

# Food Science and Nutrition: From the Farm to You

Follow food's fascinating journey from the farm to your body and explore new food technologies and nutrition around the world.

If your students are not completing the whole of this course online and are not participating in the teacher-led lessons based on it, then they can complete useful and engaging activities based on the content covered. You can choose for your students to complete individual tasks by themselves or encourage group work. Though you may have your own ideas about what your students can do with the course content, we've made things easy for you by suggesting some activities that you can submit to your students below:

#### Individual student tasks taken from the course

**Reflection:** Students write a 500 word reflection on what they learned from the course, including anything they might do differently now as a result of their learning and anything additional they found out from their own reading around the topic. They will submit this reflection as a written essay, podcast or video.

**Activity:** Students draw a flow diagram of the process of fortifying dairy products from Step 1.13 then answer the questions at the bottom of the page.

**Research task:** Students select an item of 'processed' food from their kitchen at home and analyse the label on the packaging to identify macro and micronutrients. Each micronutrient is to have brief explanation of what they do in the body. Students will submit their findings to you as an essay, slideshow or video.

#### Group tasks based on the course

**Research task:** Split your students into groups of 3 or 4. Each team needs to design a new food product and create a slideshow sales pitch, which they will send to you alongside a summary of how they worked together as a team.

**Discussion task:** Students discuss examples of behaviour nudging they've seen or been influenced by with a food product. You will need to set up a discussion board on a platform of your choice.

#### Test

You can use the following questions as a short assessment to enable your students to demonstrate what they have learned on the course. The assessment has 15 marks in total.

The questions have been designed to be flexible and open. The questions indicate which steps the answers can be found on. The marks available reflect the likely length and complexity of the answer expected, and how many points they are likely to make. For example, a 5-mark question might reflect a longer, more complex question, or one where they have asked to describe or explain a number of elements. Depending on the level and ability of your students, you can decide how you wish to award the marks, so they are appropriate for your class.

Each question suggests which steps the students may wish to return to answer the questions. You can decide if you want to include this information when you share the assessment with your students.

#### Additional support

You can use the <u>How to use Futurelearn guide</u> with your students to get started. If you have any more questions, please refer to the <u>FAQ</u> section.

## Student instructions

#### Reflection

Write a 500 word reflection of what you have learned from the course. It should include anything you might do differently now because of what you learned and anything additional you found out in your reading around the topic. Submit this reflection to your teacher as a written essay, podcast or video.

#### Activity

Watch the video on Step 1.13 of the course and draw a diagram of the process of fortifying dairy products. Then answer these questions:

- 1. What is the purpose of pasteurisation? What effect does it have on milk?
- 2. Why are dairy products a good medium for probiotics?

#### Research task

Select an item of 'processed' food in your kitchen and analyse the label on the packaging. Match the ingredients to the macronutrients and micronutrients discussed in Step 1.5 and 1.6 of the course. For each micronutrient, add an additional description of what it does in the body (using the information in Steps 2.7 and 2.8 of the course or your own research). Submit your findings to your teacher as a written essay, slideshow or video.

### Group discussion

Watch the video on Step 2.5 of the course. Using the discussion board your teacher has set up, discuss as a group examples of behaviour nudging with a food product you've seen or even been influenced by. What tactics were used? How could this tactic to be used to sell a different, perhaps healthier, product?

#### Group research task

Use the information across steps 1.10-1.14 of the course to help your team come up with a new food product. Your team needs to create a slideshow sales pitch to describe the following:

- 1. What the product is
- 2. Who would be interested in consuming the product?
- 3. A sensory analysis of the product.
- 4. Any fortification or optimisation necessary, and why.

Submit your slideshow along with a brief summary of how you worked together as a team (who contributed to which parts, how you reviewed each other's work etc) to your teacher.

#### Test

Complete the assessment questions below to demonstrate your understanding of the course. You can refer back to the course to find the answers or more detail as you need to. You should not however share your answers with other students.

Your answers should be written in full sentences and be appropriately detailed. Make sure you read the questions carefully before starting to answer. Each question shows how many marks are available – use this to guide how much detail or how many points you need to include.

The questions also indicate where you can start to look to find the answer. You can also include information from other steps if that is relevant.

1. What are the main macronutrients, and why is each important? (4 marks)

[Step 1.5]

2. Describe the importance of one micronutrient (2 marks).

[Step 2.8]

3. How might the journey 'from farm to fork' of food made using a 3D printer be different to that of more conventional food? Why could this be? (5 marks)

[Steps 1.3, 1.8 and 1.9]

4) How do governments try to persuade the public to eat healthy food? (4 marks)

[2.5]