

PubH 6903, section 320
Child and Adolescent Nutrition
Summer 2017

Credits:	This is a 2 credit graduate-level course
Meeting Time:	8-week online learning format allows for flexible learning
Meeting Place:	moodle.umn.edu
Instructor:	Jamie Stang, PhD, MPH, RDN
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I. Course Description

This 2-credit course will provide an overview of nutrition issues affecting children 6-12 years of age, adolescents (13-21 years of age) and their families. The course will integrate public health practice and policy recommendations with evidence-based clinical practice guidelines to provide a comprehensive view of nutrition issues seen by practitioners in community settings. The course is designed for health science and other graduate-level students.

The main focus of this course is an overview of the factors influencing eating behaviors, physical activity patterns and obesity. The course addresses nutrition education, nutrition intervention strategies, and programs and policies to promote healthy eating and physical activity. Because of the strong influence that school meals have on the dietary patterns of children and teens, school meal programs will be emphasized, as will obesity prevention. The course is designed primarily for public health nutrition and MCH students as well as allied health or medical professionals who intend to work with school-aged children, adolescents and their families.

II. Course Prerequisites

Students who enroll in the PubH 6903 online course will be required to have had previous coursework in basic physiology and nutrition. Students who are unsure if they meet the prerequisites should contact the instructor for more information or for permission to enroll.

III. Course Goals and Objectives

The goal of this course is to provide graduate students and health care practitioners with knowledge and skills to improve the nutritional status and overall quality of health of school-aged children, adolescents and their families.

By the end of this course, students should be able:

1. To understand the relationships between nutrition, growth and psychosocial development during childhood and adolescence.
2. To gain an understanding of the psychological, social, cultural, familial, economic and environmental factors that influence food behavior, dietary intake and physical activity patterns of children, adolescents and college students, and how these factors affect food choices, nutritional needs, obesity and health.
3. To recognize and understand the major nutrition-related problems of children and youth and identify “high risk” groups associated with these problems
4. To become familiar with nutrition interventions, policies, practices and programs affecting children, adolescents and their families.
5. To understand and identify chronic disease risk factors in childhood and dietary recommendations of youth. Special attention will be paid to child and adolescent obesity.
6. To become familiar with nutrition education and health promotion concepts, interventions, strategies and resources pertinent to youth.
7. To provide students with skills and tools that will enhance the practice of nutrition and obesity prevention in public health settings and schools including policy development and evaluation.

IV. Methods of Instruction and Work Expectations

This course will be offered exclusively online, with no expectation of face-to-face meetings with the course instructor or fellow students. All course material, including lectures, class notes, assignments and faculty-student correspondence will be available through Moodle.

This course will be offered over an 8 week period, which means it is more time intense than a traditional one-semester, 2-credit course. It is expected that each student will spend an average of 6 hours of time per week on course readings, activities and lectures. Assignments will be delivered to the instructor via Moodle 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.

V. Course Text and Readings

There is no text for this course. Readings will be available each week. Readings are essential parts of the online learning experience.

VI. Course Outline/Weekly Schedule

Module 1

Topic: Overview of growth, development and nutritional needs of children and adolescents

Readings:

- Stang J, Story M. Adolescent Growth and Development. in: Guidelines for Adolescent Nutrition Services. 2010, Stang J, Story M, eds. Available at http://www.epi.umn.edu/let/pubs/adol_book.shtm
- Rosenfield RL et al. Thelarche, pubarche and menarche attainment in children with normal and elevated body mass index, *Pediatr.* 2009;123:84.
- Rogol AD, et al. Growth and pubertal development in children and adolescents: effects of diet and physical activity. *Am J Clin Nutr.* 2000;72(suppl):521S–8S.

Optional:

- Craig WJ. Health effects of vegan diets. *Am J Clin Nutr.* 2009;89:1627S-1633S.

Module 2

Topic: Factors influencing eating behaviors of youth including families, peers, marketing and ethical issues.

Readings:

- Montgomery KC, Chester J. Interactive food and beverage marketing: targeting advertising in the digital age. *J Adolesc Health.* 2009;1-12.
- Gahagan S. Develop of eating behavior: biology and context. *J Dev Behav Pediatr.* 2012;33:261-271.
- Chandon P, Wansink B. Does food marketing need to make us fat? A review and solutions. *Nutr Rev.* 2012;70(10):571-593.
- 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.2015.01.02
- Wansink B, van Ittersum K, Payne CR. Larger bowl size increases the amount of cereal children request, consume and waste. *J Pediatr.* 2014;164:323-326.
- Portion Size Me: Plate-size induced consumption norms and win-win solutions for reducing food intake and waste. *J Exper Psych: Applied.* 2013;19(4):320-332.

Optional:

- Powell LM, Rimkus I, Isgor Z, Barker DC, Chaloupka FJ. Exterior marketing practice of fast-food restaurants - a BTG research brief. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2012. www.bridgingthegapresearch.org
- Davis B, Carpenter C. Proximity of fast-food restaurants to schools and adolescent obesity. *Am J Public Health.* 2009;99:505-510. doi: 10.2105/AJPH.2008.137638

Module 3

Topic: Food and nutrition programs for children and adolescents

Readings:

- Hanks AS, Just DR, Wansink B. Chocolate milk consequences: a pilot study evaluating the consequences of banning chocolate milk in school cafeterias. *PLoS ONE* 2014;9(4):e91022. doi: 10.1371/journal.pone.0091022
- Wansink B, Just DR, Payne CR, Zlinger MZ. Attractive names sustain increased vegetable intake in schools. *Prev Med.* 2012;55:330-332.
- Wansink B, Just DR, Patterson RW, Smith LE. Nutrition report cards: an opportunity to improve school lunch selection. *PLoS ONE.* 2013;8(10): e72008.
- Hanks AS, Just DR, Wansink B. Smart lunchrooms can address new school lunchroom guidelines and childhood obesity. *J Pediatr.* 2013;162:867-869.
- 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. *Concrane Database Syst Rev.* 2013 Feb 28;2:CD007651. doi: 10.1002/14651858.CD007651.pub2

Optional:

- Nowak AJ, Kolouch G, Schneyer L, Roberts KH. Building food literacy and positive relationships with healthy food in children through school gardens. *Childhood Obesity.* 2012;8(4):392-395.
- Hubbard KL, Bandini LG, Folta SC, et al. Impact of a Smarter Lunchroom intervention on food selection and consumption among adolescents and young adults with intellectual and developmental disabilities in a residential school setting. *Public Health Nutr.* 2014; doi:10.1017/S1368980014000305

Module 4

Topic: Child and adolescent obesity: assessment, treatment and prevention

Readings:

- 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
- Active Living Research. Does summertime weight gain undermine youth obesity prevention efforts? Research brief. www.activelivingresearch.org
- Ho M, Garnett SP, Baur LA, et al. Impact of dietary and exercise interventions on weight change and metabolic outcomes in obese children and adolescents: A systematic review and meta-analysis of randomized trials. *JAMA Pediatr.* 2013;167(8):759-768.
- Black JA, White B, Viner RM, Simmons RK. Bariatric surgery for obese children and adolescents: a systematic review and meta-analysis. *Obesity Rev.* 2013;14:634-644.
- Frieden TR, Dietz W, Collins J. Reducing childhood obesity through policy change: acting now to prevent obesity. *Health Affairs.* 2010;29:357-363.

Optional:

- 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.

- Just DR, Payne CR. Obesity: Can behavioral economics help? *Ann Behav Med.* 2009;38 (Suppl 1):S47–S55.
- Barnett SJ. Bariatric surgical management of adolescents with morbid obesity. *Curr Opin Pediatr.* 2013;25:515-520.
- Black JA, White B, Viner RM, Simmons RK. Bariatric surgery for obese children and adolescents: a systematic review and meta-analysis. *Obesity Rev.* 2013;14:634-644.
- Stang J, Loth K. Parenting style and child feeding practices: potential mitigating factors in the etiology of childhood obesity. *J Am Diet Assoc.* 2011;111:1301-1305.
- Spear B, Barlow S, Ervin C, et al. Recommendations for treatment of child and adolescent overweight and obesity. *Pediatr.* 2007;120:S254-S288.
- Krebs N, Himes J, Jacobson D, et al. Assessment of child and adolescent overweight and obesity. *Pediatr.* 2007;120:S193-S228.

Module 5

Topic: Health promotion and chronic disease prevention for youth

Readings:

- Wright K, Norris K, Giger JN, Suro Z. Nutrition knowledge, and self-efficacy among underserved school children with parent and community involvement. *Childhood Obesity.* 2012;8(4):347-357. doi: 10/1089/chi.2012.0045
- Grow HMG, Hencz P, Verbovski MJ, et al. Partnering for success and sustainability in community-based child obesity intervention. *Fam Community Health.* 2014;37:45-59.
- Waters E, de Silva-Sanigorski A, et al. Intervention for preventing obesity in children *Cochrane Database Systematic Reviews.* 2011;12. DOI: 10.1002/14651858.CD001871.pub3.
- Hingle MD, O'Connor TM, Dave JM, Baranowski T. Parental involvement in interventions to improve child dietary intake: a systematic review. *Prev Med.* 2010;51:103-111.

Optional:

- USDHHS, National Institute of Health, National Heart Lung and Blood Institute. Expert panel on integrated guidelines for cardiovascular health and risk reduction in children and adolescents. Summary Report. October 2012. NIH Publication No. 12-7486A
- LeBlanc AG, Chaput J-P, McFarlane A, et al. Active video games and health indicators in children and youth: a systematic review. *PLoS ONE.* 2013;8(6): e65351. doi:10.1371/journal.pone.0065351
- Clemes SA, Biddle SJH. The use of pedometers for monitoring physical activity in children and adolescents: measurement considerations. *J Phys Activ Health.* 2013;10:249-262.
- Heim S, Stang J, Ireland J. A garden pilot project enhances fruit and vegetable consumption among children. *J Am Diet Assoc.* 2009;109:1220-1226.
- Bieleman RM, Martinez-Mesa J, Gigante DP. Physical activity during life course and bone mass: a systematic review of methods and findings from cohort studies with young adults. *BMC Musculoskeletal Dis.* 2013;14:77.

Module 6

Topic: Eating disorders, female athlete triad

Readings:

- Javed A, Tebben PJ, Fischer PR, Lteif AN. Female athlete triad and its components: toward improved screening and management. *Mayo Clin Proc.* 2013;88(9):996-1009
- Thein-Nissenbaum J. Long term consequences of the female athlete triad. *Maturitas.* 2013;75:107-112.
- Smink FR, van Hoeken D, Hoek HW. Epidemiology, course and outcome of eating disorders. *Curr Opin Psychiatry.* 2013;26(6):543-548.
- Bryant-Waugh R. Feeding and eating disorders in children. *Curr Opin Psychiatry.* 2013;26(6):537-542.
- Neumark-Sztainer D. the interface between the eating disorders and obesity fields: moving toward a model of shared knowledge and collaboration. *Eating Weight Disord.* 2009;14:51-58.

Optional:

- 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
- Dandoy C, Gereige RS. Performance-enhancing drugs. *Pediatr Rev.* 2012;33:265. DOI: 10.1542/pir.33-6-265

VII. Evaluation and Grading

<u>Assignment</u>	<u>Points</u>	<u>% of final grade</u>
Project Part A	20	20%
Project Part B	35	35%
Introduction	5	5%
Discussion postings	40	40%

Grading Scale

A =	200-195 points	C =	174-171 points
A- =	194-191 points	C- =	170-166 points
B+ =	190-187 points	D+ =	165-160 points
B =	186-183 points	D =	159-156 points
B- =	182-179 points	D- =	155-150 points
C+ =	178-175 points	F =	≤ 149 points

Course participation:

Students are expected to log into course lectures and participate in class discussion postings on a regular basis. Course participation in each of the modules will be monitored by the instructor.

Introductory posting:

An introduction posting will be available at the start of the course. Each student is expected to reply to the post so that class members can get to know each other. This posting is worth 5% of the final course grade.

Due date: June 18

Discussion postings:

Each student should substantially participate in each of the 4 course discussion postings.

In order to facilitate an online discussion board where discussion, rather than just posting individual responses occurs, students will be expected to do the following:

- Submit one or more postings per discussion topic to the discussion board, each of 100 words or longer.
- Address the discussion question posed in your posting with your original thoughts and ideas on the topic.
- Submit your posting no later than 7 days after the topic is originally posted to the course website.
- Questions will be open for comment and available for up to 15 - 21 days, thus students must participate in the postings on a regular basis. You will not be able to post answers to all questions at one time.
- Include at least one additional, non-assigned source in the posting which supports your view on the topic. This can be a publication, you tube video, website, etc. but must be from an evidence-based source. For example, the you tube video by Dr Brian Wansink that is included in the course readings would be considered evidence-based because it is based on his research results. You can include your personal thoughts and ideas on a topic but are also encouraged to provide evidence to support your opinion whenever possible.
- Include the citation for any sources you include.
- Provide well-supported evidence for the points made within postings; opinions are fine, so long as they are supported with legitimate evidence.
- Contribute something ***new*** to the discussion. Responses primarily comprised of “I agree with Jane Smith...” statements will not be considered thoughtful postings, making new contributions unless they also provide a new point of view or evidence to support the original point of view.

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.

Each posting is worth 10% of your final course grade. Once the original posting has expired (after 15-21 days) you will no longer be able to post a response.

Due dates:

Question 1 = June 25

Question 2 = July 8

Question 3 = July 22

Question 4 = August 4

Consensus Project

This project will consist of two parts. Part A is completed as an individual and consists of reviewing information about a topic (described in detail in the document included on the course website). Part B is a group project where you work with fellow students to develop a set of recommendations that take the form of a consensus statement. Examples of consensus statements are included on the course site.

A detailed description of the project is posted on the course moodle site.

Part A is due July 16th.

Part B is due August 6th.

Five points for each part of the project will be deducted each day if they are turned in late.

Course Evaluation

Beginning in fall 2008, the SPH will collect student course evaluations electronically using a software system called CourseEval: 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. Disability Services (DS) 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 DS at 612-626-1333 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>.

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, 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".*