I. Course Description

This 2-credit course will provide an overview of nutrition issues affecting pregnant and postpartum women, females of reproductive age, infants and children through five years of age. The course will integrate public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of maternal and infant nutrition issues from a public health perspective. It will also provide students with an opportunity to develop skills in policy development and oral and written communication to improve the nutritional status of pregnant women, women of reproductive age, infants, toddlers and young children.

II. Course Prerequisites

Students who enroll in this course will need to have previously taken basic undergraduate-level courses in human physiology and human nutrition. Instructor permission to take the course may be granted for students who can demonstrate equivalent knowledge of these topics in lieu of a formal course.

III. Course Goals and Objectives

Upon completion of the course, the student should be able to:

1. Identify nutrition issues among females of reproductive age (15-44 years) that can affect the ability to become pregnant and outcomes of pregnancy.

2. Describe the relationship between the physiological changes that occur during pregnancy and the increased nutritional needs of women during pregnancy.

3. Discuss the benefits and limitations of breastfeeding vs. bottle-feeding for postpartum women and their infants.
4. Describe the progress of the introduction of solid foods for infants, including developmental clues, types of foods introduced and timing of food introductions.

5. Discuss the relationships between food intake, psychosocial development and physiological needs among 12-72 month old children.

6. Identify national guidelines that address nutrition-related health issues common among the MCH population.

7. Hone skills in reading and facilitating discussions related to evidence-based literature in MCH nutrition.

8. Compose a concise public health statement that summarizes evidence-based research.

IV. Methods of Instruction and Work Expectations

This course will utilize a variety of instructional methods including lectures (both in-person and online), the completion of online modules, the development of a consensus statement, and faculty- and student-led classroom discussions. Projects will be completed both individually and in small groups, both inside and outside of the classroom setting.

Group participation will be assessed by individuals and their peers to assure that each group member is graded individually for their performance on the project. A specific rating form will be available on the course moodle site for peer participation rating. The group participation rating of your peers will count as 25% of your overall group project grade.

It is imperative that students complete reading assignments BEFORE the class period for which they are assigned. We will have in class activities and discussions based on the readings. If a reading is listed as optional, those readings are not required to be completed prior to class.

Students are expected to fully participate in class activities and discussions. The use of electronic media in the class to check email or Facebook, send text messages, etc is disruptive to other students and to lecturers. Students who are found to be using electronic media in the class will have 5 points removed from their overall grade for each offense. Students will be asked to stow electronic media or to leave the classroom if the use of electronic media is unavoidable. Exceptions will be made for students who have documented learning needs or when media is required for the class activities.

Student Led Discussions

Students will work in pairs (or small groups) for this assignment, with assignment of pairs/groups on the first day of class. Topic areas of discussion questions will be chosen on the first day of class as well. Each group will be charged with leading a discussion of 2 articles that are identified by the instructor and assigned for the day of class that topic is discussed. Groups will lead the discussion using 2-3 questions for each article. Questions should not simply ask the class to reiterate information presented in the article, but instead should require students to apply information in the article to a current controversy, real-life situation or current policy issue. Discussion leaders may use any type of discussion format they think would best suit their assigned topic.

Each group must submit their questions in written (typed) format to the instructor by the end of the class in which the discussion is held. The question submission should include the group member names, date, topic and a citation of the particular articles discussed. The discussion assignment grade will be based on the quality of the questions (how well they require students to apply information from the reading to a scenario or problem) and how well the discussion leaders facilitated class dialogue.

This assignment will allow students to develop group facilitation skills and to gain in-depth knowledge in a particular topic area related to maternal, infant and preschool nutrition.

Opinion and Consensus Statement Project

The main project for this course will be the development of an individual opinion statement, followed by the development of a group consensus statement. This process is similar to that used by national committees and task forces such as the US Preventive Services Task Force and the National Prevention Council. Professional organizations also often use this format to publish consensus, position or opinion statements on topics of relevance to their fields.
Students will complete an opinion statement on their own, but will work in small groups to develop a consensus statement on an assigned topic. Guidance on the development of consensus statements will be provided in class. Limited time will be available in class to work on this assignment, so students should plan to work on this primarily outside of the classroom setting.

The question you will respond to is: "Can nutrition and/or physical activity program(s) effectively moderate weight gain during pregnancy?"

The steps for this project include:

1. Review the literature on the proposed topic. After reviewing the literature, write a short (2 page) opinion statement on the topic. The opinion statement should provide your professional opinion of the topic, but does not need to include recommendations for public health or clinical practice.

   You should include at least 5 references, but no more than 12 references for your opinion statement. You may include only one (1) review paper which can be a meta-analysis or systematic literature review but cannot be a Cochrane review paper.

2. Small group members will be announced in class prior to beginning the consensus statement phase of the course. A list of group members will also be available on the course moodle site. Introduce yourself to your small group members. It may be helpful to give a bit of background about personal and professional experience in maternal and child health/nutrition so that you can determine the collective expertise of your group.

3. Share your opinion statements with your small group members. As a “panel” you will develop a common set of findings and recommendations based on the collective content of your group’s opinion statements. The statement should include your group expert opinion, as well as 2-5 recommendations for public health and/or clinical practice.

   The consensus statement should be at least 2700 and no more than 5800 words in length. You can use up to three tables/figures (total, not three of each) and references are limited to no more than 50; the references do NOT count toward the word limit, nor do words included in tables or figures. The paper must be double spaced and be written in no smaller than 11 point font. References can be cited in whatever format your group chooses, provided it is consistent with styles used in peer-reviewed published journals.

Personal opinion statements will be due on Oct 3rd.

Consensus statements will be presented in class on Dec 5. Each group will provide a brief (8 minute) presentation based on their consensus statement. This is meant to simulate the experience of being asked to provide testimony on a topic at a state legislative hearing or a national conference committee hearing. A copy of the final consensus statement is due to the instructor at the beginning of class on Dec 5th.

V. Course Text and Readings

   Required Text: None

   Selected class readings are listed by week and available on the course moodle site.

VI. Course Outline/Weekly Schedule

   September 5 - Course Overview

   Introductions
   Course Overview
   Class Discussion - Example

   Class Discussion Facilitation Topics Assigned
September 12 - Nutrition and Reproductive Health

Nutrition and reproductive health

- Preconception and interconception health and nutrition
- Diet, nutrition and fertility
- Obesity among women of reproductive age
- Weight gain in pregnancy

Read Prior to Class:


Optional Reading:


Student-led Discussion

September 19 - Nutrition and Reproductive Health

- Fetal origins of chronic disease
- Nutrition and infant mortality
- Nutrition and chronic conditions during and after pregnancy (GDM, hypertension, nausea)

Read Prior to Class:

Optional Reading:


Student-led Discussions

September 26 - Infant Nutrition

Guest lecturer: Linda Dech, MN Department of Health

- Lactation
- Formula feeding
- Special needs of preterm infants
- Breastfeeding with HIV and Chronic Diseases

Read Prior to Class:


Student-led Discussions

October 3 - Toddler Nutrition

- Introduction to solids
- Development of feeding behaviors

Read Prior to Class:

- Wright CM, Parkinson KN, Drewett RF. How does maternal and child feeding behavior relate to weight gain and failure to thrive? Data from a prospective birth cohort. Pediatrics 2006;117;1262


Student-led Discussions

October 10

No In-Person Class

Each student is asked to attend at least one session at the National Maternal and Infant Nutrition Course (free of charge).

October 17 - Nutrition in Early Childhood

- Common feeding behaviors and concerns
- Role of parenting style on obesity and nutritional status

Read Prior to Class:


Student-led Discussions

October 24 - Food Allergies and Intolerances

- Common food allergies/intolerances
- Causes and consequences of food allergies/intolerances

Read Prior to Class:


Student-led Discussions
October 31 - Food Insecurity
Guest lecturer: Joni Geppert, MPH, RDN, LD Minnesota Department of Health and HCMC

Read Prior to Class:

Optional Reading:

Student-led Discussions

November 7- Nutrition Needs of Youth with Special Health Care Needs

- Epidemiology of special health care needs that require dietary modifications
- Failure to thrive
- Feeding interventions
- Implications of special needs for policy and practice

Read Prior to Class:

Student-led Discussions

November 14 - The Lifecourse Theory

- Nutrition, obesity and lifecourse trajectories

Lifecourse Activity

Read Prior to Class:

Student-led Discussions

**November 21 - Nutrition in childcare and early childhood programs**

**Guest Lecture: Jamie Bonczyk, MA, Director of Health and Nutrition, PICA Head Start**

Read Prior to Class:


Student-led Discussions

**December 5**

Consensus Statement Presentations

**VII. Evaluation and Grading**

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due Date</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions for student-led discussion</td>
<td>Varies</td>
<td>10</td>
</tr>
<tr>
<td>Facilitation of student-led discussion</td>
<td>Varies</td>
<td>10</td>
</tr>
<tr>
<td>Opinion statement</td>
<td>Oct 3</td>
<td>15</td>
</tr>
<tr>
<td>Consensus statement</td>
<td>Dec 5</td>
<td>45</td>
</tr>
<tr>
<td>In class Activity and Discussion Participation</td>
<td>NA</td>
<td>20</td>
</tr>
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The University utilizes plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following:

A 4.000 - Represents achievement that is outstanding relative to the level necessary to meet course requirements
A- 3.667
B+ 3.333
B 3.000 - Represents achievement that is significantly above the level necessary to meet course requirements
B- 2.667
C+ 2.333
C 2.000 - Represents achievement that meets the course requirements in every respect
C- 1.667
D+ 1.333
D 1.000 - Represents achievement that is worthy of credit even though it fails to meet fully the course requirements
S Represents achievement that is satisfactory, which is equivalent to a C- or better.

For additional information, please refer to: [http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html](http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html).
Course Evaluation
The SPH will collect student course evaluations electronically using a software system called CoursEval: www.sph.umn.edu/courseval. The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade in SPHGrades: www.sph.umn.edu/grades. All students will have access to their final grades through OneStop two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are an important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

Incomplete Contracts
A grade of incomplete “I” shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an “I” requires that a contract be initiated and completed by the student before the last official day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student’s college). For more information and to initiate an incomplete contract, students should go to SPHGrades at: www.sph.umn.edu/grades.

University of Minnesota Uniform Grading and Transcript Policy
A link to the policy can be found at onestop.umn.edu.

VIII. Other Course Information and Policies

Grade Option Change (if applicable):
For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at onestop.umn.edu.

Course Withdrawal:
Students should refer to the Refund and Drop/Add Deadlines for the particular term at onestop.umn.edu for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Office of Admissions and Student Resources at sph-ssc@umn.edu for further information.

Student Conduct Code:
The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: Student Conduct Code. To review the Student Conduct Code, please see: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf.

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."
Use of Personal Electronic Devices in the Classroom:
Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Scholastic Dishonesty:
You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code: http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: http://www1.umn.edu/oscai/integrity/student/index.html. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

Makeup Work for Legitimate Absences:
Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see: http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html.

Appropriate Student Use of Class Notes and Course Materials:
Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html.

Sexual Harassment:
"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf

Equity, Diversity, Equal Opportunity, and Affirmative Action:
The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf.
Disability Accommodations:
The University of Minnesota is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center Student Services is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.
If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DRC at 612-626-1333 or drc@umn.edu to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website, https://diversity.umn.edu/disability/.

Mental Health and Stress Management:
As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: http://www.mentalhealth.umn.edu.

The Office of Student Affairs at the University of Minnesota:
The Office for Student Affairs provides services, programs, and facilities that advance student success, inspire students to make life-long positive contributions to society, promote an inclusive environment, and enrich the University of Minnesota community.

Units within the Office for Student Affairs include, the Aurora Center for Advocacy & Education, Boynton Health Service, Central Career Initiatives (CCE, CDes, CFANS), Leadership Education and Development – Undergraduate Programs (LEAD-UP), the Office for Fraternity and Sorority Life, the Office for Student Conduct and Academic Integrity, the Office for Student Engagement, the Parent Program, Recreational Sports, Student and Community Relations, the Student Conflict Resolution Center, the Student Parent HELP Center, Student Unions & Activities, University Counseling & Consulting Services, and University Student Legal Service.

For more information, please see the Office of Student Affairs at http://www.osa.umn.edu/index.html.

Academic Freedom and Responsibility: for courses that do not involve students in research:
Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college (Dr Kristin Anderson, SPH Dean of Student Affairs), or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".

Student Academic Success Services (SASS): http://www.sass.umn.edu:
Students who wish to improve their academic performance may find assistance from Student Academic Support Services. While tutoring and advising are not offered, SASS provides resources such as individual consultations, workshops, and self-help materials.

Template update 8/2014