# Instructor Manual

Boyle, Personal Nutrition 11E, 9780357446935; Chapter 01: The Basics of Understanding Nutrition

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## Purpose and Perspective of the Chapter

This chapter aims to identify the science of nutrition with a review of nutrients' impact on our bodies. Nutrition is complex. To maximize health benefits, one must select foods that contain all the nutrients needed to live without an excess of calories. Many of the leading causes of death have been linked to diet; thus, a basic understanding of nutrition and the impact of food choices can go a long way in helping to protect health.

The reasons underlying individual food choices are as varied as the individuals themselves. For example, a person may eat in response to hunger or appetite, choosing certain foods because of advertising, personal preference, habit or cultural tradition, social pressure, values or personal beliefs, availability, economy, convenience, psychological benefits, or nutritional value. Additionally, the chapter investigates how we receive health information while detailing evidence-based practices for sound nutrition guidance. Consumers can learn strategies to help judge the validity of sources of nutrition information. In addition, many professional organizations provide guidance for judging their quality and reliability.

## Cengage Supplements

The following product-level supplements provide additional information that may help you in preparing your course. They are available in the Instructor Resource Center.

- Test Bank
- Lecture PowerPoints
- Image PowerPoints
- Diet & Wellness+ Reports: Pregnancy and Lactation
- MindTap Educator's Guide
- Transition Guide
- Chapter Notes

## Chapter Objectives

The following objectives are addressed in this chapter:

**1.1** List the six classes of nutrients.

**1.2** Identify lifestyle factors that impact risk for chronic disease.

**1.3** List several national nutrition-related objectives aimed at improving the nation's health.

**1.4** Describe lifestyle practices associated with longevity and health.

**1.5** Identify different factors that influence personal food choices.

**1.6** Identify tips for stocking a healthy home pantry.

**1.7** List strategies for choosing healthy meals when dining away from home.

**1.8** Distinguish between reliable science-based nutrition information and nutrition/health fraud.

## Key Terms

**Accreditation:** Approval; in the case of hospitals or university departments, approval

by a professional organization of the educational program offered. There are phony accrediting agencies; the genuine ones are listed in a directory called *Accredited Institutions of Postsecondary Education.*

**Appetite:** The psychological desire to eat, which is often but not always accompanied by hunger.

**Calorie:** The unit used to measure energy.

**Control group:** A group of individuals with characteristics that match those of the group being treated in an intervention study but who receive a placebo or no treatment at all.

**Correlation:** A simultaneous change in two factors, such as a decrease in blood pressure with regular aerobic activity (a direct or positive correlation) or the decrease in incidence of bone fractures with increasing calcium intakes (an inverse or negative correlation).

**Culture:** Knowledge, beliefs, customs, laws, morals, art, and literature acquired by members of a society and passed along to succeeding generations.

**Degenerative disease:** Chronic disease characterized by deterioration of body organs as a result of misuse and neglect. Poor eating habits, smoking, lack of exercise, and other lifestyle habits often contribute to degenerative diseases, including heart disease, cancer, osteoporosis, and diabetes.

**Dietary pattern:** The combination of foods and beverages that constitutes an individual's complete dietary intake over time; may describe a usual way of eating or a combination of foods recommended for consumption.

**Dietetic technician, registered (DTR):** Nutrition professionals who work as part of health care and food service management teams. DTRs have completed at least a two-year associate's degree at a US regionally accredited college or university and an accredited dietetic technician program, and passed a national examination.

**Diploma mill:** A correspondence school that grinds out degrees (sometimes worth no more than the paper they are printed on) the way a grain mill grinds out flour.

**Energy:** The capacity to do work, such as moving or heating something.

**Epidemiological study:** A study of a population that searches for possible correlations between nutrition factors and health patterns over time.

**Essential nutrient:** A nutrient that must be obtained from food because the body cannot make it for itself.

**Ethnic cuisine:** The traditional foods eaten by the people of a particular culture.

**Experimental group:** The participants in a study who receive the real treatment or intervention under investigation.

**First Amendment:** The amendment to the US Constitution that guarantees freedom of the press.

**Health fraud:** Conscious deceit practiced for profit, such as the promotion of a false

or an unproven product or therapy.

**Health promotion:** Helping people achieve their maximum potential for good health.

**Hunger:** The physiological need for food.

**Intervention study:** A population study examining the effects of a treatment on experimental subjects compared to a control group.

**Malnutrition:** Any condition caused by an excess, deficiency, or imbalance of calories or nutrients.

**Metabolism:** Collective term for all of the chemical and physical reactions occurring in living cells, including the reactions by which the body obtains and uses energy from foods.

**Minerals:** Inorganic compounds, some of which are essential nutrients.

**Nutrients:** Substances obtained from food and used in the body to promote growth, maintenance, and repair. The nutrients include carbohydrates, fats, proteins, vitamins, minerals, and water.

**Nutrition:** The study of foods, their nutrients and other chemical components, their actions and interactions in the body, and their influence on health and disease.

**Nutritionist:** A person who claims to be capable of advising people about their diets. Some nutritionists are registered dietitians, whereas others are self-described experts whose training is questionable.

**Overnutrition:** Calorie or nutrient overconsumption severe enough to cause disease or increased risk of disease; a form of malnutrition.

**Placebo:** An inert, harmless "treatment" given to the control group in a study that the group's members cannot recognize as different from the actual treatment or intervention given to the experimental group.

**Quackery:** Health fraud; a quack is a person who practices health fraud (quack – "to boast loudly").

**Registered dietitian/nutritionist (RD/RDN):** A professional who has graduated from a nutrition and dietetics program accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics, has completed an internship program or the equivalent to gain practical skills, has passed a registration examination, and maintains competencies through continuing education. Most states require licensing for dietitians, thereby requiring anyone who wants to use the title *dietitian* to receive permission to do so by passing a state examination.

**Social group:** A group of people, such as a family, who depend on one another and share a set of norms, beliefs, values, and behaviors.

**Undernutrition:** Severe underconsumption of calories or nutrients, leading to disease or increased susceptibility to disease; a form of malnutrition.

**Vitamins:** Organic, or carbon-containing, essential nutrients that are vital to life but needed only in relatively minute amounts (*vita* = life; *amine* = containing nitrogen).

**Water:** Fluid that provides the medium for life processes.

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## What's New in This Chapter

The following elements are improvements in this chapter from the previous edition:

- Included the latest trend information on consumer sources of nutrition information.
- Updated the discussion regarding healthy lifestyle choices and disease prevention.
- Revised the Nutrition Action feature to reflect the *2020–2025 Dietary Guidelines for Americans* messages.
- Enhanced the discussion regarding nutrition misinformation and credible nutrition resources.

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## Chapter Outline

I. The Nutrients in Food

a. Introduction
   1. Most foods contain water, some as much as 99 percent.
   2. The "solid" bulk of foods consists of carbohydrates, fats, and proteins that comprise the six classes of nutrients, along with vitamins, minerals, and water.
   3. Nutrients fall into two categories: essential (there are about 40) or non-essential.
   4. Essential nutrients are those the body needs but which can only be provided by diet.

b. The Energy-Yielding Nutrients
   1. The energy-yielding nutrients are carbohydrates, fats, and proteins.
   2. The body uses these to perform work (both internal and external) and to generate heat.
   3. Excesses of energy-yielding nutrients result in increased body fat stores.
   4. Energy is measured in calories.
   5. If the body does not release the energy it obtained from food soon after absorption, it stores it, usually as body fat, for later use.
   6. Too much of any food can contribute to excess calories.
   7. Alcohol is not considered a nutrient because it does not maintain or repair body tissue; however, it does provide calories.

c. Vitamins, Minerals, and Water
   1. Vitamins and minerals do not yield energy, but play a role in the release of energy. Additionally, they help control many other bodily processes.
   2. Vitamins fall into two categories: fat-soluble (A, D, E, and K) and water-soluble (B vitamins and C).
   3. Besides performing vital regulatory functions, minerals also contribute to the body's structures (bone minerals).
   4. Water, often overlooked as a nutrient, is the medium in which all bodily processes occur.
   5. Additionally, all nutrients, gasses, and wastes travel within the body through an aqueous solution.

6. Each day about two to three quarts of water are lost and must be replaced.

d. Calorie Value of Carbohydrate, Fat, and Protein
    1. The calorie content can be calculated if the number of grams of carbohydrates, fats, and protein is known.
    2. Multiply the grams of carbohydrates by 4, fat grams by 9, and protein grams by 4.
    3. The sum of these calorie subtotals will equal the number of calories in a food.
    4. Percentages for each can be obtained by dividing the total number of calories into the calories for each energy nutrient.

II. Nutrition and Health Promotion

a. Nutrition is complex. Understanding the relationship between diet and health is important.
    1. Diet is related to five of the leading causes of death—heart disease, cancer, stroke, diabetes, and hypertension.
    2. Early nutrition science efforts concentrated on eliminating deficiency diseases.
    3. These diseases have been virtually eliminated today, given this country's abundant food supply and practice of fortifying food with essential nutrients.
    4. Today, overnutrition, poor dietary habits, and environmental/lifestyle factors contribute to development of degenerative diseases such as diabetes, heart disease, and liver disease.

b. Everyone can benefit from healthful eating; however, some stand to gain more than others, such as those with high cholesterol who are at risk for heart disease.
    1. Environmental, behavioral, social, and genetic factors also play a role in determining a person's risk for a degenerative disease.
    2. Research pinpoints seven common lifestyle elements affecting the quality and longevity of life. These include:
        i. Avoiding excess alcohol
        ii. Not smoking
        iii. Maintaining a healthy weight
        iv. Exercising regularly
        v. Sleeping 7 to 8 hours a night
        vi. Eating breakfast
        vii. Eating nutritious, regular meals
    3. The impact of diet, together with lifestyle habits, accumulates over a lifetime.
    4. The key to optimal health lies in creating a lifestyle that includes time for preparing nutritious meals and enjoying regular physical exercise.

III. A National Agenda for Improving Nutrition and Health

a. Lifestyle behaviors, such as smoking, overeating, and failure to check blood pressure are choices people make on a daily basis.
b. Health promotion focuses on changing these behaviors and helping people making more positive choices.
c. *Healthy People 2030*
    1. US Department of Health and Human Services' national health promotion and disease prevention strategy laid out in 2020 to be accomplished by 2030.
    2. The four broad goals are to promote health and reduce chronic disease through the consumption of healthy diets and achievement and maintenance of healthy body weights.
    3. The objectives focus on risk reduction and specify targets for the intake of nutrients sodium and calcium and the intake of foods such as fruits, vegetables, and whole grain products.
    4. Other risk-reducing objectives set targets to reduce the prevalence of obesity, to reduce overall intake of saturated fat and added sugars, to increase the

number of schools that do not sell or offer calorically sweetened beverages, and to reduce the proportion of people who do not engage in leisure-time physical activity.

IV. Understanding Our Food Choices

a. A healthy eater resists disease and other stresses, and is more likely to enjoy an active, vigorous lifestyle for a number of years than a person with poor dietary habits.
b. Availability
    1. Americans have the most abundant food supply in the world due to geographical area, climate, soil conditions, labor, and capital.
    2. Access to many types of foods allows people to choose high-calorie diets, which contribute to obesity and increased risk for heart disease and other problems.
        i. Degenerative diseases are also known as diseases of affluence.
c. Income, Food Prices, and Convenience
    1. People with extremely low incomes may not be able to buy enough food to meet their minimum nutritional, needs putting them at risk for undernutrition.
    2. Energy-dense but low-energy costs (dollars per unit of energy) may be contributing to higher obesity rates in socioeconomically disadvantaged groups.
    3. Research shows that neighborhoods that are poor, rural, or predominantly minority may not have easy access to supermarkets and more healthful foods.
        i. *Food deserts* are defined as "urban neighborhoods or rural towns without ready access to fresh, healthy, and affordable food."
        ii. *Food swamps* are neighborhoods with large numbers of unhealthy eating options; these are more predictive of obesity rates than food deserts.
    4. Perceptions of cost play an important role in the choices of foods people make.
        i. Two barriers that prevent adoption of healthful eating behavior are the beliefs that they are too expensive and inconvenient.
    5. Research shows switching from a high-fat diet to one that is lower in fat can reduce food costs.
d. Advertising and the Media
    1. Media plays a powerful role in influencing our food choices and knowledge of nutrition.
    2. Most food advertising promotes products that aren't optimal choices for regular inclusion in a healthy diet.
    3. The food industry spends >$11 billion for food, beverage, and fast-food advertising which dwarfs any amount spent by government and nonprofit groups promoting fruits and vegetables.
e. Social and Cultural Factors
    1. Families play powerful roles in determining our food choices.
    2. Other outside influences, such as friends or coworkers, also influence food choices and eating behaviors.
    3. Many food habits arise from the traditions, belief systems, technologies, values, and norms of the cultures we live in.
    4. Religion may impact food choices, ranging from which foods their followers may eat or abstaining from food to show devotion, respect, and love to a supreme being or power.
f. Personal Values or Beliefs
    1. Some food choices are based on ethical views, sustainability, animal welfare concerns, and the benefits of purchasing locally produced, seasonally available, and organically grown food.
g. Other Factors that Affect Our Food Choices
    1. Humans are born with an affinity for sugars and usually prefer foods that have a happy association with them.

2. Parents can pass their food preferences on to their children.
3. Food habits can be tied to deep psychological needs; for example, using food to fill a void like lack of fulfilling work.
4. Our food choices reflect our unique cultural legacies, philosophies, and beliefs.

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## Discussion Questions

You can assign these questions several ways: in a discussion forum in your LMS; as whole-class discussions in person; or as a partner or group activity in class.

1. Why is it important to be an informed consumer when buying food or nutritional products?

   a. Answer: The goal of manufacturers and the media is to sell a product, not to educate consumers. Most nutritional supplements are useless and some harmful. The supplement industry is unregulated and health fraud and quackery are rampant.

2. Is it possible to be overweight (over fat) and undernourished?

   a. Answer: Yes, one can be overweight (over fat) from eating primarily nutrient-poor foods—junk food—that will not provide the essential nutrients found in abundance in nutrient-rich fruits and vegetables.

3. Go to **www.webmd.com** and choose a nutrition-related article under News and Experts in Health News to **critique** using the CARS checklist. Note: A critique is not a summary of what the article is about; it is an evaluation of whether or not a reader should believe the information given.

   a. Answer: The critique should include answers to the following questions:
      1. Credibility: Who was the lead researcher, what was the study design, was the motive of the article to impart knowledge or for personal gain, is **www.webmd.com** a reputable web site, and so forth.
      2. Accuracy: Check out the facts from the primary source. Watch for testimonials.
      3. Reasonableness: Information is fair, neither unbiased nor slanted.
      4. Support: Scientific references are available.

4. Go to your pantry and choose a food with a label. Determine the percent calories that come from carbohydrate, fat, and protein. Use the model in the box at the top of page 7 to guide you through the calculations.

   a. Answer: Answers will vary according to label chosen.
      1. To determine calories, take:
         a. Total fat grams and multiply by 9
         b. Total carbohydrate grams and multiply by 4
         c. Total protein grams and multiply by 4.
         d. Add up all the calories from the three nutrients.
      2. To determine percent of calories from each macronutrient,
         a. Fat: divide total calories into fat calories, get a decimal, & multiply by 100.
         b. Carbohydrate: divide total calories into carbohydrate calories, get a decimal, & multiply by 100.
         c. Protein, divide total calories into protein calories, get a decimal, & multiply by 100.

d. Do a self-check by adding all the percentages for the three nutrients. You should get a number very close to 100 percent, which represents the whole or all the calories available in the product.

5. Refer to the spectrum of diseases presented in Figure 1-4. Can an iron-rich diet reverse the effects of sickle-cell anemia? Iron-deficiency anemia? Why or why not?

a. Answer: No, an iron-rich diet cannot reverse the effects of a nutrition-unresponsive, genetic disorder like sickle-cell anemia. An iron-rich diet can reverse the effect of iron-deficiency anemia, a purely nutrient-dependent disorder.

6. One of the objectives of *Healthy People 2030* (Table 1-4) is for people over age 2 to reduce consumption of calories from saturated fats and added sugars. Assume a person is eating a fast-food cheeseburger, small fries, and small soft drink and the meal is 690 calories with 24 grams of fat. Calculate the percent calories from fat for this meal. Now, take away the calories for the small soft drink, 157 calories, and add water as the beverage. Does the percent of fat increase or decrease for this meal? Make a general statement about what you learned.

a. Answer: Calculations
    a. $24\ g\ fat \times 9\ calories/gram = 216/690 = 31\%$ calories from fat
    b. If the soft drink is removed: $216/(690 - 157) = 40\%$ calories from fat
b. The percent of calories from fat increases for the meal with water substituted for the soft drink. General statement: Sugar calories increase total calories, making a meal "look" healthier because it has a lower percentage of calories from fat when in fact it is not healthier due to the excess calories from added sugar.

7. What are the two ways that one can decrease his or her percent calories from fat in the diet? Which way is healthier?

a. Answer: One can decrease percent fat in the diet by decreasing fat grams consumed or increasing total calories by consuming pure carbohydrate or pure protein. It is healthier to decrease fat grams consumed.

8. A perceived barrier to healthy eating often includes the notion that it is more costly to eat healthy foods. Discuss a strategy to overcome the perceived barrier.

a. Answer: When measured on the basis of weight or average portion size, grains, vegetables, fruit, and dairy foods are less expensive than most protein foods and foods high in saturated fat, added sugars, and/or sodium. In other words, with healthy foods, you get fewer calories but more nutrients per dollar. Just cutting back on the amount of meat and poultry—the source of much of the saturated fat in the American diet and the category in which many of our food dollars are spent—goes a long way in trimming food budgets.

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## Additional Activities and Assignments

1. **Activity 1**: Student Expectations
    a. For the first class meeting, have each student briefly discuss why they are taking this class and what they hope to learn/gain from it.
    b. Virtual adaptation: Create an online poll & have students share what they hope to learn/gain from it based on the initial reason for taking the course. Responses may include:
        i. required for major
        ii. required for minor

iii. personal interest
iv. recommended by a peer or instructor/adviser

2. **Activity 2:** Student Nutrition Questions
   a. At the beginning of the first class have each student list four or five questions they have about nutrition or food. If you read the questions, it gives a good indication of the students' pre-class knowledge as well as their misconceptions or desires for taking the class. Near the end of the term, put the students into small groups and give each group an equal number of randomly selected questions from those provided by the students. See if the groups can now answer the questions themselves. Discuss the ones the students couldn't answer. (This makes a great course review.)

3. **Activity 3:** Guidelines for health
   a. List the three "Eating Pattern for Longevity" guidelines on a piece of paper and have each student write down what they think they mean – "Enough is enough," "Moderation and a healthful lifestyle," and "Psychological and spiritual health matters." Compare that with what they really mean. Ask the students why they thought what they did.
      i. Which make more sense?
      ii. Which do they like better?
      iii. Why?

4. **Activity 4**: Student Eateries
   a. Have each student list three or four places on or off campus where they eat most often and include reasons for choosing those eateries. Recommend the inclusion of:
      i. Why do you eat there?
      ii. Do you think the food is nutritious? Why or why not?
      iii. If you are unsure of nutritional value, where would you go to find more information about the food options?
      iv. Would you prefer to eat elsewhere? Why or why not?

5. **Activity 5**: Food Costs
   a. Have the students visit a local grocery store and compare prices of several food items that are raw versus processed. If they cannot go in-person, ask them to find the answers on their local grocery store's website. Examples of comparison foods:
      i. Frozen fruit or vegetables versus fresh fruit or vegetables (pound for pound)
      ii. Fresh fish versus fish sticks (similar-weight package)
      iii. Canned beans versus dried beans versus bean salad in a fresh salad bar if applicable.
   b. After a price comparison is made (on a per unit basis—ounce per ounce), have them compare the nutritional value. This would include fat (especially sat fat and *trans* fats), sodium, sugar, preservatives, coloring, and so forth. This will demonstrate that not only is fresh or less processed often cheaper, but also better nutritionally.

6. **Activity 6**: Health Claims on Product Labels
   a. Have the students find two products that have health claims listed on their labels. Have students create a page for each product with:

i. the name of the product
ii. the health claim
iii. how the product works (what does it do to improve health?)
iv. how much of the product must be consumed daily to have an effect.

b. Discuss the results of their investigations.
i. Do the claims seem reasonable?
ii. Do the suggested servings fit appropriately into a well-balanced diet?
iii. Can they foresee any possible negative impacts from consuming the recommended amount of this product?
iv. Is there an alternative method for achieving the same results?

7. **Activity 7**: The Internet as a Nutrition Information Source
   a. Have each student pick a food product, supplement, or additive that is generally regarded as safe (GRAS). Have them locate information from the web about this substance. Have them find some information on the same substance from a reliable (scientific) source and have them compare the information. Some examples include aspartame, creatinine, $CoQ_{10}$, choline, & GABA.
      i. Is the "web"-based information accurate?
      ii. Which source are they more likely to believe and why?
   b. This is a good time to introduce the students to the scientific method of providing accurate information about nutrition.

8. **Activity 8**: Dietary Practices
   a. Have the student list their typical foods consumed on a daily basis. They should include beverages and estimated time of consumption. Next have them select a religious practice from Table 1-7 Dietary Practices of Selected Religious Groups and ask them to modify their typical food intake to meet the guidelines of that religious group.
   b. Ask them to reflect on the updated meal plan:
      i. Do they think that they could follow this style of eating long-term?
      ii. What would be the most challenging about the change?
      iii. What would be easiest to implement?

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## Additional Resources

### External Videos or Playlist

- Personal Nutrition 11E YouTube Video Playlist: **https://www.youtube.com/playlist?list=PLQrJd5CIEILuQY76htQphnLCbxxVqWtyF**
- U.S. Food & Drug Administration: Health Fraud Scams – Be Smart, Be Aware, Be Careful | 3:39 | **https://youtu.be/KsPIwKbGxE8**
- U.S. Department of Health & Human Services: Healthy People 2030 Launch |35:14 | **https://youtu.be/atDcD86ChC8**
- MCHCP: How to Stock a Pantry | 3:56 | **https://youtu.be/PzePfznNLic**
- Tufts Medical Center: Eating Healthier When Dining Out | 1:56 | **https://youtu.be/aMoqwtbksmI**

- Level Up RN: Introduction, Overview of Nutrients | start at 1:51 with practice quiz questions starting at 5:11 ends 6:28 | **https://youtu.be/TIXZeu0kjFY**

## Internet Resources

- U.S. Department of Agriculture: Macronutrients | **https://nal.usda.gov/legacy/fnic/macronutrients**
- U.S. Department of Agriculture: Vitamins & Minerals | **https://nal.usda.gov/legacy/fnic/vitamins-and-minerals**
- U.S. Department of Agriculture: Ethnic/Cultural Food Pyramids | **https://nal.usda.gov/legacy/fnic/ethniccultural-food-pyramids**
- U.S. Food & Drug Administration: Label Claims for Food & Dietary Supplements | **https://www.fda.gov/food/food-labeling-nutrition/label-claims-food-dietary-supplements**
- Commission on Dietetic Registration: Registered Dietitian | **https://www.cdrnet.org/certifications/registered-dietitian-rd-certification**

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# Appendix

## Generic Rubrics

Providing students with rubrics helps them understand expectations and components of assignments. Rubrics help students become more aware of their learning process and progress, and they improve students' work through timely and detailed feedback.

Customize these rubric templates as you wish. The writing rubric indicates 40 points and the discussion rubric indicates 30 points.

## Standard Writing Rubric

| Criteria | Meets Requirements | Needs Improvement | Incomplete |
|---|---|---|---|
| Content | The assignment clearly and comprehensively addresses all questions in the assignment.<br>15 points | The assignment partially addresses some or all questions in the assignment.<br>8 points | The assignment does not address the questions in the assignment.<br>0 points |
| Organization and Clarity | The assignment presents ideas in a clear manner and with strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are logically related and consistent.<br>10 points | The assignment presents ideas in a mostly clear manner and with a mostly strong organizational structure. The assignment includes an appropriate introduction, content, and conclusion. Coverage of facts, arguments, and conclusions are mostly logically related and consistent.<br>7 points | The assignment does not present ideas in a clear manner and with strong organizational structure. The assignment includes an introduction, content, and conclusion, but coverage of facts, arguments, and conclusions are not logically related and consistent.<br>0 points |
| Research | The assignment is based upon appropriate and adequate academic literature, including peer-reviewed journals and other scholarly work.<br>5 points | The assignment is based upon adequate academic literature but does not include peer-reviewed journals and other scholarly work.<br>3 points | The assignment is not based upon appropriate and adequate academic literature and does not include peer-reviewed journals and other scholarly work.<br>0 points |
| Citation | The assignment follows the required citation guidelines.<br>5 points | The assignment follows some of the required citation guidelines.<br>3 points | The assignment does not follow the required citation guidelines.<br>0 points |
| Grammar and Spelling | The assignment has two or fewer grammatical and spelling errors.<br>5 points | The assignment has three to five grammatical and spelling errors.<br>3 points | The assignment is incomplete or unintelligible.<br>0 points |

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## Standard Discussion Rubric

| Criteria | Meets Requirements | Needs Improvement | Incomplete |
|---|---|---|---|
| Participation | Submits or participates in discussion by the posted deadlines. Follows all assignment instructions for initial post and responses.<br>5 points | Does not participate or submit discussion by the posted deadlines. Does not follow instructions for initial post and responses.<br>3 points | Does not participate in discussion.<br>0 points |
| Contribution Quality | Comments stay on task. Comments add value to discussion topic. | Comments may not stay on task. Comments may not add value to | Does not participate in discussion.<br>0 points |

| | | | |
|---|---|---|---|
| | Comments motivate other students to respond.<br>20 points | discussion topic. Comments may not motivate other students to respond.<br>10 points | |
| Etiquette | Maintains appropriate language. Offers criticism in a constructive manner. Provides both positive and negative feedback.<br>5 points | Does not always maintain appropriate language. Offers criticism in an offensive manner. Provides only negative feedback.<br>3 points | Does not participate in discussion.<br>0 points |

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