

# Countesthorpe Leysland Community College

## WJEC - Level 3 Diploma - Food Science and Nutrition

Welcome to the Food and Textiles department. The head of department is Mrs Denston (Textiles). The Food teachers are Mrs Rawlings and Mrs Jagjivan. We look forward to meeting you.

### Course introduction

An understanding of food science and nutrition is relevant to many industries and job roles. Care providers and nutritionists in hospitals use this knowledge, as do sports coaches and fitness instructors. Hotels and restaurants, food manufacturers and government agencies also use this understanding to develop menus, food products and policies that support healthy eating initiatives. Many employment opportunities within the field of food science and nutrition are available to graduates.

At CLCC Years 12 and 13 are taught together for Food, alternating the units taught each year.

2020 / 2021 Unit 1 - this includes a 90 minute exam

2021/2022 Unit 2 and either Unit 3 or Unit 4

Unit Number	Unit Title	Structure	Assessment	Guided learning hours
1	Meeting Nutritional Needs of Specific Groups	Mandatory	Internal and External	180
2	Ensuring Food is Safe to Eat	Mandatory	External	90
3	Experimenting to Solve Food Production Problems	Optional	Internal	90
4	Current Issues in Food Science and Nutrition	Optional	Internal	90

## Aim and purpose

### Unit 1

The purpose of this unit is for learners to develop an understanding of the nutritional needs of specific target groups and plan and cook complex dishes to meet their nutritional needs.

Through this unit, you will gain an understanding of how to identify hazards and minimise risks when producing food to meet the nutritional needs of specific groups. You will learn about different types of nutrients and how they are used by the body - to ensure you can plan a balanced nutritious diet. You will develop skills for preparing, cooking and presenting nutritious dishes that meet specific needs.

### Unit 2

Learners will develop an understanding of hazards and risks in relation to the storage, preparation and cooking of food in different environments and the control measures needed to minimise these risks. From this understanding, learners will be able to recommend the control measures that need to be in place, in different environments, to ensure that food is safe to eat.

In this unit you will learn about food safety, how micro-organisms can affect food safety, how some foods can cause ill health in people that have intolerances or allergies and what controls need to be in place to minimise the risks of food causing ill health. This understanding will allow you to recommend the safety controls that should be in place in different environments where food is stored, prepared and cooked.

### Unit 3

The aim of this unit is for learners to use their understanding of the properties of food in order to plan and carry out experiments. The results of the experiments will be used to propose options to solve food production problems.

This unit will provide you with an understanding of the scientific properties of food and how these properties contribute to the changes that occur in food. You will also draw on your learning from Unit 1 and Unit 2. You will use this learning to plan and carry out experiments with different types of food. By carrying out these experiments, you will be able to propose options to solve food production problems.

### Unit 4

Through this unit, learners will develop the skills needed to plan, carry out and present a research project on current issues linked to issues related to food science and nutrition. This could be from the perspective of a consumer, food manufacturer, caterer and/or policymaking perspective.

Through this unit you will have the opportunity to build on prior learning from Unit 1 and Unit 2 and develop knowledge and understanding of issues that are currently affecting food choice and food availability. Through individual and group projects, you will learn about how key stakeholders within the food industry are responding to changes in food related habits. The projects will also help you to develop the skills needed to effectively plan and carry out an individual research project.

## Tasks

In preparation for your Food Science and Nutrition Diploma course please complete the following tasks, in detail, by Monday 22<sup>nd</sup> June.

If you have any queries please contact us at [6thform@clcc.college](mailto:6thform@clcc.college)

**Task 1: Nutrition** is a key part of the course and you will need to have a clear understanding of nutrients and healthy eating.

- a) Watch the video link to learn more about what is meant by a **healthy diet**. Explain what a healthy diet is and the key elements of the Eatwell Guide. Present your findings in a mind map format. <https://www.youtube.com/watch?v=1tJYcNt6Bpk>
- b) Explore the concept of **energy intake**, expenditure and energy balance. Watch the podcast about **energy** and answer the questions below. <https://www.youtube.com/watch?v=d-5w67NAOlo>
  - What is energy?
  - Why do we need to eat food?
  - How much energy do we need?
  - What are the factors that affect 'energy out'?
  - What is energy balance?

**Task 2: Use the internet to research at least 7 food poisoning bacteria.** You will need to note the most common types of food bacteria, the symptoms, sources (where it might be found), how it is controlled and on-set time of each bacteria. Also, discuss the difference between pathogenic and non-pathogenic bacteria. (Present your findings in a table format).

**Task 3: Food Presentation:** It is important to understand how to layout food products in order to improve their visual appearance. Use the following websites and videos to investigate what makes food look good. You are welcome to search for other tips and guidance on food presentation techniques. This is particularly important, as you will be required to photograph the products you make. Write a list of tips and ideas for successful food presentation.



<http://www.howtocookgourmet.com/foodpresentationtips.html>

[https://www.youtube.com/watch?v=Udzs\\_MPNpMQ](https://www.youtube.com/watch?v=Udzs_MPNpMQ)

<https://www.youtube.com/watch?v=9YBnczqciHI>

**Task 4: Practical task:** cook a 'skillful' 3 course meal linked to the requirements of the Eatwell guide (task 1) and taking into consideration food presentation techniques (task 3). Photograph each dish and evaluate the dishes in terms of how you made them, including the skills demonstrated and how they meet the requirements of the Eatwell guide.

**Task 5: Practical skills** are a key part of Unit 1. With this in mind watch food programmes linked to this, such as The Great British Bake Off, Master Chef etc. Keep notes of any ideas you think you could use.