San Diego State University  
School of Exercise and Nutritional Sciences

Nutrition 201: Fundamentals of Nutrition  
Fall 2014

Class Meetings:  Wednesday 4:00pm-6:40pm  
Room:  ENS 280  
Instructor:  Janet Ing Nash, MS, RD, CDE  
E-mail:  jingnash@mail.sdsu.edu  (please identify yourself as a Nutr 201 student)  
Prerequisites:  BIOL 100 and CHEM 100 or 200  
Office Hours:  By appointment

Required Text:  
McGuire, M. & Beerman, K. *Nutritional Sciences: From Fundamentals to Food*  
(3rd edition, Cengage)  
Available in Aztec Book Store for approximately $88.00.  
Exam questions are based on this 3rd edition.

Course Description:  
This course provides a comprehensive overview of the study of nutrition from the fundamental science underlying nutrition to current newsworthy issues in foods and nutrition. Topics include an in-depth study of the macronutrients and micronutrients found in foods, how the human body digests, absorbs, and metabolizes these nutrients, and how the body uses food to support optimal health. Students will also learn to apply the dietary guidelines and nutritional tools to evaluate and plan individualized diets.

Course Objectives:  
Upon successful completion of this course, students will have a solid working knowledge of nutrition essential for continued studies in dietetics, kinesiology and other health-related professions. Students will be able to:

1. Describe the connection between nutrition and health, and the importance of proper food choices and lifestyle habits in achieving and maintaining optimal health and fitness.  
2. Describe the chemical compounds found in foods and their vital roles in the biological processes of life.  
3. Explain how the human body converts food into energy necessary for sustaining life and for exercise.  
4. Describe how the human body processes ingested food, from digestion to absorption to elimination.  
5. Identify and describe the functions of vitamins and minerals in maintaining optimal health.  
6. Explain the vital functions of water and recommendations for water intake.  
7. Describe disorders and diseases related to poor diet and lack of physical activity.  
8. Identify sources of reliable and accurate nutrition information.  
9. Evaluate the nutrition information presented on food labels and in the media.  
10. Describe factors influencing body weight and the strategies/methods used to help achieve and maintain a healthful body weight.  
11. Evaluate a person’s diet and nutritional status, and plan an individualized healthful diet using dietary standards, guidelines, and proper nutritional tools.
School of ENS Learning Goals and Objectives:

*Learning Goal #1:* Demonstrate core critical thinking skills and dispositions to ask and answer questions relevant to exercise and nutritional science
  - Objective 1.4 – Critically evaluate current trends and practices using disciplinary knowledge

*Learning Goal #2:* Demonstrate effective oral, written, and other interpersonal skills to help communicate knowledge and promote health and wellbeing in diverse communities.
  - Objective 2.3 – Use effective interpersonal skills as part of an ongoing and guided dialogue with individuals who may benefit from modifying their health behavior.

*Learning Goal #3:* Demonstrate understanding of scientific concepts, principles, and methods used in the study of exercise and nutritional science.
  - Objective 3.1 Identify the steps in the scientific method of research

*Learning Goal #6:* Use biological, behavioral, psychosocial, and ecological theory-based perspectives to design and evaluate behavior change interventions in exercise and nutritional science.
  - Objective 6.1 – Differentiate between biomedical and biopsychosocial explanations of health and wellness
  - Objective 6.2 – Describe the biological, psychological, social and environmental correlates and determinants of behavior change relevant to physical activity and diet.
  - Objective 6.4 – Evaluate the efficacy and effectiveness of behavior change interventions in exercise and nutritional science.

*Learning Goal #7:* Use the principles of assessment to evaluate a variety of measurement tools in exercise and nutritional science.
  - Objective 7.1 – Explain the various kinds of validity evidence necessary to determine the quality of objective and subjective measures used in exercise and nutritional science
  - Objective 7.4 – Collect data to examine the reliability or objectivity of common measurement tools in exercise and nutritional science

**Students with Learning Disabilities:**

Please contact your counselor for Students with Disabilities for a signed verification letter. This letter should be emailed to me before the end of the first week of class in order to receive special accommodations (i.e. extended test taking time).
Course Requirements:

- **Attend all lectures on time and do not leave before class is over.** If you need to leave class earlier, please talk to me ahead of time.
- **Be attentive in class, take notes, and ask questions.** Don’t be afraid to raise your hand during lecture if you have a question. If the large class size seems intimidating, you may write it on a piece of paper and hand it in during break. I’ll also be available after class to answer any questions.
- **No exam or final make-ups are given.** There will be three exams and one final. Your lowest exam grade will be dropped but not the final grade.
- **Enjoy the class.** There will be a lot of interesting and practical information presented including ones you can apply to yourself to improve health and well-being.

<table>
<thead>
<tr>
<th>Exam I</th>
<th>20% of grade</th>
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<tbody>
<tr>
<td>Exam II</td>
<td>20% of grade</td>
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<tr>
<td>Exam III</td>
<td>20% of grade</td>
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<tr>
<td>Final Exam</td>
<td>25% of grade</td>
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<tr>
<td>Diet Analysis/Planning Project (Instructions to follow)</td>
<td>15% of grade</td>
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<td><strong>Total</strong></td>
<td><strong>100% of grade</strong></td>
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**Grading Scale**

- **A** 92.5 - 100%
- **A-** 89.5 - 92.4%
- **B+** 87.5 - 89.4%
- **B** 82.5 - 87.4%
- **B-** 79.5 - 82.4%
- **C+** 77.5 – 79.4%
- **C** 72.5 – 77.4%
- **C-** 69.5 – 72.4%
- **D+** 67.5 – 69.4%
- **D** 62.5 – 67.4%
- **D-** 59.5 – 62.4%
- **F** below 59.5
# Tentative Fall 2014 Class Schedule

<table>
<thead>
<tr>
<th>Lecture #</th>
<th>Month</th>
<th>Date</th>
<th>Topic/Chapter Readings</th>
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<tbody>
<tr>
<td>1</td>
<td>Aug.</td>
<td>27</td>
<td>The Science of Nutrition / Ch. 1</td>
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<tr>
<td>2</td>
<td>Sept.</td>
<td>3</td>
<td>Diet Guidelines and Nutrition Assessment / Ch. 2</td>
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<td>3</td>
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<td>10</td>
<td>Chemical and Biological Aspects of Nutrition / Ch. 3</td>
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<td></td>
<td>17</td>
<td>Exam I</td>
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<td>4</td>
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<td>24</td>
<td>Nutrition Physiology / Ch. 4</td>
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<td>5</td>
<td>Oct.</td>
<td>1</td>
<td>Carbohydrates / Ch. 5</td>
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<td>6</td>
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<td>8</td>
<td>Proteins / Ch. 6</td>
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<td>22</td>
<td>Lipids / Ch. 7</td>
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<td>8</td>
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<td>29</td>
<td>Energy Metabolism / Ch. 8</td>
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<td>9</td>
<td>Nov.</td>
<td>5</td>
<td>Energy Balance and Body Weight Regulation / Ch. 9</td>
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<td>12</td>
<td>Exam III</td>
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<tr>
<td>10</td>
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<td>19</td>
<td>Water-Soluble Vitamins / Ch. 10</td>
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<td>Fat-Soluble Vitamins / Ch. 11</td>
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<td>26</td>
<td>Happy Thanksgiving – No Class</td>
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<tr>
<td>11</td>
<td>Dec.</td>
<td>3</td>
<td>Trace Minerals / Ch. 12</td>
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<td>Major Minerals / Ch. 13</td>
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<td>12</td>
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<td>10</td>
<td>Life Cycle Nutrition / Ch. 14</td>
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<td>17</td>
<td>Final Exam (4:00-6:00pm)</td>
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