



UNIVERSITÀ
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DISEI
DIPARTIMENTO DI
SCIENZE PER L'ECONOMIA
E L'IMPRESA



Academic year 2021/22

Joint Seminar Florence - Göttingen (B026833) “The Economics of Malnutrition”

**Master program “Economics and Development”
Curriculum “Development Economics”
2nd year, 2nd semester**

Instructors

Donato Romano, UNIFI (donato.romano@unifi.it)

Nitya Mittal, UniGoett (nitya.mittal@uni-goettingen.de)

Lecture hours

Monday: 8:20-9:40

Tuesday: 8:20-9:40

The course will be delivered in presence (DR) and online (NM) using the Webex-UNIFI platform. Students can access the Webex-UNIFI platform to attend/download the lectures through the course website on Moodle at <http://e-l.unifi.it/login/index.php>. The access to Moodle does not require any password for UNIFI students. Incoming students who do not have yet a UNIFI account can request the password to access the course website, writing an email to donato.romano@unifi.it.

Prerequisites

No formal prerequisite is required. However, knowledge of introductory microeconomics, development economics and econometrics is welcome.

Objectives

The overall objective is to acquaint students to food security and nutrition measurement and analysis. Students will learn how the so called ‘triple burden of malnutrition’ – consisting of undernutrition, overweight and obesity, and micronutrient deficiencies – is measured, what are its socio-economic determinants, its consequences on people wellbeing, and what policies can be implemented to address this issue.

SDGs covered in the course are: 1, 2, 3, 10.

Approach

Each topic will be presented as a blend of theoretical constructs (concepts, models) and empirical evidence based on the most relevant/recent papers.



Organization

The course lasts seven weeks, from February 28th to April 12th. It consists of three types of activities:

- a) lectures: 6 lectures of two hours each, to be held during the first three weeks, to introduce the JS topics;
- b) review paper development: the instructors will propose some topics and provide selected references to guide the development of a review paper to be developed by students over the next three weeks;
- c) review paper discussion: the review paper will be presented by proposers and discussed with all participants to the Joint Seminar over the last week.

- **Lecture 1 – Conceptualizing Food and Nutrition Security**
MON February 28, 2022 (D6/005): 8:20-9:40 (D. Romano)

Contents: Definitions; FNS dimensions: availability, access, utilization, stability; alternative approaches to food and nutrition security: sustainable livelihood, neoclassical economics, entitlements.

References:

- Barrett, C.B., 2002. “Food Security and Food Assistance Programs”. In Gardner, B.L., and Rauser, G.C. (eds.). *Handbook of Agricultural Economics. Volume 2B - Agricultural and Food Policy*. Amsterdam: North Holland. Pp. 2103-90.
- Burchi, F., De Muro, P., 2016. From Food Availability to Nutritional Capabilities: Advancing Food Security Analysis. *Food Policy* 60: 10–19.
- Chavas, J.P., 2000. The Microeconomic of Food Security. *Australian Journal of Agricultural and Resource Economics* 44(1): 1-29.
- Drèze, J., Sen, A.K., 1989. *Hunger and Public Action*. Oxford: Oxford University Press.
- Ravallion, M., 1997. Famines and Economics. *Journal of Economic Literature* XXXV (September): 1205-42. (*)
- Sen, A.K., 1981. Ingredients of Famine Analysis: Availability and Entitlements. *Quarterly Journal of Economics* 96(3): 433-464. (*)
- Upton, J.B., Cissé, J.D., Barrett, C.B., 2016. Food Security as Resilience: Reconciling Definition and Measurement. *Agricultural Economics* 47 (S1): 135-147.

Web Sources:

- <https://scalingupnutrition.org/>



- **Lecture 2 – Measuring Food and Nutrition Security**

TUE March 1, 2022 (D6/005): 8:20-9:40 (D. Romano)

Contents: Consumption-based measures: nutrient intake, dietary energy consumption, dietary diversity; experience-based measures: coping strategy index, experience-based scales; FAO's measures: prevalence of undernutrition vs. HFIES.

References:

- Cafiero, C., Viviani, S., Nord, M., 2018. Food Security Measurement in A Global Context: The Food Insecurity Experience Scale. *Measurement* 116: 146-152. (*)
- Carletto, C., Zezza, A, Banerjee, R., 2013. Towards Better Measurement of Household Food Security: Harmonizing Indicators and The Role of Household Surveys. *Global Food Security* 2: 30-40.
- de Haen, H., Klasen, S., Qaim, M., 2011. What Do We Know? Metrics for Food Insecurity and Undernutrition. *Food Policy* 36: 760-769. (*)
- FAO, 2003. FAO Methodology for the Measurement of Food Deprivation. FAO Statistics Division. Rome: Food and Agriculture Organization of the United Nations. October 2003. (*)
- FAO, IFAD, UNICEF, WFP, WHO, 2020. *The State of Food Security and Nutrition in the World 2020. Transforming Food Systems for Affordable Healthy Diets*. Rome: Food and Agriculture Organization of the United Nations. <https://doi.org/10.4060/ca9692en>
- Jones, A.D., Ngure, F.M., Pelto, G., Young, S.L., 2013. What Are We Assessing When We Measure Food Security? A Compendium and Review of Current Metrics. *Advances in Nutrition* 4: 481–505.
- Headey, D., Ecker, O., 2013. Rethinking the Measurement of Food Security: From First Principles to Best Practice. *Food Security* 5(3): 327–343.
- Maxwell, D., Vaitla, B., Coates, J., 2014. How Do Indicators of Household Food Insecurity Measure Up? An Empirical Comparison from Ethiopia. *Food Policy* 47: 107–116.
- Smith, L. C., 1998. Can FAO'S measure of chronic undernourishment be strengthened? *Food Policy* 23(5): 425–445.
- Smith, M.D., Kassa, W., Winters, P., 2017. Assessing food insecurity in Latin America and the Caribbean using FAO's Food Insecurity Experience Scale. *Food Policy* 71: 48-61.

Web Sources:

- <http://www.fao.org/publications/sofi>
- <http://www.fao.org/in-action/voices-of-the-hungry/en/>



- **Lecture 3 – Food and Nutrition Insecurity Determinants and Policy Implications**
MON March 7, 2022 (D6/005): 8:20-9:40 (D. Romano)

Contents: Biomedical influences of nutritional status; socio-economic determinants of individual and household dietary patterns; agriculture-nutrition linkages; policy implications.

References:

- FAO, 2011. The State of Food Insecurity. How Does International Price Volatility Affect Domestic Economies and Food Security? Rome: IFAD-WFP-FAO.
- Finaret, A.B., Masters, W.A., 2019. Beyond calories: The new economics of nutrition. *Annual Review of Resource Economics*. DOI: 10.1146/annurev-resource-100518-094053. (*)
- Headey, D., Masters, W.A., 2019. Agriculture and Undernutrition through the Lens of Economics. IFPRI Discussion Paper 01876. Washington, D.C.: IFPRI. October 2019.
- Hoddinott, J., Alderman, H., Behrman, J.R., Haddad, L., Horton, S., 2013. The Economic Rationale for Investing in Stunting Reduction. *Maternal and Child Nutrition* 9 (Suppl. 2): 69–82. (*)
- Masters, W.A., Hall, A., Martinez, E.M., Shi, P., Singh, G., Webb, P., Mozaffarian, D., 2016. The Nutrition Transition and Agricultural Transformation: A Preston Curve Approach. *Agricultural Economics* 47 (S1): 97-114. (*)
- Masters, W.A., Rosenblum, N.Z., Alemu, R.G., 2018. Agricultural Transformation, Nutrition Transition and Food Policy in Africa: Preston Curves Reveal New Stylised Facts. *Journal of Development Studies* 54(5): 788-802.
- Ravallion, M., 1997. Famines and Economics. *Journal of Economic Literature* XXXV (September): 1205-42. (*)
- Wright, B., 2011. The Economics of Grain Price Volatility. *Applied Economic Perspectives and Policy* 3(1): 32-58.

Web Sources:

- <https://www.powerofnutrition.org/>

- **Lecture 4 – Malnutrition: Measurement and Prevalence**
TUE March 8, 2022 (online): 8:20-9:40 (N. Mittal)

Contents: Outcome-based measures – anthropometric measures of nutritional status, bio-markers, nutrition related diseases; double and triple burden of malnutrition.

References:



- Shrimpton, Roger, and Claudia Rokx. "The double burden of malnutrition." Health and Nutrition Discussion Paper (2012).
- Popkin, Barry M., Camila Corvalan, and Laurence M. Grummer-Strawn. "Dynamics of the double burden of malnutrition and the changing nutrition reality." *The Lancet* 395, no. 10217 (2020): 65-74.
- Caleyachetty, Rishi, G. N. Thomas, Andre P. Kengne, Justin B. Echouffo-Tcheugui, Samantha Schilsky, Juneida Khodabocus, and Ricardo Uauy. "The double burden of malnutrition among adolescents: analysis of data from the Global School-Based Student Health and Health Behavior in School-Aged Children surveys in 57 low-and middle-income countries." *The American journal of clinical nutrition* 108, no. 2 (2018): 414-424.

Web Sources:

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- **Lecture 5 – Socio-Economic Determinants of Malnutrition**
MON March 14, 2022 (online): 8:20-9:40 (N. Mittal)

Contents: Determinants of double burden of malnutrition in a household and at individual level.

References:

- Biswas, Tuhin, Nick Townsend, RJ Soares Magalhaes, Mehedi Hasan, and Abdullah Mamun. "Patterns and determinants of the double burden of malnutrition at the household level in South and Southeast Asia." *European Journal of Clinical Nutrition* (2020): 1-7.
- Little, Matthew, Sally Humphries, Warren Dodd, Kirit Patel, and Cate Dewey. "Socio-demographic patterning of the individual-level double burden of malnutrition in a rural population in South India: a cross-sectional study." *BMC public health* 20 (2020): 1-14.
- Ghattas, Hala, Yubraj Acharya, Zeina Jamaluddine, Moubadda Assi, Khalil El Asmar, and Andrew D. Jones. "Child-level double burden of malnutrition in the MENA and LAC regions: Prevalence and social determinants." *Maternal & child nutrition* 16, no. 2 (2020): e12923.

- **Lecture 6 – Cost of Malnutrition and Policy Implications**
TUE March 15, 2022 (online): 8:20-9:40 (N. Mittal)

Contents: Economic cost of malnutrition and related diseases; loss of quality of life; policy implications.

References:



- Vos, Theo, Stephen S. Lim, Cristiana Abbafati, Kaja M. Abbas, Mohammad Abbasi, Mitra Abbasifard, Mohsen Abbasi-Kangevari et al., 2020. Global burden of 369 diseases and injuries in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019." *The Lancet* 396, no. 10258: 1204-1222.
- Global Panel, 2016. *The cost of malnutrition. Why policy action is urgent.* London, UK: Global Panel on Agriculture and Food Systems for Nutrition.
- Haddad, Lawrence, Lisa Cameron, and Inka Barnett. "The double burden of malnutrition in SE Asia and the Pacific: priorities, policies and politics." *Health policy and planning* 30, no. 9 (2015): 1193-1206.
- Popkin, Barry M. "To assist the large number of countries facing the double burden of malnutrition we must understand its causes and recognize the need for policies that do no harm." *The American Journal of Clinical Nutrition* (2021).
- Nugent, Rachel, Carol Levin, Jessica Hale, and Brian Hutchinson. "Economic effects of the double burden of malnutrition." *The Lancet* 395, no. 10218 (2020): 156-164.

Web Sources:

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- **Week 4 to 6 – Review paper development**

March 16 to April 6, 2022

Topics assigned by March 16th.

Paper due by April 6th.

- **Week 7 – Review paper discussion**

April 11 and 12, 2022 (D6/005): 8:20-9:40 (D. Romano and N. Mittal)

N.B.: The Syllabus may be subject to changes before the lectures. If so, the instructor will notice the students about the changes prior the relevant lecture.