

ENV/NTR-200 Food Security, Nutrition and Sustainable Development

Spring semester 2022

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Class schedule:

Lecture 10:50 - 12:05 on Monday

Seminar 10:50 - 12:05 on Wednesday

Course overview:

Food security and nutrition are essential dimensions of sustainable development. Inadequate food security and nutrition take an enormous damage on economies and have negative consequences for the livelihoods and economic potential of vulnerable populations. A world where all enjoy freedom from want, and progressively realize their right to adequate food and nutrition can only be realized through far reaching transformations, supported by policies and programmers promoting sustainable development in all its three dimensions. Strong interdependencies exist between food security, nutrition, and many other parts of a broad sustainable development agenda – inclusive economic growth, population dynamics, decent employment, social protection, energy, water, health, sanitation, natural resource management and protecting ecosystems. The empowerment of women, and addressing inequalities – notably gender inequity and rural-urban inequalities – are as critical to food security and nutrition as they are to a universal sustainable development. The empowerment of families, especially women who are the main childcare providers and are responsible for the food preparation and infant and young child feeding is also critical for these goals.

This course examines food security and nutrition in the perspective of sustainable development and social stability, taking into account the role of financial markets, agri-business industries and international food, land, and commodity trading, while connecting these factors to broader global challenges such as food sovereignty, public health, climate change, complex emergencies, and forced migration. In addition, this course addresses population growth and the challenges it poses – in particular, the challenge of providing everyone with an adequate diet while simultaneously conserving the natural resources on which agriculture and other economic activities depend. Since human numbers are increasing more rapidly in poor countries than anywhere else, special attention is paid to population growth and the prospects for environmentally sound agricultural development in the world.

Learning Outcomes:

Upon completion of the course, students will be able to:

- Analyze strategic goals of food security and nutrition, alongside the post-2015 sustainable development agenda and global health;
- Examine issues of food security in the context of complex emergencies, fast urbanization, and dynamic changes in people's lifestyles in both developed and developing countries;
- Understand the impact of financial and commodity markets on food, nutrition, water, and arable land, and explain ways of sustainable agricultural development for current and future generations;
- Produce an independent research project on a theme discussed in this course.

Evaluation and Assessment:

The students' performance is assessed on the basis of their participation during the lectures, including the familiarity with the reading material, note-taking, making assignments, oral presentations and written exams. Students are expected to pass all the above in order to obtain a credit for the semester.

Examination:

The students will take two exams: the first one is a mid-term test and the second one is an essay-type examination. The test consists of questions on short definitions and multiple-choice questions. Exam papers are composed of essay type questions, which require in-depth answers on the topics studied. No books, papers etc. can be used during the exam. Exam questions are compiled from the questions discussed during the lectures. Evidence of using additional sources of information related to the course content will be marked in the form of additional points for examination paper.

Excuse policy for missed exams and quizzes:

A legitimate reason for missing a quiz or an exam must be presented to the instructor prior to the date of the scheduled quiz/exam. If the reason is acceptable, an alternative quiz/exam will be given before the scheduled exam time, if possible. A student who misses an exam without being previously excused takes the risk that a late excuse may not be accepted. Late exams, when given, will be within one week of the scheduled exam time.

Grading scheme: All grades will be awarded in accordance with the scheme given below. Your points for the class work cannot exceed the maximum of 40.

ASSIGNMENT POINTS

Mid-term test and final examination	20 and 30, total 50 (maximum)
1 presentation and one home or class assignment	10 (maximum for each), total 30
Active participation, note-taking	5 each 2
Bonus for attending classes	10

Withdrawal of grades in case of poor attendance without reason

Minus 5 for each failure to attend

A 100-95 B- 76-71 D+ 47-42

A- 94-89 C+ 70-60 D 41-36

B+ 88-83 C 59-54 D- 35-30

B 82-77 C- 53-48 F < 30

Work and attendance: The work and attendance of all students will be monitored. Students are expected to attend all lectures and seminars. Attendance is regarded as a part of the course. This is for the benefit of the students and helps to ensure that they are coping with the work and

managing to comprehend all the information and complete all the tasks given to them. Students must come to class on time not to disturb others, being more than 10 minutes late is counted as an absence. Students are not allowed to use any mobile devices or portable computers in class. Students are not allowed to use any mobile devices or portable computers in class, this is considered as a “negative” participation and participation points be deducted for that.

Documentation of reasons for absence: Any valid reasons for absence should be reported to the Instructor as soon as possible. Legitimate excuses are the following: illness, confirmed by a doctor's note next class; a death in the family; participation in conferences or seminars with preliminary notification of the Instructor and submission of the relevant supporting documents. Unless the correct procedure is followed no allowances can be made.

Online course tools and materials: The course will be conducted mainly using the Zoom program, if necessary, additional tools such as Webex, Whatsapp and Skype can be used. In addition, all course materials will be available in the e-course system.

2022 Course Schedule

1) Food Security and Nutrition in a Framework of Sustainable Development:

- 2) Global Challenges to Food Security and Nutrition;
- 3) Food Sovereignty’ and Socio-Political Stability;
- 4) Sustainable Development and the ‘Right to Food.

5) Agriculture, International Trade, and Food Markets:

- 6) Impact of the Financial Crisis on Food Security;
- 7) Impact of Land Grabbing on Food Security;
- 8) Towards Sustainable Agriculture Development.

Midterm exam

9) Nutrition for Human Health and Sustainable Development:

- 10) Breast Feeding, Public Health and Human Development;
- 11) Nutrition and Non-Communicable Diseases;
- 12) Nutrition and Infectious Disease.

13) Food Security and Culture in the Mediterranean Region:

- 14) European Agricultural Policy: Impact of Croatia’s Accession to the European Union;

- 15) Organic Food Culture and Nutritional Diet in Local Contexts.
- 16) **Individual Research Project:** Students will complete an individual research project addressing the themes discussed in this course and building on site visits, class discussions, and course readings.

Final exam

Textbook and readings:

1. Food and Agriculture Organization of the United Nations (FAO). Agroecology for Food Security and Nutrition. September 2014, Rome, Italy.
2. World Health Assembly. (2014). Food and Nutrition Security in the Post-2015 Development Agenda. Retrieved from: https://apps.who.int/gb/ebwha/pdf_files/WHA68/A68_14-en.pdf?ua=1
3. Pingali, P., Alinovi, L., & Sutton, J. (2005). Food security in complex emergencies: enhancing food system resilience. *Disasters*, 29(s1), 5-24.
4. World Food Programme (WFP): Emergency Field Operations Pocketbook, Retrieved from: http://www.unicef.org/emerg/files/WFP_manual.pdf
5. Barrett, C. B. (Ed.). (2013). Food security and sociopolitical stability. OUP Oxford, 1-34.
Carolan, M. (2013). Reclaiming Food Security. Routledge / Earthscan: London / New York, 1-35.
6. Organic Farming: The Ecological System. 2009. Francis C. (ed.) Agronomy Monograph 54. ASA-CSSA-SSSA.
7. Principles of Ecology in Plant Production. 2010. Sinclair TR, Weiss A. 2nd edn. CAB International.
8. El-Zein, A., Jabbour, S., Tekce, B., Zurayk, H., Nuwayhid, I., Khawaja, M., ... & Hogan, D. (2014). Health and ecological sustainability in the Arab world: a matter of survival. *The Lancet*, 383(9915), 458-476.
9. Soil Management: Building a Stable Base for Agriculture. 2011. Hatfield JL, Sauer TJ (eds.) ASA-SSSA.
10. Soil Organic Matter in Sustainable Agriculture. 2004. Magdoff F, Weil RR (eds.) CRC Press.
11. De Schutter, O. (2014). UN Special Rapporteur on the right to food. Report on agroecology and the right to food.
12. Info sources. (2009). When Food Markets do not Provide for Enough Food: Lessons from the Recent Price Crisis. Focus, No. 1/09, Retrieved from: http://www.inforesources.ch/pdf/focus09_1_e.pdf
13. Toward Sustainable Agricultural Systems in the 21st Century. 2010. National Research Council. National Academies Press.

14. Cotula, L. (2012). The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers. *The journal of peasant studies*, 39(3-4), 649-680.
15. Rollins, N. C., Bhandari, N., Hajeebhoy, N., Horton, S., Lutter, C. K., Martines, J. C., ... & Group, T. L. B. S. (2016). Why invest, and what it will take to improve breastfeeding practices? *The Lancet*, 387(10017), 491-504.
16. Darnton-Hill, I., Nishida, C., & James, W. P. T. (2004). A life course approach to diet, nutrition and the prevention of chronic diseases. *Public health nutrition*, 7(1A; SPI), 101-122.
17. Katona, P., & Katona-Apte, J. (2008). The interaction between nutrition and infection. *Clinical Infectious Diseases*, 46(10), 1582-1588.
18. Croatia Integration into the EU: Q&A. Retrieved from: [http://europa.eu/rapid/pressrelease MEMO-13-629 fr.htm](http://europa.eu/rapid/pressrelease_MEMO-13-629_fr.htm)
19. Milano EXPO. (2015). Call for Best Sustainable Development Practices for Food Security. Retrieved from: http://download.feedingknowledge.net/EXPO%202015_Call_EN.pdf?oct=true
20. Psaltopoulou, T., Naska, A., Orfanos, P., Trichopoulos, D., Mountokalakis, T., & Trichopoulou, A. (2004). Olive oil, the Mediterranean diet, and arterial blood pressure: the Greek European Prospective Investigation into Cancer and Nutrition (EPIC) study. *The American journal of clinical nutrition*, 80(4), 1012-1018. Retrieved from: <http://ajcn.nutrition.org/content/80/4/1012.full.pdf+html>.