Diet Analysis Project

A detailed analysis of your diet will significantly enhance your understanding of nutrition and allow you to compare your diet to the recommendations of nutrition experts and government standards. Your recordkeeping and analytical tool is "MyDietAnalysis" on the Course Compass website. The project occurs in three parts:

**Part 1. Recordkeeping.** Record your food, drink and exercise data for a 3-day period of time. This will be completed before the unit begins – March 31-April 6. Due on Lesson 29.

**Part 2. Data Analysis.** This will occur throughout the unit as we examine your intakes of calories, carbohydrates, lipids, proteins, vitamins, and minerals as part of each lesson.

**Part 3. Summary & Action Plan.** The final writing or summary will be a synthesis of the analysis and be submitted on Lesson 36.

**Part 1. Recordkeeping of Diet & Exercise – Due Lesson 29**

**When** to Record: During the 7-day period of March 31-April 6, record all the food and drink you consume for 3 days. Include 2 weekdays and 1 weekend day.

**What** to Record: Write down *everything* you consume those days. This includes gum, candy, juice, diet soda, water, beer, etc. **Exceptions:** Do not include any dietary supplements in your recordkeeping (includes multivitamins, calcium supplements, protein shakes, herbal supplements, etc.)

**How** to Record:

**Step 1.** Use any journaling method you desire to accurately record your diet (see example to the right). Be specific; instead of just "milk and cereal" write down "2 cups Captain Crunch, 1/2 banana, 3 quarts 2% skim milk, 1/4 cup sugar, etc." Estimate portion sizes as best you can (1 cup = the size of a baseball or the size of your fist; 3 ounces of meat, chicken, pork = a deck of cards or the palm of your hand; 1 teaspoon = 1 "paw" of butter/margarine). Clearly, more complete and detailed recordkeeping will provide a more accurate picture of your dietary patterns.

**Step 2.** Enter your intakes into the MyDietAnalysis software program. Navigate to Course.Compass.com and click on the MyDietAnalysis tab and perform the following:

A. **Create Personal Profile.** Create and save your personal profile based on your age, gender, height, weight, and activity level.

B. **Enter diet record into Diet Tracker.** Click on the Diet Tracker tab and enter your food & beverage intake for day 1. Repeat the process for the other 2 days you recorded. If the database does not contain one of the foods consumed, choose either of the following options. If you have the nutrition label of the food in question, you may enter the nutrition content by clicking on the "Add a food" tab. If it’s a food that you don’t have the nutrition information for, select a food item from the database that most closely matches the food you ate.
C. Enter your exercise into Activity Tracker. Click on the Activity tracker and enter your exercise for days 1-3. The computer will calculate your energy expenditure during exercise as well as your “Activities of Daily Living” – the number of calories burned during sleep, rest, bathing, brushing your teeth, walking, sitting in class, etc.

D. Run and print Reports. Once you have entered all 3 days for your diet and activities, click on the “Reports” tab for each of reports listed below. The software should automatically average the 3 days you entered (you can uncheck a day’s box if you desire to see just 1 day).
   - **MyFoodList**: this should match your food journal
   - **Energy Balance**: Compares your calorie intake to your daily energy expenditure.
   - **Actual Intakes vs Recommended Intakes**: compares your recorded intake to the Dietary Reference Intakes and the 2005 Dietary Guidelines for Americans.
   - **MyPyramid**: compares your intake to the MyPyramid recommendations.

**Part 2. Your Analysis - Evaluation**
During the nutrition unit we will provide you with the necessary tools, support materials, and teach you the skills needed to evaluate your diet. You will be challenged to move from a simple perspective (foods are either good or bad) to a richer, deeper perspective.

**Assessment Activities** will guide you to examine your diet in terms of:
- A. Quantity -- Intakes vs. Requirements and Expenditures – deficiencies and excesses (Adequacy & Moderation)
- B. Food Groups -- Connecting specific foods and the nutrients they deliver (Balance & Variety)

**Textbook Support**: Unit 4 readings from course text.

Structure your paper using the following headings/organization:

1. **Introduction**
   Your diet is influenced by forces and circumstances that are very different from other college-aged students. In your introduction **weave the following questions into a paragraph or two that establishes the background and context under which you eat.**
   - How available is food? How abundant is food you select?
   - What do the foods cost you?
   - How often are you provided a meal?
   - Who plans your meals? Who prepares your meals?
   - Are you forced to eat specific foods or is your food selection flexible?
   - Why nutrition is important for you as an Air Force officer?
   - What does this report represent? - *In this paper I report my analysis of my food selection over a 3-day period during March 31-April 6, 2008."

2. **Overall Diet Pattern: How Healthful is Your Diet?**
   **A. Overall Eating Pattern**
   - Is the 3-day period typical for your diet? If not, how is it different and why?
   - How does your diet vary between weekdays and weekends?
   - How often do you skip meals and what is the impact on the overall quality of your diet?
   - Discuss factors that influenced your food selections on the weekend? On week days?
B. Healthfulness of Your Diet
Use and refer to (tell the reader where to look for your evidence) unit readings, appropriate guidelines and the reports from MyDietAnalysis to assess your overall diet patterns. In this section include an analysis of your overall diet. Use the following section titled “Action Plan” to discuss how you will remedy the deficiencies and excesses in your diet. This section should include:

Adequacy – Evaluate your diet in terms of meeting your daily requirements for:
1) energy  2) protein  3) vitamins*  4) minerals*  5) fiber
*A vitamin or mineral is considered inadequate if it is ≤ 75% of the recommended intake.

Moderation – Evaluate your diet in terms of the Dietary Guidelines for Americans 2005 for excess intakes of:
1) saturated fat  2) sodium  3) sugar  4) cholesterol
5) protein - intakes ≥ 2 g protein per kg body weight is considered excessive.

Balance – Evaluate the balance in terms of...
1) Proportion of total calories from carbohydrate, fat, and protein sources
2) Distribution of foods into food Groups as recommended by MyPyramid amounts (daily)
*A food group is considered inadequate if it falls below 75% of the recommended intake.
A comparison of your diet to MyPyramid -- if your diet is short in certain food groups, be sure to state the number of servings you are short and why you think you came up short.

Variety – examine the variety of foods within each food group that you selected. For example, how many different types of vegetables did you eat? How many different grains did you eat? Color is another quick snapshot to the variety of foods you eat – yellow, green, blue vegetables all have different nutrient profiles.

3. Action Plan
In the “Healthfulness of Your Diet” section you indicated the strengths and weaknesses in your diet. In this section address how you specifically will change your diet to correct deficiencies & excesses of the nutrients you identified above.
Be sure your action plan includes:
- Specific foods/food groups – For example, if you are low in fiber, indicate which foods that are available and you like that you will make a conscious effort to include in the future.

Be sure to also address...
- Do you need a multivitamin or mineral supplement? Provide evidence.
- An assessment of your diet in terms of cardiovascular disease risk (calories, total fat, saturated fat, trans fat, dietary cholesterol, omega-3 fatty acids, sugar, fiber and exercise). Given your current diet and your family history of chronic disease (cancer, CVD, hypertension, diabetes, and obesity), are there specific changes you would make in the future?

4. Conclusion & Summary
Briefly summarize the key findings from your diet analysis. What did you learn about your diet from this assignment? Is there any area from your dietary analysis that you are concerned about? If so, how do you plan to resolve them?

5. Appendices: Include reports that you used and referenced throughout your paper.
Include at a minimum:
- Actual Intakes vs. Recommended Intakes Report
- MyFoodList
- MyPyramid Report
- Energy Balance Report
## Scoring Rubric for Diet Analysis Paper (75 pts)

<table>
<thead>
<tr>
<th>Recordkeeping Appendices (10 pts)</th>
<th>Exceptional 69-75 pts</th>
<th>Poor-Fair 41-58 pts</th>
<th>Unacceptable/Very Poor 0-31 pts</th>
<th>Score &amp; Comments</th>
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<tbody>
<tr>
<td>All 4 assigned reports are submitted and well-organized into an appendix. Additional reports may be included. (9-10 pts)</td>
<td>Missing one or more of assigned reports or reports poorly organized (6-8 pts)</td>
<td>Missing most of assigned reports or reports unorganized or unreadable (0-5 pts)</td>
<td>1. MyFoodList 2. Actual Intakes vs. Recommended Intakes 3. MyPyramid Report 4. Energy Balance Report</td>
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<tr>
<td>Overall Format Writing, Punctuation, &amp; Grammar (5 pts)</td>
<td>Proper use of heads and subheads. Writing is clear and organized. Language &amp; terminology is used accurately. Spelling, punctuation, and grammar are proper. (5 pts)</td>
<td>Uses some heads and subheads. Writing is somewhat clear and organized. Scientific terms are used sparingly, but accurately. Spelling, punctuation, and grammar are proper. (3-4 points)</td>
<td>Poor organization. Heads and subheads not used. Writing is vague and unorganized. Scientific terms are not used or used improperly. Numerous spelling and/or grammatical mistakes are made. (0-2 pts)</td>
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<tr>
<td>1. Introduction (10 pts)</td>
<td>Completeness. The introduction answers most/all of the questions posed in the instructions. (4-5 pts)</td>
<td>Completeness. The introduction answers some of the questions posed in the instructions (2-3 pts)</td>
<td>Complete the introduction fails to address several important questions posed in the instructions. (0-1 pt)</td>
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<tr>
<td>Depth of Thinking. The introduction answers questions in a thoughtful manner. (4-5 pts)</td>
<td>Depth of Thinking. The introduction answers the questions in a basic way. (2-3 pts)</td>
<td>Depth of Thinking. The introduction answers the questions in either a superficial or facile manner. (0-1 pt)</td>
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<td>2. Overall Diet Pattern Analysis (30 pts)</td>
<td>Adequacy. The analysis is clear, detailed, complete, and consistent with the data. Places most/all inadequate intakes into a health perspective, 2) refers to guidelines, and 3) provides insight into food selection. (9-10 pts)</td>
<td>Adequacy. The analysis is generally complete and consistent with the data. Provides few details. Places some inadequate intakes into a health perspective, refers to guidelines, or provides insight into food selection (6-8 pts)</td>
<td>Adequacy. Simply reports MyDiet Analysis outputs. The analysis is too simplistic, incomplete, and/or an inaccurate evaluation of the nutrients and fiber listed. Fails to place inadequate intakes into a health perspective. (0-5 pts)</td>
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<td>Moderation. The analysis is complete and consistent with the data. Places most/all excess intakes into a health perspective, refers to guidelines, and provides insight into food selection.</td>
<td>Moderation. The analysis is complete and consistent with the data. Places some excess intakes into 1) a health perspective, 2) refers to guidelines, and 3) provides insight into food selection. (8-8 pts)</td>
<td>Moderation. The analysis reflects an incomplete, inaccurate, or too simplistic evaluation of the excess nutrients listed. Several components miscalculated, missing, or poorly assessed.</td>
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<td>3. Action Plan (15 pts)</td>
<td>4. Conclusion &amp; Summary (5 pts)</td>
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<tr>
<td><strong>Balance &amp; Variety.</strong> The analysis correctly uses MyPyramid to accurately and completely assess diet pattern</td>
<td><strong>Key findings and health concerns are totally consistent with report. Learning statement reflects a great deal of depth into the purpose of the project and links to statements made in the introduction</strong></td>
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<td>(9-10 pts)</td>
<td>(5 pts)</td>
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<td><strong>Balance &amp; Variety.</strong> The analysis uses MyPyramid but incorrectly or incompletely interprets it to assess diet pattern</td>
<td><strong>Key findings and health concerns are mostly consistent with evidence presented in the report. Learning statement reflects some depth into the purpose of the project and may link to statements made in the introduction</strong></td>
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<td>(6-8 pts)</td>
<td>(2-4 pts)</td>
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<td><strong>Balance &amp; Variety.</strong> The analysis does not use or inaccurately interprets MyPyramid to assess diet pattern</td>
<td><strong>Key findings and health concerns are inconsistent with data and evidence. Learning statement reflect a superficial insight into the purpose of the project and does not link conclusions to statements in the introduction</strong></td>
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<td>(0-5 pts)</td>
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**Sample Scoring on Writings – Overall Diet Pattern Analysis: Adequacy: Fiber**

**Very Poor/Unacceptable** – simply repeating the data – adds little to no insights – states the obvious, vague and facile

"My fiber intake was low." (This statement begs the question, how low? Score = 0)

"My fiber intake was incredibly low due to my poor eating habits." (What do you mean by poor eating habits? – be more specific; Score = 0)

**Poor** – addresses more than above but still vague and imprecise – doesn’t really say very much.

"My fiber intake was half of the recommended amount because I dislike foods with fiber. (If all like this Score = 2)"

**Exceptional Level** - Places the data into a health perspective, explicitly refers to a set of principles, guidelines and resources, links two of the reports (MyPyramid & Intakes and Recommendations), cites specific examples, and uses language effectively.

"My average fiber intake for the 3-day sample period was 14 g/day. This amount is about half of what the Dietary Guidelines for Americans 2005 recommends (30 g/day) to maintain colon health and reduce my risk for colon cancer and heart disease. I attribute my deficient intake to my dislike of the fruits and vegetables served at Mitchell Hall. Fruits such as apples and bananas are often bruised and the vegetables such as green beans are overcooked with a mushy texture. Thus I generally take a smaller portion size which is also reflected by my low number of servings in the fruit and vegetable food groups (see MyPyramid)." Score = 16 if all like this)