

HN 7804: Advanced Community and International Nutrition
Thursdays 1:35pm-4:10pm
Campbell Hall 241

Course Syllabus

Instructors	Carolyn Gunther, PhD Assistant Professor Department of Human Sciences Office: Campbell Hall 313 Phone: 614-292-5125 Email: gunther.22@osu.edu Office hours: by appointment Irene Hatsu, PhD Visiting Assistant Professor Department of Human Sciences Office: Campbell Hall 341 Phone: 614-292-0960 Email: hatsu.1@osu.edu Office hours: by appointment
Prerequisites	HN3704 or consent of professor
Credits	3 semester units
Course Description	In-depth analysis of the major current or emerging issues in community and international nutrition that influence the development, health, and survival of various populations living in low-income countries and the methods to improving their nutrition and health outcomes.
Carmen	This course will be web-enhanced. Please log onto www.carmen.osu.edu to check for course related activities.
Required Text	Merson MH, Black RE, Mills AJ. 2011 (3 rd edition). Global Health. Burlington MA: Jones & Bartlett Learning.
Review Article	Allen L, Gillespie S. What works? A review of the efficacy and effectiveness of nutrition interventions. ACC/SCN Nutrition Policy Paper no.19, ADB Nutrition and Development Series No. 5. Manila: Asian Development Bank, 2001.

Additional Readings Pertinent articles from the primary literature will be required reading throughout the semester. When possible, these articles will be available on the Carmen course webpage. These papers will be an important link to current research questions and approach in community and international nutrition. They will be covered using a class discussion format.

Handouts Lecture outlines will be provided on Carmen.

Learning Objectives After completion of this course, the student will have demonstrated comprehension of the following:

1. Research in community and international nutrition
 - a. Current gaps in knowledge
 - b. Ethical concerns
 - c. Scientific method; study design
 - d. Methods for data collection; data management, analysis, reporting
2. Epidemiology, etiology, and consequences of malnutrition (undernourishment and obesity, immunological impact, disease), with a focus on the most (women, infants, children) and other (elderly, HIV-positive) at-risk populations
 - a. Prevalence of stunting and wasting and deficiencies of select micronutrients
 - b. Social and biological determinants of malnutrition
 - c. Impact of malnutrition on human function and health
 - d. Issues related to infant and child feeding
 - e. Issues in other high risk population groups (e.g., HIV infected populations)
3. Intervention programs available to prevent or ameliorate the nutritional problems of at risk populations living in developing countries
 - a. Steps involved in planning, implementing, and evaluating nutrition interventions in low-income countries
 - b. Review of the efficacy and effectiveness of community nutrition interventions

Standard Format Class sessions generally will consist of traditional lecture for background information, dialogue between instructor and students, and directed discussions of articles from the primary literature. We will discuss experimental design, methods, and results from assigned research papers throughout the quarter. Reading assignments from the text for each topic are listed in the course schedule below. You are strongly encouraged to read the subject material before class to study information covered in class and address related problems in the study guides after class. Success in this course requires that you keep up with the material. You should be prepared to contribute to the discussion since we will challenge each student with

specific questions throughout the quarter. Comprehension and integration of the material necessitates your active participation in the process.

Expectations

You can expect us: to arrive in the classroom before the beginning of the session; to be organized, prepared, and capable of placing topics into a context that facilitates the integration of principles that you have learned in previous community and public health nutrition courses. We will not have the answer to every question you ask. However, we will consult with colleagues and utilize available resources to provide cogent responses for such questions at the next class meeting. Your patience is needed and appreciated. Your participation in class is valued.

What do we expect from you? We expect you to do the assigned readings and come to class prepared to actively engage in the learning process. Our standard expectation is that you will devote about 2 hours to the material outside the classroom for each hour in the classroom. Therefore, the well-prepared student should expect to spend approximately 5 hours per week outside the classroom on the material. Some of you may need to devote additional time to this course to offset difficulties you may have experienced with concepts in previous courses that serve as the foundation for this class. We expect you to be on time for class and not to leave early. We expect you to respect the rights of your fellow students and instructors by not carrying on conversations. Please turn off your cell phone when you enter the classroom. We do not expect to compete with you for the attention of those students wishing to learn. Please recognize that attendance is not mandatory (with the exception of exams), but expected. Please inform one of us if an extended absence is expected due to a serious illness, death in your immediate family, or other circumstances.

Exams

There will be 2 exams (125 points each), one for each instructor.

Assignments

Students will be expected to write an authoritative paper (5 pages, double-spaced) (75 points) and give an accompanying 15 minute presentation (10 minutes for presentation, 5 minutes for questions) (75 points) on a specified current or emerging nutritional problem(s) and program(s) within a given developing country.

Grading

Final grades will be calculated as the sum of the 2 exams (125 points each, total 250 points) plus the written (75 points)/oral (75 points) assignment (150 points total). Regular active participation in class discussion and overall effort may result in one step elevation of final grade (e.g., B to B+) at discretion of instructors.

Make-up Exams

Make-up exams will be given without penalty only if a reasonable excuse (e.g., illness requiring medical attention, death in family, vehicle breakdown) is provided by telephoning or email the instructor at least 1 hour before the exam. The indicated problem must be verifiable by the instructor. Unexcused, missed exams will be assigned a grade of zero.

Academic Integrity

The guidelines set forth in the 2012 OSU student handbook concerning the OSU Student Code of Conduct will be observed. Students are expected to read this policy for exams and the assignment. Website- <http://oaa.osu.edu/coam.html>.

Disability Policy

Any student who feels he/she may need an accommodation based on the impact of a disability should contact the instructor privately during the first two weeks of the quarter to discuss your specific needs. Confidentiality of this information will be maintained. Please contact the Office of Disability Services at 614-292-3307 in room 150 Pomerene Hall to coordinate reasonable accommodations.

COURSE SCHEDULE

Date	Topic	Textbook and Other References	Lecturer
Jan 9	Course introduction and overview Review written/oral assignment Overview of current and emerging issues in community and international nutrition	<u>Background material:</u> 1. Chapter 6, Global Health (3 rd ed) 2. The Sackler Institute of Nutrition Science: http://www.nutritionresearchagenda.org/ . (full agenda)	Gunther
Jan 16	Global nutrition transition and obesity	<u>Background material:</u> 1. Chapter 6, Global Health (3 rd ed) 2. Popkin BM, Adair LS, Ng SW (2012) Global nutrition transition and the pandemic of obesity in developing countries. Nutr Rev. 70:3-21. 3. Kanter R and Caballero B (2012) Global gender disparities in obesity: a review. Adv Nutr 3:491-8. <u>Discussion article:</u> 1. Barbiero SM et al (2009) Overweight, obesity, and other risk factors for IHD in Brazilian schoolchildren. Public Health Nutr. 12:710-5.	Gunther
Jan 23	Breastfeeding and complementary feeding	<u>Background material:</u> 1. Chapter 6, Global Health (3 rd ed) 2. WHO Summary: http://www.who.int/mediacentre/factsheets/fs342/en/index.html <u>Discussion article:</u> 1. Sundaram ME et al (2013) Early neonatal feeding is common and associated with subsequent breastfeeding behavior in rural Bangladesh. J Nutr. 143:1161-7.	Zubieta Gunther
Jan 30		Class cancelled due to campus closings	
Feb 6	Global maternal and child nutrition	<u>Background material:</u> 1. Chapter 6, Global Health (3 rd ed) 2. Black RE et al (2013) Maternal and child undernutrition and overweight in low-income and middle-income countries. Lancet. 3:382-396	Gunther

		<u>Discussion article:</u> 1. Egata G et al (2013) Seasonal variation in the prevalence of acute undernutrition among children under five years of age in east rural Ethiopia: a longitudinal study. BMC Public Health. 13:864.	
Feb 13	Community-based nutrition interventions	<u>Background material:</u> 1. Chapter 16, Global Health (3 rd ed) 2. Allen L, Gillespie S. What works? A review of the efficacy and effectiveness of nutrition interventions. ACC/SCN Nutrition Policy Paper no.19, ADB Nutrition and Development Series No. 5. Manila: Asian Development Bank, 2001. <u>Discussion article:</u> Bhutta et al. (2005) Community-based interventions for improving perinatal and neonatal health outcomes in developing countries: a review of the evidence. Pediatrics 115:519-617.	Gunther
Feb 20		Exam 1	
Feb 27	Micronutrient deficiencies in the developing world	<u>Background material:</u> 1. Chapter 6, Global Health (3 rd ed) 2. Akhtar et al (2013) Micronutrient deficiencies in South Asia – Current status and strategies. Trends in Food Science and Technology 31:55-623. 3. Allen et al. (2006) Guidelines on food fortification with micronutrients. Part II: Evaluating the public health significance of micronutrient malnutrition. WHO Publications. http://whqlibdoc.who.int/publications/2006/9241594012_eng.pdf 4. Bhutta et al. (2013) Meeting the challenges of micronutrient malnutrition in the developing world. Br Med Bull 106 (1): 7-17 <u>Discussion article:</u> Angela Mwaniki (2007). Case Study #3-3, "Iron Deficiency in Bangladesh". In: Per Pinstrup-Andersen and Fuzhi Cheng (editors), "Food Policy for Developing Countries: Case Studies." 9 pp. URL: http://cip.cornell.edu/dns.gfs/1200428154	Hatsu
Mar 6	HIV and nutrition	<u>Background material:</u> 1. Greenblott et al (2012) The Debilitating Cycle of HIV, Food Insecurity, and Malnutrition: Including a	Hatsu

		<p>Menu of Common Food Security and Nutrition Interventions for Orphans and Vulnerable Children. Arlington, VA: USAID's AIDS Support and Technical Assistance Resources, AIDSTAR-One.</p> <p>2. Colecraft E. (2008) HIV/AIDS: nutritional implications and impact on human development. Proceedings of the Nutrition Society 67,109–113</p> <p><u>Discussion article:</u> Baum et al. (2013) Effect of micronutrient supplementation on disease progression in asymptomatic, antiretroviral-naïve, HIV-infected adults in Botswana: a randomized clinical trial. JAMA 310(20):2154-63</p>	
Mar 13		No class – OSU Spring Break	
Mar 20	Global food insecurity and hunger	<p><u>Background material:</u></p> <ol style="list-style-type: none"> 1. UN Food and Agriculture Organization (2013) The state of food insecurity in the world. 2. Berman (2013) Can the world afford to ignore biotechnology solutions that address food insecurity? <p><u>Discussion article:</u> Akhter U. Ahmed, Suresh C. Babu (2007). Case Study #3-8, "The Impact of Food for Education Programs in Bangladesh". In: Per Pinstrup-Andersen and Fuzhi Cheng (editors), "Food Policy for Developing Countries: Case Studies." 11 pp. URL: http://cip.cornell.edu/dns.gfs/1200428158</p>	Hatsu
Mar 27	Nutrition and maternal reproductive health and survival	<p><u>Background material:</u></p> <ol style="list-style-type: none"> 1. Christian P. Nutrition and Maternal Survival in Developing Countries 2008. In Handbook on Nutrition and Pregnancy. Pp 319-336 http://ftp.portalneonatal.com.br/livros/arquivos/Neonatalogia/HANDBOOKOFNUTRITIONANDPREGNANCY.pdf#page=335 2. Hovdenak and Haram (2012) Influence of mineral and vitamin supplements on pregnancy outcome. European Journal of Obstetrics & Gynecology And Reproductive Biology 164 127–132 	Hatsu

		<u>Discussion article:</u> Liu et al. (2013) Micronutrient supplementation and pregnancy outcomes: double-blind randomized controlled trial in China. JAMA Intern Med. 173(4):276-82	
Apr 3	Nutrition surveillance and monitoring	<u>Background material:</u> 1. WHO Methodology of nutritional surveillance WHO Tech Rep Series No. 593 WHO Geneva 1976 2. Habicht J-P, Mason J. Nutrition Surveillance: Principles and practice. 1983 3. Helen Keller Institute. The Food Security Nutritional Surveillance Project: Results from Round 10: February to April 2013. http://www.hki.org/reducing-malnutrition/nutrition-surveillance/ <u>Discussion article:</u> IOM Nutrition Surveillance Report. Issue No 3, January-December 2012. http://publications.iom.int/bookstore/free/NutritionSurveillanceReport_JANDEC2012_17Apr2013_FIN.AL.pdf	Hatsu
Apr 10		Student oral presentations	
Apr 17		Student oral presentations	
		Written Assignment Due	
Apr 24		Exam 2	