Unit 30: New Product Development in Food

Unit code: H/601/1778
QCF level: 5
Credit value: 15

● Aim
This unit enables learners to understand new product development in food, including consumer responses and issues of large-scale food production. Learners will gain skills in developing new and existing products.

● Unit abstract
The aim of this unit is to introduce learners to the principles and practical applications of new product development in food. The unit focuses on the creation of new food products and their assessment, so they are suitable for a prescribed clientele. Learners will initially explore the issues surrounding the development of a new product or the modification of an existing one, including the issues involved in large-scale production.

They will also use various testing techniques to investigate the quality of the products developed. These will include subjective testing, such as smell, taste, texture, colour and flavour, as well as scientifically based objective testing. This aspect will include sensory analysis tests, the results from which will statistically evaluate the responses of customers to the new product.

● Learning outcomes
On successful completion of this unit a learner will:
1. Be able to develop a new or modify an existing food or beverage product
2. Understand issues of large-scale food production
3. Be able to investigate food quality using subjective and objective tests
4. Understand responses of customers to new products.
Unit content

1 **Be able to develop a new or modify an existing food or beverage product**

*Design:* concept research; small-scale development; corporate development programmes; costing; specification manual; presentation methods; food stabilisers; food enhancers; trend analysis; consumer reactions; timescales for development; risk assessment

*Legislation:* concerns eg food labelling, additives, food safety, risk analysis [HACCP]

*Influences:* types eg food fashions, globalisation, ethnic cookery influences, vegetarian and healthy eating concepts

2 **Understand issues of large-scale food production**

*Production:* project design and management; product quality and saleability

*Packaging:* role of packaging in demand and acceptance; technological developments; materials; environmental issues; distribution channels

*Equipment:* appliances and their versatility; new equipment requirements; staff training; operating procedures

*Technology systems:* types eg testing and evaluation equipment, analysis software and hardware, temperature controls and recording, storage monitoring, stock rotation systems

3 **Be able to investigate food quality using subjective and objective tests**

*Subjective tests:* tests eg taste, colour, texture, smell, flavour, overall acceptability.

*Objective tests:* physical; chemical; microbiological and organoleptic techniques

4 **Understand responses of customers to new products**

*Evaluation techniques:* market research; questionnaires; focus groups; tasting panels; pilots; sampling; validity

*Process:* identifying opportunity; selecting sample; establishing procedure; recording and analysing results
# Learning outcomes and assessment criteria

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<thead>
<tr>
<th>Learning outcomes</th>
<th>Assessment criteria for pass</th>
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<tbody>
<tr>
<td><strong>On successful completion of this unit a learner will:</strong></td>
<td><strong>The learner can:</strong></td>
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<tr>
<td>LO1 Be able to develop a new or modify an existing food or beverage product</td>
<td>1.1 create a new food or beverage product, adhering to the design specifications and associated legislation, taking into account current influences</td>
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<td>1.2 discuss the role of legislation in the development of a new product</td>
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<tr>
<td>LO2 Understand issues of large-scale food production</td>
<td>2.1 assess how the development of packaging, equipment and technological systems have affected large-scale production as well as the design and management of the product</td>
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<td>LO3 Be able to investigate food quality using subjective and objective tests</td>
<td>3.1 design, implement and evaluate simple subjective and objective tests for sensory evaluation of food</td>
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<td>LO4 Understand responses of customers to new products</td>
<td>4.1 design and carry out a range of evaluation techniques to assess the success of a product</td>
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<td>4.2 evaluate the validity of each of the techniques used</td>
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Guidance

Links

This unit can be linked successfully with a range of practical and related units within the programme such as:

- **Unit 8: Marketing in Hospitality**
- **Unit 27: Contemporary Gastronomy**
- **Unit 31: Food Safety Management**
- **Unit 32: Nutrition and Diet**.

This unit also links to the following Management NVQ units:

- A2: Manage your own resources
- B1: Develop and implement operational plans for your area of responsibility
- B2: Map the environment in which your organisation operates
- B3: Develop a strategic business plan for your organisation
- B4: Put the strategic business plan into action
- B8: Ensure compliance with legal, regulatory, ethical and social requirements
- C1: Encourage innovation in your team
- C2: Encourage innovation in your area of responsibility
- E1: Manage a budget
- E2: Manage finance for your area of responsibility
- E4: Promote the use of technology within your organisation
- E5: Ensure your own action reduce risks to health and safety
- E6: Ensure health and safety requirements are met in your area of responsibility
- E7: Ensure an effective approach to health and safety
- F1: Manage projects
- F3: Manage business processes
- F9: Build your organisation’s understanding of its market and customers
- F10: Develop a customer focused organisation
- F11: Manage the achievement of customer satisfaction
- F12: Improve organisational performance.
Essential requirements

Suitable facilities must be provided for development and testing work, including appropriate storage, preparation and cooking equipment.

Learners will need access to a food laboratory with appropriate objective testing equipment and food sensory facilities for taste panels.

Access to the internet is particularly important, together with the use of relevant software and hardware applications.

Employer engagement and vocational contexts

Delivery of this unit will be enhanced by a visiting lecture from a new product development technologist in a local food-processing business.