

PubH 6907

Maternal, Infant, Child and Adolescent Nutrition

Fall 2017

Credits:	This is a 3 credit graduate-level course
Meeting Days:	Wednesdays
Meeting Time:	10:10 am – 1:05 pm
Meeting Place:	Mayo A110
Instructors:	Jamie Stang, PhD, MPH, RDN and Aida Miles, MMSc, RDN, FAND
TA:	Junia Nogueira deBrito
Office Address:	Suite 300 West Bank Office Building, Division of Epidemiology and Community Health 1300 South Second Street, Minneapolis, MN 55454-1015
Office Phone:	612-624-1818
Fax:	612-624-9328
E-mail:	stang002@umn.edu and miles081@umn.edu ; nogue013@umn.edu
Office Hours:	By arrangement with instructor(s)

I. 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.

II. Course Prerequisites

Students who enroll in the PubH 6907 course should have had previous training in nutrition. Students unsure about the pre-requisites should contact the instructors for more information.

III. Course Goals and 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.
10. Develop messages to change nutrition-related behaviors among MCH populations and use appropriate media to convey these messages

IV. Methods of Instruction and Work Expectations

This course will utilize 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.

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.

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 possible 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.

V. Course Text and Readings

Readings are listed by week on the course Moodle site and on the course syllabus. The required text for this course is *Nutrition Through the Lifecycle*, 6th ed. J Brown, ed. ISBN: 978-10305-62800-7. Suggested readings may be available for some topics when there are readings that may be excessively long or somewhat interesting but not essential to mastering the content of that specific topic.

VI. Course Outline/Module Schedule

Sept 6 - Course Overview

Introductions

Course Overview

- Project groups assigned
- Discussion of *Topic of Interest Project*- groups assigned
- Discussion of expectations for *Public Service Announcement (PSA)* project

In class activity: Identify effective PSA example

Guest lecturer: Scott Spicer, Walter Library Media Librarian

Guest lecturer: Emily Paul, Disability Resource Center

Sept 13 - Nutrition Prior to Pregnancy, Role of Nutrition in Women's Health

Effects of preconceptional weight status and gestational weight gain on pregnancy outcomes

Promising practices and evidence-based interventions to improve nutritional status prior to and between pregnancies

Read Prior to Class:

- NTLC Chapter 2, pg 56-66; Chapter 3, pg 72-78;

Optional readings:

- Stang J, Huffman L. Obesity, reproduction, and pregnancy outcomes: Position of the Academy of Nutrition and Dietetics. *J Acad Nutr Diet*. 2016;116:677-691.
- Dean SV, Lassi ZS, Imam AM, Bhutta ZA. Preconception care: nutritional risks and interventions. *Reprod Health*. 2014;11(Suppl 3):53-68.
- Haugen M, Brantsaeter AL, Winkvist A, Lissner L, Alexander J, Oftedal B, Magnus P, Meltzer HM. Associations of pre-pregnancy body mass index and gestational weight gain with pregnancy outcome and postpartum weight retention: a prospective observational cohort study. *BMC Pregnancy & Childbirth* 2014;14:201-212.

Sept 20 – Nutrition During Pregnancy, Postpartum Weight Issues

Postpartum weight retention, including promising practices and evidence-based intervention strategies

Nutrient needs and metabolic adaptations of pregnancy

Role of nutrition in moderating risk of poor maternal-fetal outcomes (preterm birth, SGA/LGA, gestational diabetes, gestational hypertension/pre-eclampsia, congenital anomalies, etc)

Read Prior to Class:

- NTLC Chapter 4, pg 88-131; Chapter 5, pg 136-158

Optional readings:

- van der Pligt P, Willcox J, Hesketh KD, Ball K, Wilkinson S, Crawford D, Campbell K. Systematic review of lifestyle interventions to limit postpartum weight retention: implications for future opportunities to prevent maternal overweight and obesity following childbirth. *Obes Rev.* 2013;14:792-805. doi:10.1111/obr.12053
- Amorim Adeboye AR, Linne YM. Diet or exercise, or both, for weight reduction in women after childbirth (review). *Cochrane Database of Syst Rev* 2013, Issue 7. Art. No.:CD005627. doi:10.1002/14651858.CD005627.pub3. Pages 1-15.
- Nascimento SL, Pudwell J, Surita FG, Adamo KB, Smith GN. The effect of physical exercise strategies on weight loss in postpartum women: a systematic review and meta-analysis. *Int J Obes.* 2014;38:626-635. doi:10.1038/ijo.2013.183
- Procter SB, Campbell CG. Position of the Academy of Nutrition and Dietetics: Nutrition and lifestyle for a healthy pregnancy outcome. *J Acad Nutr Diet.* 2014;114:1099-1103.
- Haider BA, Olofin I, Wang M, et al. Anaemia, prenatal iron use and risk of adverse pregnancy outcomes: systematic review and meta-analysis. *BMJ.* 2013;346:134-43.
- Thorne-Lyman A, Fawzi WW. Vitamin D during pregnancy and maternal, neonatal and infant health outcomes: a systematic review and meta-analysis. *Paediatr Perinatol Epi.* 2012;26(Suppl 1):75-90.
- Ramakrishnan U, Grant FK, Goldenberg T, et al. Effect of multiple micronutrient supplementation on pregnancy and infant outcomes: a systematic review. *Paediatr Perinatol Epidemiol.* 2012 Jul;26 Suppl 1:153-67.

Sept 27 - Infant Nutrition, Focus on Breastfeeding Promotion

**Prior to class- View Flipgrid videos from Infancy Group at: <https://flipgrid.com/6907>
Password: pubh6907**

Physiology of infant feeding with a focus on physiological reflexes and hunger/satiety cues

Nutrient needs of infants and overview of feeding options including breastfeeding and formula feeding

Breastfeeding support and promotion programs and interventions

Guided discussion: Infancy Group

Guest lecturer: Linda Dech, MN Department of Health, WIC Breastfeeding Promotion Coordinator

Read Prior to Class:

- NTLC Chapter 6, 161-189; Chapter 7, pg 193-206 and 212-217

Optional readings:

- Kirkegaard H, Stovring H, Rasmussen KM, Abrams B, Sorensen TIA, Nohr EA. How do pregnancy-related weight changes and breastfeeding relate to maternal weight and BMI-adjusted waist circumference 7 y after delivery? Results from a path analysis. *Am J Clin Nutr* 2014;99:312-319.
- Wojcicki JM. Maternal prepregnancy body mass index and initiation and duration of breastfeeding: a review of the literature. *J Women's Health*. 2011;20(3):341-347. doi: 10.1089/jwh.2010.2248
- Brown A, Lee M. An exploration of the attitudes and experiences of mothers in the United Kingdom who chose to breastfeed exclusively for 6 months postpartum. *Breastfeed Med*. 2011;6:197-204
- Lapillonne A, O'Connor DL, Wang D, Rigo J. Nutritional recommendation for the late-preterm infant and the preterm infant after hospital discharge. *J Pediatr*. 2013;162:S90-100.
- Zhang Y, Carlton E, Fein SB. The association of prenatal media marketing exposure recall with breastfeeding intentions, initiation and duration. *J Hum Lact*. 2013; Nov;29(4):500-509.
- Nickel NC, Labbok MH, Hudgens MG, Daniels JL. The extent that noncompliance with the Ten Steps to Successful Breastfeeding influences breastfeeding duration. *J Hum Lact*. 2013;29L59. DOI: 10.1177/0890334412464695

Public health message documentation/task list due

Oct 4 – Toddler and Preschool Nutrition: Effects on Health and Food Allergy Risk

**Prior to class- View Flipgrid videos from Toddler/ Preschooler Group at: <https://flipgrid.com/6907>
Password: pubh6907**

Physiological and psychosocial development in early childhood as it pertains to feeding ability and food-related behaviors of early childhood

Introduction to solids including effects of timing and composition on child health and weight

Parent- vs child-centered feeding practices and picky eating behaviors

Role of childcare and early education settings in promoting healthy eating and reducing obesity risk.

Guided Discussion: Toddler/ Preschooler Group

Guest Lecture: Katherine Costello, MPH, RDN, Institute for Agricultural Trade Policy and PICA Head Start Program

Read Prior to Class:

- NTLC Chapter 8, pg 222-242; Chapter 10, pg 261-287.
- Birch LL, Doub AE. Learning to eat: birth to age 2 y. *Am J Clin Nutr* 2014;99(suppl):723S-728S.

Optional readings:

- Young BE, Krebs NF. Complimentary feeding: critical considerations to optimize growth, nutrition and feeding behavior. *Curr Pediatr Rep*. 2013;1(4):247-256.

- Mennella JA. Ontogeny of taste preferences: basic biology and implications for health. *Am J Clin Nutr.* 2014;99(Suppl):704S-711S. doi: 10.3945/ajcn.113.067694
- Luccioli S, Zhang Y, Verill L, Ramos-Valle M, Kwegyir-Afful E. Infant feeding practices and reported food allergies at 6 years of age. *Pediatrics* 2014;134:S21-S28. doi: 10.1542/peds.2014.0646E
- Silano M, Agostoni C, Guandalini S. Effect of the timing of gluten introduction on the development of celiac disease. *World J Gastroenterol* 2010 Apr 28;16:1939-1942.
- Tylka TL, Enelia IU, Kroon Van Diest AM, Lumeng JC. Which adaptive maternal eating behaviors predict child feeding practices? An examination of with mothers of 2- to 5-year-old children. *Eat Behav.* 2013;14:57-63.
- Cassells EL, Magarey AM, Daniels LA, Mallan KM. The influence of maternal infant feeding practices and beliefs on the expression of food neophobia in toddlers. *Appetite.* 2014;82:36-42. doi:10.1016/j.appet.2014.07.001
- DuToit G, Roberts G, Sayre PH, et al. Randomized trial of peanut consumption in infants at risk for peanut allergy. *NEJM.* 2015;372(9):803-813.
- Cameron SL, Heath A-L, Taylor RW. How feasible is baby-led weaning as an approach to infant feeding? A review of the evidence. *Nutrients.* 2012;4:1575-1609. doi: 10.3390/nu4111575.
- Gahagan S. Development of eating behavior: biology and context. *J Devel Behav Pediatr.* 2012;33:261-271.
- Brown A, Lee MD. Early influences on child satiety-responsiveness: the role of weaning style. *Pediatric Obesity.* 2013 Dec 17. doi:10.1111/j.2047-6310.2013.00207.
- Russell CG, Worsley A. Why don't they like that? And can I do anything about it? The nature and correlates of parents' attribution and self-efficacy beliefs about preschool children's food preferences. *Appetite* 2013;66:34-43. doi:10.1016/j.appet.2013.02.020
- Masclola AJ, Bryson SW, Agras WS. Picky eating during childhood: A longitudinal study to age 11 years. *Eat Behav.* 2010;11:253-257. doi:10.1016/j.eatbeh.2010.05.006

October 11 – Lifecourse Model and Nutrition

**Prior to class- View Flipgrid videos from Pregnancy/ Post-Partum/ Periconceptional Groups at: <https://flipgrid.com/6907>
Password: pubh6907**

Guided Discussions: Pregnancy/ Post-Partum/ Periconceptional Groups

Role and examples of nutrition as a mediator in lifecourse model

The lifecourse game

Public health message story board due

Oct 18 – Nutrition Needs and Eating Behaviors of School-aged Youth and Adolescents

**Prior to class- View Flipgrid videos from School Age Group at: <https://flipgrid.com/6907>
Password: pubh6907**

Role of nutrition in physical growth and development

Psychosocial influence of eating behaviors, food choices and physical activity habits

Guided Discussion: School Age Group

Guest Lecturer: Dr.Zan Gao, School of Kinesiology, University of MN

Read Prior to Class:

- NTLC Chapter 12: Pages 305 to 314 (stop prior to Prevention of nutrition-related disorders), and 318 (start at Dietary Recommendations) to 321. Chapter 14 Pages 349 to 370 (stop at Promoting Healthy Eating...).

Optional Reading:

- Kunkel DL, Castonguay JS, Filer CR. Evaluating industry self-regulation of food marketing to children. *Am J Prev Med* 2015; doi: 10/1016/j.amepre.2015.01.027
- Fu Y, Gao Z, Hannon JC, Burns RD, Brusseau TA. Effect of SPARK program on physical activity, cardiorespiratory endurance, and motivation in middle-school students. *Journal of Physical Activity and Health*. 2016, 13, 534-542. doi: <http://dx.doi.org/10.1123/jpah.2015-0351>.

Permalink: https://primo.lib.umn.edu/primo-explore/openurl?sid=Entrez:PubMed&id=pmid:26528889&vid=TWINCITIES&institution=TWINCITIES&url_ctx_val=&url_ctx_fmt=null&isServicesPage=true

- Zan G, Chen S, Huang CC, Sodden DF, Xiang P. Investigating elementary school children's daily physical activity and sedentary behaviours during weekdays. *Journal of Sports Sciences*, 2017, 35(1), 99-104. doi: 10.1080/02640414.2016.1157261

Permalink: https://primo.lib.umn.edu/primo-explore/openurl?sid=Entrez:PubMed&id=pmid:26950823&vid=TWINCITIES&institution=TWINCITIES&url_ctx_val=&url_ctx_fmt=null&isServicesPage=true

Oct 25 – Nutrition Management of Infants and Toddlers with Special Needs –

Prevalence of conditions that affect feeding and nutrition in early childhood.

Nutrition management of infants and toddlers with special health care needs.

Reimbursement of specialized nutrition formulas and feeding equipment; Early Intervention; Policy and advocacy.

Read Prior to Class:

- NTLC Chapter 9: Pages 244 to 258; Chapter 11 Pages 289 to 303 (stop before Key Points).

Optional reading:

- Kerzner B, Milano K, MacLean WC, Berrall G, Stuart S, Chatoor I. A practical approach to classifying and managing feeding difficulties. *Pediatrics*. 2015;135(2):1630-1672. doi:10.1542/peds.2014-1630

Nov 1 – Child Nutrition Programs and Services: Promoting Healthy Eating and Physical Activity Behaviors.

**Prior to class- View Flipgrid videos from Infancy Group at: <https://flipgrid.com/6907>

Password: pubh6907**

Guided Discussion: Adolescence Group.

Guest lecturer: Angela Richey, MPH, RD

Read Prior to Class:

- Chapter 12: Pages 324-329. Chapter 14: Pages 370 (start at Promoting healthy eating...) to 376).

Optional Readings:

- Food Research Action Center. Research Shows that the School Nutrition Standards Improve the School Nutrition Environment and Student Outcomes (January 2016). Available at www.FRAC.org (<http://frac.org/wp-content/uploads/2016/10/SchoolNutritionBrief.pdf>)
- Food Research Action Center. School Breakfast Scorecard: 2014-2015 School Year (February 2016). Available at www.FRAC.org (http://frac.org/wp-content/uploads/2016/09/School_Breakfast_Scorecard_SY_2014_2015.pdf)
- Food Research Action Center. National School Lunch Program: Trends and Factors Affecting Student Participation. (January 2015). Available at www.FRAC.org (http://frac.org/wp-content/uploads/national_school_lunch_report_2015.pdf)

Nov 8 – Dieting and Disordered Eating Behaviors among Children and Adolescents

Guest Lecturer: Hilary Gebauer, MPH, RD, LD. Water's Edge Counseling and Healing Center

Prevalence of dieting behaviors among children and adolescents

Disordered eating and eating disorders among tweens and teens

Read Prior to Class:

- Chapter 15, pgs. 392-399.

Optional readings:

- Balantekin KN, Savage JS, Marini ME, Birch LL. Parental encouragement of dieting promotes daughters' early dieting. *Appetite*. 2014;80:190-196. doi: 10.1016/j.appet.2014.05.016
- Smink FR, van Hoeken D, Hoek HW. Epidemiology, course and outcome of eating disorders. *Curr Opin Psychiatry*. 2013;26(6):543-548.

Nov 15 – Childhood Obesity

Guest Lecturer: Teresa Ambroz, MPH, RD, LD. MDH, Office of Statewide Health Improvement Initiatives.

National guidelines for assessment and treatment of obesity among youth

Promising practices and evidence-based strategies for preventing obesity among children and adolescents

The role of family in obesity prevention and treatment

Read Prior to Class:

- NTLC Chapter 12: Pages 314 (start at Prevention of nutrition-related disorders) to 318 (stop prior to Dietary Recommendations). Chapter 15: Pages 379-383 (stop prior to Supplement use...).

Optional reading:

- Johnson JA, Johnson AM. Urban-rural differences in childhood and adolescent obesity in the United States: a systematic review and meta-analysis. *Childhood Obesity*. 2015;11(3):233-242. doi: 10.1089/chi/2014.0085

Nov 22 – No Class, Work on Projects

Nov 29 – Physical Activity and Participation in Sports

Guest lecture: Mary Uran, MPH. [Girls on the Run, Minneapolis.](#)

Read Prior to Class:

- NTLC Chapter 12: Pages 322-324 (stop prior to Nutrition intervention for risk reduction), Chapter 15: Pages 383 (start at Supplement Use...) to 386 (stop prior to Special Dietary Concerns...).

Optional reading:

- Dobbins M, Husson H, DeCorby K, La Rocca RL. School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18. *Cochrane Database Syst Rev.* 2013 Feb 28;2:CD007651. doi: 10.1002/14651858.CD007651.pub2

Dec 6 – Nutrition Management of Children and Adolescents with Special Health Care Needs

Management of nutrition challenges among children and adolescents with special needs.

Role of the school and federal programs in provision of nutrition services for children and adolescents with special needs.

Prevalence of malnutrition among children and adolescents with special needs.

Transition planning for adolescents with special health care needs.

Read Prior to Class:

- NTLC Chapter 13: Pages 331-347.

Optional reading:

- Minihan P, Fitch S, Must A. What does the childhood obesity epidemic mean for children with special health care needs? *J Law Med Ethics.* Spring 2007, pages 61-77.
- Minihan PM, et al. Children with special health care needs: Acknowledging the dilemma of difference in policy responses to obesity. *Prev Chronic Dis* 2011;8:A95.

Dec 13 – PSA Presentations

Group and personal self-assessment forms due

[Link to PSA due 24 hours prior to class](#)

VII. 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; to develop media-related presentation skills for conveying public health messages to various audiences; and to develop project management skills.

The context for this project is:

You are employed at a health department. Your agency has received grant funding to develop a social marketing program to improve infant and early child feeding. The group has decided to focus on promoting breastfeeding, promoting WIC food packages for breastfeeding women, and using WIC foods via cooking demonstrations. Your group has been given the task of developing a message for your community on 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. 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 the maternal and child health population. We will discuss these in class with course instructors and Scott Spicer, a media technology resource librarian from Walter Library.
- Develop your public health message based on your target audience. For this project a few global target groups are defined (pregnant women participating in WIC, expectant parents, new parents, WIC participants) but you will need to further refine your target audience to a greater degree. For example, you may choose to focus on first time mothers, a population of women who are statistically unlikely to breastfeed, a specific racial/ethnic group that may not be familiar with WIC foods, etc. Once you determine who your specific target audience is, 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 common health issues related to the topic, etc. You will also want to consider what 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 Sept 27. (20 points)
- 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. This is due on Oct 11. (10 points)
- 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 13 – groups will draw numbers on Dec 6 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) on Dec 13.

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.

Research and Presentation of Topic of Interest

This group project has 3 parts:

1. Select a topic from a randomly assigned age group/life stage
2. Write 2 summaries (one for lay, one for professional audience) and record the summary on Flipgrid.
3. Lead a 15 minute discussion about the topic in class.

This project will be done in groups of 2-3 students, assigned by the instructors. Each group will randomly select an age group/life stage. For the age group/life stage selected, choose a topic that interests you, which you will research in more depth. For example, if your life stage is preconception and pregnancy, a potential topic might be relationship between caffeine and infertility or the safety of non-nutritive sweeteners in pregnancy. If your topic is early childhood, you may want to examine the relationship between juice intake and obesity risk, or dietary assessment tools for preschool-aged children. If your topic was school-aged children, you might choose to look at a specific behavioral economics strategy and how that impacts food selection by children, or how lunches from home compare in nutrition content to lunches purchased at school. If your topic is adolescent nutrition, you might investigate the relationship between proximity of fast food outlets to schools and obesity risk, or the female athlete triad. Topics must be approved by course instructors.

As a group, research the literature on that topic and develop two summaries based on your findings. One summary will be directed at your classmates and instructors (college educated, professional audience). The second summary will be directed at the public (lay audience).

The summary should include:

- What is your topic?
- What are key messages learned from the literature?
- What are your recommendations (if pertinent)?

Each group will submit their summaries as 90 second video recordings using Flipgrid. More details about Flipgrid and the required postings is available on the course website. (15 points)

Each group will be assigned a date when they will lead the class in a 15 minute discussion of the topic. All students are required to view the 2 Flipgrid recordings prior to class. As discussion leaders, group members should have discussion questions prepared in advance. Depending on the discussion progression, the group may not utilize all their pre-planned discussion questions. (15 points)

Groups must submit a list of literature reviewed for the topic, indicating which member of the group reviewed each reference listed.

Age Groups/Life Stages and Dates:

Age Group / Life Stage	Flipgrid deadline (11:50PM)	Discussion
Infancy	September 24	September 27
Toddlers, Preschoolers	October 1st	October 4
Pregnancy, Post-partum, Periconceptional (2-3 groups)	October 8	October 11
School Age Children (pre-teens)	October 15	October 18
Adolescents	October 29	November 1st

VIII. Evaluation and Grading

Course participation:

Students are expected to attend lectures, participate in class discussions and fully participate in group project activities. There are not right or wrong answers to the discussion questions. Rather, students are asked to critically think about the questions posed and to integrate information from the entire course as well as personal and professional experiences when answering each question.

Assignments and Grading

Activity	Due Date	Points
Public health message documentation/task list	9/27	15
Public health message story board	10/11	10
Final PSA presentation	12/13	35
Final PSA presentation peer review form	12/13	5
Group and self-assessment form	12/13	5
Flipgrid video presentations posted	Varies	15
Flipgrid topic oral presentation	Varies	15

Grading Scale

A	93-100%	C	74-76.9%
A-	90-92.9%	C-	70-73.9%
B+	87-89.9%	D+	65-69.9%
B	84-86.9 %	D	60-64.9%
B-	80-83.9%	F	< 60%
C+	77-79.9%	.	.

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>.

Course Evaluation

The SPH will collect student course evaluations electronically using a software system called CourseEval: www.sph.umn.edu/courseeval. 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.