COLLEGE OF CHARLESTON
HEAL 257 01  PRINCIPLES OF NUTRITION
Spring 2013  3 credit hours

TIME:  MWF: 10:00 - 10:50 am
PLACE:  Room 111, Silcox Physical Education and Health Center
INSTRUCTOR:  Susan E. Balinsky, DrPH, CHES
OFFICE HOURS:  8:45 -9:45am Monday through Friday and by appointment
OFFICE:  Room 319, Silcox Physical Education and Health Center
PHONE/FAX:  953-8242 (direct)  953-5558 (PEHD Office)  843-953-6757 (FAX)
E-MAIL:  BalinskyS@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.
OPTIONAL MATERIALS:  Packet from SAS-E Ink
REQUIRED TECHNOLOGY:  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:  Students will be able to
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 1-25**

   **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.** 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 that you take (you will NOT enter these into the Diet Analysis Plus!).

   **B. COMPUTER DIET ANALYSIS** (Use Diet Analysis Plus 9.0, 8.0 or 8.0.1)
   [If you use 10.0, hand write sodium in on first page of Intake v. Goals sheet]

   PRINT the following: [Submit in this order]
   **Average of all days:** *Go to Print Custom Reports*  
   1. Intake vs. Goals report  
      (write in if you are sedentary/low/moderate/high active)
   2. Fat breakdown
   3. Macronutrient ranges
   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 1-25**

   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 for project #1) under the Track Activity.

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

3. NUTRIENT ANALYSIS #1 EVAL  (20 pts = 2.7%) Due 2-11
* 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. Be sure to 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.

5. SECOND NUTRIENT ANALYSIS  (50 points = 6.8%) Due 3-22
Complete a second nutrient analysis for four days the week of March 11. See Nutrient Analysis 1 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 this time!
6. **PRESENTATION** (60 points = 8.1%)  
   1. Select a nutrient by **February 4** to do 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, CDC)  

   Hint: Check out website [www.ods.od.nih.gov](http://www.ods.od.nih.gov)  

   **E-mail Dr. Balinsky a copy of your Power Point at least 24 hours in advance of your presentation.**  

   **Also post your Power Point on OAKS under the appropriate GROUP heading.** (Take out graphics!)  

   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** multiple choice questions as a part of your Power Point presentation. Only include the question, do NOT provide the answer or the three distractors.  

   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 Dr. Balinsky 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 internet article(s) used in preparing the presentation.  

   **Tentative dates to give presentations:**  
   Vitamins: March 25, 27  
   Minerals: April 8, 10
7. **FINAL PAPER** (40 points = 5.4%)  **Due 4-12**

**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*
   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 nutrient change record 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**. (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 met the five components of a healthy diet. (10)
8. **Health Service Activity** (20 points = 2.7%) Due 4-19

Complete four community service hours, preferably related in some way to diet and health. This may be on campus or within the community. Nutrition related community options to select from include: Shadowing is not acceptable. See rubric.

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

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:**  

<table>
<thead>
<tr>
<th>Exam</th>
<th>(100 points = 13.9%)</th>
<th>Chap.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>100</td>
<td>1-7</td>
<td></td>
</tr>
<tr>
<td>Exam 2</td>
<td>100</td>
<td>12,13,14,18,19,22</td>
<td></td>
</tr>
<tr>
<td>Exam 3</td>
<td>100</td>
<td>9,11,15,16,19,20,22,24</td>
<td></td>
</tr>
<tr>
<td>Exam 4</td>
<td>100</td>
<td>23,25,28,29,32, food pyramid, nutrient %s, food labels, dietary guidelines, diet evaluation, components of a healthy diet, overview material from the semester</td>
<td></td>
</tr>
</tbody>
</table>

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.

**EVALUATION SCALE:**

| 90-100% = A | 666-740 points | 66-67% = D+ | 488-502 pts |
| 88-89% = A- | 651-665 points | 64-65% = D  | 473-487 pts |
| 85-87% = B+ | 629-650 points | 62-63% = D- | 458-472  |
| 80-84% = B  | 592-628 points | <62% = F    | <458  |
| 78-79% = B- | 577-591 points |               |         |
| 75-77% = C+ | 555-576 points |               |         |
| 70-74% = C  | 518-554 points |               |         |
| 68-69% = C- | 503-517 points |               |         |

**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 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 **sign up** with Dr. B **on or before 4-17** (only one person per recipe)
   **Recipe should include:** ingredients, what to do with the ingredients, the source and a description of why it is healthy.

   Submit a **hard copy** to Dr. B (by 4-19) and post the recipe to everyone in the class via OAKS under the Recipes heading.

3. **Prepare recipe:** Make the dish approved in #2 above for the class on our “healthy eating” day, 4-22.

### COURSE CONTENT:

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, small group</td>
<td></td>
</tr>
<tr>
<td>1-11</td>
<td>Key Concepts</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Start food logs</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion</td>
<td></td>
</tr>
<tr>
<td>1-14</td>
<td>The “Inside Story”</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion</td>
<td></td>
</tr>
<tr>
<td>1-16</td>
<td>The “Inside Story” continued</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using Diet Analysis Plus software</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion</td>
<td></td>
</tr>
<tr>
<td>1-18</td>
<td>Ways to Know About Nutrition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, demonstration, individual</td>
<td></td>
</tr>
<tr>
<td>1-21</td>
<td>Martin Luther King, Jr. Day – No class</td>
<td></td>
</tr>
<tr>
<td>1-23</td>
<td>Food Labels</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(Bring a label with you!)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion, individual work</td>
<td></td>
</tr>
<tr>
<td>1-25</td>
<td>Food Labels</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Nut. analysis &amp; Activity analysis due</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion, group work</td>
<td></td>
</tr>
<tr>
<td>1-28</td>
<td>Healthful Diets</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion</td>
<td></td>
</tr>
<tr>
<td>1-30</td>
<td>Digestion</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Learning Activities: lecture, discussion</td>
<td></td>
</tr>
</tbody>
</table>
2-1 Catch up day or start carbohydrates
Learning Activities: lecture, discussion

2-4 **Exam 1** Chap. 1-7 Presentation nutrient selected
Learning Activities: examination

2-6 Carbohydrates
Learning Activities: lecture, discussion 12

2-8 Carbohydrates
Learning Activities: lecture, discussion

2-11 Carbohydrates, Artificial Sweeteners N.A. #1 Eval. due
Learning Activities: lecture, discussion

2-13 Diabetes/Alcohol 13,14
Learning Activities: lecture, discussion

2-15 Fats
Learning Activities: lecture, discussion
Jump Rope for Heart (optional)

2-18 Fats
Learning Activities: lecture, discussion

2-20 Fats
Learning Activities: lecture, demonstration, discussion

2-22 Nutrition and Disease 19, 22
Learning Activities: video

2-25 **Exam 2** Chap 12, 13, 14, 18, 19, 22
Learning Activities: examination

2-27 Proteins 15
Learning Activities: lecture, discussion, video

3-1 Proteins 15
Learning Activities: lecture, discussion

3-4 to 3-8 Spring Break!!!! Be safe

3-11 Vegetarianism
Learning Activities: lecture, discussion 16

3-13 Calories, Obesity, Weight Control Start 2nd food log 8,9,10
Learning Activities: lecture, discussion, video

3-15 Obesity continued
Learning Activities: lecture, discussion

3-18 Disordered Eating
Learning Activities: video, discussion 11
3-20 Health Fair
Go to health fair (Silcox Gym 10-2)
Sign in
Go to at least 8 tables, including RD (get signatures)
Turn in signature sheet in class on Friday

3-22 Dietary Supplements  Second nutrient analysis due
Learning Activities: lecture, discussion, video

3-25 Vitamins
Learning Activities: student presentations, discussion
Last day to withdraw with a “W”

3-27 Vitamins
Learning Activities: student presentations, discussion

3-29 Activity Analysis Calculations  *Bring Activity analysis
Learning Activities: individual work

4-1 Exam 3  Chap 9, 11, 15, 16, 19, 20, 22, 24
Learning Activities: examination

4-3 Calcium
Learning Activities: lecture, discussion

4-5 Calcium
Learning Activities: lecture, discussion

4-8 Minerals
Learning Activities: student presentations, discussion

4-10 Minerals
Learning Activities: student presentations, discussion

4-12 Water  Final paper due
Learning Activities: student presentations, discussion

4-15 Physical Performance
Learning Activities: lecture, discussion

4-17 Pregnancy
Learning Activities: lecture, discussion
Extra Credit recipe last approval date

4-19 Pregnancy continued/Food Safety  Service hours due
Learning Activities: lecture, discussion
Extra Credit typed recipe due by today (hard copy to Dr. B)

4-22 Healthy Cooking/Healthy Eating (food day)
Food Safety & Food Additives
Learning Activities: group activity, eat treats!

4-24 Food Safety & Food Additives
Learning Activities: lecture, discussion
Exam 4  Chap. 23, 25, 28, 29, 32, food pyramids, dietary guidelines, food labels, nutrient %s, components of a healthy diet, diet evaluation, overview of semester material

PARTICIPATION/ATTENDANCE

This is an interactive, participatory class. Students are expected to be present and actively involved every day. You may have three unexcused absences without penalty. All subsequent absences will result in a three point deduction per absence from your final point total.

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, etc). All excused absences must be documented.

NOTE: If you come to class late, it is your responsibility to make sure it has been noted.

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. 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 professor. 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.

ASSIGNMENTS/LATE POLICY:

*All assignments must be typed.
*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, cell phones and listening devices. If I see you using a device, I may ask you to leave class.

DISABILITY STATEMENT:

Any student eligible for and needing academic adjustments or accommodations because of a disability is requested to speak with the professor in a timely manner so that your needs can be addressed.

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: _____ fl. oz. (if zero, write 0)

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

Name _______________________________ Class ______________________________
Professor(s) _____________________________ Semester ___________________________
Name of Organization ___________________________ Contact Person ____________________ Phone Number ____________________
Type of Activity ___________________________ Total hours completed at this site________

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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>