

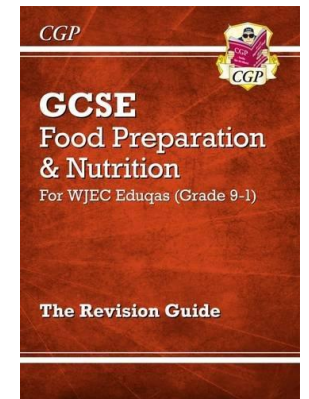
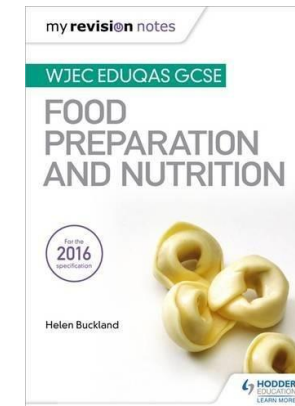
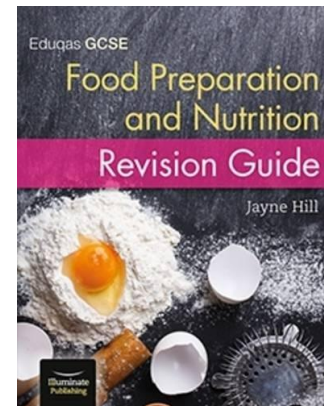
**Food
Preparation
and
Nutrition
GCSE**



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Food Preparation and Nutrition GCSE course content

- Food Commodities
- Principles of Nutrition
- Diet and Good Health
- The Science of Food
- Where food comes from
- Cooking and food preparation



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Course content explained further

In year 10 each half term is split into the following food commodities:

- Cereals
- Fruit and Vegetables
- Milk, Cheese and Yoghurt
- Meat, Poultry, Fish and Eggs
- Beans, Nuts and Seeds, Soya, Tofu and Mycoprotein
- Butter, Oil, Margarine, Sugar and Syrup

1. Principles of nutrition – *Macronutrients and Micronutrients*
2. Diet and good health – *Energy requirements of individuals and planning balanced diets*
3. The science of food – *The effect of cooking on food and Food Spoilage*
4. Where food comes from – *Food provenance and manufacturing*
5. Cooking and food preparation – *Factors affecting food choice and preparation and cooking techniques*



How is it taught?

You will have 5 lessons over the two week timetable:

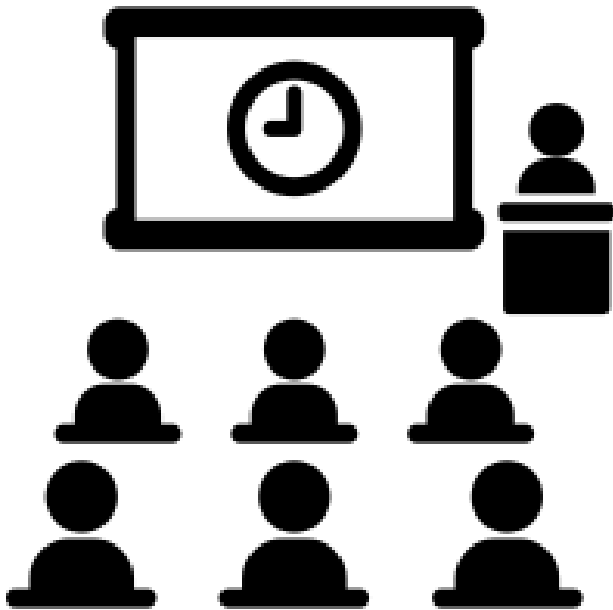
- 2 lessons is usually a double where you are required to provide the ingredients
- 1 lesson is usually a food science investigation where school will provide the ingredients
- 2 lessons will be theory based covering the course content



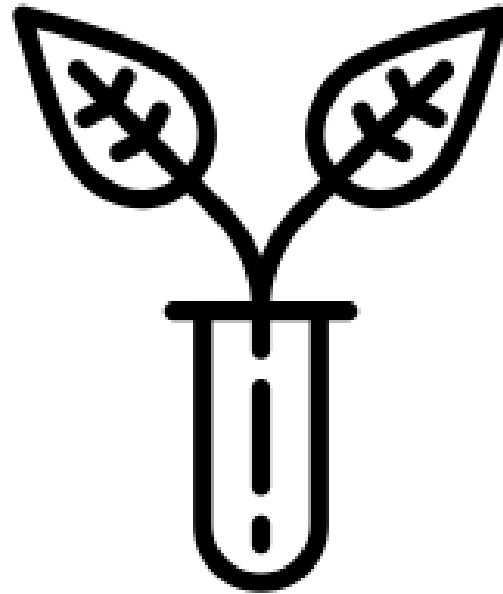
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How will you be assessed? During year 11

50% written exam



15% Food
Investigation (NEA 1)



35% Food
Preparation (NEA 2)



Written exam (50%)

- **EXAM: 1 Paper: Food preparation and nutrition**

Applying the Theoretical knowledge of food preparation and nutrition from subject content.

Questions:

- Section A: questions based on visual stimulus
 - Section B: Structured, short and extended response questions to assess content related to food preparation and nutrition
-
- 100 marks in total
 - 50% of the GCSE



Example of NEA 1 – Food Investigation (15%)

Provided by Eduqas

TASK:

Shortcrust pastry should be crisp to the bite and crumbly in the mouth. It can be prepared using a range of different ingredients. Investigate the working characteristics and the functional and chemical properties where appropriate of the different ingredients needed to achieve a perfect shortcrust pastry.

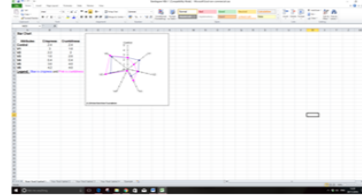
Food Investigation Task (15%) 30 marks
1500-2000 words.

Page by page breakdown of structure

Comments:
Crispness was measured by tasting, and judging the mouth feel
Crumbiness was judged by breaking the pastry up by hand, and feeling how easy or difficult it was to break.

It was difficult to separate the senses of *crispness* from *toughness* when tasting the pastry. A sample which scored highly on crispness was not necessarily a good result – as tasters were judging crispness and toughness as the same thing.

Star diagram to show crispness and crumbiness between all samples



Overall preference:
I asked my tasters to rank which pastry sample they preferred just on how crisp and tender it was in the mouth:

| | T1 | T2 | T3 | T4 | T5 |
|---------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Control | 1 st | 2 nd | 1 st | 1 st | 2 nd |
| V1 | 2 nd | 1 st | 2 nd | 2 nd | 1 st |
| V2 | 3 rd | 4 th | 3 rd | 3 rd | 3 rd |
| V3 | 5 th | 5 th | 5 th | 5 th | 5 th |
| V4 | 7 th | 6 th | 6 th | 6 th | 6 th |
| V5 | 4 th | 3 rd | 4 th | 4 th | 4 th |
| V6 | 6 th | 7 th | 7 th | 7 th | 7 th |

(V is variation and T is taster)

Observations:

- Butter was much harder to "rub in" than the other fats.
- The sunflower oil required no water – the mix formed a dough without water. The pastry was very soft and I could not roll it out easily.
- The lard had a specific aroma – it was not pleasant and was commented upon by my tasters.

Reliability of my results

I believe my results are reliable – I made the samples in one session, using the same ingredients, equipment and so on. I used digital scales and timer to ensure accuracy and all samples were baked on the same baking sheet. I used 40g of dough for each disc so that I got the same thickness (as thickness would affect degree of bake and so the crispness).

There may have been a variation in baking temperature (due to "hot spots" in the oven) but if I repeated the same experiment 2 or 3 more times and then took an average I would achieve an even more accurate set of

Results:

5 being highest degree of crispness / crumbiness
(T means Taster)

1 being lowest degree of crispness / crumbiness

| | How crisp is the pastry? | | | | | AVERAGE | How crumbly is the pastry? | | | | | AVERAGE |
|---------|--------------------------|----|----|----|----|---------|----------------------------|----|----|----|----|---------|
| | T1 | T2 | T3 | T4 | T5 | | T1 | T2 | T3 | T4 | T5 | |
| Control | 2 | 2 | 3 | 3 | 2 | 2.4 | 3 | 2 | 3 | 2 | 2 | 2.4 |
| V1 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 1.6 |
| V2 | 2 | 2 | 2 | 3 | 2 | 2.2 | 2 | 2 | 2 | 2 | 2 | 2 |
| V3 | 2 | 1 | 2 | 1 | 2 | 1.6 | 3 | 3 | 2 | 3 | 2 | 2.6 |
| V4 | 0 | 1 | 1 | 0 | 0 | 0.4 | 0 | 0 | 1 | 1 | 0 | 0.4 |
| V5 | 4 | 4 | 3 | 4 | 3 | 3.6 | 5 | 5 | 4 | 4 | 5 | 4.6 |
| V6 | 5 | 4 | 4 | 4 | 4 | 4.2 | 5 | 4 | 5 | 4 | 5 | 4.6 |

Analysis of the task:

Key words and phrases from the brief are:

crisp to the bite *crumbly in the mouth* *functional properties*
chemical properties *ingredients*

What is the brief asking me to do?

I need to:

- base my investigation on shortcrust pastry.
- decide which ingredients (flour, fat, water) are going to affect how crispy and crumbly my pastry is when it's eaten. When I do this I need to think about the food science of pastry making, this will help me when deciding which experiments I want to conduct and also will help me to interpret my results.
- make shortcrust pastry with a range of ingredients which will affect texture and then do a taste testing to decide which are the most preferred.

Plan of action:

- Get my recipe and method confirmed
- Decide which ingredients I am going to use as my control and my variables
- Write my hypothesis

Recipe and variations:

My control recipe will be:

50g plain flour, pinch of salt, 25 fat (12.5g butter and 12.5g vegetable shortening), ¼ tsp. (7ml) water

My variations are:

- V1: 25g butter
- V2: 25g vegetable shortening
- V3: 25g lard
- V4: 25g sunflower oil
- V5: 25g hard margarine
- V6: 25g low fat spread

My method is:

- Sift the flour and salt into the mixing bowl.
- Rub in the fat, until the mixture resembles breadcrumbs.
- Add approx. ¼ tablespoon (7ml) of very cold water to the mixture. Mix to a firm dough by hand.
- Chill, wrapped in cling film for 30 mins.
- Pre-heat the oven to 180°C fan
- Lightly flour work surface and roll out the pastry.
- Cut out circle using pastry cutter and place on baking tray, labelling clearly
- Bake for 12 mins
- Allow the baked pastry to cool, then taste.

Equipment

Weighing scales, baking tray lined with greaseproof paper, marker pen, mixing bowl, sieve, measuring jug, pastry cutter, palette knife, oven gloves, digital timer.

Ingredients:



Pastry before cooking:

Pastry before putting (sunflower oil) you will see other samples.



Pastry after cooking:

The Food Investigation Assessment (15%)

Recommended time for the assessment

8 hours

Word/page guidance

1500-2000 words (plus charts, graphs and photographs)



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Example of NEA 2 – Food Preparation (35%)

Provided by Eduqas

TASK:

A local restaurant is holding an “international week” Research, prepare and cook 3 dishes (with accompaniments, if appropriate) that could be served on a themed menu to promote the cuisine of specific country or region your technical skills and meet the new menu requirements

NEA 1 GCSE Food Preparation and Nutrition Food Preparation Assessment overview

| Activity | Time aprx | Mark | Success criteria |
|---|-----------|----------|------------------|
| RESEARCH | | | |
| <ul style="list-style-type: none"> Task analysis Research theme choice of possible dishes Trialling dishes Compare your chosen dishes with existing products Time plan | | | |
| PRACTICAL SESSION | | | |
| | | | |
| EVALUATION | | | |
| <ul style="list-style-type: none"> What went well? What skills did you show? What adaptations did you need to make? What did people think of your dishes? What would you do differently? | 2 hr | 10 Marks | |

Section A Investigate and plan the task

Definition: International cuisine is a set of cooking traditions found throughout the world. It is influenced by religion, tourism, advertisement, immigration and importation. Religious laws exercise strong influence on international cuisines.

- British:
 - Fish and chips
 - Toad in the hole
 - Fish pie
 - Eton mess
 - Trifle
- China:
 - Barbecued pork
 - Chow Mein
 - Hoi sin chicken
 - Duck wraps
 - Sweet and sour chicken
- Spain:
 - Paella
 - Tortilla

My shopping survey showed that there are lots of international ready meals Supermarkets but I think there are more Italian, Chinese and Indian than speaking to people who eat them they are not as good as the real thing. I think that I will chose Italy or India for my task.

What affects and promotes international cuisine.

There is many different ways in which international cuisine is promoted and affected. Firstly tourism, people will go on holiday and try cuisine, which will then influence them to cook the food or go to a restaurant when back home to their own country. This is then passed on sometimes, as people will share their findings on new cuisine.

Secondly advertisement, for example, TV, Ads, magazines, paper, programmes, an example for this is Paris, lives in France therefore cooks French food. Another example is tv adverts and domino pasta sauce from Italy, another well know brand of food tv. is uncle bens, which included a wide range of food.

Another is importation countries. Another way will move to another place takeaways, which is shared in other countries cuisine.

Japan

Food grown there:

- Rice
- Barley
- Soya beans
- Sweet potatoe
- Tea
- Citrus fruits

What food they eat:

- Fresh fish
- Seafood
- Seaweed
- Soup
- Rice

Introduction: On this slide is the shopping and requisitions list

| Requisitions | Lasagne | Panna Bread | TOTAL |
|--------------------------|---------|-------------|-------|
| Fruit and Vegetables | | | 2 |
| Onion | 2 | | 2 |
| Uradic | | | 2 |
| Garret | | | 2 |
| Tomato | 2 | | 2 |
| Onion (White Sauce) | | | 0 |
| Chopped Tomatoes | 2.400 | | 0 |
| Washberries | | 350 | 0 |
| Meat, Poultry, Fish | | | 500 |
| Beef Mince | 2 | | 0 |
| Bacon | | | 0 |
| Buns | | | 1 |
| Loaf York | | | 1 |
| Milk | 300 | 230 | 750 |
| Butter | 30 | | 30 |
| Parmesan Cheese | 100 | 240 | 70 |
| Double Cream | | | 250 |
| Wine, Cereals, Grains | | | 140 |
| Pan Flour | 100 | | 40 |
| Pan Flour (White Sauce) | 45 | | 45 |
| Strong White Bread Flour | | 250 | 250 |
| Yeast | | 10 | 10 |
| Spice, Herbs | | | 0 |
| Sugar | 175 | | 175 |
| Long sugar | 10 | | 10 |
| Other | | | 0 |
| Gelatine Leaves | 2 | | 2 |
| Vanilla pod | 1 | | 1 |
| Water | 175 | 300 | 470 |
| Mint | | | 0 |

Equipment

| Requisitions | Lasagne | Panna Cotta |
|--------------|---------|-------------|
| Bowl | 1 | 1 |
| Wooden Spoon | 1 | 0 |
| Sauce Pan | 1 | 1 |
| Oven Tray | 0 | 0 |
| Tin Opener | 1 | 0 |
| Knife | 1 | 1 |
| Sieve | 0 | 1 |
| Jug | 0 | 1 |
| Scissors | 0 | 1 |
| Cooling Rack | 1 | 0 |

Order of Work

Introduction: These next two slides show my order of work for my exam

| TIME | DISH 1: | DISH 2: | DISH 3: | SPECIAL CHECKS |
|-------|---|--|--|---|
| 09:00 | Prepare all ingredients and my work area, wash my hands, tie hair up and put on apron. | Prepare all ingredients and my work area, wash my hands, tie hair up and put on apron. | Prepare all ingredients and my work area, wash my hands, tie hair up and put on apron. | Wash hands, get myself, my equipment and my ingredients prepared. |
| 09:15 | Make the pasta by mixing the flour and eggs together. | | | Make sure area is clean. |
| 09:20 | Bring dough together then put in the fridge for 30 minutes. | | | Wash hands after brought the dough together. |
| 09:25 | Finely slice bacon and chop onions, garlic and carrots. Put in large saucepan on medium heat, until softened. | Soak the gelatine leaves in cold water until soft. | | Don't cross contaminate food. |
| 09:30 | Stir in minced meat and tinned tomatoes. Fill one empty can with water and add to the pan. | | | Keep meat and vegetables apart. |
| 09:35 | Turn heat down for 30-1 hour. | | | |
| 09:40 | | | | |
| 09:45 | | | | |
| 09:50 | Take pasta out of | | | |
| 09:55 | Knead the pasta in the machine to make sheets and leave 10 minutes. | | | |
| 10:00 | Melt the butter on the stove then mix the flour with the milk. | | | |

For my third trial dish I made Pizza, which I made everything from scratch. Firstly I made the dough then put the topping on from choice. I don't think I will make this dish in the exam as it did not demonstrate many skills and it is also too simple. The person who tasted my dish said that this dish was very tasty and the base wasn't too thick or thin and had good texture as it was crispy. The ingredients I included within the sauce gave the more variety of flavour.

Lasagne

I have chosen to make Lasagne for my exam because I think Lasagne is high skilled and different techniques. When I made the Lasagne I made everything from scratch. This will demonstrate as it will demonstrate different skills when I make the dish.

The different skills I will show are:

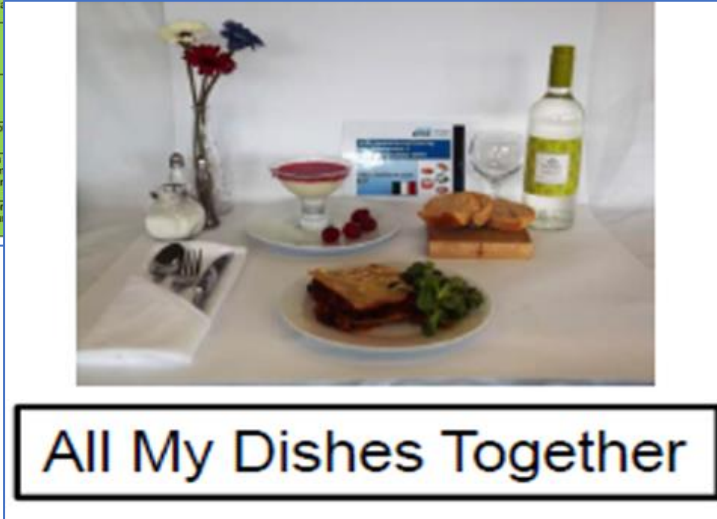
- Organisation
- Grating
- Presentation
- Bridge Hold
- Claw Grip
- Chopping
- Simmering

This dish will cost me about: £4.00

The nutritional content involved in this dish is:

- Beef contains protein which is for growth and repair.
- Cheese contains calcium which strengthens our bones.
- Vegetables also contain vitamins to keep our skin in good condition

| | |
|---------------------------------------|---|
| The Food Preparation Assessment (35%) | |
| Recommended time for the assessment | 12 hours (incl. 3hr practical assessment) |
| Word/page guidance | 15 pages (30 sides) of A4 (plus charts, graphs and photographs) |

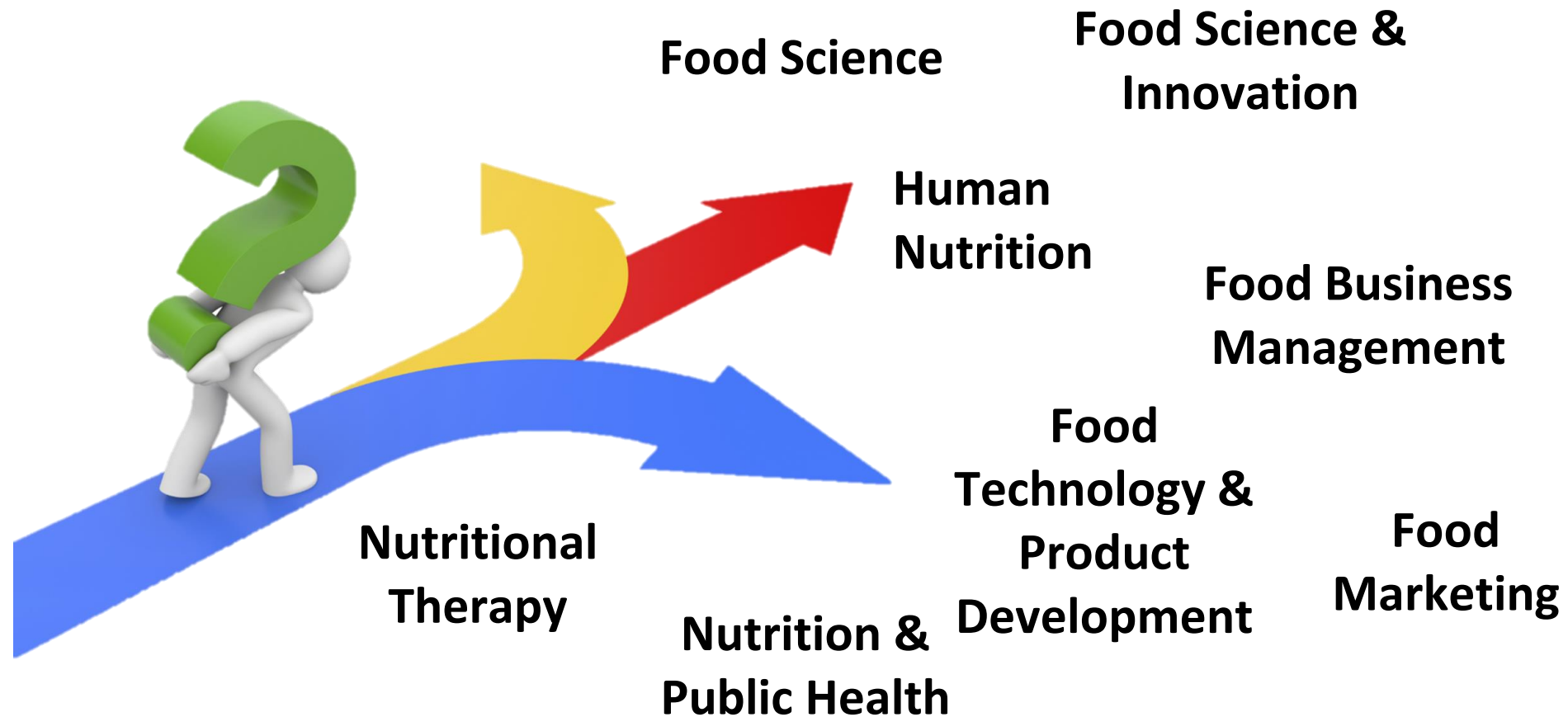




Dishes made by previous students



Where could it take you for university?



Where could it take you for a career?



- Clinical Dietetics
- Food and Nutrition Management
- Food menu and recipe development
- Media and Food Journalism
- Public Health Nutrition
- Education and Research
- Consultant/Private Practice
- Business and Industry
- International Food Organisations
- Public Policy/Government
- Food Product Development
- Biochemist
- Food Manufacturer
- Food Buyer
- Nutritionist
- Catering Industry
- Food Microbiologist



Questions

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