

? Problem 5.1.2 Meal Planning Mission

Purpose

It is important for a person to **eat** a balanced diet and to be active. The statement is vague, but consumers often **hear** this when making decisions on food purchases. What is a balanced diet? How active does a person need to be to live a healthy life?

The USDA has outlined nutritional guidelines for consumers to **follow**. The guidelines are specifically **designed** to help an individual achieve overall good health by following the recommended dietary allowance (RDA). Any person over the age of two can **observe** the guidelines and **focus** on two concepts, **consuming** the proper amount of nutrients and maintaining a calorie balance. The guidelines are important to consumers as well as professionals. Food scientists must understand the guidelines in order to develop various food products. By understanding nutritional guidelines, food scientists can develop foods for specific groups of people or situations. What other professionals use RDA in their careers?

Along with RDA, physical activity guidelines also exist. The amount of calories a person should **consume** is dependent upon his or her age, gender, and activity level. When health professionals need to **develop** menus for various groups, they **take** all of this information into account. Have you ever **wondered** what menus would look like in a facility feeding athletes in training for competition?

Materials

Per student:

- Computer with Internet access
- Pen
- *Agriscience Notebook*

Procedure

You are a nutritionist recently graduated from college and are applying for your dream job. The jobs you are interested in include working in a nursing home, in a training facility for elite athletes, a school, or other facility where groups of people are served meals. One component of the application process requires you to develop a two-week menu following the recommended dietary guidelines for the group of individuals at the facility.

You will work independently to complete the two-week menu plan for your application. Use the following resources and guidelines to assist you. When completed, present your written solution to the teacher.

Resources

- Calculate daily nutrient recommendations: <http://fnic.nal.usda.gov/fnic/interactiveDRI/>
- Dietary guidelines:
<http://www.cnpp.usda.gov/MyPlate.htm>
- *Principles of Food Science* text, pages 792 – 797

Guidelines

- Briefly describe the facility for which you are applying. Include the function of the facility, the life stage of the individual the facility serves, and the overall goals of individuals.
- Certain individuals in the facility are restricted by doctors to follow a gluten free diet. When a menu item contains gluten, offer an alternative for those individuals.
- Describe the recommended dietary allowances for individuals at the facility based on gender, life stage, and activity.
- Design a two-week varied menu. The menu must include at least three meals a day, balancing calories and necessary nutrients as determined by the dietary guidelines.

Conclusion

1. What complications were there when trying to determine dietary needs for a group of individuals instead of just an individual?

The complications that occurred while determining dietary needs of the group was allergens and coming up with healthy foods that my students would actually eat.

2. What factors did you consider when determining alternatives for the restricted diet?

The factors that were considered when determining alternative for a restricted diet were making sure that the alternatives would have similar nutritional values.

2 Day Menu- Ag Ball Participants in Preble Shawnee FFA

- I am designing this menu for my FFA members who compete in Ag Basketball. These members are 16-18 year old male and females who are moderately active. They are super competitive in Ag Ball and will be given a 2 week diet to follow during the 2 weeks leading up to the tournament to have a competitive edge.
- The recommended dietary allowances for individuals in the Ag program who are participating in Ag Ball are 2,500 Calories a day based on age and activity.

Meal	Food	Allergens	Nutrients
Breakfast 1 (839.7 Cal)	Hash Browns Bacon	Vegetarian ☐ Tofu Bacon	76.2g Carbs 54.3g Fat 15.3g Protein
Lunch 1	Curry Chicken Salad Peanut Butter Celery	Peanut ☐ Ranch	27.8g Carbs 47.7g Fat 71 g Protein
Dinner 1	Maple Glazed Salmon Cottage Cheese with Radishes Carrots	Dairy☐ PB	49.6g Carbs 29.8 Fat 98.2g Protein
Breakfast 2	Blueberry Shake Bacon	Diary☐ Almond Juice PB☐ Almond Butter	97.1 g Carbs 26.3 g Fat 56.7g Protein
Lunch 2	Mango Strawberry Arugula Salad Cottage Cheese/Apricots Salt & Vinegar Popcorn	Fruit ☐ Leave out Dairy ☐ Leave out	104 g Carbs 17.5 g Fat 65.9g Protein
Dinner 2	Fettucine Alfredo Peaches/ Almond Butter on Toast Garlic Roasted Brussell Sprouts	Dairy☐ soy or almond Gluten☐ gluten free	68.4g Carbs 59.6g Fat 24.3g Protein