## POH 118: FOOD SAFETY, SECURITY AND NUTRITION IN PANDEMICS

**Module Overview**

Nutritional composition of food/food groups; Nutritional needs of different population groups; malnutrition causes and interventions; Nutrition assessment, Food and nutrition responses and interventions (Food quality, appropriateness, and acceptability, Targeting, distribution and delivery, food use), Nutrition vulnerability; Nutrition in Emergencies: Definition of terms Nutrition, malnutrition, food security, food aid management, supplementation, primary production, macro and micronutrients, food hygiene and safety. A description of food chains (with special emphasis on foods of animal origin like beef, pork, poultry, milk, egg, and fish). Common and emerging contaminants of food

Hazards associated with food; chemical, microbiological and physical hazards in foods; Approaches to prevention of food contamination: Good agricultural practices; good animal husbandry practices, good manufacturing practices, food hygiene principles; food handlers; Food quality assurance schemes; Food risk assessment, standards and legislation; Foodborne diseases and contaminants; International trade facilitation agreements on food safety; legal requirements.

Food Security definition and analysis, primary production, general food security, income and employment and access to markets, Food security assessment tool in disaster, livelihoods, Nutrition assessments, nutrition assessment checklist, correction of malnutrition in disaster, surveillance and monitoring malnutrition in disaster, minimum standards in food aids management. Availability, access, and use

Approaches to food security: National and international food statistics (Kenyan case); Food security - definitions and principles, threats to food security policy, intervention measures; food policy impact on dietary choices, Case Studies - chronic energy deficiency, African food battles.

Strategy and stakeholders: Policy negotiation and strategy development; International Agencies in Food and Nutrition. Structural Adjustment programmes and their impact on food and nutrition policy

**Mode of Delivery**

Interactive lectures, problem-based learning using interactive tutorials, small group discussions, written assignments, plenary presentations and case studies; *experiential learning* through independent study and field visits, field works and placements, and online peer discussions using video clips and conferencing. Practicum on nutritional assessments.

**Instructional Materials**

*Materials:* Lecture notes and slides, video clips, Handouts, case studies, Reference materials (textbooks, journals, policy document guidelines), institutional placements and field visits; practicum.

*Equipment:* projector, laptop, internet access, marketers & flip charts.

**Core Reference Materials**

1. Sphere Association (Ed.). (2018). *Sphere handbook: humanitarian charter and minimum standards in humanitarian response*. Practical Action. Retrieved from [www.spherestandards.org/handbook](http://www.spherestandards.org/handbook)
2. Schmidt, R. H., & Rodrick, G. E. (2003). *Food safety handbook*. John Wiley & Sons.
3. Fukuda, K. (2015). Food safety in a globalized world. *Bulletin of the World Health Organization*, *93*, 212-212.
4. Aiyar, A., & Pingali, P. (2020). Pandemics and food systems-towards a proactive food safety approach to disease prevention & management. *Food Security*, *12*(4), 749-756.

**Recommended Reference Materials**

1. Garcia, S. N., Osburn, B. I., & Jay-Russell, M. T. (2020). One health for food safety, food security, and sustainable food production. *Frontiers in Sustainable Food Systems*,
2. Fung, F., Wang, H. S., & Menon, S. (2018). Food safety in the 21st century. *Biomedical journal*, *41*(2), 88-95.
3. Ma, N. L., Peng, W., Soon, C. F., Hassim, M. F. N., Misbah, S., Rahmat, Z & Sonne, C. (2021). Covid-19 pandemic in the lens of food safety and security. *Environmental research*, *193*, 110405.
4. Ejeromedoghene, O., Tesi, J. N., Uyanga, V. A., Adebayo, A. O., Nwosisi, M. C., Tesi, G. O., & Akinyeye, R. O. (2020). Food security and safety concerns in animal production and public health issues in Africa: A perspective of COVID-19 pandemic era. *Ethics, Medicine and Public Health*, *15*, 100600.
5. Raposo, A., Ramos, F., Raheem, D., Saraiva, A., & Carrascosa, C. (2021). Food safety, security, sustainability and nutrition as priority objectives of the food sector. *International Journal of Environmental Research and Public Health*, *18*(15), 8073.