# Course Description

A comprehensive course that covers the essentials of optimum nutrition in health and disease. It includes macronutrients and energy metabolism, vitamins and minerals, and nutrition and diet for the client. The course includes an examination of clinical nutrition as it pertains to care of clients in a health care setting.

**University Learning Outcomes (ULO)**

* **ULO1**:Communication Skills
* **ULO2**: Professional Competency
* **ULO3**: Moral and Ethical Judgment
* **ULO4**: Problem Solving
* **ULO5**: Critical Thinking ­
* **ULO6**: Leadership in Society
* **ULO7**: Critical and Competent Use of Technology

# Program Learning Outcomes (PLO)

* **PLO1:** Synthesizes knowledge of nursing and the liberal arts and sciences as a basis for professional nursing practice.
* **PLO2:** Utilize professional judgment to formulate nursing decisions which reflect professional standards consistent with moral and ethical and legal principles.
* **PLO3:** Engages in reflective evaluation of self and other members of the healthcare team in accordance with the prevailing standards of care.
* **PLO4:** Collaborates with other health care providers and consumers in promoting the health and wellbeing of individuals, families, and communities.
* **PLO5:** Demonstrates responsibility and accountability in the use of the nursing process to deliver person centered care.
* **PLO6:** Utilize inter and intra professional communication and collaboration skills to deliver evidence-based care to promote the health and safety of individuals, families, and communities.
* **PLO7:** Applies leadership concepts, skills, and values to effectively implement patient safety and quality improvement initiatives in a variety of healthcare settings.
* **PLO8:** Creates a supportive environment through the therapeutic use of self when caring for individuals, families, and communities.
* **PLO9:** Demonstrates skills in using patient care technology, information systems, and communication devices that support safe nursing practice.
* **PLO10:** Integrates knowledge of social and cultural factors to deliver culturally sensitive care.
* **PLO11:** Advocates for social justice including a commitment to the health of vulnerable populations and the eliminations of health disparities to improve the human condition.
* **PLO12:** Articulates the value of pursuing practice excellence and lifelong learning to facilitate personal and professional development.

# Course Learning Outcomes (CLO)

* **CLO1**: Demonstrate an understanding of nutrients and their roles in promoting health and preventing disease.
* **CLO2**: Demonstrate the use of tools for planning and evaluating diets.
* **CLO3**: Identify the mechanisms by which food digestion, absorption, and metabolism occur.
* **CLO4**: Recognize the physical, emotional, social, and environmental factors influencing food choices.
* **CLO5**: Perform a personal assessment of dietary adequacy, summarize findings, and provide recommendation for improving personal diet quality.
* **CLO6**: Identify contemporary food and nutrition issues and controversies and begin to evaluate them using knowledge gained in this course.
* **CLO7**: Discuss the basics of modified diets and when they are used.
* **CLO8**: Apply nutrition principles to improve the nutritional status of clients with obesity/overweight issues and/or lifespan nutrition concerns.

**Student Expectations**

Students are expected to:

* ask probing and insightful questions related to course content.
* make meaningful and relevant connections and application to their own learning process.
* be productive and contributing members of class discussions.

# Required Course Materials

DeBruyne, L. K., & Pinna, K. *Nutrition for health and health care* (6th ed.). Boston, MA: Cengage, 2016.

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# Suggested Point Values

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Assessment** | **Point Value** | **Due** |
| **Week 1** | |  |  |
|  | Nutrient Interactive Games | 30 | <insert due date> |
| Case Study Week 1 | 40 |  |
| Diet Analysis Part 1 | 100 |  |
| Discussion: Reaction on How Your Diet Compared to MyPlate | 30 |  |
|  |  |  |
| **Week 2** | |  |  |
|  | Nutrient Interactive Games | 30 |  |
|  | Case Study Week 2 | 40 |  |
|  | Diet Analysis Part 2 | 100 |  |
|  | Discussion: Whole Grains | 30 |  |
|  |  |  |  |
| **Week 3** | |  |  |
|  | Nutrient Interactive Games | 30 |  |
|  | Case Study Week 3 | 40 |  |
|  | Patient Education Tool | 100 |  |
|  | Discussion: Discussion: Critique Another Student’s Patient Education Tool | 30 |  |
|  |  |  |  |
| **Week 4** | |  |  |
|  | Nutrient Interactive Games | 30 |  |
|  | Diet Analysis Part 3 | 90 |  |
|  | Presentation on Hydration for College Athletes | 80 |  |
|  |  |  |  |
|  |  |  |  |
| **Week 5** | |  |  |
|  | Nutrient Interactive Games | 30 |  |
|  | Case Studies Week 5 | 60 |  |
|  | Blog Post: Good Nutrition from Infants to Teenagers | 80 |  |
|  | Discussion: Pros and Cons of Breastfeeding | 30 |  |
|  |  |  |  |
| **Total Points** | | **1000** |  |

# Course Schedule

|  |  |  |
| --- | --- | --- |
| **Week** | **Start** | **End** |
|  |  |  |
| One | <insert start date> | <insert end date> |
| Two |  |  |
| Three |  |  |
| Four |  |  |
| Five |  |  |

# Weekly Learning Modules

|  |  |  |  |
| --- | --- | --- | --- |
| Week One: Nutrients and Dietary Reference Intakes, MyPlate, Food Labels, Fitness Guidelines, Digestion, and Absorption | | | |
| ***Learning Objectives*** | | ***Alignment*** | |
| * 1. Describe the six nutrients, and list foods rich in each nutrient and the number of calories in each nutrient. | | CLO1 | |
| * 1. Compare and contrast the four categories of dietary reference intakes. | | CLO2 | |
| * 1. Explain the acceptable macronutrient distribution ranges. | | CLO1, CLO2 | |
| * 1. Use the Dietary Guidelines for Americans and MyPlate to plan healthy diets and to identify nutritional contributions from each food group. | | CLO1, CLO 2 | |
| * 1. Interpret information on a nutrition label. | | CLO1, CLO 2 | |
| * 1. Distinguish between reliable and unreliable nutrition information. | | CLO6 | |
| * 1. Explain the physical fitness guidelines for adults. | | CL08 | |
| * 1. Describe the process of digestion and absorption. | | CLO3 | |
| * 1. Describe how nutrients are delivered from the gastrointestinal (GI) tract to the body’s cells. | | CLO3 | |
| ***Resources, Activities, and Preparation***  *Utilize these resources and complete these activities in preparation for your graded assignments.* | | ***Alignment*** | ***Pages/AIE/***  ***Generic*** |
| **Readings**  **Read** the following from *Nutrition for Health and Health Care:*   * Ch. 1 Overview of Nutrition and Health * Ch. 2 Digestion and Absorption | | 1.1-1.9 |  |
| **Videos**  **Watch** the following videos:   * [Introduction to Week One](http://www.synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nut200w1/presentation.html) (2:11) * New Dietary Guidelines (2:20) * Macronutrient Kilocalorie Values (3:49) * Pop-Up Tutor: Reading A Food Label (5:32) * Pop-Up Tutor: The GI Tract (5:08) * Pop-Up Tutor: Absorption Overview (4:32)   **Post** questions and comments about the content of the videos in the Week One General Q & A discussion forum on Blackboard. | | 1.1, 1.5, 1.4, 1.8, 1.9 | Review videos, post a response =  **2 hours** |
| **Graphics**  **Review** the following graphics:   * [Dietary Guidelines for Americans 2015-2020 Eighth Edition, For Professionals: Recommendations At-A-Glance](http://health.gov/dietaryguidelines/2015/resources/DGA_Recommendations-At-A-Glance.pdf) * [MyPlate Daily Checklist](https://choosemyplate-prod.azureedge.net/sites/default/files/myplate/checklists/MyPlateDailyChecklist_2000cals_Age14plus.pdf) * GI Tract   **Post** questions and comments about the content of the graphics in the Week One General Q & A discussion forum on Blackboard. | | 1.4, 1.8 |  |
| **Week 1 Applications**  Ch. 1 & 2 Self-Check: Complete all questions, and check your answers in Appendix H.  **Note.** Each week, you will have applications. These are not factored into your grade. Use the results to assess your learning before attempting the assignments.  **Post** questions and comments about the Week 1 Applications in the Week One General Q & A discussion forum on Blackboard or contact the instructor directly. | | 1.1, 1.2, 1.4, 1.5, 1.8, 1.9 | .5-hour quiz=  **.5 hour** |
| **Week 1 Practice Quiz**  **Complete** the Week 1 Practice Quiz.  **Note.** In Weeks 1, 4. & 5, you will have a practice quiz. You will be able see the correct answers in the practice quiz. This quiz is not factored into your grade. Use the results of this quiz to assess your learning before attempting the assignments. | | 1.1, 1.2, 1.4, 1.5, 1.8, 1.9 | .5-hour quiz=  **.5 hour** |
| **Presentation on Hydration for College Students Preparation**  In preparation for this Week 4 group assignment, your instructor will post an announcement by the end of Week 1 with group assignments. As soon as the announcement is posted, meet within your assigned group forum, and start working on this assignment. | | 4.7 |  |
| **Student Discussion Forum**  **Introduce** yourself by answering the following questions in the Student discussion forum by 11:59 p.m. (Eastern time) on Thursday:   * What is your academic background? * What college did you attend? * What area are you currently working in? * What is one detail about you that will help us remember you?   You can also include pictures of yourself, your family, pets, and so forth in your post.  **Read** all of your classmates’ discussion posts. Reply to one student who you have something in common with. | | N/A | Presentation: private post, share, and comment = **1 hour** |
| **Total** |  |  | **3** |
| ***Supplemental Resources and Activities***  *Explore these optional resources to deepen your understanding.* | | ***Alignment*** | ***Pages/AIE/***  ***Generic*** |
| **Website**  **Review** [Food-based dietary guidelines](http://www.fao.org/nutrition/nutrition-education/food-dietary-guidelines/en/).  **Use** these to compare the U.S. Dietary Guidelines to another country’s guidelines. | | 1.4 |  |
| **Videos**  **Watch** the following videos:   * Pop-Up Tutor: Using a Food Label (2:44) * The Digestive Fate of a Sandwich (2:39) | | 1.5, 1.8, 1.9 |  |
| **Total** |  |  |  |
| ***Graded Assignments***  *Complete these graded assessments by the end of the week unless specified otherwise.* | | ***Alignment*** | ***Points/AIE/***  ***Generic*** |
| **Nutrient Interactive Game**  **Complete** the [Week 1 Nutrient Game](http://synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nutrient-games/01/story.html).  **Submit** your certificate of completion to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 1.1 | 1.5-hour quiz = **1.5 hour** |
| **Case Study**  **Complete** the Case Study Week 1 Worksheet.  **Submit** the completed worksheet to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 1.1, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9 | 1 case study with review of instructor feedback **= 1 hour** |
| **Personal Diet Analysis Part 1**  You will complete a personal diet analysis during Weeks 1, 2, & 4. For three days, you must record everything you eat and drink, including snacks and beverages. Don’t change your eating habits during this time. If possible, include two weekdays and one weekend day to keep this as representative of your eating as possible. You are not being graded on what you eat, but on entering all foods and beverages properly and analyzing your diet by thoughtfully answering the questions in a number of areas.  **Complete** the Diet Analysis Part 1 Worksheet by entering all your foods and drinks for three days on the SuperTracker website, and then answer questions about how your diet compares to MyPlate.  **Submit** your completed worksheet to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 1.1, 1.4 | Guided Project with review of instructor feedback =  **2 hours** |
| **Discussion: Reaction on How Your Diet Compared to MyPlate**  **Pos**t a clear and logical response in 150–200 words to the following questions, providing specific examples to support your answers.  1. How did your diet compare to the MyPlate food groups and added sugars?  2. What were you most surprised by in this exercise?  **Note.** Initial answers to the question are due by 11:59 p.m. (Eastern time) on Thursday.  **Respond** to at least twostudents to compare or contrast your diet findings with theirs. All responses must be posted by 11:59 p.m. (Eastern time) on Sunday. | | 1.1, 1.4 | Discussion: one post and replies to two other posts = **0.75 hour** |
| **Total** |  |  | **9.25** |

# Faculty Notes

**Weekly Applications and Quizzes**

Each week under Required Learning Resources and Activities, there are there are weekly applications. Weeks 1, 4, & 5 under Required Learning Resources and Activities include quizzes. Students are not required to complete these applications and quizzes, as they do not count toward their grades. These are opportunities for students to test their comprehension of the weekly topics before completing the weekly assignments. The answer key for the clinical applications and the Major Sources of Fats in Foods Worksheet is located under Faculty Resources.

**Grading Nutrient Games**

Students will submit their certificate of completion to Blackboard. Students receive full points for submitting their certificate of completion on time and zero points if no certificate of completion is submitted.

**Week 4 Presentation on Hydration for College Students Setup and Grading**

Groups for this assignment should be set up by the end of Week 1. Post an instructor announcement informing students of which group they are in. For ease in grading this assignment, have each student submit the assignment individually for grading.

**Description of Rationale for Assignments**

The Nutrient Interactive Games will help the students identify foods high in carbohydrate, fat, and protein. For the case study, students must write a 2,000 calorie MyPlate menu for one day using the U.S. Department of Agriculture (USDA) pattern. Students often are unsure about this and may have questions, because they have probably never written a menu. Emphasize for them to use the pattern properly. The Diet Analysis project requires students to use SuperTracker to enter everything they eat and drink for three days. The project has three parts, and this part requires them to enter of all the items and answer questions about how their diet compares to MyPlate, which is the discussion question.

# Content Outline

Use this content outline to guide students through the course material.

1. Nutrition and nutrients
2. Calories
3. Dietary reference intakes and acceptable macronutrient distribution ranges
4. Dietary Guidelines for Americans
5. MyPlate and USDA food patterns
6. Fitness guidelines
7. Foods labels: Ingredients list, nutrition facts panel, and label claims
8. Anatomy of digestive tract
9. The process of digestion
10. The absorptive system
11. Transport of nutrients

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| --- | --- | --- | --- |
| Week Two: Carbohydrates, Lipids, and Proteins | |  |  |
| ***Learning Objectives*** | | ***Alignment*** | |
| * 1. Compare and contrast sugar, starch, and fiber, including food sources and dietary recommendations. | | CLO1, CLO 2 | |
| * 1. Identify foods high in natural sugars and foods high in added sugars. | | CLO1, CLO 5 | |
| * 1. Explain why whole grains are healthier than refined grains. | | CLO1, CLO 2 | |
| * 1. Explain how hormones control blood glucose concentrations and the glycemic index. | | CLO3 | |
| * 1. Identify foods high and low in fat, saturated fat, unsaturated fats, trans fatty acids, DHA/EPA, and cholesterol. | | CLO1, CLO 2, CLO 5 | |
| * 1. Discuss the dietary recommendations for fat and cholesterol. | | CLO1, CLO 2 | |
| * 1. Compare and contrast the nutrients and protein quality in animal and plant protein. | | CLO1, CLO 2 | |
| * 1. Explain the dietary recommendations for protein, including the consequences of eating too much or too little protein. | | CLO1, CLO 2 | |
| * 1. List types and health benefits of vegetarian diets, and identify nutrients of concern. | | CLO1, CLO 2 | |
| * 1. Explain how carbohydrates, lipids, and proteins are digested and absorbed. | | CLO1, CLO 3 | |
| * 1. Discuss the functions of carbohydrates, lipids, and proteins in the body. | | CLO1 | |
| ***Resources, Activities, and Preparation***  *Utilize these resources and complete these activities in preparation for your graded assignments.* | | ***Alignment*** | ***AIE*** |
| **Readings**  **Read** the following from *Nutrition for Health and Health Care:*   * Ch. 3 Carbohydrates * Ch. 4 Lipids * Ch. 5 Protein | | 2.1-2.11 |  |
| **Videos**  **Watch** the following videos:   * [Introduction to Week Two](http://www.synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nut200w2/presentation.html) (2:08) * Pop-Up Tutor: Blood Glucose Regulation (8:42) * Pop-Up Tutor: Triglycerides (2:43) * Pop-Up Tutor: Protein Overview (3:13) * Pop-Up Tutor: Complementary Proteins (3:04)   **Post** questions and comments about the videos in the Week Two General Q & A discussion forum on Blackboard. | | 2.1, 2.4, 2.5, 2.7, 2.11 | Review videos, post a response =  **1.5 hours** |
| **Graphics**  **Review** the following graphics**:**   * Whole and refined grains * Major sources of various lipids * Foods containing protein   **Post** questions and comments about the graphics in the Week Two General Q & A discussion forum on Blackboard. | | 2.3, 2.5, 2.7 |  |
| **Week 2 Applications**  **Complete** the following:   * All questions in Ch. 3, 4, & 5 Self-Checks * Checking your answers to the self-checks using Appendix H * Ch. 3 Clinical Application 1 on p. 84 * Major Sources of Fats in Foods Worksheet   **Submit** your answers to Clinical Application 1 and Major Sources of Fats in Foods Worksheet to Blackboard. | | 2.1, 2.2, 2.5-2.9, 2.11 | 1-hour quiz=  **1 hour** |
| **Total** |  |  | **2.5** |
| ***Supplemental Resources and Activities***  *Explore these optional resources to deepen your understanding.* | | ***Alignment*** | ***AIE*** |
| **Website**  **Review** [American Heart Association – My Fats Translator.](https://www.heart.org/HEARTORG/HealthyLiving/FatsAndOils/Fats101/My-Fats-Translator_UCM_428869_Article.jsp)  You can use the calculator to see how many grams of fat, saturated fat, and trans fat you may have each day. | | 2.6 |  |
| **Videos**  **Watch** the following videos:   * Pop-Up Tutor: Digestion and Absorption of Lipids (2:04) * How Protein in Food Becomes Amino Acids in the Body (1:50) | | 2.10 |  |
| **Total** |  |  |  |
| ***Graded Assignments***  *Complete these graded assessments by the end of the week unless specified otherwise.* | | ***Alignment*** | ***AIE*** |
| **Nutrient Interactive Game**  **Complete** the [Week 2 Nutrient Game](http://synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nutrient-games/02/story.html).  **Submit** your certificate of completion to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 2.1, 2.2, 2.5 | 3-hour quiz =  **3 hours** |
| **Case Study**  **Complete** the following Case Study on Saturated and Trans Fats.  Kevin, a 58-year-old male engineer, has a higher than normal risk of heart disease due to family history, being overweight, and having high blood pressure. The following is a composite of his typical diet:   * Eats more than 12 ounces of meat most days * Drinks whole milk and eats regular cheddar cheese every day * Eats the following breads and cereals each day: a bagel with cream cheese for breakfast, a bologna sandwich or corned beef on white bread for lunch with chips, and biscuits or cornbread with butter to accompany dinner * Eats commercial cookies and cake daily * Eats less than the equivalent of a cup of fruit each day and eats vegetables only on occasion   **Complete** the following:   * What advice can you offer him in terms of his diet to lower calories, fat, saturated fat, and/or trans-fat? * Make a list of foods, beverages, and seasonings that Kevin can substitute for foods high in saturated fat. Include some sources of plant protein. * Explain why fat and protein are both important in the diet, and also why lean protein is important.   **Submit** your answers to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 2.5, 2.6, 2.7, 2.8. 2.11 | 1 case study with review of instructor feedback **= 1 hour** |
| **Diet Analysis Part 2**  This week you will analyze your carbohydrate, fat, and protein intake.  **Complete** the Diet Analysis Part 2 Worksheet.    **Submit** your completed worksheet to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 1.3, 2.1, 2.5,  2.6, 2.7, 2.9 | Guided Project with review of instructor feedback =  **2 hours** |
| **Discussion: Whole Grains**  **Pos**t a clear and logical response in 200–250 words to the following prompts, providing specific examples to support your answers.   * Why are whole grains more nutritious and healthier than refined grains? Give two examples. * Give the brand name of a 100% whole grain bread, cracker, or cereal. Explain why you think it is 100% whole grain. * How does eating fiber in foods (such as whole grains) affect your blood glucose level?   **Note.** Initial answers to the question are due by 11:59 p.m. (Eastern time) on Thursday.  **Review** your classmates’ responses, and examine the whole grain products mentioned to see if they are really 100% whole grain.  **Respond** to at least twostudents who you agree or disagree with. All responses must be posted by 11:59 p.m. (Eastern time) on Sunday. | | 2.3, 2.4, 2.10 | Discussion: one post and replies to two other posts = **0.75 hour** |
| **Total** |  |  | **9.25** |

# Faculty Notes

**Description and Rationale for Assignments**

The Nutrient Interactive Games will help the students identify foods high in added sugars, dietary fat, saturated fat, unsaturated fat, trans fats, and cholesterol. The case study focuses on better food choices that are lower in saturated and trans fats. The diet analysis has the students analyze and answer questions about their carbohydrate, fat, and protein intake. The discussion is geared toward whole grains—why they are healthier and how fiber affects blood glucose. In the discussion, each student also must give a real example of a 100% whole-grain food. Students are allowed to question each other if a food someone posts, such as Rice Krispies, is not really 100% whole grain.

# Content Outline

Use this content outline to guide students through the course material.

1. Functions of carbohydrates, lipids, and proteins
2. Digestion and absorption of carbohydrates, lipids, and proteins
3. Carbohydrates
   1. Food sources and health effects of sugars, starch, and fibers
   2. Regulation of blood glucose
4. Lipids: Food sources and health effects of saturated fats, poly- and monounsaturated fats, trans fats, DHA/EPA, and cholesterol
5. Proteins
   1. Essential and nonessential amino acids
   2. Protein and health
   3. Protein in foods
   4. Vegetarian diets

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week Three: Energy Balance and Weight Management, Diets for Gastrointestinal Disorders, Nutrition Assessment | | | | |
| ***Learning Objectives*** | | ***Alignment*** | | |
| * 1. Explain energy balance and identify the components of energy expenditure and the factors that affect your basal metabolic rate. | | CLO8 | | |
| * 1. Describe the differences between body weight and body composition, including methods of measurement and health implications. | | CLO8 | | |
| * 1. Describe how to implement the following components of a weight-loss and weight-maintenance program: eating plan, exercise, behavior and attitudes, social support, and maintenance support. | | CLO4, CL08 | | |
| * 1. Identify inappropriate obesity treatments. | | CL08 | | |
| * 1. Explain the nutrition management of dry mouth, dysphagia, Gastroesophageal reflux disease (GERD), dyspepsia, nausea and vomiting, gastritis, and peptic ulcer disease. | | CLO7 | | |
| * 1. Explain the nutrition management of constipation, intestinal gas, diarrhea, fat malabsorption, celiac disease, and irritable bowel syndrome. | | CLO7 | | |
| * 1. Illustrate the ABCDs of nutrition assessment. | | CLO2 | | |
| ***Resources, Activities, and Preparation***  *Utilize these resources and complete these activities in preparation for your graded assignments.* | | ***Alignment*** | | ***AIE*** |
| **Readings**  **Read** the following from *Nutrition for Health and Health Care*:   * Ch. 6 Energy Balance and Body Composition * Ch. 7 Weight Management * Ch. 13 Nutrition Care and Assessment * Ch. 17 Nutrition and Upper Gastrointestinal Disorders pages 479-490 * Ch. 18 Nutrition and Lower Gastrointestinal Disorders – page 503-513, 516-519, 524-525   **Read** [How to Lose Weight: 9 Strategies to Try](http://www.nytimes.com/interactive/2016/03/17/health/how-to-lose-weight.html?_r=1). | | 3.1-3.7 | |  |
| **Videos**  **Watch** the following videos:   * [Introduction to Week Three](http://www.synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nut200w3/presentation.html) (1:32) * Eat Less to Lose Weight (2:12) * Gastroesophageal Reflux Disease (3:22)   **Post** questions and comments about the content of the videos in the Week Three General Q & A discussion forum on Blackboard. | | | 3.1,3.3  3.3  3.5 | Review videos, post a response =  **1 hour** |
| **Graphics**  **Review** the following graphics:   * Benefits of Physical Activity in a Weight-Management Program * Weight-Loss Strategies * Behaviors to Maintain Weight Loss * Foods That May Worsen Diarrhea | | | 3.3  3.3  3.3  3.6 |  |
| **Website**  **Review** [Calculate Your Body Mass Index](http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm). | | | 3.2 |  |
| **Week 3 Applications**  **Complete** the following:   * All questions in Ch. 6, 7, & 13 Self-Checks * Checking your answers to the self-checks using Appendix H * Questions 1–8 in Ch. 17 Self-Check * Checking your answers to the self-check questions using Appendix H * Questions 1–4, 6, & 8 in Ch. 18 Self-Checks * Checking your answers to the self-check questions using Appendix H * Ch. 13 Clinical Application 2 on p. 390 * Ch. 17 Clinical Application 1 on p. 497 * Ch. 18 Clinical Application 2 on p. 530   **Submit** your clinical application answers to Blackboard. | | | 3.1-3.7 | 1-hour quiz=  **1 hour** |
| **Total** |  |  | | **2** |
| ***Supplemental Resources and Activities***  *Explore these optional resources to deepen your understanding.* | | ***Alignment*** | | ***AIE*** |
| **Readings**  **Read** [Portion Distortion](http://www.nhlbi.nih.gov/health/educational/wecan/eat-right/portion-distortion.htm). | | | 3.3 |  |
| **Video**  **Watch** [Slim by Design Kitchen Makeover](https://youtu.be/As1zpGGMr-U). | | | 3.3 |  |
| **Total** |  |  | |  |
| ***Graded Assignments***  *Complete these graded assessments by the end of the week unless specified otherwise.* | | ***Alignment*** | | ***AIE*** |
| **Nutrient Interactive Game**  **Complete** the [Week 3 Nutrient Game](http://synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nutrient-games/03/story.html).  **Submit** your certificate of completion to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 3.5, 3.6 | | 2-hour quiz=  **2 hours** |
| **Case Study**  **Complete** the Nutrition Screening & Assessment Case Study on p. 388 in Ch. 13 of *Nutrition for Health and Health Care*.  **Submit** your answers to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 3.2, 3.7 | | 1 case study with review of instructor feedback **= 1 hour** |
| **Patient Education Tool**  **Resource:** [Avery Tri-Fold Brochure Landscape Template](http://www.avery.com/avery/en_us/Templates-%26-Software/Templates/Cards/Brochures-Door-Hangers-%26-Flyers/Tri_Fold-Brochure-Landscape_Microsoft-Word.htm)  **Develop** a tri-fold educationalbrochure on how to lose weight. The brochure should consist of three panels made by two folds in the paper. The brochure should provide information on the energy expenditure, dangers of obesity, inappropriate obesity treatments, and how to implement an individual weight loss program, in whatever order you prefer. Include sources for further information on back panel. This project will be evaluated on information accuracy and usability, creativity, visual appeal, and readability. Most materials like this are written at the eighth-grade reading level.  **Submit** the completed brochure to Blackboard, and post it in the Patient Education Tool discussion forum by 11:59 p.m. (Eastern time) on Thursday. | | 3.1-3.4 | | Project-review instructor feedback and review other students’ projects =  **1.75 hours** |
| **Discussion: Critique Another Student’s Patient Education Tool**  **Review** your classmates’ tools. Offer positive comments and also any constructive criticism to at least two students. All responses must be posted by 11:59 p.m. (Eastern time) on Sunday. | | 3.1-3.4 | | Discussion: one post and replies to two other posts = **0.75 hour** |
| **Total** |  |  | | **7.5** |

# Faculty Notes

**Description and Rationale for Assignments**

The Nutrient Interactive Games this week focus on foods not allowed on the soft and ground diets (National Dysphagia Diets), as well as foods that worsen diarrhea and foods that contain gluten. Common GI issues, such as constipation and diarrhea, are important for nursing students. This week’s activities are more patient focused. Students complete a case study on basic nutrition assessment and also develop a patient education tool for use in losing weight. Students must offer positive comments and constructive criticism to at least two other students on their patient education tool.

# Content Outline

Use this content outline to guide students through the course material.

1. Energy balance and weight management
   1. Energy balance and energy expenditure
   2. Body weight and body composition (including measurement: body mass index (BMI) and waist circumference)
   3. Health risks of overweight patients and those with obesity
   4. Components of a weight loss and maintenance program
   5. Inappropriate obesity treatments
   6. Nutrition management of gastrointestinal disorders
      1. Upper GI: Dry mouth, dysphagia, GERD, dyspepsia, nausea/vomiting, gastritis, and peptic ulcer disease
      2. Lower GI: Constipation, intestinal gas, diarrhea, fat malabsorption, celiac disease, and irritable bowel syndrome
   7. Nutrition assessment: ABCDs

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| Week Four: Vitamins, Minerals, Water, Low Sodium Diets, Potassium Modified Diets | |  |  |
| ***Learning Objectives*** | | ***Alignment*** | |
| * 1. Describe basic characteristics of vitamins and minerals. | | CLO1 | |
| * 1. Identify vitamins and minerals that are low in the American diet and the health implications of those low levels. | | CLO1, 2 | |
| * 1. Identify functions and food sources of the fat-soluble vitamins A, D, E, and K. | | CLO1, 2 | |
| * 1. Identify functions and food sources of the water-soluble vitamins thiamin, riboflavin, and niacin, B6, B12, folate, and C.   2. Identify functions and food sources of minerals, including calcium, magnesium, potassium, sodium, iron, iodine, fluoride, and zinc. | | CLO1, 2  CLO1, 2 | |
| * 1. Design low-sodium diets and diets modified in potassium. | | CLO1, 7 | |
| * 1. Explain the functions of water in the body and the number of cups of fluids needed daily for adults. | | CLO1, 2 | |
| ***Resources, Activities, and Preparation***  *Utilize these resources and complete these activities in preparation for your graded assignments.* | | ***Alignment*** | ***AIE*** |
| **Readings**  **Read** the following from *Nutrition for Health and Health Care*:   * Ch. 8 The Vitamins * Ch. 9 Water and the Minerals * Ch. 22 Nutrition and Renal Diseases pages 623-624 | | 4.1-4.7 |  |
| **Videos**  **Watch** the following videos:   * [Introduction to Week Four](http://www.synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nut200w4/presentation.html) (2:01) * Vitamin D for Osteoporosis (1:43) * Pop-Up Tutor: Antioxidants (2:09) * Pop-Up Tutor: Calcium (2:05) * Pop-Up Tutor: Iron (2:48) * [The Importance of a Low-Salt Diet](https://youtu.be/IUhRw90wmnU)   **Post** questions and comments about the content of the videos in the Week Four General Q & A discussion forum on Blackboard. | | 4.1-4.7 | Review videos, post a response =  **2 hours** |
| **Week 4 Applications**  **Complete** the following:   * All questions in Ch. 8 & 9 Self-Checks * Checking your answers using Appendix H * Ch. 8 Clinical Application 2 on p. 220 * Ch. 9 Clinical Application 1 on p. 258   **Submit** your clinical application answers to Blackboard. | | 4.1-4.7 | .5-hour quiz=  **.5 hour** |
| **Week 4 Practice Quiz**  **Complete** the week 4 practice Quiz.  **Note.** InWeeks 1, 4. & 5, you will have a practice quiz. You will be able see the correct answers in the practice quiz. This quiz is not factored into your grade. Use the results of this quiz to assess your learning before attempting the assignments. | | 4.1-4.7 | .5-hour quiz=  **.5 hour** |
| **Total** |  |  | **3** |
| ***Supplemental Resources and Activities***  *Explore these optional resources to deepen your understanding.* | | ***Alignment*** | ***AIE*** |
| **Reading**  **Read** [POTASSIUM AND YOUR CKD DIET](http://www.kidney.org/atoz/content/potassium). | | 4.6 |  |
| **Total** |  |  |  |
| ***Graded Assignments***  *Complete these graded assessments by the end of the week unless specified otherwise.* | | ***Alignment*** | ***AIE*** |
| **Nutrient Interactive Game**  **Complete** the [Week 4 Nutrient Game](http://synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nutrient-games/04/story.html).  **Submit** your certificate of completion to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 4.3-4.6 | 2-hour quiz = **2 hours** |
| **Diet Analysis Part 3**  This week, you will analyze your vitamin and mineral intake.  **Complete** the Diet Analysis Part 3 Worksheet.    **Submit** the completed worksheet to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 1.2, 4.1-4.6 | Guided Project with review of instructor feedback =  **2 hours** |
| **Presentation on Hydration for College Students**  **Work** in a group of three to four students to develop a set of Microsoft® PowerPoint® slides that could be used to talk about the importance of hydration for college students. Your presentation must be 20–30 minutes long and should include at least 15 slides, including a title slide and reference slide.  **Include** two to four slides on each of the following topics:   * Functions of water in the body * Regulation of water intake and excretion * Sources of water, including food * Water recommendations * Tips on taking in enough fluids   Your presentation will be graded on organization, accuracy and relevance of information, insight about the topic and the audience, as well as attractiveness and readability of the slides. Resources must be listed at the end.  **Note.** Don’t pack your slides with information. Instead, highlight major ideas, and use attractive graphics.  **Submit** your presentation to Blackboard, and post it in the Presentation discussion forum by 11:59 p.m. (Eastern time) on Thursday. | | 4.7 | Group Project with instructor feedback:  **3 hours** |
| **Discussion: Presentation on Hydration for College Students**  **Review** your classmates’ presentations. Offer positive comments and also any constructive criticism to at least two students. All responses must be posted by 11:59 p.m. (Eastern time) on Sunday. | |  |  |
| **Total** |  |  | **10** |

# Faculty Notes

**Description and Rationale for Assignments**

The Nutrient Interactive Games include four important vitamins and minerals: vitamins A and C, and potassium and sodium. Student will complete the last part of the Diet Analysis and review their consumption of vitamins and minerals. They will list which foods high in vitamins and minerals are at low levels in their diets, and will also write a summary of what they learned from this project. To apply their knowledge of water and hydration, students in small groups will prepare Microsoft® PowerPoint® presentations.

# Content Outline

Use this content outline to guide students through the course material.

1. Basic characteristics of vitamins and minerals
   1. Functions of water and hydration
   2. Functions and food sources of the following:
      1. Fat soluble vitamins: A, D, E, K
      2. Water soluble vitamins: thiamin, riboflavin, niacin, B6, B12, folate, vitamin C
      3. Minerals: calcium, magnesium, potassium, sodium, iron, iodine, fluoride, and zinc
   3. Vitamins and minerals low in the American diet, and the health implications of those low levels
   4. Low sodium and low potassium diets

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| Week Five: Nutrition for Diabetes, Nutrition for Cardiovascular Disease, Lifespan Nutrition, Food Allergies | | | |
| ***Learning Objectives*** | | ***Alignment*** | |
| * 1. Explain the nutrition management of individuals with diabetes. | | CLO1, 2, 7 | |
| * 1. Explain the components of a heart-healthy diet as a treatment approach for coronary heart disease, hypertension, and stroke. | | CLO1, 2, 7 | |
| * 1. Discuss the importance of good nutrition and healthy habits before and during pregnancy. | | CLO8 | |
| * 1. Summarize the nutrition requirements of mothers during lactation. | | CLO8 | |
| * 1. Describe the nutritional needs for infants up to one year of age. | | CLO8 | |
| * 1. Discuss the nutritional needs of children from one year of age to puberty and how to overcome the challenges in meeting their needs. | | CLO8 | |
| * 1. Identify ingredients that cause most of the food allergies in the U.S. and symptoms of food allergy. | | CLO8 | |
| * 1. Describe the nutrient needs of adolescents and how to overcome the challenges in meeting these needs. | | CLO8 | |
| * 1. Describe the nutrient needs of older adults and how to overcome the challenges in meeting these needs. | | CLO8 | |
| * 1. Assess the nutritional status of children, adolescents, and older adults, and make recommendations for improvements. | | CLO8 | |
| ***Resources, Activities, and Preparation***  *Utilize these resources and complete these activities in preparation for your graded assignments.* | | ***Alignment*** | ***AIE*** |
| **Readings**  **Read** the following from *Nutrition for Health and Health Care*:   * Ch. 10 Nutrition through the Life Span: Pregnancy and Lactation * Ch. 12 Nutrition through the Life Span: Later Adulthood * Ch. 20 Nutrition and Diabetes Mellitus pages 554-567 * Ch. 21 Nutrition and Cardiovascular Diseases pages 584-601 | | 5.1-5.10 |  |
| **Graphics**  **Review** the following graphics:   * Infant Development and Recommended Foods * Benefits of Breastfeeding | | 5.5 |  |
| **Videos**  **Watch** the following videos:   * [Introduction to Week Five](http://www.synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nut200w5/presentation.html) (0:52) * The Placenta (1:24) * Diabetes – A Prevalent Chronic Disease (0:45) * The Formation of Plaques in Atherosclerosis (2:52) * [Understanding Food Allergy](https://www.youtube.com/watch?v=AKVjKC3u9hk) * [How to get your children to try new foods](https://youtu.be/sf8JkZeoqFQ) * [MNA Mini Nutritional Assessment for Older Adults](http://www.mna-elderly.com/user_guide.html)   **Post** questions and comments about the content of the videos in the Week Five General Q & A discussion forum on Blackboard. | | 5.1-5.3,  5.5-5.7,  5.9-5.10 | Review videos, post a response =  **2.5 hours** |
| **Week 5 Applications**  **Complete** the following:   * All questions in Ch. 10, 11, & 12 Self-Checks * Checking your answers to the self-checks using Appendix H * Questions 1–7 in the Ch. 20 Self-Check * Checking your answers to the self-check using Appendix H * Questions 1–9 in the Ch. 21 Self-Check * Checking your answers to the self-check using Appendix H * Ch. 11 Clinical Applications 1 & 2 on pp. 332–333 * Ch. 21 Clinical Application 2 on p. 605   **Submit** your clinical application answers to Blackboard. | | 5.1-5.10 | .5-hour quiz=  **.5 hour** |
| **Week 5 Practice Quiz**  **Complete** the Week 5 Practice Quiz.  **Note**. InWeeks 1, 4. & 5, you will have a practice quiz. You will be able see the correct answers in the practice quiz. This quiz is not factored into your grade. Use the results of this quiz to self-assess your learning before attempting the assignments. | | 5.1-5.10 | .5-hour quiz=  **.5 hour** |
| **Total** |  |  | **3.5** |
| ***Supplemental Resources and Activities***  *Explore these optional resources to deepen your understanding.* | | ***Alignment*** | ***AIE*** |
| **Video**  **Watch** Let’s Move: Michelle Obama Initiative (1:17) | | 5.6 |  |
| **Total** |  |  |  |
| ***Graded Assignments***  *Complete these graded assessments by the end of the week unless specified otherwise.* | | ***Alignment*** | ***AIE*** |
| **Nutrient Interactive Game**  **Complete** the [Week 5 Nutrient Game](http://synergiseducation.com/academics/schools/Gwynedd-Mercy/nut200/nutrient-games/05/story.html).  **Submit** your certificate of completion to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 5.2, 5.3, 5.6 | 1.5-hour quiz=  **1.5 hours** |
| **Case Studies**  **Complete** the Case Study Week 5 Worksheet.  **Submit** the completed worksheet to Blackboard by 11:59 p.m. (Eastern time) on Sunday. | | 5.1, 5.3, 5.9, 5.10 | 3 case studies with review of instructor feedback **= 3 hours** |
| **Blog Post: Good Nutrition from Infants to Teenagers**  You have been asked to write a three-part blog post series on nutritional guidance for parents and caregivers of children from infancy to teens, totaling 600–800 words. Part 1 will address nutritional challenges of infancy. Part 2 will address nutritional challenges of children with allergies. Part 3 will address nutritional challenges of teens who eat out often with their friends. Your blog posts should be relevant, in depth, and provide advice and resources to address these challenges.  **Submit** your blog post to Blackboard by 11:59 p.m. (Eastern time) on Thursday.  **Review** your classmates’ blog posts, and comment on at least one blog post by 11:59 p.m. (Eastern time) on Sunday. | | 5.5, 5.7, 5.8 | Blog -review instructor feedback and review other students’ blogs with 1 response =  **2.5 hours** |
| **Discussion: Pros and Cons of Breastfeeding**  **Pos**t a clear and logical response in 150–200 words to the following prompt, providing specific examples to support your answers.   * In your opinion, what would be at least one reason why you would support breastfeeding, and one barrier to breastfeeding that a mother may experience?   **Note.** Initial answers to the question are due by 11:59 p.m. (Eastern time) on Thursday.  **Respond** to at least two students with an argument against their reason to support breast feeding or a method to overcome the barrier your classmate presented. All responses must be posted by 11:59 p.m. (Eastern time) on Sunday. | | 5.4 | Discussion: one post and replies to two other posts = **0.75 hour** |
| **Total** |  |  | **11.25** |

# Faculty Notes

**Description and Rationale for Assignments**

The final nutrient games will help students learn about heart-healthy diets and food high in folate and iron. Vitamins and minerals were reviewed last week, but folate is important during pregnancy, and iron is important for children. The students will complete case studies on nutrition during pregnancy, nutrition for the elderly, and nutrition and diabetes. The questions require a good deal of thought. The discussion is on the pros of breastfeeding and obstacles to breastfeeding, which should provoke a lively discussion. Students will also develop a blog post with nutritional guidance on a given topic for each of the following groups: infants, children, and teens. Students will also review other blog posts and make comments.

# Content Outline

Use this content outline to guide students through the course material.

1. Nutrition management of diabetes (carbohydrate counting)
   1. Components of heart-healthy diets (for coronary heart disease, hypertension, and stroke)
   2. Pregnancy and breastfeeding
      1. Nutrition and weight before and during pregnancy: effect on the infant
      2. Common nutrition-related concerns of pregnancy
      3. Practices to avoid during pregnancy
      4. Breastfeeding benefits
      5. Nutrition during lactation
   3. Infancy
      1. Nutrient needs for infants
      2. Breast milk, formula, and consuming milk during infancy
      3. First foods
      4. Mealtimes
   4. Childhood
      1. Energy and nutrient needs for growth
      2. Mealtimes
      3. Food allergies
      4. Childhood obesity
      5. Assessing nutritional status
   5. Adolescence
      1. Energy and nutrient needs for growth
      2. Food choices
      3. Assessing nutritional status
   6. Older adults
      1. Aging and nutrition-related concerns
      2. Energy and nutrient needs
      3. Food choices and eating habits
      4. Nutrients likely to be at low levels
      5. Assessing nutritional status

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# Breakdown of Academic Instructional Equivalencies

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| **Week 1** |  |  |
| Required 9.25 hours |  |  |
| Supplemental 0 |  |  |
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| **Week 2** |  |  |
| Required 9.25 hours |  |  |
| Supplemental 0 |  |  |
|  |  |  |
| **Week 3** |  |  |
| Required 7.5 hours |  |  |
| Supplemental 0 |  |  |
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| **Week 4** |  |  |
| Required 10 hours |  |  |
| Supplemental 0 |  |  |
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| **Week5** |  |  |
| Required 11.25 hours |  |  |
| Supplemental 0 |  |  |
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|  |  |  |
| **Total Required Hours 47.25** |  |  |
| **Total Supplemental Hours 0** |  |  |
| **Total Hours 47.25** |  |  |