

MATERNAL AND CHILD NUTRITION

4 Credits (Th)

Objectives:

This course will enable the students to:

- Be familiar with physiological changes in pregnancy and lactation.
- Be familiar with growth and developmental changes from conception till adolescence.
- Understand the inter-relationship between nutrition and growth and development during life cycle.
- Apply their knowledge in community and public nutrition/health programmes.

Contents:

Module No	Topics and Details	No of Credits
1	<p>Changing concepts and controversies in Maternal and Child Nutrition.</p> <p>Importance of Maternal Nutrition during Pregnancy : Unit 1. Importance of nutrition prior to and during pregnancy. Unit 2. Pre-requisites for successful outcome. Effect of undernutrition on mother-child dyad including pregnancy outcome and Maternal and Child Health – Short term and Long term. Unit 3. Physiology and endocrinology of pregnancy and embryonic and fetal growth and development Unit 4. Nutritional requirements during pregnancy Unit 5. Adolescent Pregnancy Unit 6. Pregnancy and AIDS, Pregnancy and TB Unit 7. Intra-uterine growth retardation critical windows of development and programming concepts Unit 8. Complications of pregnancy and management and importance of antenatal care. Unit 9. Congenital malformations, fetal alcohol syndrome and gestational diabetes mellitus.</p>	1
2	<p>Lactation and Infant feeding Unit 1. Development of mammary tissue and role of hormones Unit 2. Physiology and endocrinology of lactation – Synthesis of milk components, let down reflex, role of hormones, lactational amenorrhea, effect of breast feeding on maternal health Unit 3. Human milk composition and factors affecting</p>	1

	<p>breastfeeding and fertility, maternal nutritional status and milk composition.</p> <p>Unit 4. Management of lactation – Prenatal breastfeeding skills education. Rooming in, problems – sore nipples, engorged breast, inverted nipples</p> <p>Unit 5. Exclusive breastfeeding Baby friendly Hospitals Initiative</p> <p>Unit 6. Breast feeding in the age of AIDS</p> <p>Feeding of infants and children and dietary management, key issues in infant Feeding</p>	
3	<p>Infant physiology and the preterm and LBW infants: Implications for feeding and management. Growth and development during infancy, childhood and adolescence.</p> <p>a. Normal pattern of growth and development b.: Norms/standards for growth c: Growth monitoring and promotion, growth faltering, Failure to thrive</p>	1
4	<p>Malnutrition in mothers and children: etiology and management (in brief), Consequences of malnutrition on physical development, mental development, cognitive development. Effect of deficiencies of specific nutrients</p> <p>Current Nutrition and Health Status of Women and Children in India.</p> <p>Policies and programmes for promoting maternal and child nutrition & health. International, national and state level Concept of small family, methods of family planning, merits and demerits.</p>	1

References:

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2. International Child Health: A Digest of Current Information
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5. Sachdev, H.P.S. and Choudhary, P. (1995). Nutrition in Children-Developing Country Concerns. Cambridge Press, New Delhi

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12. Alderman,H.; Behrman,J.; Lavy,V.; Menon,R. (1997) Child Nutrition, Child Health and School Enrollment. Policy Research Working Paper 1700. Washington DC. World Bank
13. Haggerty, PA; Rustein SO (1999) Breastfeeding and Complementary Infant Feeding and the Postpartum Effects of Breastfeeding. Demographic and Health Surveys Comparative Studies Calverton, MA., Macro International.
14. Koletzo, B.; Hernell, O.; Michaelson, K. (2000) Short and Long Term Effects of Breastfeeding on Infant Health. Plenum Press, New York
15. Huffman, S.L.; Baker, J.; Schumann, J.; Zehner, E.R. (1998) The Case for Promoting Multiple Vitamin/Mineral Supplements for Women of Reproductive Age in Developing Countries. LINKAGES Project. Washington DE. AED.
16. WHO/ University of California, Davis (1998) Complementary Feeding of Young Children in Developing Countries. Review of Current Scientific Knowledge. Geneva, WHO.
17. Lusty T., Diskett, P. (1977) OXFAM's Practical Guide to Selective Feeding Programmes. OXFAM Practical Guide No. 1, Oxford, OXFAM Health Unit
18. UNICEF (1997). The Care Initiative: Assessment, Analysis and Action to improve care for Nutrition. New York, UNICEF
19. WHO (1999) Management of severe malnutrition. A manual for physicians and other senior health workers. Geneva, WHO.