Semester: I
Elective Course
1. Course Code & Title: MPC 50 01 & Public Health Nutrition
Credits: 3

Course objectives:

The objective of this course is to enable students understand the inseparable association between health and nutrition, the food and nutrition security, malnutrition and its causes, and the theoretical and applied methods in public health nutrition research.

Course outcomes:

On completion of the course, students will be able to

1. Learn the relationship between nutrition, health and disease
2. Understand the concept, purpose and scope of Public Health Nutrition
3. Evaluate nutritional status, and understand malnutrition and its determinants
4. Understand the life course nutrition approach to prevent disease and promote health
5. Describe food and nutrition security at the national, state and local levels.
6. Understand the inter-sectoral nature and implementation of nutrition and food policy
7. Apply epidemiological principles and methods in nutrition research

Skills developed:

On successful completion of the course the student will be able to develop the skills to plan nutritional interventions and give nutritional education.

Teaching methods: This course will be delivered using a variety of methods and modalities such as classroom and online lectures, self-study, seminars, field visit and group work.

Units and Topics	Teaching Methods								Mandatory Readings
Unit I: Nutrition health and disease									
	L	**FW**	**FV**	**CS**	**GW**	**SS**	**SP**	**P**	

1.1 Definition and concepts – Food, Food composition, nutrition, macronutrients and micronutrients, balanced diet, nutritional status and indicators, malnutrition, food security, dietary recommendations. 1.2 Definition, relevance and scope of public health nutrition in improving human health	**X**	**X**				**X**			Vir, S, C., (2015), Public health nutrition in developing countries (Part I and II), Woodhead Publishing India Pvt, Ltd. Deaton, A., & Drèze, J. (2009). Food and nutrition in India: facts and interpretations. *Economic and political weekly*, 42-65. Fieldhouse, P. (2013). Food and nutrition: customs and culture. *Springer.*
Unit-II: Nutrition epidemiology									
2.1 Definition, utility and applications of epidemiology in nutritional sciences 2.2 Assessment of nutritional status at the population level– anthropometry, physical and bio-chemical analysis	**X**	**X**				**X**		**X**	Willett, W. (2012). *Nutritional epidemiology*. Oxford university press. Gibson, R. S. (2005). *Principles of nutritional assessment*. Oxford university press, USA.
Unit-III: Nutritional challenges in the community									
3.1 Food security –availability, accessibility, quantity and quality 3.2 Malnutrition – definition, types, burden, causes and consequences 3.3 Life course nutrition – child, adolescents, women, nutritional transition, chronic and infectious diseases) 3.4 Nutrition of Marginalized population- Tribal, Dalits, Poor Patients with TB, HIV	**X**	**X**				**X**		**X**	Mitchell, P. J., Cooper, C., Dawson-Hughes, B., Gordon, C. M., & Rizzoli, R. (2015). Life-course approach to nutrition. *OsteoporosisInternational*, *26*(12),2723–2742. https://doi.org/10.1007/s00198-015-3288-6 Pangaribowo, E. H., Gerber, N., & Torero, M. (2013). Food and nutrition security indicators: a review.

3.5 Globalization, lift style transition and nutrition transition									
Unit –IV: Nutrition interventions									
4.1 Food safety and security – policies and actions 4.2 Recommended Dietary Allowances and Supplementary nutrition 4.3 Intersectoral actions – drinking water, sanitation, shelter, education, economics, policies 4.4 Overview of global and national nutritional interventions and food policies	**X**	**X**			**X**	**X**			Gwatkin, D. R., Rutstein, S., Johnson, K., Suliman, E., Wagstaff, A., & Amouzou, A. (2007). Socio-economic differences in health, nutrition, and population within developing countries: an overview. Alderman, H. (2005). Linkages between poverty reduction strategies and child nutrition: an Asian perspective. *Economic and Political Weekly*, 4837-4842. Caraher, M., & Coveney, J. (2004). Public health nutrition and food policy. *Public health nutrition*, *7*(5), 591-598. llen 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.
Unit –V: Nutrition education									

5.1 Relevance, principles, target groups, steps of developing nutrition education programmes	**X**	**X**				**X**		**X**	McNulty, J. (2013). Challenges and issues in nutrition education. Rome: Nutrition Education and Consumer Awareness Group, Food and Agriculture Organization of the United Nations. Smith, B., & Smitasiri, S. (1997). A framework for nutrition education programmes. *FAO Food and Nutrition Paper*, 37-70. Pérez-Rodrigo, C., & Aranceta, J. (2001). School-based nutrition education: lessons learned and new perspectives. *Public Health Nutrition*, *4*(1a), 131-139.

L- Lecture; FW- Field work; FV - Field Visit; CS - Case study; GW- Group work; SS- Self-study; SP- Seminar presentation; P-Practical

Evaluation - As per CBCS guidelines, this course will be evaluated for 100 marks with a Continuous Evaluation (CA) component of 40 marks and End-Semester Evaluation (ESA) component of 60 marks.

Additional readings:

1. Grebmer, K. V., Bernstein, J., Patterson, F., Wiemers, M., Chéilleachair, R. N., & Foley, C. (2019). Global Hunger Index: The Challenge of Hunger and Climate Change. International Food Policy Research Institute, October.
2. Truswell, A. S. (2001). Levels and kinds of evidence for public-health nutrition. The Lancet, 357(9262), 1061-1062.
3. Egan, M. C. (1994). Public health nutrition: a historical perspective. Journal of the American Dietetic Association, 94(3), 298-304.
4. Worsley, A. (2002). Nutrition knowledge and food consumption: can nutrition knowledge change food behaviour?. Asia Pacific journal of clinical nutrition, 11, S579-S585.
5. Haddad, L., Kennedy, E., & Sullivan, J. (1994). Choice of indicators for food security and nutrition monitoring. Food Policy, 19(3), 329-343.