

# PUBH 6907, SECTION 001

Maternal, Infant, Child and Adolescent Nutrition  
Fall 2019

---

## COURSE & CONTACT INFORMATION

**Credits:** 3

**Meeting Day(s):** Wednesdays

**Meeting Time:** 11:15am - 1:10pm

**Meeting Place:** Mayo 1250

**Instructor:** Jamie Stang, PhD, MPH, RD

**Email:** stang002@umn.edu

**Office Phone:** 612-624-18118

**Fax:** 612-624-0315

**Office Hours:** By Appt

**Office Location:** West Bank Office Building, Suite 300

**Teaching Asst:** Rebecca Naab

**Email:** naab0006@umn.edu

## COURSE DESCRIPTION

This 3-credit course provides an overview of nutrition issues affecting pregnant and postpartum women, females of reproductive age, infants, children and adolescents. The course integrates public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of maternal and child health (MCH) nutrition issues seen by practitioners in community settings. The course addresses nutrition education, community/ population nutrition intervention strategies, and programs and policies to promote healthy eating and physical activity as interventions to reduce obesity and chronic disease risk among MCH populations. The course also provides an opportunity for students to develop social marketing and communication skills and messages appropriate for MCH populations.

Credit for this course will not be granted if students have already taken pubh 6902 or 6903.

## COURSE PREREQUISITES

Students who enroll in the PubH 6907 course should have had previous instruction in basic human nutrition. Students unsure about whether or not they meet the prerequisites should contact the instructors for more information.

## COURSE GOALS & OBJECTIVES

By the end of the course, students will be able to:

1. Identify nutrition-related health issues among females of reproductive age (12-48 years) that can affect their ability to conceive and that affect maternal and fetal outcomes of pregnancy.
2. Describe appropriate weight gain for women during pregnancy including total and rate of gain as well as promising practices for achieving an appropriate gestational weight gain.
3. Discuss maternal and fetal health risks associated with pre-pregnancy obesity, excessive gestational weight gain and postpartum weight retention.
4. Identify the role of nutrition in preventing and treating nutrition-related issues during pregnancy, such as gestational diabetes, hypertensive disorders and iron deficiency anemia.
5. Discuss the benefits and limitations of breastmilk vs. infant formula for postpartum women and their infants, including short- and long-term health risks, with an emphasis on breastfeeding promotion strategies.
6. Describe the process of introducing solid foods for infants, including developmental cues, types of foods introduced and timing of food introductions, with an emphasis on how the introduction of foods may affect health issues such as risk for obesity and food allergies.
7. Discuss the relationships between food intake, psychosocial development and physiological needs among children from birth to age 21 years, including the psychological, social, cultural, familial, economic and environmental factors that influence food

behavior, dietary intake and physical activity patterns of youth and how these factors affect food choices, nutritional needs, obesity and health.

8. Identify nutrition education and health promotion concepts, interventions, strategies and resources pertinent to youth.
9. Demonstrate skills and develop tools that will enhance the practice of MCH nutrition and obesity prevention in public health settings and schools including program and policy evaluation.

Develop messages to change nutrition-related behaviors among MCH populations and use appropriate media to convey these messages

## METHODS OF INSTRUCTION AND WORK EXPECTATIONS

### Course Workload Expectations

Maternal, Infant, Child and Adolescent Nutrition is a 3 credit course. The University expects that for each credit, you will spend a minimum of three hours per week attending class or comparable online activity, reading, studying, completing assignments, etc. over the course of a 15-week term. Thus, this course requires approximately 135 hours of effort spread over the course of the term in order to earn an average grade.

This course will utilize online and in-person PowerPoint presentations, readings, completion of a group project, and participation in classroom discussions to convey course content and evaluate student performance. The viewing of audiovisual media inside and outside of the classroom may be required as well. All students are expected to participate fully in group project activities and classroom discussions.

Each class period will be divided up into three distinct activities: 1) mandatory discussion of readings, requiring that each student develop and post at least one discussion question per week prior to class (the question must be related to the required reading and/or online lecture); 2) presentations by faculty and/or guest speakers; and 3) small group work on the PSA group project. It is imperative that students complete online viewing and reading assignments BEFORE the class period for which they are assigned. We will have in class activities and discussions based on the online lectures and readings. If a reading is listed as optional, those readings are not required to be completed prior to class. Discussion questions must be posted to the course site by 11:55 pm the night before the next class period in order to be counted as a completed activity.

It is expected that each student will spend an average of 6 hours of time per week on course readings and activities. Assignments will be delivered to the instructor via Moodle unless otherwise noted in the syllabus and will have a specific time and date on which they are due. Late assignments will be subject to a loss of points and appropriate reduction in grade.

Students are expected to fully participate in class activities and discussions. The use of cellphones and other electronic media other than laptop computers 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 cellphones 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.

### ASSIGNMENTS

#### **Public Health Message Assignment: PSA**

This project entails developing a public health message on an assigned MCH nutrition topic, then developing a public service announcement to convey that message. The goals for this project are for students to learn how to: develop concise, effective public health messages that can raise awareness and sway opinion about an issue; develop media-related presentation skills for conveying public health messages to various audiences; determine ways to tailor public health messages to specific target audiences; and develop project management skills.

The context for this project is:

You are employed at a health department that has a clinic which provides services to pregnant and postpartum women, infants and toddlers (MCH populations). A review of data suggests that many families are reporting inappropriate timing of introduction of solid foods. Staff report questions about the best types of food to introduce and when to introduce these foods as the most common questions they get on infant feeding. Your agency has applied for and received grant funding to develop a social media/marketing program on the topic of introduction of solid foods to infants. Your group has been given the task of developing a message for your community related to this topic as well as a PSA for this campaign that can be used in a variety of settings including clinic waiting rooms, on tablets/cell phones and as video links embedded in education materials and other media.

For this course project, you will be required to complete the project described above, which must include both an audio and visual component. The public health message media component should be no more than 90 seconds long. Technology assistance from several campus resources will be available to groups as they work on their assignments, so prior experience in media production is not required. We will have guest speakers in class to discuss campus resources.

The assignment is broken down into several steps to allow for feedback throughout the process. These steps are:

**Activity 1:** Each group will be asked to identify a public health message aimed at a MCH population. We will discuss these in class with course instructors and Scott Spicer and Charlie Heinz, media technology resource librarians from Walter Library. Emily Paul from disability services will also meet with the class about how to make the PSAs ADA compliant, which is required for public distribution.

Develop your public health message based on your target audience. For this project a few global target groups are defined (postpartum women, infants up to age 18 months) but you will need to further refine your target audience to a greater degree. For example, you may choose to focus on a specific racial/ethnic group, a specific age group within the MCH population, etc. Once you determine who your specific target audience is, gather some basic data about this population and utilize this in your message development. Your group will want to consider aspects of the audience such as age, race/ethnicity, country of origin, literacy levels, SES, current trends in dietary intake and infant feeding patterns, traditional health and infant feeding practices, and common health outcomes related to inappropriate introduction of solids. You will also want to consider the prior level of knowledge or awareness of the topic your chosen target group may have. Utilize national, state or local data or research to support your choice of a target group as appropriate for this project. Write up a description of your target audience, including the public health message you have developed (your documentation). Write a short (1-2 page) review of why you chose the particular message you did based on your population characteristics. You will need to include at least 3 credible (i.e., evidence-based, peer-reviewed) references for this assignment. Develop a project task list and timeline for this project. This should outline which group members are responsible for which activities as well as when specific tasks need to be completed. **This is due on Oct 2.** (15 points)

**Activity 2:** Develop a storyboard for your media component that outlines the content of your presentation. These can be hand-drawn with stick figures – you will not be graded on attractiveness but rather on how well the proposed content matches with your message and the timeframe allowed for the PSA. The storyboard will assist faculty in helping groups determine if their PSA is of appropriate length and will help groups determine the type of sites, materials, etc they will need to complete the project. **This is due on Oct 23.** (15 points)

**Activity 3:** Present your public health message project to the class. The presentation should include a description of your target audience, the public health message, a short discussion of why your message is appropriate for your audience and a viewing of the media component you have developed. Each group will have no more than 8 min. to present. **This will occur on Dec 4** – groups will draw numbers on Dec 4 to determine order. (35 points)

Each student will review the presentations of other groups using a peer-review form (handed out in class). These are due at the end of each viewing. (5 points)

Turn in a group and personal self-assessment form (5 points) by Dec 11 via the course Canvas site.

## Posting and Group Discussion of Topics

Students will sign up for one of four pre-determined questions they are interested in posting about. They will post on that topic by the question due date. Each posting must be at least 400 words long and must include at least two unique references (peer-reviewed literature, professional organization position papers, or government documents).

Students will also sign up to post a response to at least one topic other than their own primary posting topic. The response posts must be substantive in nature and contribute something new to the discussion – they cannot merely agree or disagree with what the primary posting included. Response posts must include at least one reference in the posting.

During each class period, we will have a short discussion of a topic related to the weekly reading and online module lecture. During four of the classes, the discussion will be on the posted question topic and will be led by students who were primary posters for the topic with the assistance of the course instructor and/or TA.

Due dates will vary by group assigned dates. This is worth 25 points, with 15 points counting toward the postings component of the project, and 10 points based on your participation in group discussions in class (both leading and participating in those led by other students).

## Group Work and Discussion Concepts: Learning Community

School of Public Health courses ask students to discuss frameworks, theory, policy, and more, often in the context of past and current events and policy debates. Many of our courses also ask students to work in teams or discussion groups. We do not come to our courses with identical backgrounds and experiences and building on what we already know about collaborating, listening, and engaging is critical to successful professional, academic, and scientific engagement with topics.

In this course, students are expected to engage with each other in respectful and thoughtful ways.

In group work, this can mean:

- Setting expectations with your groups about communication and response time during the first week of the semester (or as soon as groups are assigned) and contacting the TA or instructor if scheduling problems cannot be overcome.
- Setting clear deadlines and holding yourself and each other accountable.
- Determining the roles group members need to fulfill to successfully complete the project on time.
- Developing a rapport prior to beginning the project (what prior experience are you bringing to the project, what are your strengths as they apply to the project, what do you like to work on?)

In group discussion, this can mean:

- Respecting the identities and experiences of your classmates.

- Avoid broad statements and generalizations. Group discussions are another form of academic communication and responses to instructor questions in a group discussion are evaluated. Apply the same rigor to crafting discussion posts as you would for a paper.
- Consider your tone and language, especially when communicating in text format, as the lack of other cues can lead to misinterpretation.

Like other work in the course, all student to student communication is covered by the Student Conduct Code (<https://z.umn.edu/studentconduct>).

## COURSE TEXT & READINGS

Readings are listed by week on the course Canvas site and on the course syllabus. The required text for this course is Nutrition Through the Lifecycle, 7th ed. J Brown, ed. ISBN: 978-10305-62800-7.

It is good practice to use a citation manager to keep track of your readings. More information about citation managers is available at <https://www.lib.umn.edu/pim/citation>.

## COURSE OUTLINE/WEEKLY SCHEDULE

Week	Topic	Readings	Activities/Assignments
<b>Week 1 Sept 4</b>	Course Overview Introduction to group project	Chapter 1 (for non-PHN or non-CMP track students)	<b>In Class Activity:</b> Review PSAs <b>Assignment:</b> Each small group should locate a PSA example <b>Assignment:</b> PSA Project
<b>Week 2 Sept 11</b>	Preconception and Interconception Nutrition	Chapter 2, pg 56 (start at Nutrition and Fertility) – 66  Chapter 3, pg 71-78 (stop before section 3.5 Phenylketonuria).	<b>View Online Lecture Prior to Class:</b> Preconceptional and Interconceptional Health: Focus on Nutrition and Weight Status Prior to and Between Pregnancies (24 minutes) <b>In Class Activity:</b> Class Discussion, Review PSA examples <b>Guest Speakers:</b> Scott Spicer & Charlie Heinz (Walter Library Media Services), Emily Paul (UMN Disability Services) <b>Due:</b> PSA example
<b>Week 3 Sept 18</b>	Nutrition during Pregnancy	Chapter 4, pg 87-127  Chapter 5, pg 132-150	<b>View Online Lecture Prior to Class:</b> Nutrition and Pregnancy: Physiological and Metabolic Changes (23 minutes) <b>In Class Activity:</b> Class Discussion, Ancillary Lecture, Group Work <b>Guest Speaker:</b> Rosalie Pierce & Sandy Sather
<b>Week 4 Sept 25</b>	Nutrition in Infancy and Toddler Years	Chapter 6 pg 154-181  Chapter 7, pg 185-199 (stop before section 7.5)  Chapter 7, pg 204 - 210 (stop before section 7.12)	<b>View Online Lecture Prior to Class:</b> Feeding Infants and Toddlers (31 minutes) <b>In Class Activity:</b> Class Discussion, Guest Lecture, Group Work <b>Discussion 1</b>
<b>Week 5 Oct 2</b>	Nutrition in Young Children	Chapter 8, pg 214-234 Chapter 10, pg 255-280	<b>View Online Lecture Prior to Class:</b> Feeding Young Children (16 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Guest Speaker:</b> Katie Costello <b>Due:</b> Description of target audience and message
<b>Week 6 Oct 9</b>	Nutrition in School-Aged Children, Nutrition Growth & Development	Chapter 12 - pg 299-307 (stop prior to section 12.6) and pg 312-315 (section 12.7 only) Chapter 14, pg 348-368 (stop prior to section 14.6)	<b>View Online Lecture Prior to Class:</b> Growth, Nutrition, and Development of Children and Adolescents (27 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Guest Speaker:</b> Katie Loth <b>Discussion 2</b>

<b>Week 7 Oct 16</b>	Nutrition in Adolescence	Chapter 12, pg 318-324 Chapter 14, pg 368 (start at section 14.6) -374	<b>View Online Lecture Prior to Class:</b> Lecture: Child Nutrition Programs: Promoting Healthy Eating and Physical Activity Behaviors (27 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Guest Speaker:</b> Angie Richey - Roseville School District <b>Due: Storyboard of PSA</b>
<b>Week 8 Oct 23</b>	<b>No class this week</b>		Work on PSA
<b>Week 9 Oct 30</b>	Child Obesity	Chapter 12, pg 307 -312 (Section 12.6 only) Chapter 15, pg 377-381 (stop prior to section 15.2)	<b>View Online Lecture Prior to Class:</b> Children and Adolescents with Overweight and Obesity: Prevention and Treatment (32 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Discussion 3</b>
<b>Week 10 Nov 6</b>	<b>No In Person Class - Attend Food Justice Summit</b>		
<b>Week 11 Nov 13</b>	Eating Disorders Sports Nutrition	Chapter 12, pg 315 (start at section 12.8)-317 Chapter 15, pg 381 (start at section 15.2)-385 (stop prior to section 15.4) Chapter 15, pg 390-397	<b>View Online Lectures Prior to Class:</b> Eating Disorders in Youth (18 minutes) and Adolescents Participating in Organized Sports: Nutritional Considerations (37 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Guest Speaker:</b> Hilary Gebauer <b>Discussion 4</b>
<b>Week 12 Nov 20</b>	Nutrition for Children with Special Health Care Needs	Chapter 11, pg 283-296 Chapter 13, pg 327-345	<b>View Online Lectures Prior to Class:</b> Nutrition for Children and Youth with Special Health Care Needs (40 minutes) <b>In Class Activity:</b> Class Discussion, Group Work <b>Guest Speaker:</b> Lisa Gemlo
<b>Week 13 Nov 27</b>	<b>No In Person Class</b>		Finalize PSAs
<b>Week 14 Dec 4</b>	<b>Presentation of PSAs (group order TBD)</b>		

## SPH AND UNIVERSITY POLICIES & RESOURCES

The School of Public Health maintains up-to-date information about resources available to students, as well as formal course policies, on our website at [www.sph.umn.edu/student-policies/](http://www.sph.umn.edu/student-policies/). Students are expected to read and understand all policy information available at this link and are encouraged to make use of the resources available.

The University of Minnesota has official policies, including but not limited to the following:

- Grade definitions
- Scholastic dishonesty
- Makeup work for legitimate absences
- Student conduct code
- Sexual harassment, sexual assault, stalking and relationship violence
- Equity, diversity, equal employment opportunity, and affirmative action
- Disability services
- Academic freedom and responsibility

Resources available for students include:

- Confidential mental health services
- Disability accommodations
- Housing and financial instability resources
- Technology help
- Academic support

## EVALUATION & GRADING

Activity	Due Date	Points
PSA Example	9/11	10
Public health message documentation/task list	10/2	15
Public health message story board	10/16	15
Final PSA presentation	12/4	35
Final PSA presentation peer review form	12/4	5
Group and self-assessment form	12/4	5
Discussion in Class	Varies	15

### Grading Scale

The University uses plus and minus grading on a 4.000 cumulative grade point scale in accordance with the following, and you can expect the grade lines to be drawn as follows:

<b>% In Class</b>	<b>Grade</b>	<b>GPA</b>
93 - 100%	A	4.000
90 - 92%	A-	3.667
87 - 89%	B+	3.333
83 - 86%	B	3.000
80 - 82%	B-	2.667
77 - 79%	C+	2.333
73 - 76%	C	2.000
70 - 72%	C-	1.667
67 - 69%	D+	1.333
63 - 66%	D	1.000
< 62%	F	

- A = achievement that is outstanding relative to the level necessary to meet course requirements.
- B = achievement that is significantly above the level necessary to meet course requirements.
- C = achievement that meets the course requirements in every respect.
- D = achievement that is worthy of credit even though it fails to meet fully the course requirements.
- F = failure because work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I (Incomplete).
- S = achievement that is satisfactory, which is equivalent to a C- or better
- N = achievement that is not satisfactory and signifies that the work was either 1) completed but at a level that is not worthy of credit, or 2) not completed and there was no agreement between the instructor and student that the student would receive an I (Incomplete).

Evaluation/Grading Policy	Evaluation/Grading Policy Description
<p><b>Scholastic Dishonesty, Plagiarism, Cheating, etc.</b></p>	<p>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 (As defined in the Student Conduct Code). For additional information, please see <a href="https://z.umn.edu/dishonesty">https://z.umn.edu/dishonesty</a></p> <p>The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: <a href="https://z.umn.edu/integrity">https://z.umn.edu/integrity</a>.</p> <p>If you have additional questions, please clarify with your instructor. 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.</p> <p>Indiana University offers a clear description of plagiarism and an online quiz to check your understanding (<a href="http://z.umn.edu/iuplagiarism">http://z.umn.edu/iuplagiarism</a>).</p>
<p><b>Late Assignments</b></p>	<p>Five percent of the points for each assignment will be deducted each day if it is turned in late, including weekend dates. Assignments will not be accepted if they are more than 5 days late.</p>
<p><b>Attendance Requirements</b></p>	<p>Attendance is required unless professor is aware of a qualifying reason for absence. Student is responsible to catch up with any course content that is missed.</p>
<p><b>Extra Credit</b></p>	<p>No option for extra credit</p>

## CEPH COMPETENCIES

Competency	Learning Objectives	Assessment Strategies
8. Apply awareness of cultural values and practices to the design or implementation of public health programs	Students will develop educational messaging based on the cultural and linguistic characteristics of a specific target population.	Group Project Part 1 document. Development of a culturally- and linguistically-tailored message on a public health nutrition topic. This will be accompanied by written documentation of pertinent characteristics, behaviors and identified needs of the audience and rationale for why the message would be predicted to be effective for said audience.
9. Design a population-based project, program, policy, or intervention	Students will examine published literature, grey literature and surveillance system data to document needs of a specific target population.	Group Project Part 1 document. Development of a culturally- and linguistically-tailored message on a public health nutrition topic. This will be accompanied by written documentation of pertinent characteristics, behaviors and identified needs of the audience and rationale for why the message would be predicted to be effective for said audience, based on the evidence and data gathered.
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	Students will develop a 90-second public service announcement on a priority public health nutrition topic, based on evidence gathered from surveillance data, grey literature and peer-reviewed literature. Students will present a PSA in class and to MDH personnel at the end of the course.	Group Project Parts 1-3. Development of a public service announcement on a priority public health nutrition topic, which is based on documented needs and characteristics of a target population.
20. Describe the importance of cultural competency in communicating public health content	Students will develop a 90-second public service announcement on a priority public health nutrition topic. Students will present a PSA in class and to MDH personnel at the end of the course. Students will discuss evidence they gathered and utilized during the development of the PSA, focusing on how it was tailored for a specific audience.	Group Project Part 3. Students will describe their process for developing their message during the final presentation of the PSA project.
21. Perform effectively on interprofessional teams	Students will complete a work plan for their group project. Students will critically evaluate their own role and those of their peers at the end of the small group project.	Completion of the self- and group-assessment form for the small group project.