COLLEGE OF CHARLESTON
HEAL 257 02 - Principles of Nutrition
Spring 2013 ~ 3 credit hours

TIME: TR 5:30 - 6:45 pm

PLACE: Room 206, Johnson Physical Education Center

INSTRUCTOR: Syndia J. Moultrie, MS, RD, LD, CDE

OFFICE HOURS: None. Will be available after class OR by appointment.

OFFICE: None. (Adjunct Faculty)

PHONE: 843.953.5558 Harriet Mazyck, Office Manager HHP

E-MAIL: moultriesj@cofc.edu

PREREQUISITES: None


COURSE DESCRIPTION: A study of food groups and nutrients and their relationship to health, physical activity, aging, and consumer food programs.


REQUIRED MATERIALS: See Course Syllabus on OAKS

REQUIRED TECHNOLOGY: Diet Analysis Plus (DAP) 9.0, 8.0 or 8.0.1 (8.0.1 is Windows Vista Compatible) PC with Windows 2000, XP Home or XP Pro (SP2); 256 MB RAM, 350 MB of hard disk free space. Internet Explorer 6.0.X and Firefox 1.0 – 1.5. Macintosh OSX 10.3.3 or higher, 256 MB RAM of hard disk space free, Firefox 1.0 through 1.5, and Camino 1.0.1.

Note: You may use specified College of Charleston library computers.

COURSE OBJECTIVES: 1. Comprehend concepts related to health promotion and disease prevention by:
   a. describing the basic functions & food sources of the 6 nutrient groups.
   b. identifying the role of nutrition in disease development/prevention.
   c. identifying how nutritional requirements vary throughout the lifecycle.
   d. analyzing the concepts of appropriate weight loss, gain, and maintenance.

   2. Demonstrate the ability to practice health enhancing behaviors and reduce health risks by:
   a. demonstrating knowledge of nutritional planning via food planning systems
   b. correctly interpreting nutrition labels.
   c. completing a behavior change project during the semester.

REQUIREMENTS: 46% Outside assignments and projects

54% Examinations
DESCRIPTION OF PROJECTS:

1. **NUTRIENT ANALYSIS** (50 pts = 6.8 %) **DUE 1/31**

**A. FOOD LOGS**
Keep an accurate record of all foods eaten for **four** days (midnight to midnight). I would encourage you to make these consecutive days, but they do not have to be. It is more important that they are representative days. Try not to use a day that you feel sick. **At least one day should be a weekday** and **at least one day should be a weekend day (Saturday or Sunday). Clearly label** each day’s food entries (food, amount, and preparation method) on your rough draft. You need to enter all beverages, including water. Write down all supplements you take (you will NOT enter these into DAP!).

**B. COMPUTER DIET ANALYSIS** *(Use Diet Analysis Plus 9.0, 8.0 or 8.0.1)*

PRINT the following: **[Submit in this order]**

- **Average of all days:** *Go to Print Custom Reports*
  1. Intake vs. Goals report (hand write in your activity level!)
  2. Fat breakdown
  3. Macronutrient ranges
     - (prints as “Energy Nutrient Intake and DRI Goal Ranges Compared)
  4. My pyramid
  5. Energy balance (not needed for the 2nd nutrient analysis)

**Individual day printouts**

- 6. Day 1: Intake vs. goals
- 7. Day 1: Source analysis for kilocalories
- 8. Day 2: Intake vs. goals
- 9. Day 2: Source analysis for kilocalories
- 10. Day 3: Intake vs. goals
- 11. Day 3: Source analysis for kilocalories
- 12. Day 4: Intake vs. goals
- 13. Day 4: Source analysis for kilocalories
   - (Additional days if you chose to do them)
- 14. Rough draft Day 1 (use form specified)
- 15. Rough draft Day 2
- 16. Rough draft Day 3
- 17. Rough draft Day 4

2. **ACTIVITY ANALYSIS** (50 pts = 6.8 %) **DUE 1/31**

Using the form provided, keep track of your activities for the four days you used for your first nutrient analysis. Be sure to enter the time you spent in each activity at the bottom of the rough draft form and make sure that your total adds up to 24 hours or 1,440 minutes!

Using Diet Analysis Plus, enter your activities for each of the four days recorded (same days as 1st Nutrient Analysis) using the Track Activity tab.

**Go to “View Reports” and select “Activities Spreadsheet.” Use the “print” button on that page for each day to get your daily report.**

Continued
Submit the following (in this order!)
Activities Spreadsheet for Day 1  (Unaccounted should = zero)
Activities Spreadsheet for Day 2
Activities Spreadsheet for Day 3
Activities Spreadsheet for Day 4
Rough drafts (all four days: 1, 2, 3, & 4 in order with your name)

3. NUTRIENT ANALYSIS #1 EVAL  (20 pts = 2.7%)  Due 2/14
   * Submit the average of all days’ sheets from your first (graded) nutrient analysis.
   (I only want the average of all days’ information – 5 reports.)
   Staple your typed evaluation, using the format below, on top of your average of all days’ materials.
   1. Basic information (4)
      A. Are these days representative of your typical diet? Explain.
         Did anything unusual occur: you went out of town or friends/family came to visit you? Were all of the foods you ate in the data base? Were these typical foods for you? (2)
      B. How many ounces of water did you average for the 4 days? (1)
         * This should be the average from your rough drafts
      C. Are you currently taking any type(s) of supplements?
         Specify. If none, write none. (1)

   2. Analysis of nutrient analysis (14)
      Using your average of all days’ analysis, do you believe you have a healthy diet? Explain why or why not. Address a wide variety of issues including: significant nutrient intakes (high or low), percent calorie breakdown including alcohol, breakdown of fats, your food pyramid results as well as how well you met the five components of a healthy diet. (10) In addition, complete the Summary Data for Nutrient Analysis form.
      Make appropriate comments for all nutrients! (4)

   3. Select behavior change topic (2)
      Choose one nutrient for your three week behavior change project.
      Discuss why you feel this would be the most beneficial for you.
      Include any family history issues (e.g. hypertension, CHD, diabetes, cancer) that played a role in your selection. If there are no family history issues, indicate that it is not applicable.

   4. SECOND NUTRIENT ANALYSIS  (50 points = 6.8%)  Due 3/26
      Complete a second nutrient analysis for four days the week of 2/24. See the first Nutrient Analysis information for what you need to turn in. Use at least one weekday and one weekend day. You do NOT have to do a physical activity analysis for this assignment.
5. **PRESENTATION** (60 points = 8.1%)
   1. Select a nutrient by 2/5 to complete this assignment.
   2. Prepare a creative 4-6 minute Power Point presentation on your approved vitamin or mineral. Use a minimum of three current sources (2009 – present), including at least one source from the internet. This should be a research type article, not a commentary, from a credible source (e.g. NIH, USDA, AND).

   Hint: Check out website www.ods.od.nih.gov

   E-mail Mrs. Moultrie a copy of your Power Point at least 24 hours in advance of your presentation.

   Also post your Point Point on OAKS via email. Select all class members and be sure to include Mrs. Moultrie when you post it.

   3. Include (minimum requirements): functions, sources, and issues of excesses and deficiencies, who is most at risk. Try to add interesting new information or facts about your nutrient. Have a slide showing your multiple choice questions (see #4 below) and a slide showing your sources.

   4. **Multiple choice questions.** Include two (2) multiple choice questions as a part of your Power Point presentation. Only include the questions, do NOT provide the answers or the three distracters in your presentation to the class.

      i.e. This vitamin, when consumed during pregnancy, can help prevent neural tube defects like spina bifida.

      * Do not provide your a, b, c, d responses for classmates.

      Note: do NOT ask questions about the RDA or AI

   **To be submitted to Mrs. Moultrie at the time of your presentation:**
   (Note: these should all be hard copies)
   1. A hard copy of your Power Point presentation (6 slides per page).
   2. A complete copy of your two multiple choice questions including the three distracters and the correct answer. Be sure to identify the correct answers.
      i.e. This vitamin, when consumed during pregnancy, can help prevent neural tube defects like spina bifida.
      a. niacin  b. folate  c. riboflavin  d. B6
   3. A hard copy of the first page of at least one of the research article(s) used in preparing the presentation.

   **Tentative dates** to give presentations:
   
   **Vitamins:** March 21
   **Minerals:** April 4
6. **FINAL PAPER** (40 points = 5.4%) **Due 4/16**

**Important information:**

1. Use the format provided below to complete your project.
   Type #1 a. (answer it);
   b. (answer it); etc
   **NOTE:** TEN POINTS WILL BE DEDUCTED IF YOUR PROJECT IS NOT SUBMITTED IN THIS FORMAT

2. **Submit your project in a two-pocket folder.** This project should be on one side. The components already submitted and graded (2 nutrient analyses – average of all days’ sheets **ONLY**: intake vs. goals, fat breakdown, macronutrient ranges, food pyramid) should be on the other.

**Required Format:**

1. **Basic information** for your second nutrient analysis (5)
   a. Are the days for your second analysis representative of your typical diet? Explain. (3)
   b. How many ounces of water did you average each day? How did this compare to your first analysis average? *This information should come from rough drafts (1)
   c. Are you currently taking any type(s) of supplements? Specify. If none, write none. (1)

2. **Dietary Changes and documentation** (20)
   a. Restate your behavior change topic.
   b. Make adjustments in your diet for **three weeks** (21 consecutive days) to meet your goal. These changes may be gradual. **Keep a record of what changes** you made for your **specific nutrient.** Your diary will be turned in but does not need to be typed. **Make some entry for each day.** (11)
   c. **Discuss** what **barriers** made it more difficult to meet your goal: economic, time, social, physical, etc. (3)
   d. **Discuss** what **supports** made it easier to meet your goal: social support, cooking for yourself, etc. (3)
   e. Do you think you will maintain these changes? **Discuss** why or why not. (3)

3. **Analysis of nutrient analyses** (15)
   Compare this to the summary data from your first analysis.
   a. Complete the **Comparison Chart for Final Analysis** chart. (5)
   b. Overall, do you believe your diet has changed for the better? Using your average of all days’ analysis, do you believe you have a healthy diet? Explain why or why not. **Address a wide variety of issues including: significant nutrient intakes (high or low), percent calorie breakdown including alcohol, breakdown of fats, your food pyramid results as well as how well you the five components of a healthy diet.** (10)
7. **Health Service Activity** (20 points = 2.7%)  **Due 4/18**

Complete four community service hours, must be related in some way to diet (nutrition) and health. This may be on campus or within the community. Nutrition related community options to select from include:

- Lowcountry Food Bank, Inc
- Crisis Ministries
- DHEC/WIC program
- Salvation Army
- Meals on Wheels of Summerville

Complete the **time sheet and reflection form** provided.

You may access a list of over 100 volunteer agencies in the Charleston area at [www.tuw.org](http://www.tuw.org) (Trident United Way). Check with me if the agency you are considering is not listed.

**EXAMINATIONS:**

- Exam 1 (100 points = 13.9%) Units 1-4, 6, 7, 10
- Exam 2 (100 points = 13.9%) Units 12, 13, 14, 18, 19, 22
- Exam 3 (100 points = 13.9%) Units 9, 10, 11, 15, 16, 20, 24
- Exam 4 (100 points = 13.9%) Units 23, 25, 28, 29, 32, and possibly My Plate, nutrient %s, food labels, dietary guidelines, diet evaluation, components of a healthy diet; overview of material from the semester

Note: Exams will include assigned reading, class notes, speakers, and audio-visual supplements.

**QUIZZES:**

A total of 50 points in quizzes will be given throughout the semester. These may be announced or unannounced, in class.

**EVALUATION SCALE:**

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>Grade</th>
<th>Points Range</th>
<th>Notes</th>
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<tbody>
<tr>
<td>90-100%</td>
<td>A</td>
<td>666-740 points</td>
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<tr>
<td>88-89%</td>
<td>A-</td>
<td>651-665 points</td>
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<td>85-87%</td>
<td>B+</td>
<td>629-650 points</td>
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<td>80-84%</td>
<td>B</td>
<td>592-628 points</td>
<td>&lt;62% = F</td>
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<td>B-</td>
<td>577-591 points</td>
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<td>75-77%</td>
<td>C+</td>
<td>555-576 points</td>
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<td>70-74%</td>
<td>C</td>
<td>518-554 points</td>
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<tr>
<td>68-69%</td>
<td>C-</td>
<td>503-517 points</td>
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**EVALUATION CRITERIA:**

- Exam 1 100 points 13.5%
- Exam 2 100 points 13.5%
- Exam 3 100 points 13.5%
- Exam 4 100 points 13.5%
- Quizzes 50 points 6.8%
- Nutrient Analysis 1 50 points 6.8%
- Activity Analysis 50 points 6.8%
- Nutrient Analysis 1 Eval. 20 points 2.7%
- Nutrient Analysis 2 50 points 6.8%
- Presentation 60 points 8.1%
- Final Paper 40 points 5.4%
- Health Service Activity 20 points 2.7%

**Total:** 740 points
Bonus point options: These are all totally voluntary. 5 points each

1. **Jump Rope for Heart**: Feb. 15, between 9 am and 2 pm (Silcox Gym). You must participate (jump/turn) for at least 30 minutes and collect at least fifteen dollars ($15) in contributions for the American Heart Association. Bring your money to the event that day! Cash (no coins) or checks made to American Heart Association.

2. **Healthy Recipe**: Find or create a healthy recipe. The recipe should have at least six ingredients and should be more involved than a fruit salad!

   You must submit recipe to Mrs. Moultrie for approval on or before 4/11 (only one person per recipe) if you are planning to prepare. Recipe should include: ingredients, what to do with the ingredients, the source and a description of why the recipe is healthy.

   If you are not preparing, submit a hard copy to Mrs. Moultrie no later than 4/18 and post the recipe to everyone in the class via OAKS email and Mrs. Moultrie.

3. **Prepare recipe**: Make the dish approved in #2 above for the class our “Healthy Eating” – Food Day! 4/23

<table>
<thead>
<tr>
<th>COURSE CONTENT: (Tentative)</th>
<th>Date</th>
<th>Topic</th>
<th>Units</th>
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<tbody>
<tr>
<td></td>
<td>1/10</td>
<td>Introduction; Key Concepts Learning Activities: lecture, small group</td>
<td>1</td>
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<td>1/15</td>
<td>Key Concepts; The “Inside Story” Learning Activities: lecture, discussion</td>
<td>2</td>
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<td>1/17</td>
<td>Ways to Know About Nutrition Start food logs Learning Activities: lecture, discussion</td>
<td>3</td>
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<td>1/22</td>
<td>Using Diet Analysis Plus Food Labels (Bring a label with you!) Learning Activities: lecture, demonstration, individual work</td>
<td>4</td>
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<td>1/24</td>
<td>Food Labels Learning Activities: lecture, discussion, individual work</td>
<td>4</td>
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<td></td>
<td>1/29</td>
<td>What is a Healthful Diet? Diet Evaluation Learning Activities: lecture, discussion</td>
<td>6,10</td>
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<td>1/31</td>
<td>Digestion Nutrient Analysis &amp; Activity Analysis due Learning Activities: lecture, discussion, group work</td>
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<td><strong>Exam 1</strong> Units 1-4,6,7,10 (Select a Nutrient for Presentation) Learning Activity: examination</td>
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<td></td>
<td>2/7</td>
<td>Carbohydrates Learning Activities: lecture, discussion</td>
<td>12</td>
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<td></td>
<td>2/12</td>
<td>Carbohydrates Diabetes/Alcohol</td>
<td>13,14</td>
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<td>Date</td>
<td>Topic</td>
<td>Learning Activities</td>
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<td>2/14</td>
<td><strong>Nutr. Anal. #1 Eval. due</strong></td>
<td>lecture, discussion</td>
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<td>2/19</td>
<td>Fats</td>
<td>lecture, discussion</td>
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<td>2/21</td>
<td>Nutrition and Disease</td>
<td>lecture, discussion, video</td>
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<td>2/26</td>
<td><strong>Exam 2</strong></td>
<td>Units 12, 13, 14, 18, 19, 22</td>
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<td>2/28</td>
<td>Protein</td>
<td>lecture, discussion</td>
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<tr>
<td>3/2-3/10</td>
<td><em>Spring Break - Be safe! Be happy! No class!</em></td>
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<tr>
<td>3/12</td>
<td>Protein/Vegetarianism</td>
<td>lecture, discussion, video</td>
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<td>3/14</td>
<td>Obesity/Weight Control</td>
<td>lecture, discussion</td>
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<td>3/19</td>
<td>Disordered Eating</td>
<td>discussion, video</td>
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<tr>
<td>3/21</td>
<td>Vitamins (Presentations)</td>
<td>student presentations, discussion</td>
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<td>3/25</td>
<td>Last day to withdraw with a “W”</td>
<td><em>Not a class day!</em></td>
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<tr>
<td>3/26</td>
<td>Dietary Supplements</td>
<td>lecture, discussion, video</td>
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<tr>
<td>3/28</td>
<td><strong>Exam 3</strong></td>
<td>Units 9, 10, 11, 15, 16, 20, 24</td>
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<tr>
<td>4/2</td>
<td>Calcium, Water</td>
<td>lecture, discussion, video</td>
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<tr>
<td>4/4</td>
<td>Minerals (Presentations)</td>
<td>student presentations, discussion</td>
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<tr>
<td>4/9</td>
<td>Minerals/Activity Analysis</td>
<td>lecture, discussion, group work</td>
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<tr>
<td>4/11</td>
<td>Physical Activity</td>
<td>lecture, discussion</td>
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<td>4/16</td>
<td>Pregnancy</td>
<td>lecture, discussion</td>
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<tr>
<td>4/25</td>
<td>Final paper due</td>
<td>program</td>
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</table>
4/18  Pregnancy/Food Safety  **Health Service hours due**  32
Learning Activities: lecture, discussion
Extra Credit typed recipe due today

4/23  Food Safety
Healthy Cooking/Healthy Eating (Food Day!)
Learning Activities: discussion, group activity

4/27  **Exam 4 (Final)**  Units  23, 25, 28, 29, 32, and possibly My Plate,
(Sat)  7:30 pm - dietary guidelines, food labels, nutrient %s,
      10:30 pm  components of a healthy diet, diet evaluation;
                 overview of semester material

**ATTENDANCE:** Attendance is required. You may miss **two** classes without penalty. For
each additional unexcused absence, your final points total will be reduced
by **four points**. An excused absence includes illness/hospitalization, death
of a family member or close friend, or issues dealt with through CARE,
documented through the Undergraduate Dean’s Office; absence due to a
court appearance documented by a copy of the summons; and absence due
to attendance at events as a representative of the College (athletic team
gospel choir, WAVE, etc). All excused absences must be documented.

**NOTE:** If you come to class **late**, it is **your** responsibility to make sure you
sign the attendance sheet.

**CLASS EXPECTATIONS:** Appropriate behavior is expected, and appropriate attire will be worn at all
times. Clothing must cover the private areas of the body, including one’s
navel (belly button). Any behavior or attire that detracts from the academic
learning environment may result in the student being asked to leave class.
Students who are asked to leave class will be counted absent for that day.

**MAKE-UP EXAMS:** Make-up exams are given at the discretion of the instructor. Contact me
prior to the exam if at all possible, or as soon as you return to school after
an excused absence or during an absence, if possible. It is **your**
responsibility to contact me if you miss any work, **before** the last day of
class.

**ASSIGNMENTS/LATE POLICY:**
*All assignments must be typed unless otherwise indicated.
*Assignments are due when collected in class.
*There will be an **automatic five point deduction** if you have an unexcused
absence on the due date and your assignment is not turned in by the
time they are collected.
*There will be a penalty of three points for every school day the
assignment is late.
*Points will be deducted for errors in spelling, grammar and punctuation.

**ELECTRONIC DEVICES:** All electronic devices should be turned off during class and should be kept.
out of sight. This includes, but is not limited to, computers, cell phones
and MP3 players. If I see you using an electronic device, you will be
asked to leave the class and counted absent for that day.

**HONOR CODE:** The College of Charleston has an honor code that expects students to
govern their behavior. This honor code can be found in the current edition
of the **Student Handbook**.
**FOOD LOG DAY:** 1 2 3 4 (circle one)  Name ____________________________
Date: ______ Day of Week ______________

Total number of **ounces of water** consumed today: ______ oz. (if zero, write 0)

<table>
<thead>
<tr>
<th>Food Eaten</th>
<th>How Prepared (if applicable)</th>
<th>Amount consumed</th>
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<tbody>
<tr>
<td>chicken breast</td>
<td>Baked/chicken breast</td>
<td>1 medium / 6 oz.</td>
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<tr>
<td>spaghetti</td>
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<td>¾ cup; 2 oz. dry (56 grams)</td>
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<td>Cheerios</td>
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<td>1 cup (30 grams)</td>
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<td>Lays Cheddar &amp; Sour Cream chips</td>
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<td>1.5 oz. (42.5 grams)</td>
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<tr>
<td>orange juice</td>
<td>Fresh squeezed</td>
<td>8 fluid oz. / 1 cup</td>
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Health Service Activity Reflection

Name ________________________________ Class______________________________
Instructor __________________________ Semester___________________________
Name of Organization_______________________________________________________
Contact Person __________________ Phone Number __________________________
Type of Activity_______________________ Total hours completed at this site_______

*Complete a different reflection for each site you at which you volunteered.

Reflective Questions

1. Briefly describe what you did at this site.

2. What did you learn from this experience?

3. How did you benefit from this experience professionally?

Honor Code:

I, ________________________________, certify that the above information is true, and that I performed the service activities described above. This information can be confirmed with the contact person identified.

______________________________          ____________
Signature of Student                          Date
### HEALTH SERVICE ACTIVITY TIME LOG

<table>
<thead>
<tr>
<th>NAME OF SITE</th>
<th>DATE</th>
<th>TIME IN</th>
<th>TIME OUT</th>
<th>TOTAL HOURS</th>
<th>AUTHORIZED SIGNATURE (and print name)</th>
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