



Welcome to the January **Sixth Form Taster Day Food Science and** Nutrition

Information about the course Course description

The Level 3 Food Science and Nutrition diploma is an academic, creative and innovative course that encourages students to take a broad view of food science and nutrition. This is an Applied General qualification and is designed to support learners progressing to university. Students will have the opportunity to learn through the acquisition of knowledge about the relationship between the human body and food as well as practical cooking and preparing food. The qualification has been designed around the concept of a 'plan, do review' approach to learning.

Why choose the Food Science and Nutrition Diploma?

- Involves both an academic and practical work.
- Allows students to be innovative and develop their own projects.
- The course is assessed through a combination of written examinations, projects and case studies to cater for different learning styles.
- The course includes a high practical input.
- Students will develop the use of ICT throughout project work.

What will I be studying?

Year 12 Unit (Certificate)

Unit 1: Meeting Nutritional Needs of Specific Groups Mandatory Unit Exam and coursework

The unit focuses on the understanding of the science of food safety, nutrition and nutritional needs in a wide range of contexts, and through on-going practical work, to gain practical skills to produce quality food items to meet the needs of individuals.

Year 13 Unit (Diploma)

Unit 2: Ensuring Food is Safe to Eat

(Mandatory – Case study exam)

The unit focuses on an understanding of hazards and risks in relation to the storage, preparation and cooking of food in different environments and the control measures to minimise these risks.

Unit 3: Experimenting to Solve Food Production Problems (Optional – coursework project)

The unit involves the study of the properties of food in order to carry out experiments to solve food production problems.

Taster Day Task: Recipe engineering/adaptation



 When designing and adapting food products and meals we need to consider different dietary groups.

Different dietary groups could include:

Vegetarians Low fat/reduced fat Lactose intolerant (sugar in milk) Coeliacs (gluten free) Diabetics High fibre

- We can also be influenced by ingredients from other countries when creating new products, for example:
 - · Mediterranean countries e.g. Italy, Spain, Greece, France etc
 - · Asian countries e.g India, Pakistan etc

Task 1: Recipe Engineering – Practical task

Adapt and develop a traditional scone recipe for a group that requires a high fibre diet. The scones need to be creative and include interesting flavours.

- 1. Explain the changes by annotating the recipe below.
- 2. Make identical scones.

- Are YOU eating enough fibre to save yourself from having a stroke?
- New research reveals how fibre can ward off heart disease, cancers and diabetes
- World Health Organisation insists it can also offer protection against strokes
- Experts say importance of having adequate fibre in diet has been drowned out
- A bowl of high-fibre cereal for breakfast can help keep you regular, but new research reveals how much it can do to ward off heart disease, some cancers and diabetes.
- For every 8 g increase in fibre a day the amount in, say, two bananas, or a chicken salad sandwich the researchers found that total deaths and incidence of heart disease, type 2 diabetes and bowel cancer fell by up to 27 per cent. There was also protection against stroke and breast cancer.
- The authors of the study, published in The Lancet, believe we should all eat 30g of fibre a day but 91 per cent of us do not consume anywhere near that amount

Level 3: Food Science and Nutrition Recipe engineering/adaptation

Cheese Scones

Ingredients

225g self raising flour pinch of salt 50g butter 25g mature cheddar cheese, grated 150ml milk



Method

- 1. Heat the oven to 220C/425F/Gas 7. Lightly grease a baking sheet.
- 2. Mix together the flour and salt and rub in the butter.
- 3. Stir in the cheese and then the milk to get a soft dough.
- 4. Turn on to a floured work surface and knead very lightly. Pat out to a round 2cm thick. Use a 5cm cutter to stamp out rounds and place on the baking sheet. Lightly knead together the rest of the dough and stamp out more scones to use it all up.
- 5. Brush the tops of the scones with a little milk. Bake for 12-15 minutes until well risen and golden. Cool on a wire rack

Task 2– Food Safety

Choose one of the following bacteria. Produce a PowerPoint presentation for the class using **one** slide for each research area (i.e. 4 slides plus a title):

- Sources of the bacteria
- How it is controlled
- Signs and symptoms of poisoning by the bacteria
- Groups of people most affected by the bacteria.
- Salmonella
- Escherichia coli
- Listeria
- Clostridium perfringens
- Staphylococcus aureus

