# HUN 6548 Global Nutrition Fall 2024

Instructor: Juan E. Andrade Laborde, Ph.D. (aka, Dr.A.)

208 FSHN Bldg.

Phone: (352) 294-3706

E-mail: <u>jandrade2@ufl.edu</u> (best method of contact)

Office hours: By appointment

Class Time/Place: Mondays: Period 6 (12:50 PM - 1:40 PM) at RNK 106

Wednesdays: Period 6 - 7 (12:50 PM - 2:45 PM) FAC 120

Credits 3 credit hours

Course Lecture notes, primary literature, government, NGO's and institutions reports,

Reading: media reports (written and electronic, as noted in the class schedule and list

of readings).

Prerequisites: Basic knowledge of nutrition and its relationship with disease.

CANVAS Site There is a CANVAS site for our course. All communication with Dr. Andrade

will go through Canvas and all class assignments and quizzes will be

uploaded through this site.

Course Etiquette: 
• Attendance and an active/non-disruptive participation is expected

• Cellular phones should be turned to silent or off when entering the classroom. No texting during class. Students will be asked to leave the

classroom, if caught texting.

• Computers are allowed during class for the sole purpose of taking notes. Both noisy typing skills and keyboards are not welcomed in class.

All other electronic devices should be turned off.

 Class sessions begin at the time specified. If you come in late, please take your seat quietly. Most class sessions will run the full time. Please,

do not disrupt the class by arriving late or leaving early.

Talking in class is disruptive. Please be respectful of the instructors and

your fellow classmates and refrain from side conversations during class.

E-mailing

All correspondence should be via E-mail.

When you send an email to your instructor, you should start the subject

line using HUN6548- [your subject].

Please be brief and avoid attachments unless you are sure your

recipients can open them.

• Sign your message with your name and return e-mail address.

• Be sure you REALLY want everyone to receive your response when you

click, "Reply All."

• Be sure that the message author intended for the information to be

passed along before you click the "FORWARD" button.

# CLASS OBJECTIVES, LEARNING OBJECTIVES, ACTIVITIES, GRADING AND SCHEDULE

# I. Course Description and Overall Content.

This course explores current nutritional problems influencing the health and livelihood of populations in low-income countries. It examines local and global dimensions of malnutrition, food and nutrition insecurity, and micronutrient deficiencies, along with the policies and interventions aimed at improving nutrition outcomes implemented at the household, community, national, and global levels to improve nutritional status. Students will be encouraged to participate at all times. They will engage in a series of class activities, discussions, and presentations. Main topics:

- Overview of global nutrition. Overview of the world nutrition situation in relation to other critical issues of common interest: food supply, poverty, population growth, water and other environmental issues, and the Sustainable Development Goals.
- *Health and nutrition*. Discussion of major nutritional issues of global concern, assessment, and approaches to address them.
- *Nutrition-specific vs. Nutrition-sensitive strategies.* Overview of current strategies addressing food and nutrition insecurity in low-resource settings such as food aid, complementary feeding, food fortification, WASH, agricultural-focused programs, and gender issues associated with them.

# II. Student Learning Objectives.

At the end of this course, the students will:

- Expand their declarative knowledge of global nutrition issues such as food security, nutrition security, protein/energy malnutrition, micronutrient malnutrition, hunger, famine, poverty, among others.
- Examine the nutritional issues challenging our World today, and regional trends in nutritional indicators.
- Evaluate the causes of protein/energy and micronutrient malnutrition and formulate some approaches to address them.
- Appraise the linkages between agriculture, nutrition and health, especially in low-resource settings.
- Integrate basic nutrition concepts to critically appraise the impact of current initiatives/programs/policies aimed at improving the nutrition and health of communities in lowincome countries.
- Engage in critical reflection on the role of individuals, communities, and governments in promoting global nutrition and health equity.
- Judge resources provided by global development organizations.

# III. Brief Description of Course Dynamics and Activities.

The course comprises lectures, discussions, presentations, and individual studies. Group discussions guided by the faculty highlight ongoing research, debated and relevant articles. A group project is assigned as an educational tool to delve deeper into current initiatives/programs/policies, their goals, justification, achievements, impacts, and needs for improvement.

1. Lectures. Dr. Andrade will present information that will serve as a starting point for class discussions and student projects. The objective is to bring current knowledge on specific aspects of global nutrition to build upon for later discussion.

- 2. Class discussions. Students will participate in class discussions associated with the lectures, country profile assignments, and group project presentations.
- 3. Group Project. Students will work in pairs or groups of 3 members during the semester. Groups will be formed on the first day of classes. The main five topics are 1) Maternal Nutrition Programs, 2) WASH and Nutrition Programs, 3) Fortification programs, 4) Agriculture and Nutrition programs, and 5) School nutrition programs. Within these five topics, each group will identify a program/initiative within the represented countries (as identified from the individual activities) and collect information that is useful to understand its impact. This group activity is divided into four tasks and associated deliverables (3 presentations and a final report) each evaluated separately. Activities:
  - o Presentation 1: In this activity, the group will present the program/initiative in the chosen country and describe the initiative based on 10 questions. Full points are given to groups submitting the PowerPoint presentation on time, presentations addressing the 10 questions within 6 PowerPoint slides, and presentations delivered within the allotted time (10 minutes) showing group effort.
  - o Presentation 2: In this activity, the group will present aspects of the program/initiative that serve as elements of impact evaluation, which includes 1) a theory framing this program, 2) if there is a biological plausibility associating the program with nutrition outcomes, 3) the likelihood that the program is reaching its goal, 4) the presence of external evaluations, and 5) an assessment of the quality of evidence found for this program. Full points are given to groups submitting the PowerPoint presentation on time, presentations addressing the 5 themes mentioned above within 6 PowerPoint slides, and presentations delivered within the allotted time (10 minutes) showing group effort.
  - o Presentation 3 (final): In this final presentation, the group describes the program/initiative and provides an assessment based on the found evidence. The group will be evaluated by its peers, and there is a rubric for this. This presentation is 20 minutes long and students evaluate their peers. The average scores plus the instructor review are used for the final grade of this presentation.
  - o Final report: The students will submit a final report of the group activities. This report will answer the 10 questions asked for project evaluation. This report will be 3-pages long and have rubrics associated with content, format (font 12, 1-inch margins, single space, third person), technical style, grammar, literature cited, and supporting information as annexes.
- 4. Take-home Quizzes. Quizzes will be available within one week before a new topic starts. Quizzes will be open book and will cover material discussed in a previous class and ahead of class. The time to complete the quizzes will vary. Quizzes will query students with 5 to 10 questions from material covered in class and from primary literature. There will be a total of 12 quizzes worth 15 points each, for a total of 180 points.
- 5. Individual Assignments. Students will complete online assignments associated with the material covered in class or soon to be covered in class.
  - o Global Nutrition Crossword. This assignment is to assess students' current knowledge of global nutrition. The crossword goes over 56 definitions and terminology that are often used in the global nutrition context (e.g., kwashiorkor, marasmus, food security, complementary feeding, etc.). This assignment is for students to start thinking about the material and sets the stage for knowledge to be gained in class. Students receive full points for submitting the assignment. There is a class discussion on the answers and statistics.

- o Country profiles. This assignment will introduce students to current indicators of nutrition and health status for populations in low- and middle-income countries. Each student will collect nutrition indicators of a specific country and present this information within 6 minutes at the beginning of the lecture. Countries will be selected on the first day of classes. There will be 19 country descriptors. This activity requires a written submission and an oral presentation. Students receive full points for submitting the written description (all country characteristics) on time and presenting this information within the time allotted and the number of PowerPoint slides.
- o UNICEF Framework. This assignment is for students to practice the use of the UNICEF Framework on malnutrition, which allows students to identify the causes of malnutrition, associate their various indicators with the causes of undernutrition, and make policy recommendations to address them. This is a case study which provides several descriptors of a country. Students will use the indicators and describe the causes of malnutrition in the case study, and answer three essay questions. Students are given a blank framework to fill out with the country's information. This assignment has a rubric, a submission time, and content criteria.
- o Reflection essay: Each student will submit a 1-page reflective essay (TNR 12 font, 1-inch margins; first person) and include: 1) your thoughts about the group's initiative/program/policy; 2) information collected through the course; and 3) answers/view changes/paradigm shifts from instructor/peer comments/questions collected on the day of your presentation. Students should include these three aspects to receive full points. This is an individual activity, however, it is associated with the group project.

Information for all individual and group activities and their evaluation will be posted on Canvas. VISIT OUR COURSE PAGE FREQUENTLY.

# IV. Student Evaluation.

Your final grade will be computed from your performance on the following activities (out of 400 pts):

Activity	Output number	Delivery	Туре	% Grade	Points
Initiative/program/policy overview 1	1	Presentation	Group	7.5	30
Initiative/program/policy overview 2	1	Presentation	Group	7.5	30
Initiative/program/policy Final Description	1	Presentation	Group	7.5	30
Initiative/program/policy Report	1	Paper	Group	7.5	30
Reflection essay	1	Paper	Individual	5	20
Assignment 1- Crossword	1	Paper	Individual	5	20
Assignment 2- Country Profiles	1	Paper	Individual	5	20
Assignments 3- UNICEF Framework	1	Paper	Individual	10	40
Take home quizzes	12	Online	Individual	45	180
Group= 30% points   Individual= 70% points			OTAL	100	400

#### Grade conversion

You will receive a letter grade for this course, and pluses (+) and minuses (–) will be part of the grade. There will not be any extra points in this class. If your grade is 89.5 this will be rounded to 90. If it is 89.4, it will be rounded to 89 (No exemptions).

Grade Letter and Number Scale

Percent	Grade	Grade Points	Percent	Grade	Grade Points
90.0 - 100.0	А	4.00	72.0 – 74.9	С	2.00
87.0 - 89.9	A-	3.67	69.0 - 71.9	C-	1.67
84.0 - 86.9	B+	3.33	66.0 - 68.9	D+	1.33
81.0 - 83.9	В	3.00	63.0 - 65.9	D	1.00
78.0 - 80.9	B-	2.67	60.0 - 62.9	D-	0.67
75.0 - 79.9	C+	2.33	0 - 59.9	E	0.0

More information on UF grading policy may be found at: <u>UF Graduate Catalog</u>; <u>Grades and Grading</u> Policies

#### V. COURSE POLICIES

Absences and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <a href="https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/">https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/</a>.

# Late Policy

Students are expected to submit all assignments on time. Assignments will be collected via Canvas or in class. Assignments not turned on or before the deadline will be subject to a "late" penalty corresponding to a 10% deduction of the maximum number of points of the assignment for every day it is late.

#### Email

Throughout the semester, your instructor may communicate important information to the class members via e-mail. Importantly, the e-mail address on file with UF (@ufl.edu) will be used for all communications. Forward any other e-mail accounts (Gmail, etc.) to your UF account. When in doubt, use the email system on Canvas to communicate with the instructor.

## Academic Integrity

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity." You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is assumed that you will complete all work independently in each course task unless the instructor provides explicit permission for you to collaborate on course tasks (e.g., assignments, papers, quizzes, exams). The use of artificial intelligence (AI, e.g., ChatGPT) to complete quizzes and reports is not allowed. Al-generated writing will be evaluated using online tools such as (GPTZero, GPT-2 Detector, or Al content detector | GPT-3 | ChatGPT – Writer). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your

individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <a href="http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code">http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code</a>.

# Recording in class

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited.

To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third-party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

## Online Course Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at: <a href="https://gatorevals.aa.ufl.edu/students/">https://gatorevals.aa.ufl.edu/students/</a>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <a href="https://ufl.bluera.com/ufl/">https://ufl.bluera.com/ufl/</a>. Summaries of course evaluation results are available to students at: <a href="https://gatorevals.aa.ufl.edu/public-results/">https://gatorevals.aa.ufl.edu/public-results/</a>.

## Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

#### Services for Students with Disabilities

The <u>Disability Resource Center</u> coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability-related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

Contact DRC: 0001 Reid Hall, 352-392-8565

# Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see the <u>Notification to Students of FERPA Rights</u>.

# Campus Helping Resources

UF is dedicated to supporting students in their academic success and overall well-being. Life can get difficult at times, especially while in college. Many students are faced with stressors and challenges that begin to impact their success as a student. These stressors have many shapes and forms (e.g., financial, family issues, etc.) and arrive at different stages of our lives. The U Matter, We Care Initiative aims at assisting the community with: i) care-related resources and programs focused on health, safety, and holistic well-being; ii) finding an appropriate network of support education and training; iii) access to tools for helping faculty staff and family members help students; and iv) several pathways to get involved with the initiative. Students experiencing crises or personal problems that interfere with their general well- being are encouraged to utilize any of the many University's counseling resources.

- The Writing Studio. The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <a href="http://writing.ufl.edu/writing-studio/">http://writing.ufl.edu/writing-studio/</a> or in 2215 Turlington Hall for one-on-one consultations and workshops.
- Counseling and Wellness Center. The <u>Counseling & Wellness Center</u> provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.
- Career Connection Center. The Career Connection Center educates and creates connections for the University of Florida community in order to facilitate the holistic career development of students. First Floor JWRU, 392-1601
- The Office of Victim Services. A victim advocate is available 24-hours, 7 days a week through the University of Florida Police Department's Dispatch Center at 352-392-1111. Victims may also contact an advocate directly during weekdays (Monday-Friday) between 8:00 a.m. and 5:00 p.m. by calling 352-392-5648. You can also write or e-mail the department's advocates at ovs@mail.ufl.edu. All services are free and confidential.
- University Police Department. For emergencies ALWAYS dial 9-1-1. For non-emergencies dial 352-392-1111. For more information, visit: <a href="https://police.ufl.edu/">https://police.ufl.edu/</a>

- E-learning technical support 352-392-4357 (select option 2) or email to Learning- support@ufl.edu. For more information, visit: <a href="https://elearning.ufl.edu/">https://elearning.ufl.edu/</a>
- Library Support: Ask the librarian for support at <a href="https://cms.uflib.ufl.edu/ask">https://cms.uflib.ufl.edu/ask</a>
- Student Complaints. UF believes strongly in the ability of students to express concerns regarding their experiences at the University. The University encourages its students who wish to file a written complaint to submit that complaint directly to the department that manages that policy. A student who is unsure as to the official responsible for handling his or her particular complaint may contact the Office of the Ombuds or the Dean of Students Office.

# VI. Class Schedule

D. I.	Meeting	A
Date	Times	Activity
Monday August 26	1	Introductions, discussion of class activities, grading and expectations Country assignments and Group assignments Current & Emerging Issues in Global Nutrition  Assignment 1 (Crossword) - Due on 8/26 12:00 PM
Wednesday August 28	2	Current & Emerging Issues in Global Nutrition Nutrition and Growth, anthropometrics Class Activity Readings  UNICEF, WHO, World Bank. Joint child malnutrition estimates - Levels and trends. 2023 Edition  Prentice AM, Ward KA, Goldberg GR, Jarjou LM, Moore SE, Fulford AJ, Prentice A. Critical windows for nutritional interventions against stunting. Am J Clin Nutr. 2013 May;97(5):911-8.
Monday September 2		LABOR DAY No Classes
Wednesday September 4	3	Nutrition and Growth, anthropometrics (Practice) Class Activity
Monday September 9		<ul> <li>Protein Energy Malnutrition Readings <ul> <li>Schaafsma G. The protein digestibility-corrected amino acid score. J Nutr. 2000 Jul;130(7):1865S-7S.</li> <li>WHO. 1999. Management of severe malnutrition: a manual for physicians and other senior health workers</li> </ul> </li> <li>Assignment 2 (Individual Country Profile report)- PPT submission is due on the day before your presentation. <ul> <li>Online Quiz 1</li> </ul> </li> </ul>
Wednesday September 11	4	Protein Energy Malnutrition Country profiles (1-2): Student Micro-presentations
Monday September 16	5	Protein Energy Malnutrition / Maternal Nutrition Country profiles (3-5): Student Micro-presentations Readings • Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, Sachdev HS; Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: consequences for adult health and human capital. Lancet. 2008 Jan 26;371(9609):340-57. Online Quiz 2
Wednesday September 18	6	Maternal Nutrition Country profiles (6-7): Student Micro-presentations

Monday September 23	7	Micronutrient malnutrition: Iron Country profiles (8 -10): Student Micro- presentations Readings  Northrop-Clewes CA, Thurnham DI. Biomarkers for the differentiation of anemia and their clinical usefulness. J Blood Med. 2013 Mar 20;4:11-22 VIDEO RECORDING Online Quiz 3
Wednesday September 25	8	Micronutrient malnutrition: Iron VIDEO RECORDING
Monday September 30	9	Micronutrient malnutrition: Zinc  Assignment 3 (UNICEF Framework)- Due on 9/30  Readings  IZINCG. 2019. Determining the risk of zinc deficiency: Assessment of dietary zinc intake. TECHNICAL BRIEF. No. 3. 2nd Ed. Available at: https://www.izincg.org/technical-briefs  Online Quiz 4
Wednesday October 2	10	Micronutrient malnutrition: Zinc GROUP ASSIGNMENT: Initiative/Program/Policy Short Descriptions First Round (All Groups present)
Monday October 7	11	Micronutrient malnutrition: Iodine  *Readings*  • Jooste PL, Strydom E. Methods for determination of iodine in urine and salt. Best Pract Res Clin Endocrinol Metab. 2010 Feb;24(1):77-88.  Online Quiz 5
Wednesday October 9	12	Micronutrient malnutrition: lodine
Monday October 14	13	<ul> <li>Micronutrient malnutrition: Vitamin A Readings <ul> <li>Tanumihardjo SA. Vitamin A: biomarkers of nutrition for development.</li> <li>Am J Clin Nutr. 2011 Aug;94(2):658S-65S.</li> </ul> </li> <li>Online Quiz 6</li> </ul>
Wednesday October 16	14	Micronutrient malnutrition: Vitamin A
Monday October 21	15	<ul> <li>Micronutrient malnutrition: Vitamin A /Folate</li> <li>Readings</li> <li>Aslinia F, Mazza JJ, Yale SH. Megaloblastic anemia and other causes of macrocytosis. Clin Med Res. 2006 Sep;4(3):236-41.</li> <li>Online Quiz 7</li> </ul>
Wednesday October 23	16	Micronutrient malnutrition: folate Micronutrient malnutrition: Emerging deficiencies Discussion

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Monday October 28	17	<ul> <li>MDGs Vs. SDGs</li> <li>Class discussion</li> <li>Readings</li> <li>Hulme, D. 2009. The MDGs- A Short History of the World's Biggest Promise. BWPI Working Paper 100</li> <li>Online Quiz 8</li> </ul>
Wednesday October 30	18	Nutrition Programs: Sensitive vs. Specific - US Food Aid programs GROUP ASSIGNMENT: Initiative/Program/Policy Short Descriptions Second Round (All Groups present)
Monday November 4	19	<ul> <li>Nutrition Programs: Sensitive vs. Specific - US Food Aid programs Breastfeeding and Complementary feeding Readings</li> <li>Webb P, Caiafa K, Walton S; Food Aid Quality Review Group. Making Food Aid Fit-for-Purpose in the 21st Century: A Review of Recent Initiatives Improving the Nutritional Quality of Foods Used in Emergency and Development Programming. Food Nutr Bull. 2017 Dec;38(4):574-584</li> <li>E. Holt-Gimenez, M. Altieri, P. Rosset. 2008. Ten reasons why the Rockefeller and the Bill and Melinda Gates Foundations' Alliance for another green revolution will not solve the problems of poverty and hunger in Sub-Saharan Africa. Institute for Food and Development Policy</li> <li>Online Quiz 9</li> </ul>
Wednesday November 6	20	Nutrition Programs: Sensitive vs. Specific - Breastfeeding and Complementary feeding / Fortification Programs
Monday November 11	21	<ul> <li>Nutrition Programs: Sensitive vs. Specific - Fortification programs <i>Readings</i></li> <li>Olivares_1989_Prevention of iron deficiency by milk fortification E. Holt-Gimenez</li> <li>Stoltzfus RJ, Kvalsvig JD, Chwaya HM, Montresor A, Albonico M, Tielsch JM, Savioli L, Pollitt E. Effects of iron supplementation and anthelmintic treatment on motor and language development of preschool children in Zanzibar: double blind, placebo controlled study. BMJ. 2001 Dec 15;323(7326):1389-93.</li> <li>Online Quiz 10</li> </ul>
Wednesday November 13	22	Nutrition Programs: Sensitive vs. Specific - Fortification programs / WASH Programs
Monday November 18	23	<ul> <li>Nutrition Programs: Sensitive vs. Specific - WASH Programs Readings</li> <li>Sanitation Hygiene Infant Nutrition Efficacy (SHINE) Trial Team; Humphrey JH, Jones AD, Manges A, Mangwadu G, Maluccio JA, Mbuya MN, Moulton LH, Ntozini R, Prendergast AJ, Stoltzfus RJ, Tielsch JM. The Sanitation Hygiene Infant Nutrition Efficacy (SHINE) Trial: Rationale, Design, and Methods. Clin Infect Dis. 2015 Dec 15;61 Suppl 7(Suppl 7):S685-702.</li> </ul>

		<ul> <li>Pickering AJ, Davis J. Freshwater availability and water fetching distance affect child health in sub-Saharan Africa. Environ Sci Technol. 2012 Feb 21;46(4):2391-7.</li> <li>Online Quiz 11</li> </ul>
Wednesday November 20	24	Nutrition Programs: Sensitive vs. Specific - Agricultural-based programs
Monday November 25	25	<ul> <li>Nutrition Programs: Sensitive vs. Specific - Agricultural-based programs</li> <li>Readings</li> <li>Ruel MT, Alderman H; Maternal and Child Nutrition Study Group. Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition? Lancet. 2013 Aug 10;382(9891):536-51. doi: 10.1016/S0140-6736(13)60843-0. Epub 2013 Jun 6.</li> <li>Webb P, Kennedy E. Impacts of agriculture on nutrition: nature of the evidence and research gaps. Food Nutr Bull. 2014 Mar;35(1):126-32.</li> <li>Online Quiz 12</li> </ul>
Wednesday November 27		THANKSGIVING FROM NOVEMBER 23-25 NO CLASSES GATOR EVALS OPEN – CHECK ONLINE
Monday December 2	26	Nutrition Programs: Sensitive vs. Specific - Agricultural-based programs
Wednesday December 4	27	GROUP ASSIGNMENT: Initiative/Program/Policy Short Descriptions FINAL ROUND (All Groups present) Submit individual reflection from Group Work Submit FINAL GROUP REPORT

# List of Course Readings

Current & Emerging Issues in Global Nutrition

Nutrition and Growth, anthropometrics

## Readinas

- UNICEF, WHO, World Bank. Joint child malnutrition estimates Levels and trends. 2023 Edition
- Prentice AM, Ward KA, Goldberg GR, Jarjou LM, Moore SE, Fulford AJ, Prentice A. Critical windows for nutritional interventions against stunting. Am J Clin Nutr. 2013 May;97(5):911-8.

# Protein Energy Malnutrition

# Readings

- Schaafsma G. The protein digestibility-corrected amino acid score. J Nutr. 2000 Jul;130(7):1865S-7S.
- WHO. 1999. Management of severe malnutrition: a manual for physicians and other senior health workers

# Protein Energy Malnutrition / Maternal Nutrition

## Readings

• Victora CG, Adair L, Fall C, Hallal PC, Martorell R, Richter L, Sachdev HS; Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: consequences for adult health and human capital. Lancet. 2008 Jan 26;371(9609):340-57.

Micronutrient malnutrition: Iron

## Readings

 Northrop-Clewes CA, Thurnham DI. Biomarkers for the differentiation of anemia and their clinical usefulness. J Blood Med. 2013 Mar 20;4:11-22

Micronutrient malnutrition: Zinc

# Readings

• IZiNCG. 2019. Determining the risk of zinc deficiency: Assessment of dietary zinc intake. TECHNICAL BRIEF. No. 3. 2<sup>nd</sup> Ed. Available at: <a href="https://www.izincg.org/technical-briefs">https://www.izincg.org/technical-briefs</a>

Micronutrient malnutrition: lodine

# Readings

• Jooste PL, Strydom E. Methods for determination of iodine in urine and salt. Best Pract Res Clin Endocrinol Metab. 2010 Feb;24(1):77-88.

Micronutrient malnutrition: Vitamin A

# Readings

Tanumihardjo SA. Vitamin A: biomarkers of nutrition for development. Am J Clin Nutr. 2011 Aug;94(2):658S-65S.

Micronutrient malnutrition: Vitamin A /Folate

# Readings

• Aslinia F, Mazza JJ, Yale SH. Megaloblastic anemia and other causes of macrocytosis. Clin Med Res. 2006 Sep;4(3):236-41.

MDGs Vs. SDGs

# Readings

• Hulme, D. 2009. The MDGs- A Short History of the World's Biggest Promise. BWPI Working Paper 100

Nutrition Programs: Sensitive vs. Specific - US Food Aid programs

Breastfeeding and Complementary feeding

## Readings

- Webb P, Caiafa K, Walton S; Food Aid Quality Review Group. Making Food Aid Fit-for-Purpose in the 21st Century: A Review of Recent Initiatives Improving the Nutritional Quality of Foods Used in Emergency and Development Programming. Food Nutr Bull. 2017 Dec;38(4):574-584
- E. Holt-Gimenez, M. Altieri, P. Rosset. 2008. Ten reasons why the Rockefeller and the Bill and Melinda Gates Foundations' Alliance for another green revolution will not solve the problems of poverty and hunger in Sub-Saharan Africa. Institute for Food and Development Policy

Nutrition Programs: Sensitive vs. Specific - Fortification programs

## Readings

- Olivares\_1989\_Prevention of iron deficiency by milk fortification E. Holt-Gimenez
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