## **Unit Cover Page**

| School: Casimir Catholic College            | Year Level: Stage 6 - Year 12      |
|---|------------------------------------|
| Course: Food Technology                     | Teaching Period: Term 2, Week 3-10 |
| Subject Area: Contemporary Nutrition Issues | Unit Length: 8 weeks               |

### **Unit Overview**

This unit explores and investigates current nutrition related issues impacting both individuals and groups in Australia. Students will explore the physical and economic consequences of malnutrition in Australia, examine factors that impact food choices and nutrition and how they lead to diet related diseases. Students will analyse government and non government strategies, evaluate health claims and develop informed solutions to nutrition related challenges. They will conduct research based tasks, critical discussions and practical applications to develop their knowledge and skills.

## **Learning Outcomes:**

A student:

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues
- H5.1 develops, realises and evaluates solutions for a range of food situations.

### Prior learning experience:

Students completed 'Nutrition' as a core focus area in their preliminary course, providing them with a strong foundation to build upon their existing knowledge and foster a deeper understanding of nutritional issues in Australia. Students have participated in a number of practical lessons throughout stage 6, demonstrating safe and hygienic practices in the kitchen and developing both their knowledge and skills in planning, preparing and storing food.

## Assessment task (Due Week 10):

You are required to investigate a contemporary nutrition issue impacting Australian consumers and create a research report that evaluates the issue, its impact on public health and suggests potential solutions.

### Part 1:

Write an 800 word research report including the following:

- Identify a contemporary nutrition issue
- Describe the nature, causes and prevalence of the issue in Australia
- Discuss the role of government and non government organisations in addressing the issue
- Analyse the nutritional and health implications of the issue
- Evaluate existing strategies and suggest a new, evidence based solutions

### Resources

### Classroom resources:

- Students: laptop, stationary, unit workbook, apron, tea towel,
- Teacher: Computer, stationary, recipe ingredients

## **Digital Resources:**

- stage 6 contemporary nutrition issues summary -

https://education.nsw.gov.au/content/dam/main-education/teaching-and-learning/curricu lum/key-learning-areas/tas/media/documents/tas-s6-contemporary-nutrition-issues-sum mary-rl.docx

- Padlet
- Nutrient reference values https://www.eatforhealth.gov.au/nutrient-reference-values
- Australian guide to healthy eating -

https://www.eatforhealth.gov.au/sites/default/files/2022-09/N55\_A4\_DG\_AGTHE\_HiRes\_0.pdf

### Part 2:

- Develop a one day meal plan that addresses the selected issue and create a recipe for one of those meals to prepare during class
- Write a 250 word reflection, justifying how the food product meets the nutritional needs of the target group

#### Part 3:

- You will prepare your chosen meal during class on the due date. The meal must be cooked within 40 minutes. PPE is required as per usual.

- promotion of good health infographic -

https://www.thelancet.com/infographics-do/obesity-food-policy

- essential vs non essential nutrients video -

https://www.youtube.com/watch?v=xIE4Cgxuo1c

- Google forms https://docs.google.com/forms/
- Teacher PowerPoint presentation
- Kahoot www.kahoot.it
- Religious dietary laws video https://www.youtube.com/watch?v=kxkRaxXgwvk
- food marketing article -

https://5wpr.net/the-ethics-of-food-and-beverage-marketing-striking-a-balance/

### Physical Resources:

- Student workbooks (digital version available for students)
- Student recipe booklets (digital version available for students)

### **Diverse and Inclusive Teaching and Learning Requirements**

The way in which this unit is delivered caters for students of differing learning abilities and styles, allowing them to access content to satisfy course requirements. There are a range of online, printed, visual, tactile and verbal activities, catering to the learning needs of all students. Group work often includes mixed abilities to promote learning and understanding for all. SLSO's are available if required to assist, particularly during practical lessons. There are spare copies of the textbook for students who cannot afford to purchase one, allowing equal access to learning materials. The teacher is able to modify class activities and assessment tasks if required.

## **Work Health and Safety Considerations**

All students have completed their Onguard modules relevant to safety, storage and equipment used in the food technology kitchen. Everybody in the kitchen must be in appropriate PPE at all times including an apron, leather shoes and tea towels. If a practical lesson falls on Thursday (sport day), students are to bring their pair of leather shoes to change into for the lesson. Long hair is to be tied up and placed into a hair net. Any rings and loose jewellery are to be removed.

## Weekly Content Organisation

| Week | Learning Outcomes  | Topic Focus & Brief Description  |
|------|--|--|
| 3    | H2.1 evaluates the relationship between food, its production, consumption, promotion and health  | <ul> <li>Introduction to the unit</li> <li>Malnutrition</li> <li>Diet related disorders</li> </ul>   |
| 4    | <ul> <li>H2.1 evaluates the relationship between food, its production, consumption, promotion and health</li> <li>H3.2 independently investigates contemporary nutrition issues</li> </ul> | <ul> <li>Nutritional considerations for specific groups</li> <li>Australian guide to healthy eating</li> <li>Practical: Beef and quinoa super bowls with roasted veggies</li> </ul>  |
| 5    | H2.1 evaluates the relationship between food, its production, consumption, promotion and health  | <ul> <li>Promotion of good health → role of the individual, community groups, the food industry, government organisations and private agencies</li> <li>Nutritionally modified and functional foods</li> <li>Practical task: analysing fortified breads</li> </ul> |

| 6  | H2.1 evaluates the relationship between food, its production, consumption, promotion and health   | <ul> <li>the role of 'active non-nutrients' in the diet</li> <li>Revision lesson → multiple choice questions (practice for trials)</li> </ul>  |
|----|---|--|
| 7  | <ul> <li>H2.1 evaluates the relationship between food, its production, consumption, promotion and health</li> <li>H3.2 independently investigates contemporary nutrition issues</li> <li>H5.1 develops, realises and evaluates solutions for a range of food situations.</li> </ul> | <ul> <li>The role of supplements in the diet</li> <li>Practical: fortified food product - iron boost smoothie and a supplement based recipe - high protein energy balls.</li> </ul>                  |
| 8  | <ul> <li>H2.1 evaluates the relationship between food, its production, consumption, promotion and health</li> <li>H3.2 independently investigates contemporary nutrition issues</li> <li>H5.1 develops, realises and evaluates solutions for a range of food situations.</li> </ul> | <ul> <li>Introduce assessment task - remaining time to work on assessment</li> <li>health and the role of diet in the development of conditions</li> </ul>   |
| 9  | <ul> <li>H2.1 evaluates the relationship between food, its production, consumption, promotion and health</li> <li>H3.2 independently investigates contemporary nutrition issues</li> <li>H5.1 develops, realises and evaluates solutions for a range of food situations.</li> </ul> | <ul> <li>Impact of lifestyle, religion, culture and social practices on nutrition</li> <li>Assessment lesson</li> <li>Google form for staple ingredients to be submitted</li> </ul>                  |
| 10 | <ul> <li>H2.1 evaluates the relationship between food, its production, consumption, promotion and health</li> <li>H3.2 independently investigates contemporary nutrition issues</li> <li>H5.1 develops, realises and evaluates solutions for a range of food situations.</li> </ul> | <ul> <li>media and ethical issues related to advertising practices on food consumption</li> <li>Assessment task due</li> <li>Practical component to be completed on due date during class</li> </ul> |

## Weekly Breakdown

3 Students learn about:

physical effects and economic costs of malnutrition (under and over nutrition) and diet related disorders

## Students learn to:

explain the consequences of malnutrition

## **Integrated Teaching and Learning Activities**

#### Introduction to the unit and malnutrition

Teacher will introduce the topic to the class and provide an overview of what they will be learning for the rest of the term.

Teacher will upload a <u>Padlet</u> to Google Classroom. Students will use their laptops to access the Padlet and write any key concepts they remember from the Nutrition topic in Year 11 or any ideas they think will be explored in this focus area. The padlet will be displayed on the projector and the teacher will address relevant points.

Teacher to provide a physical copy of <u>summary notes</u> for the topic for students to add to their study materials and refer back to over the term.

Students individually read through pg 337-340 of the Nelson Food Tech Focus textbook and use their own words to define 'malnutrition' in their books. Students will define overnutrition and undernutrition and write two sentences about the effects of each into their books.

### **Assessment**

Diagnostic: Padlet to assess students' prior knowledge (can be downloaded). Discussion of points allows the teacher to gauge where the class is at.

### Diet related disorders:

Begin the lesson by asking students to recall their definitions of overnutrition and undernutrition.

<u>Think, pair, share activity:</u> Each student will research the causes, symptoms and economic costs of 2 diet related disorders (1 overnutrition and 1 undernutrition) and place their research findings into the Google docs template on Google classroom. Students will share their findings with the person next to them to learn about different disorders. T3Posters will be uploaded to Google classroom for students to view each disorder.

#### Formative:

students to submit their poster/brochure to google classroom to check understanding.

### **Outcomes:**

H2.1 evaluates the relationship between food, its production, consumption, promotion and health

## Differentiation

Students without a textbook can work with someone who has one and share it between them.

Students that lack confidence in their ICT skills are able to hand write/draw the poster if they are uncomfortable doing it online. They can pair up with a student who is more skilled in ICT if they wish to improve their skills.

## Students learn about:

nutritional considerations for specific groups

## Students learn to:

independently investigate and report on the health of a group in Australia and develop a strategy to promote optimum health through good nutrition for this group

plan diets and prepare foods/meals to address dietary requirements of specific groups

## **Integrated Teaching and Learning Activities**

Teacher to draw a brainstorm on the whiteboard of certain stages of the life cycle and specific groups in Australia that require nutritional considerations. The list must include at least the following:

- Infants
- Adolescents
- Pregnant and lactating women
- Elderly
- ATSI people
- Athletes
- Vegans

Students will copy the brainstorm into their books and the teacher will lead a discussion on characteristics of each group.

Teacher will project the <u>Eat For Health</u> website on the board and briefly navigate the website tabs to show class how to use it.

Students will be required to pick a specific group and investigate the Recommended Daily Intake (RDI) of certain nutrients, vitamins and minerals to create a one day meal plan. The meal plan must include breakfast, lunch, dinner, snacks and drinks.

The <u>Australian Guide To Healthy Eating</u> will be displayed on the board whilst students are working. as a visual aid and reminder to support their thought process and research.

Students will receive a printed handout of the table on pg 347-348 of the textbook and fill in the blank spaces in nutritional needs and explanation for these needs using the information in the textbook.

Students who finish early are to answer this question in their books: **Analyse the relationship between nutrient intake and ONE dietary disorder (6 marks).** They will be given an exemplar response with feedback on it for a similar question to understand where marks are allocated and guide their writing. This question must be completed for homework and will be checked next lesson.

## Practical: Beef and quinoa super bowls with roasted veggies

Students will have a copy of the recipe in their term 2 recipe booklets. Teacher will explain key steps whilst providing a brief demonstration at the front of the kitchen. Students can make any notes/adjustments to their recipes if instructed by the teacher. They will put on their PPE and wash their hands then cook in groups in their allocated bays.

After cleanup, students are to complete the evaluation and reflection questions for the recipe in the recipe booklet.

Formative: informal discussion on characteristics of each group to provoke students' thoughts on specific nutrients different groups need

Assessment

Teacher actively walking around to each bay observing safe and hygienic practices and assisting where required.

### **Outcomes:**

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues

### Differentiation

Students who are finding the meal plan task difficult can be given a template that can be read easily and shows a breakdown of the required components. They can just research nutritional requirements of the group and create meals/snacks for the allocated sections. An SLSO will be available for students who require additional assistance with calculating nutritional requirements.

The <u>Australian Guide To Healthy Eating</u> will be displayed on the board and can be printed out as a visual aid and reminder to support their thought process and research.

Accelerated students can choose to do a meal plan for an additional day or create a new meal plan for a different group.

An SLSO will be available during prac to assist students who struggle with fine motor skills with measuring, cutting etc. and the student can work in a group of students who thrive, ensuring everyone makes a successful meal.

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# Students learn about:

the role of the individual, community groups, the food industry, government organisations and private agencies in promoting health

the production/manuf acture of nutritionally modified foods to meet consumer demand including a range of functional foods such as fortified foods

## Students learn to:

discuss the relationship between nutritionally modified foods and health

## **Integrated Teaching and Learning Activities**

### The promotion of good health

Teacher begins by asking the class what/who they have seen recently promoting good health. Students are to write these subheadings into their books and list ways they promote good health:

- Community groups
- Government organisations
- Food industry
- Private agencies
- Individual

Teacher will project an <u>infographic</u> onto the board about the government supporting healthy food preferences. Students can use information from here to add to the notes in their books.

## **Nutritionally modified and functional foods**

Class to watch <u>video</u> on essential and non essential nutrients. Teacher will pause the video throughout for students to write down notes and discuss any questions.

### Practical task:

Class will analyse a range of fortified breads and discuss their relationship to health. Follow the instructions on 19.1 (pg 352 of textbook) and discuss findings as a class. Students will research the benefits of each of the fortifications and present to the class on how the products promote health for Australians.

### Assessment

Formative: Teacher will discuss the infographic with the class and ask students questions about the importance and success of each group.

### **Outcomes:**

H2.1 evaluates the relationship between food, its production, consumption, promotion and health

## Students learn about:

the role of supplements in the diet

# Students learn to:

debate the role of dietary supplements in a balanced diet

## **Integrated Teaching and Learning Activities**

Teacher will introduce dietary supplements by getting different students to read through the description, advantages, disadvantages and types of supplements on pg 353-354 of the textbook. Students are not to ask questions at this stage. Students will split into small groups and 2 groups will be allocated to each of the supplements:

- Protein
- Vitamins and minerals
- Fibre
- fats/oils

One group will be the affirmative side and the other will be the negative side. Students will be given 10 minutes to research in their groups points for/against to prepare for a debate. The 2 groups allocated to each supplement will debate their ideas.

Teacher to walk around during research and debate time to observe student understanding and participation.

**Assessment** 

### **Practical lesson:**

Students will be making a fortified food product - iron boost smoothie and a supplement based recipe - high protein energy balls. Students have both these recipes available in their recipe booklet. Before students move off into their bays, the teacher will provide a demonstration to the class on how to use the nutribullet. Students can make any notes/adjustments to their recipes if instructed by the teacher. They will put on their PPE and wash their hands then work in groups to prepare both products in their allocated bays.

Questioning of students' understanding after prac

After cleanup, students are to complete the evaluation questions for the recipe in the recipe booklet. Teacher to ask these questions to prompt discussion amongst class:

- What nutrients have been supplemented?
- Which group benefits from this product?
- How did the addition of supplements affect taste, texture, and appearance?

#### **Outcomes:**

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues
- H5.1 develops, realises and evaluates solutions for a range of food situations.

## **Differentiation**

For the debate, students who are uncomfortable with public speaking can be researchers and write down points for the speakers. Groups can pick the supplement they would like to research if they have prior knowledge or they can choose to expand their knowledge and pick a different one.

Provide pre-measured ingredients for students who need extra support or have an SLSO measure the ingredients with them.

Extension task: research a medical condition and create a supplement based meal for them to support their nutritional requirements.

# Students learn about:

health and the role of diet in the development of conditions, including obesity, diabetes, cardiovascular disease, food sensitivity/intolera nce/allergies

# Students learn to:

describe the

relationship

disorders

between nutrient

intake and dietary

## **Integrated Teaching and Learning Activities**

#### Assessment task:

At the beginning of the week, students will be given a hardcopy of their assessment task notification and it will also be uploaded to Google classroom. The teacher will read through it, getting students to write down the due date into their diaries. Teacher to read through the requirements of the task and answer questions as fairly as possible. Explain to students they have learnt most of the content and the rest of the content assessed will be taught before the due date. Clearly state to students that staple ingredients are available from the school but they are to bring in the rest of the ingredients.

Students can have the rest of the lesson to research ideas for their assessment task.

Teacher will present a slideshow about the role of diet in the development of different conditions and students will take down key notes in their books. Teacher to elaborate further on difficult concepts for students and ask students for examples throughout.

To give students a break from writing, students will play a game of Kahoot about different nutrients, diet related disorders and food sensitivities. At the end of each question, if it shows people selected the wrong answer, teacher will explain the correct answer.

### **Assessment**

### Summative:

students are composing a research report about a contemporary nutrition issue and creating a meal plan and recipe to cook in class

#### Formative:

teacher can see how many students selected each answer and can download results at the end keep track of student learning

### **Outcomes:**

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues
- H5.1 develops, realises and evaluates solutions for a range of food situations.

## **Differentiation**

Provide an assessment task with simplified instructions for students with lower capabilities. As an alternative solution, they can present their findings as a presentation, rather than a research report if their literacy skills are limited.

| Students lear about: |
|----------------------|
| lifestyle and the    |

and social

practices on

nutritional status

## **Students learn** to:

describe the relationship between nutrient intake and dietary disorders

## **Integrated Teaching and Learning Activities**

### Lifestyle and nutritional status:

Teacher begins the lesson by drawing a brainstorm on the board about how lifestyle impacts nutritional status and students will contribute their ideas. Students will use the textbook to write 3 dot points about the impact of each of the following on nutrition:

- Exercise
- Alcohol consumption
- Tobacco and other drugs

## Religious and cultural impacts on nutrition:

Teacher will play a video on the board about dietary laws and practices across different religions. Teacher to ask students about certain practices/experiences in their own culture/religion if they are willing to share and discuss amongst the class.

Students are to write a PEEL (Point, Example/evidence, Elaborate, Link) paragraph answering the following question in their books: Compare and contrast the impact of TWO cultures/religions on food choices and nutritional status. (12 marks). This question is to be completed for homework and will be collected for marking.

### Social practices:

Students are to think about recent events they have been to ie. birthdays, Christmas, social gatherings and recall the types of food they ate. Students will share responses and discuss the implications of these food choices on nutrition.

#### Assessment lesson:

Teacher to explain to students that they must fill out the google form to select quantities of staple ingredients (school will provide these) they require for their prac so an order can be placed. Teacher will explain to students that this is a valuable opportunity to work on their task and ask questions - it is not a time to play games. Teacher to continuously walk around monitoring students on their laptops and check in with each student to see how they are tracking along.

Teacher questioning students ensuring they are making progress

### Outcomes:

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues
- H5.1 develops, realises and evaluates solutions for a range of food situations.

### Differentiation

The video is a great visual aid portraying different religions rather than just reading information. Exploring various cultures and religions promotes a sense of inclusivity. PEEL paragraph structure can be modified and scaffolded for lower ability students. Students who are excelling can use this structure to effectively communicate their knowledge and understanding of the topic.

#### **Assessment**

Formative: short answer question will be collected for marking to provide feedback before students complete their assessment

## Students learn about:

media and ethical issues related to advertising practices on food consumption such as the promotion of 'health' foods and 'fast' foods

## Students learn to:

discuss ethical issues related to the responsible advertising of food products

## **Integrated Teaching and Learning Activities**

Teacher gets students to write down any food advertisements they have seen and what made them memorable.

Read through The Ethics of Food and Beverage Marketing: Striking a Balance article and discuss key concerns as a class. Remind students it is important to note key points as it will be helpful for their debate.

### Class debate:

Should grocery stores increase the price of junk foods and soft drinks to reduce consumption?

### Assessment task due:

Students are to hand in their assessment into Google classroom by 8am on the due date. They must bring a printed copy of their recipe with them to class where they will be doing the practical component of the assessment. Students are to wear their PPE, wash their hands, collect their ingredients and prepare their meal. They must allow enough time for cleaning up afterwards.

#### Assessment

## Formative:

students are applying their knowledge from personal experiences and the article to debate

### Summative:

Students are demonstrating their knowledge from the entire unit and are applying it for a specific issue

### **Outcomes:**

- H2.1 evaluates the relationship between food, its production, consumption, promotion and health
- H3.2 independently investigates contemporary nutrition issues
- H5.1 develops, realises and evaluates solutions for a range of food situations.

### Differentiation

An SLSO is available during the practical assessment to provide assistance to students with additional needs/lower abilities.