

Level 4 Award in Nutrition

Ofqual Qualification Number: 600/6873/5

Description

The objective of this qualification is to provide understanding of the nutritional requirements for a healthy diet, the effect of diet on health and the importance of hydration.

You will take a single unit: *Principles of Nutrition* but may add additional units at a later date to obtain the RSPH L4 Certificate in Nutrition for Physical Activity and Sport or the RSPH Level 4 Certificate in Nutrition for Institutional Food Services.



Unit NUT 4.1: Principles of Nutrition

Learning Outcomes and Assessment Criteria

- 1 Understand the sources, functions and uses of macro and micro nutrients, *by being able to:***
 - 1.1 Identify dietary sources of macro and micro nutrients
 - 1.2 Explain the physiological functions of macro and micro nutrients
- 2 Understand the energy, nutrient and hydration requirements of individuals throughout life, *by being able to:***
 - 2.1 Explain the components of energy consumption and expenditure
 - 2.2 Explain the energy, hydration and nutrient requirements at different lifetime stages
 - 2.3 Outline factors that affect energy, nutrient and hydration requirements of individuals in relation to social, cultural, religious and ethnic groups
- 3 Understand the effects of diet on health, *by being able to:***
 - 3.1 Describe the relationship between diet and disease
 - 3.2 Describe possible dietary influences for different groups
- 4 Understand legislation as it relates to labelling and advertising of foods, *by being able to:***
 - 4.1 Assess how food labels conform to legislative requirements
 - 4.2 Outline the legal requirements in relation to health claims and nutrition claims

Content

1 Sources, functions and uses of macro and micro nutrients

1.1 *Dietary sources of macro and micro nutrients:*

Carbohydrates: simple and complex sugars; starches; non-starch polysaccharides; food sources.

Protein: essential (indispensable) and non-essential amino acids; biological value; complementation; food sources.

Fats: saturated, monounsaturated and polyunsaturated; omega 3; trans-fats; food sources.

Vitamins: water soluble (B vitamin group to include B1, B2, B6, B12, Folate and Vitamin C) and fat-soluble (Vitamins A, D, E, K) food sources; losses; fortification and supplementation.

Minerals: mineral elements (Iron, Calcium, Phosphorus, Sodium, Potassium, Zinc, Chloride, Magnesium, Selenium, Fluoride); food sources; fortification and supplementation.

1.2 *Physiological functions of macro and micro nutrients:*

Carbohydrates: as energy source; role of dietary fibre.

Protein: growth and maintenance; as a source of energy.

Fats: as energy source; source of fat-soluble vitamins; role of cholesterol and triglycerides; essential fatty acids.

Vitamins: physiological roles; antioxidants.

Minerals: physiological roles; structural roles.

2 Hydration, dietary requirements and food choices of individuals throughout life

2.1 *Components of energy consumption and expenditure:*

Units of energy content of food (calories, joules, kilocalories, kilojoules); energy sources, e.g. fats, carbohydrates, proteins, alcohol; contribution of these to energy consumption; indicators of energy consumption and expenditure such as body composition, body weight, skin fold measurements, Body Mass Index (BMI).

Energy expenditure; basal metabolic rate, energy used in different activities such as running, walking, cycling, swimming; energy expenditure of different occupations.

2.2 *Energy, hydration and nutrient requirements at different lifetime stages:*

Energy requirement across the lifespan (babies, toddlers, children, adolescents, adults, pregnancy, breast feeding, older age).

Hydration requirements across the lifespan (babies, toddlers, children, adolescents, adults, pregnancy, breast feeding, older age).

Nutrient requirements across the lifespan (babies, toddlers, children, adolescents, adults, pregnancy, breast feeding, older age).

Effect of alcohol on hydration.

Use of Dietary Reference Values to measure nutrient requirements taking into account current guidance and to include the Eatwell Plate.

- 2.3 *Factors that affect nutrient requirements in relation to social, cultural, religious and ethnic groups:* factors affecting requirements of individuals such as level of activity, metabolic rate, health status; requirements of communities; lifestyle choices: vegetarian and vegan; religious groups (including Hindu, Muslim and Jewish); effect of food preparation methods on nutrient content of meals..

3 **Effects of diet on health**

- 3.1 *Relationship between diet and disease:* Diseases to include
Dental caries: roles of sugars and acids.
Coronary heart disease and hypertension: roles of fats, salt, antioxidants and obesity.
Obesity and Type 2 diabetes: roles of carbohydrate, saturated fat and weight loss.
Under nutrition: anaemia due to iron deficiency or lack of Vitamin B12; rickets due to lack of Vitamin D and calcium; severe weight loss due to lack of calories.
Cancer: roles of antioxidants, fibre, salt and alcohol.
Food sensitivity: such as coeliac disease, nut allergy and milk intolerances.
- 3.2 *Possible dietary influences for different groups:*
Dietary habits: e.g. meal patterns, snacking, personal tastes, food availability
Economic: e.g. cost of food, access to shops; food supply, eg seasonal variation
Socio-cultural: e.g. beliefs, socialisation, food rituals, role of food in families and communities, vegan, vegetarian, Hindu, Muslim, Jewish
Education:, e.g. public health, health education, marketing and labelling; role of health professionals

4 **Legislation as it relates to labelling and advertising of foods**

- 4.1 *Food labelling requirements:* Assessment of food labels with respect to legislative requirements; front of pack labelling, guidance and voluntary information.
- 4.2 *Legal requirements in relation to health claims and nutrition claims:* Current regulations, guidance, prohibited claims.

Recommended Reading

Denby, N, S Baic and C Ringler (2011)
Nutrition for dummies 2nd Ed.

John Wiley and Sons

Geissler, C and H Powers (2009) Fundamentals of
human nutrition for students and practitioners in
the health sciences.

Elsevier

Mann, J and S Truswell (Eds) (2012) Essentials
of human nutrition 4th Ed.

Oxford University Press

Useful Web-sites

British Dietetic Association
British Nutrition Foundation
The Nutrition Society

www.bda.uk.com
www.nutrition.org.uk
www.nutritionandsociety.org

Assessment

Attainment of the Learning Outcomes for the unit will be assessed by assignments. Assignments will be provided by RSPH and internally marked by the centre. Centre marks will be subject to external verification by RSPH. In order to obtain a Pass candidates must be able to demonstrate that they have achieved the learning outcomes for the unit.

Credit accumulation and transfer

The unit(s) comprising this qualification may also form part of other RSPH qualifications. The successfully completed units can be credited towards additional qualifications if the candidate is registered for the additional qualification within three years of achieving the unit.

National Occupational Standards

The qualification has been mapped to the following National Occupational Standards of Skills for Health:

SFHCS24 Contribute to meeting the nutritional needs of babies, children and young people

SFHCHS148 Provide information and advice to individuals on eating to maintain optimum nutritional status

Progression

Learners who achieve this qualification can progress to the following qualifications:

RSPH Level 4 Certificate in Nutrition for Physical Activity and Sport
RSPH Level 4 Certificate in Nutrition for Institutional Food Services