



TEXAS TECH UNIVERSITY

**Division of Outreach  
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**NFS  
Nutrition and Food Science**

**To the Student:**

After your registration is complete and your proctor has been approved, you may take the Credit by Examination for NFS, Nutrition and Food Science.

**WHAT TO BRING**

- blue or black ink pen

**ABOUT THE EXAM**

The exam will consist of short answer questions, nutrition case studies, menu revisions, fill-in-the-blank questions, and definitions of commonly used terms related to nutrition, health, and wellness. Definitions, responses to nutrition case studies, short answer and fill-in-the-blank questions, and the nutrients are worth 1 point each; the three menu revisions are 2 points each. You will have three hours to complete the exam.

The examination is based on the Texas Essential Knowledge and Skills for this subject, available online at <http://www.tea.state.tx.us/teks/>. Since questions are not taken from any one source, you can prepare by reviewing any of the state-adopted textbooks that are used at your school. If you do not have a textbook or any other study material available locally, you may contact the Outreach & Distance Education Bookstore. The bookstore carries the textbook used with our NFS Distance Education course. The textbook is *Food for Today*, 8th ed., by Glencoe/McGraw-Hill (2004) ISBN 0-07-846292-4.

There is also a sample examination included with this letter. The sample exam will give you a model of the types of questions that will be asked on your examination. It is not a duplicate of the actual examination. It is provided to illustrate the format of the exam, not to serve as a review sheet.

For more information about CBE policies, visit <http://www.ode.ttu.edu/takeacbe/> or see your course Policies & Forms Guide.

Good luck on your examination!

## **NFS CBE Review**

This technical laboratory review concentrates on nutrition, food choices, and food management skills for individuals and the family. Topics include nutrition and food science from the perspective of food habits and wellness: menu planning; special dietary needs; food costs and budgeting; consumer food-buying strategies; food safety and sanitation procedures; food labeling and food handling, storage, and preparation practices; meal etiquette; career options; techniques for managing multiple family, community, and wage-earner roles; and the impact of technology on food choices, preparation, and nutritional quality.

Principles of nutrition, food science, and technology are interdependent with growth, development, health, and wellness. Individuals utilize these principles to make informed choices, promote good health, and pursue careers related to nutrition, food science, and technology. Before taking the CBE, students should have a basic knowledge of nutrition principles, nutrient sources, nutrient retention in food preparation, nutritional needs during the life cycle, and be aware of the cultural aspects of food and of the career opportunities in the nutrition and food science field.

### **Study Guide**

Before taking the CBE, you should be able to:

- use information about the basic principles of nutrition to promote healthy food choices;
- determine the relationship of nutrition to individual and family health;
- use various dietary guidelines in making wise food choices;
- analyze nutritional adequacy of selected diets using available technology;
- evaluate influences on food choices;
- exhibit an awareness of the variety of food choices available in our multicultural society;
- apply management principles in meeting nutritional needs;
- demonstrate safety and sanitation procedures;
- prepare and serve nutritious foods;
- determine opportunities and preparation requirements for careers in nutrition and the food industry;
- exhibit the skills necessary for employment in the food industry; and
- complete a supervised career-connection experience applying knowledge and skills developed in the study of nutrition and food science.

Prior to taking the CBE, you will need to prepare several recipes as well as a complete meal for your family and/or friends. There are questions on the exam concerning preparing food recipes and reading food labels.

A few suggestions for foods to prepare include pastas, beans, rice, eggs, meat, fish, poultry, vegetables, casseroles, fruit or vegetable salads, and cookies.

When you purchase the ingredients for the recipes you prepare, read the food labels carefully until you understand the nutrition information provided.

The complete meal you prepare should include foods from each category in the United States Department of Agriculture's MyPyramid food guide. The recommended food groups are grains, vegetables, fruits, milk, and meat and beans. The MyPyramid Tracker is an online dietary and physical activity assessment tool that provides information about your diet quality and physical activity status, related nutrition messages, and links to nutrient and physical activity information. Go to **[www.mypyramid.gov](http://www.mypyramid.gov)** to learn steps to a healthier you!

## Sample Exam Questions

### Part A: Vocabulary (1 point each)

Define the following terms as they relate to food science and nutrition.

1. nutrients \_\_\_\_\_  
\_\_\_\_\_
2. nutrition \_\_\_\_\_  
\_\_\_\_\_
3. wellness \_\_\_\_\_  
\_\_\_\_\_
4. ergonomics \_\_\_\_\_  
\_\_\_\_\_
5. critical thinking \_\_\_\_\_  
\_\_\_\_\_

### Part B: Case Study (1 point each)

Write **two or more complete sentences** when responding to the questions.

**Case Study:** James is a 26-year-old owner of a florist shop. He works seven days most weeks, twelve hours each day. James orders take-out fast food for lunch and dinner. His diet is not balanced, and he has just been informed that his dad has had a stroke.

1. Explain the long-term effects of James' eating patterns.  
\_\_\_\_\_  
\_\_\_\_\_
2. Explain the food pyramid to James.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part C: Short Answer (1 point each)**

Write **two or more complete sentences** when responding to the questions.

1. Describe effects of nutritional intake on health, appearance, effective job performance, and personal life.

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2. Outline strategies for prevention, treatment, and management of diet-related diseases and eating disorders.

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3. Explain the relationship of nutrition and stress.

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4. Summarize legislation and policies pertaining to nutrition and health.

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5. Assess long-term effects of food choices.

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**Part D: Fill in the blanks (1 point each answer)**

Complete the sentence with a word or phrase.

1. Two employment opportunities for a career in the food industry in my community include \_\_\_\_\_ and \_\_\_\_\_.

**Part E:** Fill in the blanks with the nutrients supplied by each food group. The nutrients are: **carbohydrates; protein; vitamins A, B, and C; iron; water; calcium; phosphorous; potassium; and fat.** *Several nutrients may be used more than once.* (1 point each)

### Life-Giving Nutrients

Categories	Nutrients	Functions
bread, cereals, rice, and pasta	1. _____ 2. _____ 3. _____ 4. _____	1. provide energy 2. promotes growth 3. promote healthy nervous system 4. helps form red blood cells
fruits	5. _____ 6. _____ 7. _____ 8. _____	5. helps wounds heal 6. promotes good eyesight 7. helps form red blood cells 8. provide energy
vegetables	9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____	9. promotes good eyesight 10. helps wounds heal 11. promotes healthy nervous system 12. serves as body's cooling system 13. builds strong bones and teeth 14. maintains water balance in body
meat, poultry, fish, dry beans and peas, eggs, nuts, and seeds	15. _____ 16. _____ 17. _____ 18. _____	15. promotes growth 16. helps form red blood cells 17. promotes healthy nervous system 18. carries fat-soluble vitamins
milk, yogurt, and cheese	19. _____ 20. _____ 21. _____ 22. _____	19. builds strong bones and teeth 20. helps calcium build strong bones 21. promotes growth 22. carries fat-soluble vitamins
fats and sweets	23. _____ 24. _____	23. carries fat-soluble vitamins 24. provides energy

**Part F: Recognizing Proper Nutrition (2 points per menu)**

Menus items may be replaced with other foods, or food preparation methods may be changed. Adjust the following menus to improve nutrition and health.

<b>Menu</b>	<b>Revised menu</b>
2 fried eggs	_____
2 slices of bacon	_____
Sweet roll	_____
coffee	_____

## Sample Exam Answer Key

### Part A

1. **nutrients** — chemicals from food that your body uses to carry out its functions
2. **nutrition** — study of nutrients and how they are used by the body
3. **wellness** — philosophy that encourages people to take responsibility for their own health
4. **ergonomics** — study of ways to make tools and equipment easier to use
5. **critical thinking** — examination of printed and spoken language in order to gain insights into meanings and interpretations

### Part B

1. James is a target for diet-related diseases. He may develop heartburn and other digestive problems.
2. MyPyramid is a suggested food guide for good health. It contains five food groups and suggested amounts for healthy daily eating tailored to an individual's age, gender, height, weight, and level of physical activity.

### Part C

1. Eating a balanced diet of the five food groups will help an individual to be alert. It also will give a person the stamina to do a job well.
2. Eat a nutritious diet. Consult a professional for help. This may be a qualified nutrition expert. Exercise on a regular schedule.
3. Stress can cause heartburn, diarrhea, overeating, loss of appetite, and other diet-related illnesses.
4. There are laws that protect our food supply. Government agencies including the USDA, FDA, and EPA monitor the safety of the food we eat.
5. Eating a nutritious diet of the five MyPyramid food groups helps an individual to feel well. Nutritious food choices will help prevent diet-related diseases.

**Part D**

1. Answers will vary.

**Part E**

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|------------------|-------------------|
| 1. carbohydrates | 13. calcium       |
| 2. protein       | 14. potassium     |
| 3. vitamin B     | 15. protein       |
| 4. iron          | 16. iron          |
| 5. vitamin C     | 17. vitamin B     |
| 6. vitamin A     | 18. fat           |
| 7. iron          | 19. calcium       |
| 8. carbohydrates | 20. phosphorus    |
| 9. vitamin A     | 21. protein       |
| 10. vitamin C    | 22. fat           |
| 11. vitamin B    | 23. fat           |
| 12. water        | 24. carbohydrates |

**Part F**

**Menu**

- 2 fried eggs
- 2 slices of bacon
- Sweet roll
- coffee

**Revised menu**

- Whole grain cereal with pecans
- Toast
- Fruit such as an orange
- Low fat milk