



Accredited

**OCR LEVEL 3
CAMBRIDGE TECHNICAL
CERTIFICATE/DIPLOMA IN
HEALTH AND
SOCIAL CARE**

**NUTRITION FOR HEALTH AND
SOCIAL CARE**

L/601/2407

LEVEL 3 UNIT 16

GUIDED LEARNING HOURS: 60

UNIT CREDIT VALUE: 10

NUTRITION FOR HEALTH AND SOCIAL CARE

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AIM OF THE UNIT

It is said 'We are what we eat'. Judging by the increasing research findings and media headlines we are as a society paying the price for what we eat. Rising levels of obesity are leading to increases in heart conditions, diabetes and liver disease. Yet on every television channel there are numerous programmes on food; how to grow it, farm it, cook it, present it – even how to date others with it. We, as a nation, appear obsessed with food. What we eat has never been under as much scrutiny as it is today. Diet can affect an individual's health in many ways, physically, intellectually, emotionally and socially. An understanding of nutrition is therefore vital in order to make and suggest the right choices of food and drink. The aim of this unit is to allow learners to appreciate the dietary requirements we all have and how these vary between different ages and groups of individuals. Research shows that learning and performance in our early years is significantly affected by diet. For this reason, celebrity chefs and others have worked hard to get dietary change in schools, often meeting resistance. Few will forget those images of parents supplying junk food to their children over the school fence. Learners will be able to discover the function and sources of nutrients, current nutritional issues and the various factors and influences that help determine peoples' eating habits. Learners will discover that not all individuals have the same freedom of choice in what they eat. Learners will be able to research how dietary patterns can be influenced through legislation, campaigns and advertising. There will also be an opportunity to use their knowledge of nutrition to analyse an individual's diet and make recommendations for improvement.

PURPOSE OF THE UNIT

Understanding the nutritional importance of what people eat and the effect it can have on their short and long term health is fundamental for those wanting to work in health and social care. This unit introduces learners to key scientific principles associated with diet as well as considering the social context of food. Food is fundamental to life, health and wellbeing and is therefore likely to be a consideration in whatever career pathway learners consider in the sectors. Apart from any career consideration, we are all affected positively and negatively by what we eat and so an understanding of nutrition is of paramount personal importance.

Learners will be able to define key terms associated with diet and be able to relate them to the diet of an individual. Understanding how individuals' health is measured and how dietary intake can be quantified and analysed can be complicated and this unit aims to simplify this. Learners will gain an understanding of current nutritional issues and how guidelines are issued regularly to forge good eating practices.

Learners will be introduced to a wide range of nutrients and they will learn about the various types, the functions of each in the body and the food/drinks that they can be found in. Certain groups of the population have specific dietary needs and learners will explore the reasons for this, putting them into context within health and social care; so, for example, when managers of residential care homes plan menus they need to understand the impact their food choices can have on the residents.

Dietary intake can be influenced by many factors and learners need to demonstrate understanding of how each factor can affect what we need to eat/drink, for example, what effect could being a vegetarian have on nutritional intake? They will have the opportunity to investigate a number of diet-related health-conditions, as well as how changes in physical and cognitive abilities will also impinge on the diet of those individuals. Dietary habits have changed considerably over the past seventy years and many experts state that the nation's diet was at its healthiest during the rationing of the Second World War. Modern lifestyles have seen an increase in convenience foods, fast foods and take-aways. Learners will be able to examine these and other

societal changes like the demise of the family meal. They will have the opportunity to realise that, with food prices ever on the increase, not all individuals can obtain the most nutritious foods and they will be able to understand the undesirability, other than cost, of mass produced or processed foods.

Government advice on what we should and should not eat changes frequently and learners will be able to consider the impact of current healthy eating advice and social policy as well as gaining an understanding of what lies behind the recommendations of certain foods and strategies.

Learners will be able to draw all this information together when they conduct a quantitative analysis of an individual's diet over a set period of time, reflecting on whether it meets the individual's needs. Learners will consider the factors in both healthy and poor diets in order to make recommendations for improvement.

Whether having a direct involvement in nutrition within health and social care or not, this unit will provide learners with a good working knowledge and understanding of a vital topic relating to human growth, development and wellbeing.

ASSESSMENT AND GRADING CRITERIA

| Learning Outcome (LO) | | Pass | Merit | Distinction |
|------------------------------|--|--|---|---|
| The learner will: | | The assessment criteria are the pass requirements for this unit. | To achieve a merit the evidence must show that, in addition to the pass criteria, the learner is able to: | To achieve a distinction the evidence must show that, in addition to the pass and merit criteria, the learner is able to: |
| The learner can: | | | | |
| 1 | Understand concepts of nutritional health | P1 explain concepts associated with nutritional health | | |
| 2 | Know the characteristics of nutrients | P2 describe the characteristics of nutrients and their benefits to the body | M1 describe the nutritional needs of different groups of individuals | |
| 3 | Understand influences on dietary intake and nutritional health | P3 explain possible influences on dietary intake | M2 analyse current dietary habits | D1 assess how social policy may influence the nutritional health of individuals |
| 4 | Be able to use dietary and other relevant information from an individual to make recommendations to improve nutritional health | P4 carry out a quantitative analysis of the daily intake of nutrients and energy by one individual | M3 describe the possible short and long term effects of the findings for an individual | |
| | | P5 prepare a one-week plan to improve the nutritional health of the chosen individual | | D2 justify the changes made to an individual's diet |

TEACHING CONTENT

1 Understand concepts of nutritional health

The following with reference to food, nutrients and diet:

- *Nutritional health:* (e.g. obesity, anorexia, bulimia, deficiency, malnutrition, under nutrition, behavioural problems)
- *Nutritional measures:* (e.g. nutritional and energy balance, growth charts, weight for height and gender, Body Mass Index (BMI); actual food intakes, recommended intakes: Dietary Reference Values, Reference Nutrient Intakes; nutrients per portion and per 100 g of food)
- *Dietary intake guidelines:* Eatwell Plate, food pyramids, food groups, five-a-day
- *Current nutritional issues:* (e.g. 'junk' food, convenience food, fast food outlets, organic food, genetically modified foods, fad diets, food labelling, environmental, aspects of food production eg. battery or intensive farming, power of supermarkets, self-prescribed health supplements, treatments for obesity, advertising food, global food inequalities).

2 Know the characteristics of nutrients

- *Characteristics:* dietary sources, function in body, changes in processing, (e.g. due to heat, storage, freezing)
- *Carbohydrates:* sugars, starch, non-starch polysaccharides; sugar substitutes, (e.g. artificial sweeteners, sorbitol)
- *Proteins:* polypeptides, essential and non-essential amino acids, proteins of high and low biological value, novel sources, (e.g. mycoprotein Quorn)
- *Lipids:* saturates, mono- and polyunsaturates; trans fats; cholesterol, essential fatty acids
- *Vitamins:* fat-soluble: A, D, E and K; water-soluble: B group, C
- *Minerals:* iron, calcium, magnesium, sodium, potassium, selenium, zinc
- *Energy:* dietary sources, as kilocalories and kilojoules, energy values for protein, fat, carbohydrate and alcohol
- *Other diet-related consumption:* (e.g. water, soluble and insoluble NSPs, phytochemicals, alcohol)
- *Physiological context:* nutrient functions explained using appropriate physiological terminology relevant to the body systems and metabolic processes, (e.g. most readily utilised forms of nutrients, nutrients that aid the absorption of others, role of anti-oxidants)
- *Nutritional needs of:* young children, adolescents, adults, pregnant women and breast feeding mothers, older people.

3 Understand influences on dietary intake and nutritional health

- *Health influences:* underlying health condition resulting in specific nutrient needs, (e.g. heart disease, hypertension,

diabetes, coeliac disease, irritable bowel syndrome, lactose intolerance, food allergy; loss of ability to feed independently, e.g. from paralysis; loss of cognitive function)

- *Lifestyle influences:* eating at home; social eating and drinking; exercise/activity levels; occupation (active, sedentary); leisure pursuits
- *Economic influences:* cost of food; access to shops; food supply, (e.g. seasonal variation)
- *Socio-cultural influences:* beliefs, socialisation, food rituals, role of food in families and communities
- *Educational influences:* food hygiene; marketing and labelling; public health, health education; role of health professionals, (e.g. dieticians, public health nutritionists, doctors, nurses, carers, sports nutritionists, health and fitness instructors)
- *Dietary habits:* (e.g. meal patterns, snacking, personal tastes, food availability, convenience foods, fast food, take a ways, vegetarianism, veganism, fruitarians, pescetarians)
- *Social policy:* legislation, regulations and policies, (e.g. Children Act 2004, Every Child Matters, Nutrition Standards for School Lunches and Other School Food 2006, other initiatives, e.g. Healthy Schools, National Minimum Standards for Care Home Catering).

4 Be able to use dietary and other relevant information from an individual to make recommendations to improve nutritional health

- *Record of food intake:* record over one three-day period, all food eaten including meals, snacks, drinks, confectionery, supplements; portion sizes
- *Sources of nutritional information:* food analysis tables, tables of portion sizes, packaging
- *Quantitative analysis:* to include energy, protein, fat, proportion of energy from fat, iron, calcium, sodium, vitamin C, fibre
- *Strengths and weaknesses:* in relation to RNI (Reference Nutrient Intake), representativeness of three-day intake measured to usual dietary habits; general health targets (e.g. five-a-day).
- *Nutritional plan:* to include meals, snacks, drinks, guidance on portion size, (e.g. numerical amount, weight/volume)
- *Activity:* record of amount of time per day spent sleeping, sitting, walking (fast/slow), on other exercise, (e.g. sport, type of work –active, manual, sedentary), in order to estimate daily energy expenditure
- *Lifestyle influences:* as relevant, (e.g. personal food preferences and requirements, cultural, economic, social, availability of time; day-to-day variations, e.g. week days/weekends).

DELIVERY GUIDANCE

LO1 Understand concepts of nutritional health

Learners will have varying degrees of understanding of diet and nutrition and a good starting point may be to do a matching exercise of key terms (diet, nutrition, food, deficiency etc) with basic descriptions. Visual images can be used to reiterate key terms and show examples of both deficiency and excess disorders.

Learners could be given various case studies which identify an individual's height and weight and they record this on a height/weight chart, work out the individual's BMI and assess their current weight status. Learners enjoy recording what they or a family member have eaten the previous day and analysing how it compares to their DRV's. Learners can begin by colour coding their food intake by nutrient group. Food tables and DRV charts need careful explanation and may require mathematical calculation. Alternatively, there are many software packages available that will analyse diets.

A range of packaging could be used to allow students to record the amount of nutrients per portion and per 100g. If learners are able to see the amount of nutrients consumed per day as represented through the use of equivalent weights of sand, they are often surprised. This activity could lead into discussions of dietary intake guidelines. The Eatwell plate, food pyramid and 5-a-day campaign lend themselves to practical activities where learners match what they have eaten to each model and identify any shortfalls.

Guest speakers from the catering sector or the centre's own canteen could be invited in to facilitate learning on the effects of food preparation/ processing methods. Current nutritional issues will require individual research. Learners could be grouped together, given a current issue to research, (see Teaching content for examples) and asked to present key points in a slide presentation for the benefit of the rest of the group.

LO2 Know the characteristics of nutrients

There are many nutrients to cover and all require learners to find out about their sources in the diet, the function in the body, nutritional requirements and any effects of processing. Learners could be asked to produce an A5/A4 factsheet on identified aspects which can then be photocopied for sharing amongst the group. Once all are submitted, a class set can be produced and learners asked to devise a question

and answer activity for a given scenario based around the dietary needs of an individual. These could, for example, relate to age, health, cultural or lifestyle requirements. The benefits of water, NSPs and phytochemicals could also be built into this exercise.

Learners need to understand what happens to food once it is consumed and may need to be given an overview of the process of digestion, in particular absorption and assimilation. Knowledge of metabolic rate and energy yields of nutrients is required.

Groups of the population need differing amounts of nutrients and learners will need to investigate the reasons for this. Producing a leaflet or poster for a specific group which incorporates their dietary needs and their DRV's allows learners to use visual images as well as the written word.

LO3 Understand influences on dietary intake and nutritional health

There are many factors which influence the amount and type of food we eat. A class discussion could highlight many of these factors which could then be recorded as a mind map. Learners should be encouraged to draw on their own experiences to provide examples. Learners could produce a wall display covering different health factors and dietary disorders. A table which records and describes an example of each type of factor could be used to consolidate learning. There is an opportunity for learners to conduct some individual research on dietary habits and social policy relating to nutrition. The latter highlights key legislation, policies and initiatives and the reasons for implementing them. They need to consider the impact they have on individuals' diets. Surveys on dietary habits could be carried out and analysed in class groups. Appropriate practitioners, for example dietitians, health visitors, could be invited in to discuss health influences. Similarly, representatives from social services could speak about the effect of low income on nutrition. Learners will need to have prepared questions and would be expected to summarise any answers in their own words rather than merely relying on transcripts.

LO4 Be able to use dietary and other relevant information from an individual to make recommendations to improve nutritional health

For the final learning outcome, learners need to be taught the methods of recording food intake. They require an insight into portion sizes and varying forms of food. Learners need to record an individual's total food consumption over, for example, a three day period and then analyse what has been eaten in order to consider whether the current diet meets the individual's needs. Observations can be used but food intake must be recorded. The use of dietary analysis software is not a requirement; however, if it is used, learners will need to know how to interpret the results. Food tables could be used to carry out a quantitative analysis of the daily intake. In order to analyse the findings, learners will need to gain an overview of the individual's lifestyle and may also record activity levels/energy output. Once results have been analysed, learners need to suggest an alternative diet plan which will make recommendations for improvements and make reference to possible health benefits.

SUGGESTED ASSESSMENT SCENARIOS AND TASK PLUS GUIDANCE ON ASSESSING THE SUGGESTED TASKS

Either four or five assignments could be used to complete this unit. P4 and P5 could be completed separately or addressed in a single assignment.

P1 – Learners could submit a written document which explains the concepts of nutritional health. Alternatively, a slide presentation could be produced. This would cover all terms identified in the teaching content. Learners would be expected to show evidence of BMI calculation and assessment of height/ weight measurements. A presentation, written report, slide and/or detailed posters which explain some current nutritional issues as identified in the contents section would need to be submitted. Learners would not be expected to cover them all but should explain at least two.

P2 – Learners could produce a leaflet or booklet on nutrients. Learners would need to ensure that they have covered both the functions and the main sources of the identified nutrients. Reference would also need to be made to water, NSPs and some examples of phytochemicals. The structure of the molecules is not expected. Learners will refer to the various categories of protein, fats and carbohydrates. They should also consider alternative or novel sources of protein. The use of tables may support their evidence, but should not be used exclusively as this would only be identification and not a description. Some form of expansion is therefore required, either in continuous prose within the leaflet/ booklet or as a slide presentation/poster to support the leaflet/booklet.

M1 – Could be covered by investigating and describing the nutritional needs of at least two groups. Learners would probably find the most to write about if they were to explore the needs of children/adolescents and pregnant women. People in later adulthood would be a preferable study to that of adulthood as there are likely to be more differences in needs. For assessment purposes, learners do not have to compare the different groups. Books, the internet and visiting speakers could all be employed to obtain information. Appropriate speakers could be dietitians, midwives, health visitors and catering staff or managers from residential homes.

P3 – This could be submitted as an essay which considers at least one example of each influence listed in the teaching

content. Learners could approach this by using a case study of an individual in a health or social care setting and explaining influences on their dietary intake.

M2 – Looks specifically at current dietary habits and could take the form of an analysis and discussion of the results from a survey conducted on the general public and/or learners' family and friends. Questions could focus on breakfast, snacks, family meals, use of microwave meals, fast food and dietary preferences. Conclusions could be drawn from the answers obtained from different age groups.

D1 – Looks at social policy and requires learners to assess the impact on the nutritional health of individuals. This could be submitted either as a written piece of work or as class debate which could be prepared and recorded and then summarised individually by each learner. Learners could consider the influence of social policy on, for example, changes to the provision of meals in schools. The whole section covering LO3 could be aimed at a family with school age children with influences, habits and social policies relevant to them investigated and discussed.

P4 – Requires learners to select an individual and complete a profile which covers the lifestyle and dietary needs of the chosen person. It is recommended that the individual identified has some dietary issues whether weight, health or dietary habits. It is advised that there will be scope for improvement. Records of dietary intake over at least a three day period need to be completed accurately and then analysed to identify areas of the individual's diet which could be improved. Analysis can be carried out using either data lists or appropriate software. Evidence of records must be complete for moderation purposes.

M3 – Requires learners to describe both the possible short and long term effects of the findings from the quantitative analysis on the individual. Learners are expected to reflect on the individual's diet as observed and consider whether their current diet meets the dietary needs of that individual. They then need to describe the effects of their current diet on the individual. What are the consequences – either good or bad – of the individual continuing with a similar diet? Learners can discuss the many facets of health when forming their answers, in that they could consider more than just the

physical health of the individual. They could think about, for example, health consequences, work/leisure opportunities and self-esteem. Both the short and long term effects need to be included. This is likely to be evidenced as part of the write up of the dietary analysis.

P5 – Requires learners to prepare a one week dietary plan to improve the nutritional health of the individual. This could be presented as a menu or set within a context, e.g. prepare a menu for patients in an orthopaedic ward, depending on how P4 has been approached. As well as the menu, learners would be expected to identify how the diet plan would improve the nutritional health of the individual.

D2 – Requires learners to fully justify their reasons for change. Information recorded for P4 would be used to explain why the changes would be of benefit to the individual.

SUGGESTED ASSIGNMENTS

The table below shows suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Cambridge Assessment assignments to meet local needs and resources.

| Criteria | Assignment title | Scenario | Assessment |
|------------------|---|---|--|
| P1 | Concepts of nutritional health. | An introductory presentation to a weight loss class. | A slide presentation, leaflets and/or posters explaining to an interested audience the concepts relating to nutritional health. |
| P2, M1 | What we should eat and why. | Advice leaflets to individuals of different age groups. | Written advice on the nutrients needed by specified individuals. Why they are needed and the best sources of them. |
| P3, M2, D1 | An investigation into influences on dietary health. | An investigation into the dietary influences and habits of a family with school age children. | A case study in the form of a report. |
| P4, M3 P5, D2 | Dietary analysis and recommendations for improvement. | An analysis of an individual's diet followed by suggested improvements. | A full quantitative written analysis on an individual's diet and whether the individual's needs are being met. An opportunity to produce an account of the consequences of continuing with the current diet. The production of a week's diet plan with an opportunity to justify any suggested changes. |

RESOURCES

Text books

Aldworth C – *Knowledge Set for Nutrition and Well-being* (Heinemann Educational Publishing, 2008) ISBN 9780435402389

Arnold A and Bender D – *Food Tables and Labelling* (Oxford University Press, 1999) ISBN 9780198328148

Barasi M – *Human Nutrition: A Health Perspective* (Hodder Arnold, 2003) ISBN 9780340810255

Bender D – *An Introduction to Nutrition and Metabolism* (Taylor and Francis, 2002) ISBN 9780415257992

Boys D, Langridge E and Michie V – *BTEC National Health and Social Care Book 2* (Nelson Thornes, 2007) ISBN 9780748781720

Byrom S – *Pocket Guide to Nutrition and Dietetics* (Churchill Livingstone, 2002) ISBN 9780443071362

Crawley H (editor) – *Food Portion Sizes* (Maff Handbook) (HMSO, 1994) ISBN 9780112429616

Food Standards Agency – *Manual of Nutrition* (Stationery Office Books, 2008) ISBN 9780198328143

Gibney M J, Voster H H and Kok F J – *Introduction to Human Nutrition* (Blackwell Publishing, 2002) ISBN 9780632056248

Hark L – *Nutrition for Life* (Dorling Kindersley, 2007) ISBN 978-1405328357

Hood H – *Applied Health & Social Care: Health and Social Care: AS Student Book – OCR* (OUP Oxford, 2006) ISBN 978-184303840

Lawrence M and Worsley T – *Public Health Nutrition From Principles to Practice* (Open University Press, 2007) ISBN 9780335223206

Lean M – *Fox and Cameron's Food Science, Nutrition and Health* (Hodder Arnold, 2006) ISBN 9780340809488

Mann J and Truswell S (editors) – *Essentials of Human Nutrition* (Oxford University Press, 2007) ISBN 9780199290970

Royal Society of Chemistry – *McCance and Widdowson's The Composition of Foods Summary Edition* (Royal Society of Chemistry, 2002) ISBN 9780854044283

Stockslager J L et al – *Nutrition Made Incredibly Easy* (Lippincott Williams and Wilkins, 2003) ISBN 9781582552231

Stretch B – *GCE AS Level Health and Social Care Double Award Book for OCR* (Heinemann, 2005) ISBN-13: 978-0435453589

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 1* (Pearson, 2010) ISBN 9781846907663

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 2* (Pearson, 2010) ISBN 9781846907470

Truswell S A – *ABC of Nutrition* (BMJ Books, 2002) ISBN 9780727916648

Thomas B (editor) – *Manual of Dietetic Practice* (Blackwell Science, 2001) ISBN 9780632055241

Webb G – *Nutrition: A Health Promotion Approach* (Hodder Arnold, 2002) ISBN 9780340760697

Wills J – *The Food Bible* (Quadrille Publishing Ltd, 2007) ISBN 978-1844004430

Journals

Care and Health

Complete Nutrition

Health Service Journal

Human Nutrition and Dietetics

Public Health Nutrition

Websites

There are many websites for nutrition and health but it is recommended that only UK sites should be used. Many, however, are commercial sites selling nutrition products or promoting diets.

There are several commercially available food analysis databases. These too should be UK based as they may be linked to the DRVs used in the UK. 'Nutrients' is one example and is a simple, comparatively cheap software programme designed for educational use.

www.nutrientssoftware.co.uk

www.bda.uk.com The British Dietetic Association

www.nutrition.org.uk

www.dfes.gov.uk

www.dh.gov.uk

www.fdf.org.uk Food and Drink Federation

www.food.gov.uk Food Standards Agency

www.foodinschools.org

www.foodvision.gov.uk

www.hda.nhs.uk

www.healthyschoollunches.org

www.wiredforhealth.gov.uk Healthy Schools programme

www.hpa.org.uk

www.nutritiondata.com
www.statistics.gov.uk
www.physicalactivityandnutritionwales.org.uk
www.schoolfoodtrust.org.uk
www.surestart.gov.uk
www.teachernet.gov.uk
www.vegsoc.org.uk

DVDs

Jamie's School Dinners [DVD]

MAPPING WITHIN THE QUALIFICATION TO THE OTHER UNITS

Unit 5: Anatomy and Physiology for Health and Social Care

Unit 15: Promoting Health Education



CONTACT US

Staff at the OCR Customer Contact Centre are available to take your call between 8am and 5.30pm, Monday to Friday.

We're always happy to answer questions and give advice.

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