

Lone Star College – Montgomery
Biol 1408: Biology I - Non science majors
Dr. Nishi Mathew
Project 01

DUE ON Wednesday, October 8, 2014

Introduction

The U.S. Department of Agriculture recently released a new version of the nutritional food pyramid, which helps consumers make wise choices in the foods they eat, to meet daily requirements for major nutrients and calories in their diet. The www.choosemyplate.gov/ website allows you to analyze your own or any other diet from the comfort of your own home computer, and recommends changes to optimize your health.

The nutrition project in this course has three parts. Part I is done to familiarize students with the use of the nutrition website. Part II requires that students record their own diet for three days, and enter that data in the website. Based on the results of the reports obtained from the data, students are to write a report (Part III), summarizing areas where one's diet can be improved. In addition the report should include information specific to questions included at the end of this document. **Part III report is due on October 8, at the start of class. No late submissions will be accepted.** Part IV of the project involves getting your BMI measured by the BodPod before and after changes to one's diet (diet is going to be self-monitored). Students need to sign up to for two 15 minute session with the BodPod

Part I: Instructions for using Choosemyplate Supertracker: A printout of this section is due on September 24 , 2014.

In this first exercise, you will select foods for an imaginary student, Dennis Jones, which will allow him to maintain his weight at his current level. Then, you will select foods for his wife, Mrs. Jones, to allow her to lose weight. The first set of direction is for Dennis.

1. Open the web browser.
2. Go to the website <http://www.choosemyplate.gov/>
Click on “**SuperTracker**” (left side of the page) and then click on “**Create profile**” (right hand top corner).
3. Enter the following details:
Profile: Dennis Jones, Age: 25, Sex: Male, Physical activity: Less than 30min/day of moderate activity, Height : 5 ft 10 in, Weight: 160 lbs. Enter a username, password and the other details and click on submit (bottom right hand side)

Note: it is recommended that you choose a user name and password that is different from the one you will register with to enter your own personal data later in the course.

4. Now you are ready to feed Dennis. Click on “**Food Tracker**”. Type in any type of food and click on “**Go.**” A list of related items will appear below the data entry section. Click on the best match – that item will automatically be added to the food list (on left side). Now choose an **amount** and then choose the **meal time** and click on “**Add**”.

5. Repeat step 4 until the list contains all foods you want to feed Dennis. Include condiments (mustard, etc), any dressings, drinks (even water), and snacks.
6. Select “**My Reports.**” This will bring up a page where you can select a number of options for analyzing and presenting nutrient intakes.
7. Click on “**Nutrients.**” Enter today’s date (click on calendar icon by the data entry box)
8. Click on “**Create report**” and then “**Export report as PDF**” and compare Dennis’s calorie intake with the recommended intake. Print out the results and include the graphs. If printing in black and white use a highlighter to differentiate the various lines on the graph.
9. Repeat the analysis for Mrs. Sprat. Her age is 25, sex is female, height is 5’6”, and weight is 160 lbs, and activity level is moderate.

Preparing for Part II: Personal Diet

In order to be ready for part II of this assignment later this week, you will need to keep a record of all foods and drinks you eat (include condiments and water) over three separate days. These should ideally be continuous with each other. Try to be as complete as possible, including not just what you eat, but the portion sizes, as accurately as possible. **Keep in mind that you are not trying, at this stage, to make improvements in the diet, or change it in any way, so be honest**

Instructions for Part II:

Part II of the nutrition project gives students the opportunity to enter their own dietary information for three days into choosemyplate.gov, and then evaluate the results of that diet, in terms of their own nutritional needs. In this section, you should again go back to the original instructions from Part I to help you navigate the website and print-out your appropriate tables.

At this stage, you should be relatively comfortable navigating through the choosemyplate website (<http://www.choosemyplate.gov/>). You will need your three-day meal list, with all the foods you ate over those three days, and the amounts of each food (including food, drinks, condiments, spices). The directions below are broadly defined. You may need to exercise your own judgment to move about the website.

1. Go to <http://www.choosemyplate.gov/>. Click on “**SuperTracker**” (left side of the page) and then click on “**Create profile**” (right hand top corner).
2. Update your personal profile and *register as a new user*, **using a different user name & password**. This allows you to enter your real diet data in the system without needing to delete the Dennis Jones data you entered previously.
3. As you have done previously, click on “**Food Tracker**”. Then choose the correct date (day 1 of your diet journal) and start entering the food (from your list) and click on “**Go.**” A list of related items will appear below the data entry section. Click on the best match – that item will automatically be added to the food list (on left side). Now choose an amount and then choose the meal time and click on “**Add**”.
4. Once this record is complete for the first day, select “**My Reports.**” This will bring up a page where you can select a number of options for analyzing and presenting nutrient intakes. Click on

“**Nutrients.**” Enter the date for day 1 (click on calendar icon by the data entry box). Click on “Create Report” and then “**Export report as PDF**” and compare your calorie intake with the recommended intake. Print a copy of this report.

5. **At the top bar on the screen now, choose “Home,” and then click “Food tracker” and then change the date to the next day you collected the meal information.**
6. Repeat the entry of the food items and print a copy of the nutrient report as you did in step 4
7. From the top bar on the screen click “**Home**” and then click “**Food Tracker**” and then change the date to the last day of your diet journal) and as you did before, you should enter the meal information for the new date, and print a copy of the nutrient report for day 3’s meals.
8. **When complete, you should have a total of 3 printouts, one for each day.**
9. At this point, we would like to see a profile that shows the trend in your diet for a number of important nutritional factors. To do this, you should again go back to the “**My Reports**” page, and select “**History Charts.**” **All relevant pages should be printed in color or the graphs highlighted in different colors and the legend appropriately marked with the same color.**
10. This will show you a graph of your nutritional history over the days you have saved on your profile.
 - a. *Note that this graph will include all days for which you have ever entered diet information, so if you have not already done so, you may need to go back to the earlier days you had entered for Dennis Jones and his wife, and delete their food information.*
11. On the “**History Charts**” page, choose Time period: 1 week, and then select (left hand side of the page)and make a printout of your history for Total calories, Protein, Carbohydrates, Dietary Fiber, Total Fat, Saturated Fat, Cholesterol, and any other history you may want to see. **There should be at least 7 new pages for this section.**
12. With these printouts you will now prepare a written report of your diet history.

Instructions for Part III: Report requirements:

1. **Your report should be at least 3 pages long, typed, 1.5 spacing with 1” margins, using standard 12 point Times New Roman font.**
2. The report should address each of the issues below, but should be presented as a report (with complete sentences and paragraphs) - not as a list of answers to questions.
3. You should use at least 3 outside references (your textbook, my pyramid website and Wikipedia cannot be listed as your references!!!) for this exercise, but each reference you do use must be properly cited in a works cited page at the end of the report.
- 4.
5. The report is due at the **beginning of class on October 8, 2014. No late reports will be accepted. You should turn in a report (minimum 3 pages long), with the works-cited page, and all 10 printouts attached, at the same time. The report should be relevant to the topic and should not have information used as filler.**

Questions and issues that should be addressed in the report:

1. Where are the greatest deficiencies in your diet, as indicated by the choosemyplate analysis? What can be done to improve these areas?
2. What nutritional areas do you have covered the best at this stage in your diet. What types of foods were specifically most helpful in helping you to meet your nutritional requirements for those classes of nutrients?
3. In looking at your Food Energy history, do you see a relatively consistent pattern of calories each day, do you see a tendency for high calorie days to be followed by low ones, or is there another pattern apparent in your diet?
4. Are you meeting your protein needs consistently? If not, what are some better sources of protein that you could get in your diet to improve these numbers?
5. Are you meeting your carbohydrate balance? Are your sources of carbohydrates mostly simple sugars or mostly complex carbohydrates? Why might it be advisable to get primary complex carbs, rather than simple sugars?
6. Are you getting too much fat in your diet? If so, are you getting too much fat overall, or are you getting too much saturated fat in particular? What are some of the health problems associated with a diet high in saturated fat, and what types of foods in your diet specifically seem to be giving you a lot of saturated fat?
7. Are you getting enough fiber in your diet? How much fiber are you supposed to get (how many grams) per day, and what are some better sources of fiber?
8. Discuss your intake history for the major vitamins which are listed on your printouts (A, D, E, K, the various B vitamins, and vitamin C). For each of the vitamins that you are deficient in, look up and describe what the normal role of that vitamin is in the body, and what some good sources of the vitamin are, for future reference.
9. Discuss your intake history for the major minerals which are listed on your printouts (calcium, magnesium, sodium, iron, etc.). For each of the minerals that you are deficient in, look up and describe what the normal role of that mineral is in the body, and what some good sources of the mineral are, for future reference.
10. Is it a concern to have too much calcium in your diet? How about too much iron, magnesium, chloride, and sodium? What are some health dangers associated with an excess of any of these specific minerals?
11. Overall, would you rate your diet as healthy, unhealthy, or borderline? Explain what your major approach would be to make improvements to your diet overall. What did you learn?