

National Certificate Plastics Manufacturing

NQF 3 (49449) - 126 Credits

Overview: This qualification recognises the skills, knowledge and values acquired by learners involved in controlling operations in plastics manufacturing processes.

The key skills required for this qualification are:

- Understanding and implementing basic approaches to using and looking after machinery and equipment.
- Understanding and implementing procedures related to various aspects of the production process.
- Relating principles and concepts to workplace activities, materials and equipment.

Qualified learners will also understand:

- The basics of how a business functions.
- Their role in the business, i.e. in production and related activities.
- How they are affected by legislation, regulations, agreements and policies related to their particular work environment.
- Participate in workplace activities.
- Understand how they should operate within the legislative, safety and quality systems which govern their workplace.

Time Management in Production Skills Programme – SP 0482/10-17

Unit standard 9530: Manage work time effectively -3 credits

Outcomes

- Demonstrate understanding of the concept "time management in a 24-hour day world"
- Describe the difference between urgent and important and prioritize daily activities.
- Estimate time spent on a task and draw up a general day, week and month planner to manage time.

Develop Learning Strategies Skills Programme – SP 0374/09-17

Unit standard 12457: Develop learning strategies and techniques -3 credits

Outcomes

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- Identify and discuss types of available learning resources and learning and assessment methods
- Evaluate and select appropriate learning resources and learning and assessment methods and technique
- Evaluate the effectiveness of the selected learning resources and learning and assessment methods and
- Reflect on learning experiences and developed learning strategies and techniques
- Evaluate and report on progress with the learning process

Apply Safety Procedures Skills Programme – SP 0133/07-17

Unit standard 13223: Apply safety, health and environmental protection procedures – 6 credits

Outcomes

- Explain and discuss statutory rights, responsibilities and liability regarding safety
- Explain and discuss safety, health and environmental objectives, standards and regulations
- Perform safety and environmental inspections in work area
- Identify unsafe conditions and take corrective action
- Report on safety conditions in work area

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

Apply Quality Assurance Systems Skills Programme – SP 0111/07-17

Unit standard 13234: Apply quality procedures - 8 credits

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Outcomes

- Explain and discuss the quality assurance system and quality objectives, standards, elements
- Apply quality procedures and standards in work area
- Handle and care for instruments and gauges related to quality processes
- Recognise and report on quality problems in work area

Unit standard 119179: Conduct simple tests during the plastics manufacturing process - 4 credits

Outcomes

- Determine test requirements during the manufacturing process.
- Obtain and prepare any equipment required for the tests and the work area.
- Test product and record data.
- Monitor variations on Statistical Process Control plots, identify when production reaches an error condition and respond.
- Care for and store any sample preparation and testing tools and equipment and follow quality procedures.
- Complete and process all applicable documentation and respond to questions related to conducting the tests.

Basic Raw Materials Skills Programme – SP 0110/07-17

Unit standard 119169: Work with and look after materials in the plastics manufacturing production process - 12 credits

Outcomes

- Determine material requirements and locate materials.
- Plan and arrange transport of materials to the workstation.
- Look after, transport and safely store materials.
- Prepare materials and components for the production and post-production processes.
- Record material quantities, report material usage and explain and discuss material-related issues.

Use Mathematics to Solve Workplace Problems Skills Programme – SP 0358/09-17

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Unit standard 9010: Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations - 2 credits

Outcomes

- Convert numbers between the decimal number system and the binary number system.
- Work with numbers in different ways to express size and magnitude.
- Demonstrate the effect of error in calculations.

Unit standard 9013: Describe, apply, 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.
- Explore, describe and represent, interpret and justify geometrical relationships and conjectures.

Control Expenditure Skills Programme – SP 0083/06-17

Unit standard 14645: Control depot expenditure budget - 2 credits

Outcomes

- Distinguish between capital expenditure and an operating budget.
- Identify the components of a depot-operating budget.
- Discuss the control measures of a depot-operating budget.
- Interpret the financial statements received for the depot-operating budget.

Unit standard 12429: Develop a personal financial plan- 2 credits

Outcomes

- Discuss and explain personal financial planning options.
- Evaluate own personal financial situation.
- Develop a personal financial plan.
- Reflect on learning experiences when developing a personal financial plan and benefits.

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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 7456: Use mathematics to investigate and monitor the financial aspects of personal, business and national issues - 5 credits

Outcomes

- Use mathematics to plan and control personal, regional and/or national budgets and income and expend
- Use simple and compound interest to make sense of and define a variety of situations.
- Use mathematics to debate aspects of the national economy.

Control materials and consumables for plastics manufacturing processes skills programme – US ID 119182

Unit standard 119182: Control materials and consumables for plastics manufacturing processes – 4 credits

Outcomes

- Receive, inspect and store materials.
- Determine the requirements for materials from the production plan; count, measure and prepare materials for collection.
- Determine and record stock levels and update records.
- Monitor stock levels and initiate ordering process.
- Maintain storage environment.
- Respond to questions and explain issues related to controlling materials and consumables for production.

Action plan to improve productivity Skills Programme – SP 0121/07-17

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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 114104: Handle production waste – 3 credits

Outcomes

- Prepare for removal of production waste.
- Remove waste.
- Record waste data.
- Complete waste removal process.

Utilize Organisational Policies and Procedures Skills Programme – SP 0481/10-17

Unit standard 12456: Explain and use organisational procedures – 6 credits

Outcomes

- Discuss the purpose of organisational policies and procedures
- Identify, select and apply organisational policies and procedures
- Discuss the purpose of an organisation's vision, mission and values
- Reflect on the role of organisational policies and procedures in the work life of the individual

Resolve Conflict in a Diverse Environment Skills Programme – SP 0079/06-17

Unit standard 116720: Show understanding of diversity in the workplace – 3 credits

Outcomes

- Demonstrate an understanding of cultural and other differences in the workplace
- List and understand the concept stereotypes in the workplace
- Demonstrate a basic understanding of the role of change in the workplace

Unit standard 9533: Use communication skills to handle and resolve conflict in the workplace – 3 credits

Outcomes

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- Demonstrate an understanding of different conflict situations in the workplace
- State and explain the difference between feelings and actual problem (contents)
- Handle and resolve a conflict in the workplace

Written communication & interpretation Skills Programme – SP 0106/07-17

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 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 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 8969: Interpret and use information from texts – 5 credits

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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 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 9012: Investigate life and work related problems using data and probabilities – 5 credits

Outcomes

- Pose questions, collect and organise data.
- Represent, analyse and interpret data using various techniques.
- Use random events to explore and apply, probability concepts in simple life. **Machine Operations Skills Programme – SP 0080/06-17**

Unit standard 119174: Perform routine maintenance tasks on plastics manufacturing equipment – 2 credits

Outcomes

- Carry out routine checks on production machines and operations
- Perform routine maintenance activities
- Update maintenance records.
- Alert appropriate personnel to any identified problems.
- Respond to questions and explain issues related to performing routine maintenance on a production machine

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Unit standard 119162: Perform routine operations on plastics manufacturing equipment – 10 credits

Outcomes

- Monitor equipment and material, conduct quality checks and resolve problems.
- Perform start up and shutdown procedures on the manufacturing equipment
- Prepare for and perform purging and material or colour changeover procedures
- Report and record information related to manufacturing equipment and operations.
- Discuss and explain issues related to manufacturing equipment and operations

Unit standard 119142: Transport and care for tooling in plastics manufacturing processes – 6 credits

Outcomes

- Determine requirements, select and transport tooling
- Prepare tooling for installation or storage
- Assist with the installation of tooling
- Maintain the condition of tooling during production
- Complete records, recognise and report problems
- Respond to questions and explain issues related to transporting and caring for tooling