

BSHND 405: PUBLIC HEALTH NUTRITION

Course Learning Outcomes:

- To figure out global and local scenario of public health nutrition
- To understand the core concepts and assessment methods at the population level
- To acquaint hands-on training for development of policies related to nutrition and possible gaps in the matrix of nutrition policies
- To impart hands-on training in nutritional assessment techniques to diagnose health problems
- To understand and apply dietary guidelines for standard nutrient intake
- To select an appropriate method for measuring dietary needs of hospitalized patients.

Course-Theory:

1. Public health nutrition

- Overview, concepts, determinants, foundations;

2. Disease burden and its control;

3. Health promotion and disease prevention;

- Modes of intervention,

4. Monitoring and surveillance;

- Safety and health at work place;
- Public health nutrition: assessment and programs
- Nutritional surveillance and growth monitoring;

5. Public health policies and strategies;

- Marketing nutrition programs in public;
- Public health nutrition: a field of practice
- Public health nutritionist
- competencies, duties, responsibilities, ethics.

1. Nutritional assessment systems

- Nutrition surveys,
- Nutrition surveillance,
- Nutrition screening.

2. **Nutritional assessment methods:**
 - Anthropometrics,
 - Biochemical,
 - Clinical, dietary.
3. **Measuring food consumption at national level:**
 - Food balance sheets,
 - Total diet consumptions.
4. **Food consumption at the household levels:**
 - Food account,
 - Household food records,
 - Household 24-hour food record.
5. **Measuring food consumption at individual levels:**
 - 24-hour recall,
 - Repeated 24-hour recall,
 - Weighed food records,
 - Diet history,
 - Food frequency questionnaire.
6. **Selecting an appropriate method:**
 - Determining the mean nutrient intake,
 - Calculating the population at risk,

Course Practical:

- Food and nutrition surveys for monitoring of public health;
- Community need assessment;
- Planning, implementation and monitoring nutrition intervention program based on the need assessment of the community;
- Marketing nutrition programs in the public;
- Visit of various public health departments.
- Practicing methods of nutritional assessment (ABCD of Nutritional assessment);
- Comparison of the data with references values for drawing conclusions.

Teaching-Learning Strategies:

Teaching will be a combination of class lectures, class discussions, and group work. Short videos/films will be shown on occasion.

Assignments:

The sessional work will be a combination of written assignments, class quizzes, presentation, and class participation/attendance.

Assessments and Examination:

Sessional Work: 25 marks

Midterm Exam: 35 marks

Final Exam: 40 marks

Recommended Readings:

1. Edelstein, S. (2011). Nutrition in Public Health: A Handbook for Developing Programs and Services, (3rd ed). Jones & Bartlett Learning, Sudbury, M.A, USA.
2. Gibney, M.J., Margette, B.M. & Kearney, J.M. (2004). Public Health Nutrition. Blackwell Science Ltd. Oxford, UK.
3. Lawrence, M. & Worsley, T. (2007). Public Health Nutrition: From Principles to Practice. Allen & Unwin Book Publishers, Australia.
4. McKenzie, J.F. & Pinger, R. R. (2015). An Introduction to Community & Public Health. (8th ed). Jones & Bartlett Learning, LLC Burlington, MA, USA.
5. Spark, A. (2007). Nutrition in Public Health: Principles, Policies and Practice. CRC Press, Taylor & Francis, Boca Raton, FL, USA.
6. Driskell, J.A. & Wolinsky, I. (2011). Nutritional Assessment of Athletes, (2nd ed). CRC Press, Taylor & Francis Group, New York, USA.
7. Gibson, R.S (2005). Principles of Nutrition Assessment. Oxford University Press Inc., New York, USA.
8. Lee, R.D. & Nieman, D.C. (2012). Nutritional Assessment, (6th ed). The McGraw-Hill Companies Inc., New York, USA.
9. McGuire, M. & Beerman, K.A. (2011). Nutritional Sciences: From Fundamentals to Food. Cengage Learning, Belmont, CA, USA

