes

- Measure, estimate, and calculate physical quantities in practical situations relevant to the adult.
- Explore, analyse & critique, describe & represent, interpret and justify geometrical relationships.

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Unit standard 7468: Use mathematics to investigate and monitor the financial aspects of personal, business, national and international issues – 6 credits

Outcomes

- Use mathematics to plan and control financial instruments.
- Use simple and compound interest to make sense of and define a variety of situations.
- Investigate various aspects of costs and revenue.
- Use mathematics to debate aspects of the national and global economy.

Unit standard 8976: Write for a wide range of contexts -5 credits

Outcomes

- Write effectively and creatively on a range of topics.
- Choose language structures and features to suit communicative purposes.
- Edit writing for fluency and unity.

Unit standard 14445: Frame and implement an individual action plan to improve productivity within an organisational unit – 3 credits

Outcomes

- Demonstrate understanding how individual actions affect the productivity of an organisational unit.
- Identify opportunities to optimise productivity improvement in my unit.
- Frame an individual activity plan to improve productivity.

Unit standard 114315: Undertake factory performance calculations – 15 credits

Outcomes

- Demonstrate an understanding of factory performance calculations.
- Prepare for factory performance calculations.
- Perform the calculations.
- Complete the factory performance calculations.

Unit standard 10718: Use a personal budget to manage own money – 3 credits

Outcomes

- Record and analyse current spending patterns.
- Take control of own finances and get the most for one's money.

- Recognise the need to save as part of personal financial management.
- Compile a personal budget for the next three months, to manage own money.

Unit standard 10712: Manage personal expenditure – 3 credits

Outcomes

- Recognise and manage the items on a bank statement and check a bank statement for accuracy.
- Reconcile creditor statements and check for accuracy.
- Demonstrate an understanding of the impact of a change in interest rates on personal spending.
- Demonstrate an understanding of inflation and its impact on the individual.

Unit standard 12455: Perform the role of a safety, health and environmental protection representative – 4 credits

Outcomes

- Explain and discuss the role and responsibilities of a safety, health and environmental protection.
- Investigate and inspect safety, health and environmental protection issues in the workplace.
- Consult employees about safety, health and environmental protection issues in the workplace.
- Represent employees in safety, health and environmental protection structures and processes.
- Coach employees on safety, health and environmental protection issues

Unit standard 119167: Compound plastic materials – 7 credits

Outcomes

- Determine preparation requirements; obtain and prepare materials for compounding.
- Prepare mixing equipment, select, weigh and feed additives and materials in the required order and discharge the compound.
- Set up compounding equipment, load materials and monitor the compounding conditions and output.

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- Carry out quality checks on compound materials, complete required documentation and report any problems.
- Engage in discussions with other parties on issues related to the compounding process.

Unit standard 119185: Maintain calibrated equipment and standards for plastics manufacturing processes – 6 credits

Outcomes

- Determine the requirements listed in the calibration plan and develop a programme for calibrating the equipment.
- Collect, package and send off equipment and standards to the standards authority.
- Collect and calibrate measuring equipment against company standard and record in the register.
- Isolate equipment which deviates from the standard and deal with it according to procedures.
- Maintain and store calibration equipment and standards, record all actions, store all certificates and track all activities.
- Explain and discuss issues related to the calibration process.

Unit standard 119188: Set up ancillary process equipment for plastics manufacturing operations - 4 credits

Outcomes

- Determine product and process requirements and identify and collect required ancillary process equipment.
- Plan set up, prepare and set up ancillary equipment and connect related services.
- Start-up manufacturing process and adjust ancillary equipment.
- Recognise and respond to problems with ancillary process equipment during production.
- Engage in discussions with other parties on issues related to setting up ancillary process equipment.