T-LEVELS | Institute for Apprenticeships & Technical Education

T Level Technical Qualification in Science

Occupational specialism assessment (OSA)

Food Sciences

Assignment 1

Assignment brief

v1.1: Additional sample material
20 November 2023
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NCFE CACHE

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Contents

Timings

You have 7 hours 30 minutes to complete the 4 tasks within this assignment. Your tutor will provide details of how this time will be split up, and over how many days or sessions.

- task 1 – 2 hours 10 minutes
- task 2 – 2 hours 55 minutes
- task 3 – 1 hour 15 minutes
- task 4 – 1 hour 10 minutes

Scenario

A large ready meal supplier wants to develop a range of meat-free ready meals, as they do not currently sell any meat-free options. This is due to growing consumer trends for more environmentally and ethically produced food options.

Using this trend of environmental or ethical awareness, produce a detailed planning proposal for a new product development (NPD) project.

The product must include some ingredient preparation (for example, chopping or slicing) and processing (for example, blending or heat treatment) and not be just a combination of raw ingredients without any preparation or processing.

The ready meal options should be savoury but can be of any chosen cuisine (for example, British, Mexican, Italian).

The product must be suitable for vegetarians but may also be suitable for vegans.

Performance outcomes (POs)

PO1: Perform appropriate activities to support the food supply chain complying with regulatory requirements

Task 1: develop a product brief

Develop a product brief that includes:

1.1(a): Rationale for your selection for the new product including sources of information used to identify target market, marketing opportunities and any other trends such as choice of cuisine or food cooking style

1.1(b): Name, description and conditions of the new product concept, including unique selling point, target weight/volume, packaging and storage details

(21 marks total)

1.2(a): How your ingredients and packaging requirements contribute to the consumer trend.

1.2(b): A brief description of how the product is manufactured, from the intake of raw materials to the final packaged product. The description should include the basic details of how the product will be made, and what the key process steps are, to include key food safety and quality controls

(12 marks total)
2 hours 10 minutes

Task 2: define the product brief objectives

Define the product brief objectives to include:

2.1: An estimation of the timings of each stage from product concept to product launch, explaining how the stages in the process affect the overall timeline

(6 marks)

2.2: A calculation of the cost of ingredients and packaging per consumer unit with reference to your proposed recipe. Outline other costs associated with the production of your product. You must state the source of your ingredients and packaging

(12 marks)

2.3: Use of a relevant piece of software to calculate the mandatory nutritional data. List the ingredient data, including the source of the data

(7 marks)

2.4(a): An explanation of how the ingredients, processing and packaging selected contribute to the product's safety and shelf life

2.4(b): An explanation of how the relevant ingredients and processing steps contribute to the product's nutritional profile

(20 marks total)
2 hours 55 minutes

Task 3: food safety and quality management

3.1(a): Produce a flow diagram for your product as outlined in step 4 of the 12 steps of hazard analysis and critical control points (HACCP). This should:

- demonstrate a clear understanding of all steps of the process for subsequent risk assessment
- be presented in a suitable digital format of your choice
- be presented to industry standard

3.1(b): Create a monitoring procedure and associated record to demonstrate how a food safety hazard is under control within the storage areas

(21 marks total)
1 hour 15 minutes

Task 4: product specification and analysis

4.1: Create a product specification that clearly describes:

- food safety attributes and nutritional information
- quality testing parameters that include sensory or organoleptic characteristics
- requirements for packaging, mandatory labelling, storage and transportation

(16 marks)
1 hour 10 minutes

In assignment 2, you will be required to carry out a taste panel to gather feedback on your product in relation to your quality testing parameters and target values. The taste panel will require evaluation of at least 3 sensory characteristics.

Document information

The T Level Technical Qualification is a qualification approved and managed by the Institute for Apprenticeships and Technical Education. NCFE is currently authorised by the Institute to develop and deliver the T Level Technical Qualification in Science.

Owner: Head of Assessment Design

Change History Record

Version	Description of change	Approval	Date of Issue
v1.0	Additional sample material		01 September 2023
v1.1	Sample added as watermark	November	20 November 2023