

## **RSPH Level 4 Certificate in Nutrition for Physical Activity and Sport**

Unit Nut 4.3 Nutrition for Physical Activity and Sport (Reference No.L/504/4246)

### **Marking Guidelines**

#### **TAI QUAN DO**

**You are a coach for an after school group who do tai quan do. On average they train on 3 days a week for 2 hours. At weekends you take them in the school minibus to watch competitions.**

**They will be competing in their first competition in 4 weeks time. Due to the expense they will travel to this competition in the minibus and food must be provided by the school as packed meals.**

**The group is in a deprived multicultural area. All of the members are aged 15 years and have done the sport for 4 years. They are very talented. All have devoted parents who are keen to see them succeed and live at home. Most of the parents are on low incomes.**

**Two of the boys are strict Muslim, two are Chinese boys and two are Polish girls. The latter two do not follow cultural diets.**

1. Outline, with reasons and reference to dietary reference values, the likely nutritional requirements for this group. You should highlight any differences between the individuals in the group and include reference to their energy and hydration needs.

*Nutrient requirements should include carbohydrates, fats and protein. DRVs should relate to age and, sex of group members and activity levels. Key micronutrients should also be covered to include key minerals and vitamins.*

*Energy and hydration needs should relate to required calorie levels for individuals of their age who are physically active. Mention should also be made of any need to build up energy stores*

2. Outline the methods which could be used to estimate the energy requirements of the riders

*Should cover determination of BMI and use of tables*

3. Due to some contacts you have you are given the opportunity to take your group on a tour of a university nutrition and physiology department and take

advantage of some of their facilities. How could you use this opportunity to determine the energy requirements of some of your group more accurately?

*Accurate measurement of energy expenditure, eg by spirometry, use of treadmills et, determination of body fat.*

4. Develop a dietary regime for the group to follow within their own home. The regime must cover all their nutritional and energy requirements while allowing them flexibility of choice. It should also provide guidance on preparation methods and must be inexpensive.

*Should be able to cross-reference foods in diet to nutrient requirements in terms of protein, carbohydrates, fats, minerals and vitamins. Energy requirements should relate to calorific intake and maintenance / development of energy stores if applicable, glycaemic index of foods in diet and how quickly nutrients can be converted into energy. Reference should be made to requirements of Muslim boys and Chinese food. Preparation methods should minimise loss of nutrients and not increase levels of salt or saturated fats.*

***NB MUCH OF THE RESEARCH ON SPORTS NUTRITION RECOMMENDS A HIGH CARBOHYDRATE DIET AND NO LONGER USES CARBOHYDRATE LOADING***

5. Explain how your dietary regime and preparation methods fulfil the nutritional and energy requirements of your team members.

*See above*

6. Some of the parents are concerned about whether or not performance enhancing products should be used. Produce a fact-sheet to give to the parents that covers the pros and cons of these products and recommendations for their use.

*Should cover pros and cons of different products and the need for and usage of these products for this age group and level of ability. Recommendations for use should restrict to high energy drinks during training and competition.*

7. For the competition, devise menus (including drinks) for three full days.
  - one for the day preceding the competition which is simple to follow at home
  - one for the day of the competition: this must include breakfast at home, snacks and lunch in the minibus. You should also advise the caterers at the event on what to prepare for the meal following the competition. Snacks are also required for the journey home.
  - one for the day after the competition which is easy to prepare at home.

You should explain how your menus meet the different requirements relating to training, competition and recovery and indicate how the menus can be adapted for individual requirements.

*Menus should be appropriate for age and ability levels of participants. Explanation of different requirements for training, competition and recovery and how the suggested menus meet this requirement. Individual requirements should refer to religion and Chinese diets. Importance of recovery phase for replenishing energy stores should be highlighted.*

**When carrying out this assignment, candidates should ensure they refer to the learning outcomes, assessment criteria and content contained in the qualification specification.**