FSHN 185 is an introductory level biological science course which integrates basic concepts of science with the study of human nutrition. The course is designed for students who want an introduction to nutrition, as well as those who later choose to major in it. This course meets a natural science core requirement (3 hours lecture).

Through use of the required course text book and online tools, regular attendance, active participation in classroom discussions, satisfactory completion of assignments and written examinations - students will be able to describe the nutrition and energy needs of the human body across the lifespan at a minimum of 70% proficiency in the following areas:

**Food resources and their nutritional value**
1. Describe the six categories of nutrients and evaluate the nutrient adequacy of a diet.

**Nutrition, biochemistry and physiology**
2. Identify energy balance requirements based upon basal metabolic needs.
3. Apply knowledge of biochemistry and physiology to nutrient metabolism.

**Nutrition and human behavior**
4. Identify factors influencing eating habits.
Nutrition and the human body
5. Define various types of malnutrition and discuss their causes, associated health effects, and treatments.
6. Discuss physiological changes that occur during the life cycle and explain the changes in nutrient needs that accompany these changes.
7. Analyze and evaluate the nutritional content of menus and recommend modifications responsive to disease risks.
8. Describe health promotion and prevention activities of various diseases including cancer, heart disease, obesity, and diabetes.

Accessing and presenting evidence-based health and nutrition material
9. Correctly interpret and evaluate information of food labels, packaging, and product advertising based on generally accepted standards.
10. Discuss current issues related to the safety of the food supply using concepts from toxicology.
11. Discuss various environmental and ecological conditions, which interact with human nutrition both locally and globally.
12. Critically discuss and summarize current topics of importance in global nutrition.
13. Describe principles and practices of food preparation, hygiene and safety.

Course Outline (See course schedule for a comprehensive agenda).

1. The role of nutrition - Food choices, attitudes, beliefs, six classes of nutrients.
2. Designing a healthy diet - Nutrition labels, serving size, and moderation.
3. Eating healthy – Appetite and hunger, functions of cells, and the GI tract.
5. Fats – Essential energy nutrients, types of lipids, healthy and unhealthy fats.
8. Antioxidants – Free radicals, oxidative damage, and the roles of vitamins A, C, E.
9. Bone health – growth, modeling and remodeling, sources of calcium and vitamin D.
10. Metabolism and blood health – coenzymes, B-vitamins, folate, and vascular disease.
13. Food safety and hygiene – preventing food borne illnesses and selecting organic foods.
15. Nutrition through the lifecycle – childhood to late adulthood, physiologic changes.
   a. Extra credit: To be determined

Note: This course outline has been carefully thought out to coincide with the course text and will be followed as planned in the course schedule as much as possible. The Instructor will inform students by email of any foreseeable changes at least one class day in advance. Email is the primary source of instructor communication with students. Students are responsible for checking email frequently for important course information.
Teaching Strategies

Instructor led lectures are combined with interactive discussions, reading assignments, guest speaker presentations, and student group activities so that students engage in their own learning and develop a basic proficiency of nutritional science. In addition, students will also work on one **Term Research Project** throughout the semester.

Evaluation Methods

Success in the course is based on the following key grading areas. Please use the table below to track progress in the course and to maintain or improve effort toward earning a passing grade.

Assignment and Grading Sheet

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due Date</th>
<th>Possible Grade</th>
<th>Initial Grade</th>
<th>Redo Grade</th>
<th>Final Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term research project draft outline</td>
<td>15-Feb</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term research project detailed outline</td>
<td>19-Mar</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Term research project paper or presentation</td>
<td>9-Apr</td>
<td>200</td>
<td></td>
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<tr>
<td>Journal No. 1</td>
<td>1-Feb</td>
<td>40</td>
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<tr>
<td>Journal No. 2</td>
<td>7-Mar</td>
<td>90</td>
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<tr>
<td>Journal No. 3</td>
<td>11-Apr</td>
<td>150</td>
<td></td>
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<tr>
<td>Presentation attendance</td>
<td>16-Apr</td>
<td>15</td>
<td></td>
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<tr>
<td>Presentation attendance</td>
<td>23-Apr</td>
<td>15</td>
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<tr>
<td>Presentation attendance</td>
<td>30-Apr</td>
<td>15</td>
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<tr>
<td>Midterm exam</td>
<td>12-Mar</td>
<td>200</td>
<td></td>
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<tr>
<td>Final Exam</td>
<td>7-May</td>
<td>200</td>
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<tr>
<td>Total Possible Points for the FSHN 185 Course</td>
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<td>1000</td>
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</table>

**Note:** The Assignment and Grading Sheet is provided to allow for tracking of grades. Students should track their progress throughout the course with plans to achieve the highest score possible. It is recommended that students schedule an appointment with the instructor should any difficulty in meeting course requirements occur. See above for instructor contact information and office hours.
FSHN – 185
Grading Rubric for Term Research Project
Turn this grading sheet in with outline and term paper or presentation.

**Student Name: ____________________________**

**Outline**

<table>
<thead>
<tr>
<th>Description</th>
<th>F</th>
<th>D</th>
<th>C</th>
<th>B</th>
<th>A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outline draft outline</td>
<td>6.26</td>
<td>12.5</td>
<td>18.75</td>
<td>25</td>
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</tr>
<tr>
<td>Outline detailed outline</td>
<td>12.5</td>
<td>25</td>
<td>37.5</td>
<td>50</td>
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</tr>
</tbody>
</table>

**Points earned: /75**

**Paper:**

1. Is five - six pages.
   - F: 5, D: 6, C: 7, B: 8, A: 10
2. Is grammatically correct.
   - F: 18, D: 21, C: 24, B: 27, A: 30
3. Has a strong introduction which summarizes the paper.
   - F: 12, D: 14, C: 16, B: 18, A: 20
4. Each body paragraph focuses on one topic in the outline.
   - F: 24, D: 28, C: 32, B: 36, A: 40
5. Each page includes at least one citation from a peer reviewed journal.
   - F: 24, D: 28, C: 32, B: 36, A: 40
6. Is cohesive and organized.
   - F: 12, D: 14, C: 16, B: 18, A: 20
7. Includes a reference page with citations in APA format.
   - F: 9, D: 10, C: 12, B: 13, A: 20
8. Is turned in on due date.
   - F: 6, D: 7, C: 8, B: 9, A: 10

**Points earned: /200**

**Presentation:**

1. Has a strong introduction.
   - F: 5, D: 6, C: 7, B: 8, A: 10
2. Follows approved outline.
   - F: 18, D: 21, C: 24, B: 27, A: 30
3. Includes visual aides.
   - F: 12, D: 14, C: 16, B: 18, A: 20
4. Engages audience with question / answer interaction.
   - F: 24, D: 28, C: 32, B: 36, A: 40
5. Includes at least five citations from peer reviewed sources throughout presentation.
   - F: 24, D: 28, C: 32, B: 36, A: 40
6. Speaker(s) make eye contact with everyone in room.
   - F: 12, D: 14, C: 16, B: 18, A: 20
7. Has a strong conclusion.
   - F: 9, D: 10, C: 12, B: 13, A: 20
8. Is presented on due date and adheres to 15 – 20 minute limit.
   - F: 6, D: 7, C: 8, B: 9, A: 10

**Points earned: /200**
1) TERM RESEARCH PROJECT: WRITTEN PAPER OR ORAL PRESENTATION

a. Guidelines:
   i. The purpose of the Term Research Project is for students to engage in an in-depth review of the literature on a nutrition topic of interest. **Topics must be related to: 1) Nutrition and health in the Pacific Region or, 2) Childhood obesity.**

   For example: A topic affecting peoples of the Pacific Region could be that overuse of sunscreen may be related to the decreased absorption of vitamin D. The WCC Library has a wide selection of topics to research.

   ii. Students may choose to write an individual paper, present as an individual, or present with a group of up to four students.

      1. All claims must be supported by reputable references. Please have someone proofread your paper and check your resources. **Do not** cite the course textbook.

         i. Peer reviewed resources can be found at [http://www.danoneinstitute.org/nutrition_portal/index_nutrition_journals.php#top](http://www.danoneinstitute.org/nutrition_portal/index_nutrition_journals.php#top).

         ii. Reputable journals include titles such as: International Journal of Food Sciences and Nutrition, Journal of the American College of Nutrition, Journal of Nutrition, Journal of Nutritional, Environmental Medicine, and Nutrition Today. These are just a few examples. There are many titles to choose from.

   b. All references must be accurately cited using APA format. For help with APA formatting either consider visiting the American Psychological Association (APA) Website at” [http://apastyle.org/?apasessionKey=6D58C510D24B14758E212C67E8E1377E](http://apastyle.org/?apasessionKey=6D58C510D24B14758E212C67E8E1377E), or accessing WCC library resources.

b. Term Research Project Criteria: The Term Research Project, whether paper or oral presentation, must specifically address these four criteria:

<table>
<thead>
<tr>
<th>No.</th>
<th>Term Research Project Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is the significance of topic to health: is health improved or threatened?</td>
</tr>
<tr>
<td>2</td>
<td>What population is affected (men / women / young / elder / low income, Filipino, etc.).</td>
</tr>
<tr>
<td>3</td>
<td>What are the facts and fiction surrounding topic (clarify whether common information is fact or fiction).</td>
</tr>
<tr>
<td>4</td>
<td>What are the environmental, economical, socio-cultural issues impacts (how does the topic relate to the environment, economy, society, or culture?).</td>
</tr>
</tbody>
</table>

All four of the above criteria must be addressed whether choosing to write a paper or conduct an oral presentation.

i. **Paper: See grading rubric**

   1. Maximum of 5-6 pages excluding cover and reference pages.

   2. Typed, Arial or New Roman Times 12 font, double spaced, one inch margins. Include page numbers.

   3. Follow approved outline.

   4. Follow APA format for citation of references within the body of the paper.
ii. **Oral Presentation: See grading rubric**
   1. Use visual / audio tools.
   2. 15 – 20 minute timeline – going over 20 minutes will result in points being deducted.
   3. Submit detailed outline for presentation with notes and citations.
   4. Each member of the group must present some aspect of the presentation.
   5. One grade will be given to the whole group.

c. **Due dates: See detailed course schedule for specific dates**
   i. Draft outline and plan for term project - 25 points.
   ii. Detailed term project outline with references - 50 points.
   iii. Presentations are due on assigned dates during the last month of the semester. Students may work individually or in groups of up to four. Students must submit a topic for approval **no later than Wednesday, February 15th**.
   iv. There are four possible dates to present. Please confirm your individual or group presentation due date with the instructor. Presentation date assignment is based on first requested, first reserved!

d. **Grading:**
   i. Both paper and oral presentation must specifically address the four criterion listed above. For students who choose to present, one grade will be issued to all students in the group.

   **Each of the four criteria above is worth 60 points. 240 possible total points**

2) **NUTRITION JOURNALS USING THE MYDIETANALYSIS ONLINE TOOLS**

a. **Required text:** Students must purchase the required course text. Each text book provides one access code number needed to use required online tools.

   i. **Journal activities:** Three nutrition and activity journals are due throughout the semester as assigned on the course schedule.
      1. The first step is to create a personal profile in MyDietAnalysis.
      2. Next, enter into the MyDietAnalysis **everything** eaten AND every purposeful episode of physical activity (walking, washing a car, surfing, dancing, going to the gym, etc.) in any three day period before each journal due date.
      3. Then, view the 10 report types available in the MyDietAnalysis site.
      4. Now, study the Actual Intake vs. Recommended intake report and any two other reports that you find appealing. Study three different reports in all.
      5. Finally, type a one page narrative ‘journal’ describing what you’ve learned.
         a. Each journal must include following information:
            i. Discussion of the experience of journaling food intake and activity level.
            ii. Discussion of what you learned from the reports selected.
            iii. Discuss future goals for maintenance or change based on lessons learned from the reports. You must describe specific behaviors that you plan to target to make measurable change.
               1. What foods will be added / removed to improve the nutrient profile?
               2. How does the food choice fit in with household cost / preparation / storage, etc., issues?
               3. How much of a specific food will be added / removed?
                  a. For example: “I learned from the reports that I don’t eat 5 servings of fruits and vegetables each day. My plan is to add one fruit and one cup of dark green veggies each day of the week”.
         6. Print all three reports to turn in on due dates (See schedule).
Tips for using MyDietAnalysis:

- Search results from the food database look like: Taco, soft, chicken (Taco Bell). Food item descriptions are listed from general [taco] to specific [chicken] details and may include a brand name (Taco Bell). Note that you do not have to enter your search information in this format. You can simply type chicken soft taco.
- When your search yields multiple results: Choose the food that most closely matches what you ate. For example, if you searched for egg, you can then be more specific by selecting Eggs, poached, jumbo.
- To reduce the number of results for a search: Try to type in as many words as may apply. For example, if you search for whole wheat bread you will get a shorter list than if you search simply for bread. The resulting list of foods will contain all the search words, in any order.
- Use quotation marks only when searching for words in exact order.
- You can use major brand names, such as Lean Cuisine, Starbucks coffee, or Pizza Hut pizza.
- To search for a prepared meal: Try adding the word dinner or dish. For example, you can search for Lean Cuisine dinner. Or, if you ate a baked potato with broccoli and cheese, type potato broccoli dish.
- Check your spelling. Refer to product packaging to confirm spelling, such as for hummus or a brand like Haagen Dazs. If packaging is unavailable, it may be easier to first search for the generic food item, such as ice cream, and then select the brand and flavor.

**NOTE:** Each of the three journals due in the semester are expected to reflect increases in knowledge gained. As such, each of the three journals is graded with increasing possible points.

a. **Grade:** The journal assignments are graded with increasing weight as students are expected to show increases in nutritional planning knowledge throughout the semester. A live demonstration will be offered in class at the beginning of the semester. Students are encouraged to attend. The live demonstration will only be offered once due to time constraints. Each of the three journals are worth the following values:
   - No. 1 = 40 points
   - No. 2 = 90 points
   - No. 3 = 150 points

   **260 possible total points**

3) **ATTENDANCE**
   Attendance at all term presentation days is expected. Attendance on presentation days (excluded the due date) is worth 15 points each:

   **45 possible total points**

4) **EXAMS**
   Make-up exam not offered
   a. Two exams are held during the semester as assigned on the course schedule.
   b. Each exam includes 50 questions. (Multiple choice, true/false, and short answer).
   c. Each question is worth 4 points (50 questions X 4 points each = 200 possible points)

**First Online Exam: Chapters 1 - 7**

**200 possible total points**

**Final Online Exam: Chapters 8 – 15**

**200 possible total points**
# Schedule for FSHN 185  Fall 2012 (CRN 64339)
**Monday and Wednesday  10:00 - 11:15 am**

<table>
<thead>
<tr>
<th>Day #</th>
<th>Day and Date</th>
<th>Assigned Reading</th>
<th>Important Topics / Campus Activity / Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Monday, January 9</td>
<td>Intro to FSHN 185</td>
<td>Late Registration begins, Spring - 2012</td>
</tr>
<tr>
<td>2</td>
<td>Wednesday, January 11</td>
<td>Chapter 1 - Nutrition in Health</td>
<td>Guest Speaker: Online Nutrition Journal Training</td>
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<tr>
<td>3</td>
<td>Friday, January 13</td>
<td></td>
<td>Last Day to Add/Late Register</td>
</tr>
<tr>
<td>4</td>
<td>Monday, January 16</td>
<td>Dr. Martin Luther King, Jr. Day - no class</td>
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<tr>
<td>5</td>
<td>Wednesday, January 18</td>
<td>Chapter 2 - Healthful Diets and</td>
<td>Smart Food</td>
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<tr>
<td>6</td>
<td>Monday, January 23</td>
<td>Chapter 3 - We are what we eat</td>
<td>Alternative Health Promotion</td>
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<tr>
<td>7</td>
<td>Wednesday, January 25</td>
<td>Chapter 4 - Carbohydrates</td>
<td>Convenient Cuisine</td>
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<tr>
<td>8</td>
<td>Monday, January 30</td>
<td></td>
<td>Nutrition Journal 1 - 40 points</td>
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<tr>
<td>9</td>
<td>Wednesday, February 1</td>
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<td>Garden Tour</td>
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<tr>
<td>10</td>
<td>Monday, February 6</td>
<td>Guess Speaker</td>
<td>Unlocking the code: Genetics and Medicine</td>
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<td>11</td>
<td>Wednesday, February 8</td>
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<tr>
<td>12</td>
<td>Monday, February 13</td>
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<tr>
<td>13</td>
<td>Wednesday, February 15</td>
<td>Chapter 5 - Fats</td>
<td>1. Draft outline and plan for term project due - 25 points. 2. Danger on Your Plate? Farm-Raised and Wild Salmon</td>
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<tr>
<td>14</td>
<td>Wednesday, February 17</td>
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<td>15</td>
<td>Monday, February 20</td>
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<td>16</td>
<td>Wednesday, February 22</td>
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<td>17</td>
<td>Monday, February 26</td>
<td>Chapter 6 - Proteins</td>
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<td>18</td>
<td>Wednesday, February 28</td>
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<td>19</td>
<td>Monday, March 5</td>
<td>Chapter 7 - Fluid and electrolyte balance</td>
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<td>20</td>
<td>Wednesday, March 7</td>
<td>Chapter 8 - Antioxidants</td>
<td>More Than Skin Deep: Skin Cancer in America</td>
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<tr>
<td>21</td>
<td>Monday, March 12</td>
<td>Midterm Exam - Chapters 1 - 7 = 200 Points</td>
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</tr>
<tr>
<td>22</td>
<td>Wednesday, March 14</td>
<td>Independent Study</td>
<td>Conduct Library Research for Term Project Topic</td>
</tr>
<tr>
<td>23</td>
<td>Monday, March 16</td>
<td>Chapter 9 - Bone Health</td>
<td>Detailed term project outline with references due - 50 points</td>
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<tr>
<td>24</td>
<td>Wednesday, March 18</td>
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<tr>
<td>Date</td>
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<tr>
<td>Monday, March 26</td>
<td>Prince Jonah Kūhiō Kalanianōle Day - no class</td>
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<tr>
<td>Wednesday, March 28</td>
<td>Spring Recess, day three - no classes</td>
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<tr>
<td>22</td>
<td><strong>Monday, April 2</strong>&lt;br&gt;Chapter 10 - Metabolism and Blood Health</td>
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<tr>
<td>23</td>
<td>Last Day to Establish Credit/No-credit and Audit</td>
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<tr>
<td>24</td>
<td><strong>Wednesday, April 4</strong>&lt;br&gt;Group Presentations</td>
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<tr>
<td>25</td>
<td><strong>Monday, April 9</strong>&lt;br&gt;Chapter 11 - Healthy body weight</td>
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<tr>
<td>26</td>
<td>Journal 3 - 150 Points</td>
<td></td>
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<tr>
<td>27</td>
<td><strong>Wednesday, April 11</strong>&lt;br&gt;Chapter 12 - Nutrition, Fitness, and Good Health</td>
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<tr>
<td>28</td>
<td><strong>Monday, April 16</strong>&lt;br&gt;Group Presentations</td>
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<tr>
<td>29</td>
<td>Attendance - 15 Points</td>
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<tr>
<td>30</td>
<td><strong>Wednesday, April 18</strong>&lt;br&gt;Group Presentations</td>
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<tr>
<td>31</td>
<td>Attendance - 15 Points</td>
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<tr>
<td>32</td>
<td><strong>Monday, April 23</strong>&lt;br&gt;Chapter 13 - Food Hygiene</td>
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<tr>
<td>33</td>
<td><strong>Wednesday, April 25</strong>&lt;br&gt;Chapter 14 &amp; 15 - Nutrition and the Lifecycle</td>
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<tr>
<td>34</td>
<td>1. On Old Age I: A Conversation with Joan Erikson at 90</td>
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<tr>
<td>35</td>
<td>2. Last Day of Instruction, Spring - 2012</td>
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<tr>
<td>36</td>
<td><strong>Wednesday, May 2</strong>&lt;br&gt;<strong>Monday, May 7</strong>&lt;br&gt;Final Exam - Chapters 8 - 15 = 200 Points</td>
<td></td>
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<tr>
<td>37</td>
<td><strong>Wednesday, May 9</strong>&lt;br&gt;Week of Final Exams - No Class</td>
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<tr>
<td>38</td>
<td><strong>Friday, May 11</strong>&lt;br&gt;Last Day of the Semester, Spring - 2012</td>
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</tbody>
</table>

This course calendar has been carefully thought out and will be followed as much as possible. The Instructor will inform students of any foreseeable changes at least one class day in advance - by email. Email is the primary source of instructor communication with students during non-class time. Check email prior to class to check for changes. If a student is absent from class when changes are announced, or is unable to check email, it is the student’s responsibility to find alternate options to learn about the changes. If the instructor is late, the student is required to wait 30 minutes before leaving.

### Attendance and Active Participation

Attendance and active participation is imperative to the success of every student and the course. **Students are evaluated based on demonstration of understanding of learning objectives as reflected by measurable and continual gains in nutritional science knowledge.** Students having difficulty with attendance are encouraged to seek academic counseling or speak to the instructor to request help to protect their Grade Point Average (GPA). Persistent lack of class participation (4 absences or tardy) will result in the **assignment of an “F” for the semester/session.** Students who miss lectures need to research the material and catch up on their own. Make-up exams or not offered.

### Disabilities Accommodation Statement

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, lemke@hawaii.edu, or you may stop by Hale ‘Akoakoa 213 for more information.