FSHN 389
Spring 2006
S. Zaghloul  This syllabus is subject to change.

Course title: NUTRITIONAL ASSESSMENT
Course #: FSHN 371
MW 1:30-2:20 pm
Location: Time to be announced
Instructor: Sahar Zaghloul, MBBS, Ph.D.
Office: AGSCI 314L
Phone: 956-8691
Office Hours: M W 2:30 –3:30 pm
E-mail address: zaghloul@hawaii.edu

Course Description: FSHN 389 aims at understanding the concept, uses of nutrition assessment tools, pros and cons of each method. Students will develop skills in applying nutritional assessment methods at individual and community level. Students will be introduced to national nutrition surveys. The emphasis in this course will be on dietary and anthropometric techniques. The course will address new more sophisticated technologies for body-based measurements. Prerequisite is FSHN 185 or consent.

Course objectives

Student will be able to

1. describe the ABCD’s of nutritional assessment
2. evaluate dietary and anthropometric measures of a sample of participants, interpret data and list uses and limitations of each method.
3. evaluate print outs of nutrient analysis programs and compare the results.
4. evaluate and design a research methodology for determining the role of nutrition for a specific health in a given population.
5. identify national and global survey data and the uses of this data in providing comparison norms.
6. select appropriate dietary intake tools, interview and use diet analysis software.
7. understand the theory behind and practical applications of more sophisticated technologies for body-based measurement (underwater weighing, DEXA, etc.).
8. develop a nutritional assessment protocol appropriate for a selected practice setting.
9. utilize computer software to analyze food intake and anthropometric measurements.
10. critique nutritional epidemiology research reports for design and methodological limitations.

Teaching Assistants/Student Help:
TBN
Office hours
Locations

Required Text:

Required Supplementary Materials: Articles will be distributed in class.

Class Formal: Lecture, discussion, personal assessment, case studies and a group nutrition assessment project.

Course Grade: The final grade for the course will be based on four components:

Midterm examination 10%
Data interpretation/case studies 60%
Research methodology 20%
Presentation 20%
Final 10%

Total 100%

Examinations: One 40-minute in-class exams and a 120-minute final will be given to provide the majority of the input for evaluating your learning in the course. Mark your calendars for the correct dates and times.

NO MAKE-UP EXAMS WILL BE GIVEN

Because the university is an academic community with high professional standards, its teaching function is seriously disrupted and subverted by academic dishonesty. Such dishonesty includes, but is not limited to, cheating, which includes giving/receiving unauthorized assistance during an examination; obtaining information about an examination before it is given; using inappropriate/unallowed sources of information during an examination; altering answers after an examination has been submitted; and altering the record of any grade. (Refer to the UH Student Conduct Code for further information.)

Dietary Assessment Project

1. Keep a three-day record of your own food intake. Record everything you eat or drink including water. If you are preparing food from a recipe, record the recipe ingredients, method of preparation and the portion of that total recipe that you ate. Describe your foods as completely as possible. Using the Food Processor analyze each day's nutrient intake. Obtain a printout of Food List, Spreadsheet, and Multi-column reports. Compute a three-day average. You can do this on the Food Processor.

2. Assess the adequacy of nutrient intake assuming that this is the usual intake for all DRI nutrients listed in the multi-column report. Be certain that you use appropriate standards for your assessment. In your statements regarding adequacy/inadequacy/excessive intakes state what standard you are using.

3. Assess the diet according to the Dietary Goals and Food Guide Pyramid. For Dietary Goals, assume this is the usual intake and for the Food Guide Pyramid describe it as a single day intake.

The USDA Healthy Eating Index Project

1. Keep a three-day record of your own food intake. Record everything you eat or drink including water. If you are preparing food from a recipe, record the recipe ingredients, method of preparation and the portion of that total recipe that you ate. Describe your foods as completely as possible. Using the USDA Healthy Eating Index website analyze each day’s nutrient intake. Obtain a printout of Food List, Spreadsheet, and Multi-column reports. Compute a three-day average. You can do this using the HEI history.

2. Assess the adequacy of nutrient intake assuming that this is the usual intake for all DRI nutrients listed in the multi-column report. Be certain that you use appropriate standards for your assessment. In your statements regarding adequacy/inadequacy/excessive intakes state what standard you are using.

3. Assess the diet according to the Dietary Goals and Food Guide Pyramid.

Body Composition Assessment Project

This project will assist you in gaining understanding of anthropometric measurements for predicting health risk and body composition. You will collect data in teams, but will assess your own body composition objectively. Data will be collected both during class meeting times and out of class appointments either with another faculty member or me for the DXA measurements.

Xerox or attach your printout from the bioelectrical impedance measurement to your report. Forms for recording data will be given in class at the appropriate time.
When you do these measurements bring appropriate clothes for modesty:
Full Slip
Loose tank top
Sports shorts

**Group Assessment Plan and Protocol**

Each member of the group is responsible for contributions in planning and in writing the document that you will submit. Each of your projects will be somewhat different due to the population that you are targeting, but all the plans should include Anthropometric and dietary assessment. The "clinical" component of your protocol will include "health history" information as well as family history if it is pertinent to the project. You do not need to plan for physical examinations by physicians. Therefore, you should expect to develop the plans for collection of the data you need as well as the data collection forms for anthropometric and dietary data. Write a summary of how you will use these forms in your project and why the data you are collecting is important for your specific population. You should be developing this project over the semester and be prepared to present your particular protocol on the last day of class.

**Topics/Readings for Semester**

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<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
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<tbody>
<tr>
<td>Week #1</td>
<td>Syllabus and Introduction</td>
<td>L&amp;N Preface pp XV - XVII</td>
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<td>Introduction to nutritional assessment</td>
<td>Chapter 1</td>
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<td>Week #2</td>
<td>What is nutritional epidemiology? Epidemiological research design</td>
<td>W.W. Chapter 1.</td>
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<td>methods and their limitations.</td>
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<td>Week #3</td>
<td>Standards for nutrient intake</td>
<td>L&amp;N Chapter 2</td>
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<td>Week #4</td>
<td>Dietary assessment methods for assessing the role of nutrition in</td>
<td>W.W. Chapter 3 and 4.</td>
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<td>disease etiology</td>
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<td>Week #5</td>
<td>Measuring Diet</td>
<td>L&amp;N Chapter 3</td>
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<td>Week #6</td>
<td>Dietary recall methodologies in nutritional epidemiology</td>
<td>W.W. Chapter 4, 5</td>
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<td>L&amp;N chapter 3</td>
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<td>Week #7</td>
<td>Food frequency methodologies in nutritional epidemiology.</td>
<td>W.W. chapter 5, 6.</td>
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<td>L&amp;N Chapter 3</td>
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<td><strong>EXAMINATION #1 (40 minutes)</strong></td>
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<td>Week #8</td>
<td>National Dietary and Nutrition Survey</td>
<td>L&amp; N Chapter 4</td>
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<td>Week #10</td>
<td>Computerized dietary analysis systems</td>
<td>L&amp; N Chapter 5</td>
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<td>Week #11</td>
<td>Anthropometric and clinical indicators of long-term dietary intake</td>
<td>L&amp;N chapter 6, 10 W.W. chapter 10.</td>
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**Holiday: Spring Break**

| Week #12 | Anthropometric and clinical indicators of long-term dietary intake | L&N chapter 6, 10 W.W. chapter 10. |
| Week #13 | Assessment of hospitalized patient | L&N Chapter 7 |
| Week #14 | What is nutritional epidemiology? Epidemiological research design methods and their limitations. | W.W. Chapter 1. |
| Week #15 | Statistical methods commonly used in nutritional epidemiology. | W.W. chapter 14, 19 |
| Week #16 | Inclusion of psychosocial and primary indicators and confounding variables in survey design. | W.W. chapter 14, 19 |
| Week #17 | Final Project/ Presentation + written |
| Week #17 | FINAL EXAMINATION |

Note: Every effort has been made to insure that the material in this syllabus is accurate and complete. However, occasionally changes must be made in the printed schedule. Thus the instructor reserves the right to make any changes in the contents of this syllabus that she/he deems necessary or desirable. These changes, if any, will be announced as soon as the need for them becomes apparent.