



Australian Government

Department of Education, Employment and Workplace Relations

FDFST5004A Specify and monitor the nutritional value of processed food

Release: 2

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Modification History

April 2012: Minor typographical corrections.

Unit Descriptor

This unit covers the skills and knowledge required to provide nutritional information for processed food, and to implement procedures to optimise the nutritional value of a product.

Application of the Unit

This unit applies to production, and technical managers who are required to specify and monitor the nutritional value of foods through processing and to verify the accuracy of label information, and to product developers who are required to assess nutritional value and properties of a new product. This unit does not cover the analysis of food to determine nutritional composition. Where this skill is required the unit MSL975022A Perform food analyses should be selected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Ensure label information is accurate and complete	1.1 The dietary intakes and requirements for an identified consumer group for a food product are identified 1.2 Food storage and preparation information related to maintaining nutritional value and food safety are provided 1.3 Organisational and NHMRC Australian Dietary Guidelines for nutritional information on product labels are applied
2. Evaluate methods of preserving nutrients during food processing and storage	2.1 The effects of food processing and storage conditions on the stability of certain nutrients are analysed 2.2 The need for fortification of processed foods in the Australian diet is evaluated 2.3 Food processing and storage methods are evaluated for their impact on the nutritive value of product
3. Assess the benefits of food products developed or modified to meet the needs of a customer group	3.1 Common nutritional deficiencies and related diseases are evaluated 3.2 Appropriate diets for customers with specific requirements or health challenges are identified 3.3 Modified and functional foods are identified and categorised 3.4 The main benefits of food products developed or modified to meet the nutritional needs of special groups are assessed
4. Apply nutritional information and issues to product development, labelling and marketing of processed foods	4.1 Nutritional requirements to be considered, during product development, are evaluated and applied 4.2 The legal requirements for nutritional labelling food products are applied 4.3 Nutritional issues, in relation to the legal and ethical marketing of processed foods, are evaluated

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills include:

Ability to:

- recognise key macronutrients required for a healthy diet
- establish the processes of digestion and absorption
- establish the process of energy metabolism in the human body
- apply knowledge of nutrition to food processing
- identify, review and apply key and current nutritional information
- compare the nutritional needs of special population groups
- evaluate a food product for its nutritional properties
- evaluate nutritional issues in relation to product development, labelling and marketing of processed foods
- identified nutritional related risk factors and diseases
- establish public health and environmental hazards, in relation to nutrition.

Required knowledge includes:

Knowledge of:

- key macro and micro nutrients for a healthy diet
- the processes of digestion, absorption and energy metabolism in the human body
- human energy requirements
- dietary guidelines and legislative requirements related to processed foods
- the effects of processing and storage on nutrients, and the methods for overcoming these effects
- the role of proteins in nutrition
- the role of carbohydrates in nutrition
- the role of vitamins and minerals in nutrition
- the role of dietary fibre
- the role of lipids in nutrition
- the body's processes for storing and using water and its role in nutrition
- nutritional related risk factors and diseases
- food intolerances and allergies
- functional foods
- diseases caused by nutritional deficiencies
- modified and functional foods and nutraceuticals.

Evidence Guide

<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to provide nutritional information for processed food, and to implement procedures to optimise the nutritional value of a product.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>Critical aspects of assessment must include evidence of the ability to identify, review and apply nutritional information, compare the nutritional needs of special population groups, and evaluate nutritional issues in relation to product development, labelling and marketing of processed foods.</p>
<p>Context of and specific resources for assessment</p>	<p>Assessment of performance requirements in this unit should be undertaken within the context of food technology. Competency is demonstrated by performance of all stated criteria, including the critical aspects and knowledge and skills elaborated in the Evidence Guide, and within the scope as defined by the Range Statements applicable to the workplace environment.</p> <p>Assessment must occur in a real or simulated workplace where the assessee has access to:</p> <ul style="list-style-type: none"> • Production process and related equipment, food testing data and operating procedures • Methods and related software systems as required for collecting data and calculating yields, efficiencies and material variances appropriate to production environment • Tests used to report relevant product/process information and recorded results.
<p>Method of assessment</p>	<p>The following assessment methods are suggested:</p> <ul style="list-style-type: none"> • Written and/or oral questioning to assess knowledge and understanding • Completing workplace documentation including labels for a product • Case studies.
<p>Guidance information for assessment</p>	<p>Evidence should be gathered over a period of time in a range of actual or simulated environments.</p>

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Policies and procedures	<p>Codes of practice, regulations, Safety Data Sheets (SDSs) Enterprise specific requirements.</p>
Food processing Regulations/ Standards/ Guidelines	<ul style="list-style-type: none"> • Australian and international standards • Codex Food Processing Standards • Acts of Parliament • National Health & Medical Research Council (NHMRC) Australian dietary guidelines • Food Standards Australia New Zealand (FSANZ) labelling regulations.
Organisations	<p>May include:</p> <ul style="list-style-type: none"> • National Health & Medical Research Council (NHMRC) • National Heart Foundation of Australia (NHFA) • Federation of Australian Nutrition Organisations (FANO) • Nutrition Australia • The Nutrition Society of Australia • Dietitians Association of Australia • The Australian Institute of Food Science & Technology • Australian Society of Clinical Immunology and Allergy.
Functional foods	<p>Any fresh or processed food claimed to have a health-promoting or disease-preventing property beyond the basic function of supplying nutrients. Fermented foods with live cultures are considered as functional foods with probiotic benefits.</p>
Nutraceuticals	<p>Includes functional foods that also aid in the prevention and/or treatment of disease(s) and/or disorder(s) (except anaemia).</p>
Modified foods	<p>Fresh or processed food which has had components added (e.g. Vitamin C enriched) or reduced (e.g. low fat milk).</p>

Unit Sector(s)

Technical.