NUTRITION AND WEIGHT MANAGEMENT
CYQ LEVEL 3 CERTIFICATE

Course Workbook
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Assessments
Assessment 1 - Case study
(75% weighting towards qualification)

This case study should be carried out on an apparently healthy individual who does not require medical/nutritional intervention from a doctor/dietician e.g. does not have any of the following conditions:

- Diabetes
- Eating disorders
- Crohn’s disease
- Coeliac disease

The client can be selected from a number of sources, this may include:

- Fellow students
- Friends or relatives
- Partners or spouses

The client should have a measurable goal and require sufficient nutritional advice to enable the candidate to meet the criteria outlined in the case study.
The candidate will be expected to demonstrate the ability to apply knowledge and design nutritional plans to meet the individuals’ needs and wants.

Case study pro forma with standardised marking criteria is provided by Central YMCA Qualifications (CYQ)

This case study will allow the candidate to demonstrate that they can meet the client’s individual needs and include consideration of the following (as pro forma)

- The advantages and disadvantages of different types of dietary programmes for the individual
- Short, medium and long-term goal setting, taking the health and nutritional goals of the individual into account
- An outline of the balance of carbohydrates, fats and proteins (including the types of foods that contain them), based upon the clients needs and wants
- General exercise advice (to include lifestyle, sports, cardiovascular and muscular strength and endurance activities, as appropriate)
- Modifications to food types to accommodate the clients needs.

**Assessment 2 – Theory paper**

(25% of weighting towards qualification)

A multiple choice written theory test of the underpinning knowledge will be externally set and assessed by CYQ.

The time allocation for the theory paper is 60 minutes.

The written test will consist of 50 questions covering the following areas:

- Basic nutrition
- Nutritional and weight management
- Nutrition, exercise and energy systems

A minimum of 35 marks (70%) overall is required in order to pass. The questions will all be multiple choice.

The paper will adhere to the following criteria:

- All aspects of underpinning knowledge may be covered
- Questions will be numbered and grammatically correct, in unambiguous language
- Specific marking criteria will be evidenced
- Clear phrasing will be used and the number of marks allocated to each question identified

**Learning materials**

Manual – online pdf
Course workbook
Review/revision questions – online pdf
Mock test paper – online word doc
Review Questions

The digestive system

1. What digestive processes occur in the mouth?
2. What is the main digestive enzyme in saliva?
3. List two functions of the tongue.
4. Name the rhythmic muscular contractions that help food travel along the gut.
5. What digestive processes occur in the stomach?
6. What are the only things that can be absorbed directly from the stomach?
7. Name the three parts of the small intestine.
8. Name the main enzymes involved in digesting fats, proteins and carbohydrates respectively.
9. Name the organ that produces the above enzymes.
10. What is the function of bile?
11. What is the main function of the liver?
12. List two functions of the large intestine.
13. Describe the role of dietary fibre in gut function.
14. Name two illnesses/conditions that may affect the digestive system.

Fats

1. List three functions of fat in the human body.
2. What percentage of total calories eaten should be from fats?
3. How can saturated and unsaturated be easily identified?
4. List three example foods that contain saturated and unsaturated fats respectively.
5. Name two health risks of a high fat diet.
7. Describe how atherosclerosis develops.
8. What ratios of LDLs/HDLs that would indicate normal, high and low risk respectively for CHD?
9. What are hydrogenated (trans) fats?
10. List the health benefits of essential fatty acids.
11. Name three foods that are a rich source of Omega 3 fatty acids.

**Proteins**
1. List the main functions of proteins in the body.
2. How many essential and non essential amino acids does the body need?
3. Explain the significance of essential and non essential amino acids.
4. List five foods that contain complete proteins.
5. Explain how protein needs can be met on a vegetarian diet.
6. What is nitrogen balance used to measure?
7. List current recommendations for protein intake for average adult and athletic populations.
8. Why are protein requirements for athletes higher than for sedentary individuals?
10. List three potential risks of a diet too high in protein.

**Carbohydrates**
1. List two functions of carbohydrate in the body.
2. What is the current recommendation for carbohydrate intake?
3. Name the two different types of carbohydrate. Give example foods from each type.
4. What is fibre?
5. What are the two types of fibre, and what health benefits do they each give?
6. Explain the meaning of Glycaemic Index (GI).
7. Why is it beneficial to consume predominantly carbohydrates that are low GI?
8. List three example foods that have a low GI.
9. List two potential risks of a diet too high in carbohydrate.

**Vitamins and Minerals**
1. What is a vitamin?
2. List the water soluble and fat soluble vitamins.
3. What specific functions do the following vitamins have?
   a. Vitamin A
   b. Vitamin E
   c. Vitamin C
4. What is a mineral?
5. List as many macro elements and trace elements as you can.
6. What impact on health do the following minerals have?
   a. Iron
   b. Zinc
   c. Sodium
   d. Calcium
7. List five simple measures to ensure adequate intakes of vitamins and minerals.
8. What advice would you give a client about supplementation of vitamins and minerals?
9. Describe free radicals, antioxidants and phytochemicals and their effect on body function.

**Water**
1. List the main functions of water in the body.
2. How much water does a sedentary individual need daily?
3. Describe the potential consequences of dehydration.
4. How can a person tell if they are dehydrated?
5. Define hypertonic, isotonic, and hypotonic sports drinks, and explain their significance for hydration.
6. When is an energy replacement drink recommended?
7. What effect does caffeine have on the body?
8. What effect does alcohol have on the body?

**Summary of Healthy Eating Guidelines**
1. List five simple healthy eating guidelines that could improve the diet of a typical adult.
2. How can The Eatwell Plate be useful as a tool for diet analysis?
3. List the different food groups in The Eatwell Plate, and the recommended servings of each.
4. Identify two potential weaknesses of The Eatwell Plate as a tool for diet analysis.
5. Give an example of a standard serving of fruit.
6. Give an example of a standard serving of vegetables.
7. Calculate the daily energy requirement of the following:
   a. A 90kg client with a very active lifestyle
   b. A 55kg client with a sedentary lifestyle
   c. A 78kg client with a moderately active lifestyle

**Weight Management**
1. What psychological reasons may people have for over eating?
2. How many adults in the UK are currently obese?
3. What is BMI? What level is considered to be obese?
4. What is the advantage of using body fat percentage to measure fat loss?
5. Why is a high waist to hip ratio a health risk factor?
6. List the four main health problems associated with obesity.
7. How does genetic somatotype affect body fat levels?
8. What is leptin? What is its function?
9. State the energy balance equation.
10. What are the negative consequences of very low calorie diets?
11. List some of the nutritional guidelines for safe and effective fat loss.
12. Why is resistance training important to long term weight control?
13. What are the potential problems with:
   a. Liposuction?
   b. Stomach stapling?
   c. Over the counter diet pills?
14. What are some of the possible signs and symptoms of anorexia nervosa and bulimia nervosa?

**Evaluation of Popular Diets**
1. What are the main features of the Atkins diet?
2. List some of the potential health problems associated with a low carbohydrate diet.
3. Why should an athlete not use a low carbohydrate diet?
4. What is claimed to be the principle of the blood group diet?
5. What advice would you give to a client who wishes to try the blood group diet?
6. What are the main two food groups that should not be mixed on a food combining diet?
7. List two advantages and two disadvantages of using meal replacement products for weight loss.
8. Describe the main benefits of using a diet club to lose weight.
9. Whom might a diet club not appeal to?

**Nutrition for Exercise and Sport**
1. List the fuels that supply each of the three energy systems.
2. An 80kg person has 22% body fat. How many kilocalories do they store as fat?
3. Why is carbohydrate intake so important for a regular exerciser?
4. What does the term gluconeogenesis mean?
5. Explain the principle of carbohydrate loading.
6. What type of athlete would find carbohydrate loading most useful?
7. What is the most convenient way to ingest carbohydrate during an exercise session?
8. Why is it important to begin replenishing glycogen stores immediately after exercise?
9. How long does it take to fully replenish depleted glycogen stores?
10. What rules should an athlete follow to maintain hydration before, during and after a sporting event?
11. How can an athlete replace both fluids and glucose simultaneously?
12. What advice would you give an athlete about:
   a. Eating extra protein?
   b. Taking protein supplements?
   c. Obtaining sufficient vitamins and minerals?
   d. Taking vitamin and mineral supplements?

**Food Labels, Shopping and Eating Out**
1. What basic information is legally required to be on packaged foods?
2. A standard nutrition label has two columns of information. Why is this?
3. From the nutrition label shown, calculate the percentage of calories derived from fats, proteins and carbohydrates respectively:

<table>
<thead>
<tr>
<th>NUTRITION INFORMATION</th>
<th>Per 100g</th>
<th>Per Serving (28g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>1774 kJ</td>
<td>142 kJ</td>
</tr>
<tr>
<td></td>
<td>421 kcal</td>
<td>34 kcal</td>
</tr>
<tr>
<td>Protein</td>
<td>9.9g</td>
<td>0.8g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>66.8g</td>
<td>5.3g</td>
</tr>
<tr>
<td>(of which sugars)</td>
<td>1.4g</td>
<td>0.1g</td>
</tr>
<tr>
<td>Fat</td>
<td>12.7g</td>
<td>1.0g</td>
</tr>
<tr>
<td>(of which saturates)</td>
<td>6.5g</td>
<td>0.5g</td>
</tr>
</tbody>
</table>

4. In what order are ingredients listed on a food package?
5. What do the following advertising claims mean?
   a. Low fat
   b. Reduced fat
   c. ’Light’ products
6. List five simple guidelines that can be used to make healthier choices when eating out at a restaurant.
Client Consultations
1. What are the potential benefits of carrying out an initial client consultation?
2. List five useful information gathering questions you might ask a client.
3. List the different stages in the Prochaska & DiClemente model for change.
4. What strategies would be appropriate to progress a client from the preparation stage to the action stage?
5. What strategies can be used to help prevent relapse?
6. List the advantages and disadvantages of using a food diary.
7. Describe how the contents of a food diary may be analysed in conjunction with The Eatwell Plate.
8. What does the acronym SMART stand for?
9. Give an example of a SMART fat loss goal.
10. List five common barriers people might encounter when trying to achieve nutritional goals.
11. What are the most appropriate methods to measure progress towards a weight loss goal?

Please send your answers to your tutor of the separate answer sheets which will be sent to you as you progress through the course.
### Nutrition and Weight Management - Assessment 1

#### Case study pro forma

In 5 Sections

<table>
<thead>
<tr>
<th>Centre name code</th>
<th>Hamiltons Training</th>
<th>Candidate number</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidate name</td>
<td>Candidate signature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessor name</td>
<td>Assessor signature</td>
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<tr>
<td>IV name</td>
<td>IV signature</td>
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<td></td>
</tr>
</tbody>
</table>

This case study should be carried out on an apparently health individual who meets the assessment specification as set by CYQ

1. **Client Profile**
   Conduct a brief personal profile for your client to include:

   | Gender: ______ | Height: ______ | Weight: ______ |
   | Age: ______   | Occupation: ______ |

   Possible marks | Marks achieved |
   | 1 |

   a. Identify our clients pastimes/hobbies and give a description of their current lifestyle

   Possible marks | Marks achieved |
   | 2 |

   b. Calculate your clients approximate kilo calorie requirement. *Please show your calculations*

   Possible marks | Marks achieved |
   | 2 |

Section total

(minimum for 3 marks required to pass this section)

<table>
<thead>
<tr>
<th>Possible marks</th>
<th>Marks achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
2. Nutritional profile

Construct a nutritional profile of your client to include:

<table>
<thead>
<tr>
<th>Possible marks</th>
<th>Marks achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify your clients current eating habits</td>
<td>3</td>
</tr>
</tbody>
</table>
You should include a minimum 3 day food diary and attach it to this case study.
You must include a summary of your findings and provide an average intake of the following food groups: fruit and vegetables, protein, carbohydrates and foods high in additional fats and sugars.

| b. Using the food diary, draw a food plate based on your clients current eating habits | 3 |

| c. Give a brief analysis of current eating in relation to healthy eating guidelines | 3 |

| d. Indicate your clients dietary likes/dislikes | 1 |

| e. Summarise your clients attitudes to foods and eating e.g. eating habits/perception of foods/diet/nutritional intake | 2 |

Section total
Minimum of 8 marks required to pass this section

12
### 3. Exercise/activity profile
Construct a profile of your client to include:

<table>
<thead>
<tr>
<th>Possible marks</th>
<th>Marks achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify your clients exercise/activity history</td>
<td>1</td>
</tr>
<tr>
<td>b. List your clients current exercise/activity in relation to FITT principles</td>
<td>3</td>
</tr>
<tr>
<td>c. List your clients activity/exercise likes and dislikes</td>
<td>1</td>
</tr>
</tbody>
</table>

**Section total**
Minimum of 3 marks required to pass this section
5
<table>
<thead>
<tr>
<th>4. Goal setting</th>
<th>Possible marks</th>
<th>Marks achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Identify your clients goals (nutrition and exercise)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>b. Discuss your clients motivations</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>c. Analyse whether your clients goals are realistic and achievable and state why/why not</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>d. Construct realistic short, medium and long-term goals for your client based on sound nutritional and exercise principles</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>e. Describe how your clients goals will be monitored including strategies to maintain desired outcomes</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Section total</strong></td>
<td><strong>10</strong></td>
<td></td>
</tr>
<tr>
<td>Minimum of 7 marks required to pass this section</td>
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<td></td>
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</tbody>
</table>
5. Planning and implementation
Construct a nutritional plan for your case study outlining the following:

<table>
<thead>
<tr>
<th>Possible marks</th>
<th>Marks achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

a. Identify desired nutritional changes and ensure suggested changes are appropriate to clients goals:

b. State why you would like these changes to be implemented
<p>| c. Describe a clear strategy for implementation | 10 |
| d. Identify any barriers to achieving this goal | 5 |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>e. Propose strategies for overcoming any barriers to achieving goals</td>
<td>5</td>
</tr>
<tr>
<td>f. Identify desired exercise/activity changes appropriate to your clients goals</td>
<td>5</td>
</tr>
<tr>
<td><strong>Section total</strong></td>
<td><strong>45</strong></td>
</tr>
<tr>
<td>Minimum of 36 marks required to pass this section</td>
<td></td>
</tr>
</tbody>
</table>
Total Marks possible: 77
Minimum of 54 marks (70%) required to pass, thus candidates will need to achieve more than the minimum amount in some sections

Assessors feedback

| Candidates score: | PASS | REFER |

These forms are available as writable word docs or pdf’s on the student forum