Life Cycle Nutrition

Monday / Wednesday 10:00 AM– 11:15 PM Enderis 475 (3 credits)

Department of Biomedical Sciences
University of Wisconsin-Milwaukee

Instructor
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Office hours: Wednesdays, 2:00PM – 3:30PM

Course Description:
From beginning to end, the human life cycle is a fascinating sequence of events. Each stage of the life cycle is associated with a distinct set of nutritional priorities. An in-depth discussion of nutritional foundations necessary for growth, development and normal functioning throughout the life cycle with special emphasis on pregnancy, lactation, infancy, childhood, adolescence and aging will be studied. This course will also examine the psychosocial and environmental conditions that impact nutrition status in each stage. Public health nutrition programs will be investigated.

The course is divided into 4 “learning modules.” Each module is divided by chapters and sections of chapters corresponding to your textbook. Each learning module consists of “learning activities” which include reading material and lecture notes and learning activities that may include worksheets, in-class activities, assignments and exams.

Module 1 – Nutrition: The Basics
Module 2 – Nutrition: Pregnancy and Lactation
Module 3 – Nutrition: Infancy and Childhood
Module 4 – Nutrition: Adolescence and Older Adults

Course Objectives:
Upon completion of the course, students will be able to:

1. To identify major physiological changes, nutritional needs, and nutrition-related issues at each of the stages of the life cycle (pregnancy, lactation, infancy, childhood, adolescence, adulthood, and the senior years).

2. Apply basic principles of nutrition to nutrition-related problems typical of each stage of the life cycle.

3. Explain the importance of maternal nutrition to fetal growth and development.

4. Evaluate the advantages and disadvantages of breastfeeding vs. bottle-feeding of infants.
5. Describe the effects of the aging process on nutrient digestion, absorption, and metabolism; students will be able to describe how these changes affect nutrient requirements of elderly people.

6. Students will be able to identify ways in which prescription drugs and nutrients interact.

7. Students will develop a level of expertise in one of the stages of the life cycle through personal interviews and literature review.

8. Discuss the impact of socioeconomic, cultural, and psychological factors on food and nutrition behavior.

9. Become acquainted with resources for delivery of nutrition care in community programs.

10. Apply the elements of reasoning and critical thinking techniques to in-class examples as well as assignments and exams.

This course addresses the Academy of Food and Nutrition Foundation Knowledge Requirements in the areas of Scientific and Evidence Base of Practice; health promotion and disease prevention; and Support Knowledge.

Text:

Course Site: All students are expected to regularly access and utilize the learning management system used at UW-Milwaukee which is Desire to Learn (D2L) available at http://d2l.uwm.edu/. For a handout on accessing D2L visit: http://www.uwm.edu/Dept/LTC/docs/firstdayhandout.doc. Any problems with access to D2L, please contact help@uwm.edu or call (414) 229-4040, or stop by Bolton 225.

CONTENT: The content area contains all our course documents including assignment descriptions and lecture notes (in PDF format).

DROPBOX: The dropbox will be used to turn in your assignments. There are multiple steps to submitting a file to a D2Ldropbox. If all the steps are not completed, the file will not be submitted. Here is the sequence of steps:

- Click [Add a File]
- In the popup window, click [Browse]
- Navigate to the desired file and double-click
- Click [Upload]
- Click [Submit]

GRADES: You may check your grade in the grades section of D2L.

LOGOUT: When you are finished working in our D2L site, always "logout". Especially if you are in a campus computer lab, since the next person who uses the machine may be able to access your course account!
Learning Activities

Readings: Read assigned chapter(s) prior to class in preparation for class discussion.

Lecture Notes: Lecture notes, saved as PDF files are posted on D2L.

Exams (200 points/50% of grade): At the end of each learning module, students will complete a 50 point exam which may include multiple choice, true or false, matching, short answer and or essay questions. Students will complete exams in class and during the final exam period. All readings, lecture notes and learning activities are considered testable material. Exams will focus on material covered since the previous exam; however, mastery of concepts from earlier material will be expected. No make-up exams will be allowed, unless arranged beforehand or in case of an extremely valid and verifiable emergency. In case of an emergency, contact me as soon as possible and no later than one week from the scheduled exam. Missed exams will result in a 15 point deduction on the make-up exam for all unexcused absences (see attendance policy).

Worksheets (50 points/12.5% of grade): Available on the D2L course site for six of the textbook chapters. These are due as noted on the class schedule. The worksheets cover text material only and are intended to encourage student preparation for class. The highest 5 out of the 6 worksheet scores will count toward the final grade in the course (i.e. the lowest score will be dropped).
*Worksheets may be handwritten.

Group Presentation/Project (40 points/10% of grade): On the first day of class, students will indicate their top three choices for the life cycle stage on which they will focus (pregnancy, lactation, infancy, childhood, adolescence, or elderly). The instructor will assign a group based on this information. Students will develop added expertise in this one stage of the life cycle, as explained below.

Each group will develop an interview protocol (set of questions) relevant to their stage of the life cycle. The group will be responsible for collating the questions and leading the in-class interview of the person representing their assigned life cycle stage. One group leader will hand in the complete draft protocol two classes before the scheduled interview. On the assigned date, members of the group will role play with one member of the group asking questions with one member answering. Immediately following the interview a debriefing session will follow with all group members participating.

Note: You should NOT expect your guest to be a nutrition expert; your questions should relate to personal experiences pertaining to the life cycle stage, not nutrition knowledge. You must however be prepared to answer any nutrition related questions your guest may have.

Annotated bibliography (25 points/6% of grade): When completing the annotated bibliography assignment, information obtained should be used to inform your life cycle stage and assist in determining the interview questions and possible responses. Each student will prepare an annotated bibliography on recent research relevant to their assigned life cycle stage. Group members will determine individual and distinct topics to be researched so that every group member is investigating a different topic that relates to the particular life cycle stage.
BMS 290: Special Health Topics
Life Cycle Nutrition
Spring 2013

Each student must locate, read, and summarize two research articles on his/her one topic. An example of an annotated bibliography is available from the course D2L website.

**NOTE:**
References must be provided and be professionally cited according to APA style guidelines (see course D2L website). Follow this format. NEVER rearrange the order in which authors’ names appear in a research article citation.

Staple the first page of each of the summarized research articles to the back of the bibliography, in the order in which you list the articles. Hand in this hard copy to me in class. Do NOT ask me to print out your bibliography from email.

Consumer-level articles (e.g. from sources such as *Good Housekeeping, Prevention, Runner’s World, Men’s Health*) are NOT appropriate. Articles about research are (usually) not research articles. You can identify a research study by the format of the article, which will include an abstract, introduction, methods, results, and discussion. Suggested research journals include *The Journal of the Academy of Nutrition and Dietetics, American Journal of Clinical Nutrition, The Journal of the American Medical Association, New England Journal of Medicine, The Journal of Nutrition Education and Behavior, and The Journal of School Health*. **If you do not use research articles when completing this assignment - your assignment will NOT be accepted and you will receive 0 points.**

Annotated List of Public Health Nutrition Programs (30 points/8% of grade): Each student will complete an annotated list (in a table format) detailing aspects (i.e. target audience, eligibility guidelines, benefits, program goals, and program outcomes) of community nutrition programs. One additional section in the table is blank for you to complete. You will describe an additional public health nutrition program that serves your assigned stage of the life cycle. The table needed to complete this assignment is available from the course D2L website.

To assist you in completing this assignment use:

A copy of both texts is on reserve in the library under my name.

In-class Activities: (35 points/9% of grade): Seven in-class assignments worth 5 points each will be presented at various points during the semester. Details for these in-class assignments will be explained prior to each assignment.

Participation (20 points/5% of grade): Although attendance will not be officially taken, there will be in-class discussion and several in-class activities throughout the semester that will help you accrue class participation points. These activities may or may not be announced beforehand and cannot be made up.

**NOTE:** Spelling and grammar always count. All work done outside the classroom is to be handed in neatly typed and stapled. You will automatically lose 1 point for any assignment that is handwritten (except Worksheets®), paper-clipped, and/or folded.
Points will be deducted for inappropriate spelling and grammar. When relevant, references must be provided and be professionally cited according to APA guidelines, see www.apastyle.org if you need help. All written assignments must be typed, double-spaced, using Times New Roman 12-point font, with 1-inch margins.

<table>
<thead>
<tr>
<th>Grading:</th>
<th>Possible Points</th>
<th>Percentage of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam 1</td>
<td>50</td>
<td>12.5%</td>
</tr>
<tr>
<td>Exam 2</td>
<td>50</td>
<td>12.5%</td>
</tr>
<tr>
<td>Exam 3</td>
<td>50</td>
<td>12.5%</td>
</tr>
<tr>
<td>Final exam (partly comprehensive)</td>
<td>50</td>
<td>12.5%</td>
</tr>
<tr>
<td>Worksheets 5@10 points each</td>
<td>50</td>
<td>12%</td>
</tr>
<tr>
<td>Group Presentation/Project</td>
<td>40</td>
<td>10%</td>
</tr>
<tr>
<td>Annotated Bibliography</td>
<td>25</td>
<td>6%</td>
</tr>
<tr>
<td>Public Health Nutrition Programs</td>
<td>30</td>
<td>8%</td>
</tr>
<tr>
<td>In-class activities</td>
<td>35</td>
<td>9%</td>
</tr>
<tr>
<td>Class Participation</td>
<td>20</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total points:</strong></td>
<td><strong>400 points</strong></td>
<td></td>
</tr>
</tbody>
</table>

Grades will be based on achievement of points as follows

- **A** = 376-400
- **A-** = 360-375
- **B+** = 352-359
- **B** = 336-351
- **B-** = 320-335
- **C+** = 312-319
- **C** = 296-311
- **C-** = 280-291
- **D+** = 272-279
- **D** = 256-271
- **D-** = 240-255
- **F** = 239 or less

**Course Policies:**

**Attendance Policy/Excused Absences**

1. You must notify me by email at least 2 hours prior to class if you will be absent. I will confirm notification of your absence by return email. If you do not get a return confirmation email from me, it means I did not get your absence notification.

2. Absences will only be excused in the event of:
   a. Documented illness of such severity that the student is prevented from attending class.
   b. Documentation must be written, dated, and signed by a healthcare provider.
   c. Documented serious illness or death in the immediate family. Documentation of an illness must be written, dated, and signed by a healthcare provider, death by an obituary.

3. Absences will only be excused for dates indicated in the documentation.

4. Acceptable written documentation (as described above) must be provided before the absence is excused and a make-up exam scheduled.
Email Policy: Email communication with the instructor should:

1. Be checked EVERY DAY.
2. Properly address the person to whom you are writing, state your need in complete and proof-read sentences, and close with your full name included. If your message does not meet these standards, it will be returned with the message “Try Again Please 😐”
3. Be used to set up an appointment to speak with me face-to-face.
4. Be used to clarify aspects of the class assignments that are unclear or confusing or express concerns.
5. NOT be used to ask questions about assignment due dates. This information can be attained by looking in your syllabus posted on D2L.
6. NOT be written with the expectation of receiving an immediate response. Even though email works 24 hours/day, I am not available 24 hours/day. I will check email daily and will try to respond to email within 24 hours. However, due to the number of emails I receive, if you do not hear back from me within 48 hours, please email me again.

Attendance and Tardiness Policy: Students are expected to attend all lectures and be ready to participate, with cell phones turned off or set to vibrate, promptly at the start of class. Each student is responsible for obtaining any information and/or materials missed during class. Please notify the instructor in advance if you will be arriving late, leaving early, or will be absent the entire class.

Academic Misconduct: All UWM students must maintain academic integrity. Plagiarism will NOT be tolerated. How to avoid plagiarism:
http://www.uwm.edu/Libraries/guides/style/plagiarism.html
Consequences if caught plagiarizing: http://www.uwm.edu/Dept/OSL/DOS/UWS.html

Academic Complaint and Appeal Procedures: Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others’ academic endeavors. Students may direct complaints or appeal a grade to the head of the academic unit or department in which the course resides.

Special Accommodations: Individuals with disabilities and/or health conditions that may affect full participation in this course should contact the instructor during the first week of classes. This information is private and will be kept confidential.

Religious Observances: Students will be permitted to miss class or make up an academic requirement without penalty due to religious observances. Please notify the instructor if you expect there to be a conflict PRIOR to the religious observance conflict.

Influenza Guidance: In the event of disruption of normal classroom activities due to a flu outbreak, the format for this course may be modified to enable completion of the course. In that event, you will be provided an addendum to this syllabus that will supersede this version.

Everything Else: Details pertaining to specific University policies regarding students with disabilities, religious observances, students called to active military duty, incompletes, discriminatory conduct (such as sexual harassment), academic misconduct, complaint
Tentative Course Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 23</td>
<td>Introduction</td>
<td></td>
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<tr>
<td>M 28</td>
<td>Review: The nutrients</td>
<td>Chapter 1, p. 1-35</td>
</tr>
<tr>
<td>W 30</td>
<td>Review: Dietary guidance</td>
<td>Ch. 1, p. 35-49; Ch. 16, p. 413-421</td>
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<tr>
<td>Feb. 4</td>
<td>Nutrition and the adult: Energy balance</td>
<td>Chapter 16, p. 421-426</td>
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<tr>
<td>W 6</td>
<td>Nutrition and the adult: Diet and health</td>
<td>Chapter 17</td>
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<tr>
<td>11</td>
<td>Nutrition during Pregnancy</td>
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<tr>
<td>W 13</td>
<td>Exam 1 (not including pregnancy)</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Pregnancy; pregnancy interview protocol due</td>
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<tr>
<td>W 20</td>
<td>Pregnancy; Annotated bibliography due</td>
<td>Chapter 4*</td>
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<tr>
<td>25</td>
<td>Pregnancy; pregnancy interview</td>
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<tr>
<td>W 27</td>
<td>Lactation</td>
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<tr>
<td>March 4</td>
<td>Lactation; lactation interview protocol due</td>
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<tr>
<td>W 6</td>
<td>Lactation</td>
<td>Chapter 6*</td>
</tr>
<tr>
<td>11</td>
<td>Lactation; lactation interview</td>
<td></td>
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<tr>
<td>W 13</td>
<td>Exam 2; infancy and childhood interview protocols due</td>
<td></td>
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<tr>
<td>18</td>
<td>Spring break—No classes</td>
<td></td>
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<tr>
<td>25</td>
<td>Infancy</td>
<td></td>
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<tr>
<td>W 27</td>
<td>Infancy; infancy and childhood interview</td>
<td>Chapter 8*</td>
</tr>
<tr>
<td>April 1</td>
<td>Infancy</td>
<td></td>
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<tr>
<td>W 3</td>
<td>Childhood</td>
<td>Chapter 10</td>
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<td>8</td>
<td>Childhood</td>
<td>Chapter 12*</td>
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<tr>
<td>W 10</td>
<td>Childhood</td>
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<tr>
<td>15</td>
<td>Adolescence; adolescent interview protocol due</td>
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<tr>
<td>W 17</td>
<td>Exam 3 (not including adolescence)</td>
<td></td>
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<td>22</td>
<td>Adolescence; adolescent interview</td>
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<tr>
<td>W 24</td>
<td>Adolescence</td>
<td>Chapter 14*</td>
</tr>
<tr>
<td>29</td>
<td>Elderly; elderly interview protocol due</td>
<td></td>
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<tr>
<td>May W 1</td>
<td>Elderly</td>
<td>Chapter 18*</td>
</tr>
<tr>
<td>6</td>
<td>Elderly; elderly interview</td>
<td></td>
</tr>
<tr>
<td>W 8</td>
<td>Overflow/review; Public Health Nutrition Programs Grid due</td>
<td>Final Exam: date TBD</td>
</tr>
</tbody>
</table>

*indicates chapter worksheet due