

## Course Name: Indian Health Sciences

### Course Code: MDC304

Course Type: <b>MD (Theoretical)</b>	Course Details: <b>MDC-3</b>		L-T-P: <b>2-1-0</b>		
Credit: 3	Full Marks: <b>50</b>	CA Marks		ESE Marks	
		Practical	Theoretical	Practical	Theoretical
		-	<b>15</b>	-	<b>35</b>

#### Learning outcome:

The course is a walk for the students to gain a holistic knowledge on human health. The course provides elementary idea on various nutrients and their impacts on human physiology. In addition, students will be able to learn some of the common diseases and their management strategies. The last segment of this course deals with the stress and its management.

#### Learning outcomes

*Upon successful completion of this course, students should be able to:*

- Develop their understanding on health and the strategies that can be employed for improvement of physiology.
- Gain knowledge on various macro and micro nutrients and their significance.
- Learn common diseases and their management strategies.
- Develops the understanding about the stress and the coping methods.

### **THEORY (MDC-3)**

#### **Unit-I: Fundamentals of health**

**(15 Lectures)**

1. Definition of health- WHO definition; Components of health- physical, social, mental, spiritual and its relevance. Concept of wellness.
2. Health enhancing behaviours and their impacts on physiology: Exercise, Nutrition, Meditation, Yoga.
3. Health compromising behaviours and their impacts on physiology: alcoholism, smoking.

#### **Unit-II: Public Health and Nutrition**

**(15 Lectures)**

1. Macronutrients and Micronutrients; Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients: Carbohydrates, lipids and proteins; Fat soluble vitamins-A, D, E and K; Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B12 and vitamin C.
2. Important clinical manifestations of deficiency of minerals on human health: calcium, iron and iodine.
3. Concept of Recommended Dietary Allowance (RDA), Adequate Intake (AI), Tolerable Upper Intake Level (UL), and Estimated Average Requirement (EAR)
4. Determination and importance of BMI. Idea on overweight and obesity. Outline idea on Indian food pyramid.

### **Unit-III: Human health and diseases**

**(15 Lectures)**

1. Pathogens: Outline idea; introduction to parasites causing human diseases (dengue, amoebiasis, malaria, ascariasis) and their control; Symptoms and treatment of these diseases.
2. Drug and alcohol abuse in adolescence
3. Elementary idea on lifestyle disorders –Cerebrovascular Disease, Hypertension, cancer, Type 2 Diabetes, Chronic Obstructive Pulmonary Disease (COPD), Osteoarthritis, Osteoporosis, Cataracts.

### **Unit-IV: Mental health and well being**

**(15 Lectures)**

1. Importance of Mental Health Awareness, Introduction to Anxiety, Stress, and Resilience; causes, symptoms and management of distress
2. Effects of Stress on Physical and Mental Health
3. Neurological disorders: Elementary idea on Parkinson's Disease, Dementia (Including Alzheimer's Disease), amyotrophic lateral sclerosis

