

NEW FOOD PRODUCT DEVELOPMENT

UNIT CODE: FOP/CU/FT/CR/04/6/A

Relationship to Occupational Standards

This unit addresses the unit of competency: Develop new food products

Duration of Unit: 360 hours

Unit Description

This unit describes the competencies required to develop new food products. It involves conducting brainstorming sessions; conducting new product feasibility studies; developing and analyzing new product prototype; conducting new product tests and market testing the new product as well as patenting; commercialization of the new product and conducting analysis of competing products in the market.

Summary of Learning Outcomes

1. Conducting brainstorming sessions
2. Conducting new product feasibility studies
3. Developing and analyzing new product prototype
4. Market testing new product
5. Conducting new product tests
6. Introducing new product
7. Conducting competitor analysis

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Conducting brainstorming sessions	<ul style="list-style-type: none">• Consumer complaints• Problem solving methodologies• Project management• Statistical analysis• Marketing intelligence	<ul style="list-style-type: none">• Written• Observation• Oral• Third party report
2. Conducting new product feasibility studies	<ul style="list-style-type: none">• Basic research methods• Development of new product feasibility study strategy• Identification of new product development resources• Budgeting and resource mobilization• Conducting new product feasibility studies• Preparation and presentation of	<ul style="list-style-type: none">• Written• Observation• Oral• Third party report

	feasibility study report	
3. Developing and analyzing new product prototype	<ul style="list-style-type: none"> • Technology of specific products • Food chemistry • Food analysis • Food microbiology • Development of product prototype standards • Development of product prototype formula • Designing new product prototype processing procedure • Acquisition of resources for prototype development • Development of product prototype samples • Laboratory analysis of product prototype • Documentation of development and analysis of prototype • Manage and dispose waste 	<ul style="list-style-type: none"> • Written • Observation • Oral • Third party report
4. Market testing new product	<ul style="list-style-type: none"> • Development of product prototype marketing protocols • Development of product prototype marketing plan • Market testing product prototype • Conducting product prototype market research • Preparation and documentation of product prototype market research findings and recommendations 	<ul style="list-style-type: none"> • Written • Observation • Oral • Third party report
5. Conduct new product tests	<ul style="list-style-type: none"> • New product legal and statutory requirements (Standards) • Product prototype improvement • Conducting laboratory tests on the improved prototype <ul style="list-style-type: none"> • Elemental analysis • Micro-bio analysis • Rheological characteristics • Sensory evaluation • Registration and patenting of new product 	<ul style="list-style-type: none"> • Written • Observation • Oral • Third party report

	<ul style="list-style-type: none"> • New product mass production • Packaging of new products • New product storage • Documentation of new product information, properties and process specifications 	
6. Introducing new product	<ul style="list-style-type: none"> • Awareness training of staff • Preparation and presentation of new product claim • Development of new product resourcing plan • Development of new product commercialization strategy • Development of new product quality monitoring framework 	<ul style="list-style-type: none"> • Written • Observation • Oral • Third party report
7. Conduct competitor analysis	<ul style="list-style-type: none"> • Competing products analysis • Product performance • Report preparation • Documentation of product performance and follow ups 	<ul style="list-style-type: none"> • Written • Observation • Oral • Third party report

Suggested Methods of Instruction

- Direct instruction
- Project
- Case studies
- Field trips
- Discussions
- Demonstration by trainer
- Practice by the trainee
- Industrial attachment

Recommended Resources

Laboratories:

- Food laboratory
- Food microbiological laboratory
- Analytical laboratory

Laboratory resources:

- Cold Room

- Clarifier
- Thermometer
- Pasteurizer
- Mixer
- Sealers
- Fryers
- Baking ovens
- Butter churn
- Mincer
- Knives
- Utensils
- Analytical balance
- Homogenizer
- Weighing scale
- Glassware
- Microscope
- Colony counter
- Blender
- Autoclave
- Refractometer
- Heating mantle
- Moisture analyzer
- Titration equipment
- HPLC
- Centrifuge
- Evaporator
- Fume chamber
- UV Spectrophotometer
- GLC
- PH Meter
- Consumables
- Equipment related to technology
of specific products

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