

NOC: Nutrition, Therapeutics and Health (NM) - Video course



NP-TEL

NPTEL

<http://nptel.ac.in>

Agriculture

Coordinators:

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Lakshmi (Instructor
Incharge)**

Dept. of FDNTProf.
Jayashankar
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Agricultural Uni

COURSE OUTLINE

Week	Topics
1	<p>Introduction to food and nutrition</p> <ul style="list-style-type: none"> • Relationship between Food, Nutrition and Health • Relationship between Food, Nutrition and Health • Digestion, absorption and utilization of nutrients • Digestion, absorption and utilization of nutrients • Nutrient requirements • Recommended dietary allowances
2	<p>Nutrients</p> <ul style="list-style-type: none"> • Carbohydrates, – classification, functions and food sources • Dietary fibre, recommended allowances, problems of excess and deficiency • Types of proteins, functions and food sources, recommended allowances • Health significance, protein quality, factors affecting protein quality, methods of improving protein quality • Fats – types, functions and food sources • Recommended allowances and health significances
3	<p>Nutrients contd...</p> <ul style="list-style-type: none"> • Energy – role of macronutrients in providing energy, units of heat and energy, energy requirements and its components • Measurement of energy expenditure, energy balance, health concerns related to energy balance • Fat soluble vitamins – functions, food sources, recommended dietary allowances and problems of excess and deficiency of Vitamin A and Vitamin E • Functions, food sources, recommended dietary allowances and problems of excess and deficiency of Vitamin D and Vitamin K • Water soluble vitamins functions, food sources, recommended dietary allowances and problems of excess and deficiency • Water soluble vitamins functions, food sources, recommended dietary allowances and problems of excess and deficiency
4	<p>Nutrients contd...</p> <ul style="list-style-type: none"> • Major minerals – functions, food sources and problems of excess and deficiency of minerals • Major minerals – functions, food sources and problems of excess and deficiency of minerals • Trace minerals functions, food sources and problems of excess and deficiency of minerals

- Water – need, factors affecting water balance and its maintenance, dehydration and water intoxication
- Nutritional disorders– PEM, Vitamin A deficiency
- Iron deficiency, Vitamin B complex deficiency and iodine deficiency

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Meal planning

- Food guide for selecting adequate diet, practical aspects of food selection
- Use of the food guide for meal planning, planning budget, nutrition education, fallacies and misconceptions about foods, and selection of foods.
- Meal planning – objectives, nutritional adequacy, food costs and factors affecting food selection
- Other aspects affecting food selection – availability, family size, schedules, time, for family and various age groups
- Food sanitation and Hygiene – water, food, equipment, control of insects, food sanitation
- Water purification

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Therapeutic Nutrition

- Therapeutic adaptation of normal diet
- Principles of therapeutic nutrition
- Diet during fevers
- Diet during lung disease
- Diet in gastrointestinal disorders constipation
- Diarrhoea

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Therapeutic Nutrition contd...

- Diet in disorders of liver
- Diseases of gall bladder and pancreas
- Diet in Diabetes mellitus – types, symptoms, classification
- Nutritional care and control of diabetes
- Heart and blood vessels diseases, diet therapy
- Myocardial infarction, congestive heart failure, diet therapy

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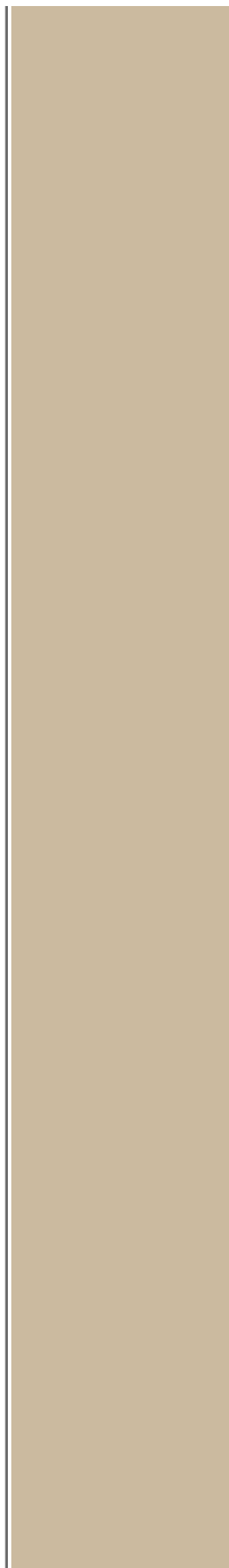
Therapeutic Nutrition contd...

- Diet in kidney disorders functions of kidney, kidney ailments– causes
- Acute and chronic renal failure, dialysis, kidney transplant, kidney stones – prevention
- Diet in cancer
- Diet in stress, burns and surgery
- Diet in metabolic disorders
- Nutrition in immune system disorder

COURSE DETAIL

Week	Topic	Speaker
	Introduction to the Course	Prof. V. Vijaya

		Lakshmi
Week1	Introduction to Nutrition and Health	
Lect1	Relationship between Food, Nutrition and Health 1	Prof. V. Vijaya Lakshmi
Lect2	Relationship between Food, Nutrition and Health 2	Prof. V. Vijaya Lakshmi
Lect3	Digestion, absorption and utilization of nutrients 1	Prof. V. Vijaya Lakshmi
Lect4	Digestion, absorption and utilization of nutrients 2	Prof. V. Vijaya Lakshmi
Lect5	Recommended dietary allowances	Prof. V. Vijaya Lakshmi
Lect6	Carbohydrate	Prof. V. Vijaya Lakshmi.
Week2	Nutrients and their role	
Lect1	Fiber	Prof. V. Vijaya Lakshmi
Lect2	Protein	Prof. V. Vijaya Lakshmi
Lect3	Protein health significance	Prof. V. Vijaya Lakshmi
Lect4	Fat	Prof. V. Vijaya Lakshmi
Lect5	Energy 1	Prof. V. Vijaya Lakshmi
Lect6	Energy 2	Prof. V. Vijaya Lakshmi
Week3	Nutrients and their role	
Lect1	Energy 3	Prof. V. Vijaya



		Lakshmi
Lect2	Fat Soluble Vitamins 1	Prof. V. Vijaya Lakshmi
Lect3	Fat Soluble Vitamins 2	Prof. V. Vijaya Lakshmi
Lect4	Fat Soluble Vitamins 3	Prof. V. Vijaya Lakshmi
Lect5	Water Soluble Vitamins 1	Prof. V. Vijaya Lakshmi
Lect6	Water Soluble Vitamins 2	Prof. V. Vijaya Lakshmi
Week4	Nutrients and their role	
Lect1	Water soluble Vitamins 3	Prof. V. Vijaya Lakshmi
Lect2	Water soluble Vitamins 4	Prof. V. Vijaya Lakshmi
Lect3	Major minerals 1	Prof. V. Vijaya Lakshmi
Lect4	Major minerals 2	Prof. V. Vijaya Lakshmi
Lect5	Trace minerals 1	Prof. V. Vijaya Lakshmi
Lect6	Trace minerals 2	Prof. V. Vijaya Lakshmi
Week5	Meal planning	
Lect1	Water	Prof. V. Vijaya Lakshmi
Lect2	Nutritional Disorders	Prof. V. Vijaya Lakshmi
Lect3	Balanced diet and food groups	Prof. V. Vijaya Lakshmi
Lect4	Food guide for selecting adequate diet, practical aspects of food selection	Prof. V. Vijaya Lakshmi
Lect5	Meal planning	Prof. V. Vijaya Lakshmi
Lect6	Other aspects affecting food selection	Prof. V. Vijaya Lakshmi
Week6	Sanitation and therapeutic nutrition	
Lect1	Food sanitation & hygiene	Prof. V. Vijaya Lakshmi
Lect2	Water Purification	Prof. V. Vijaya Lakshmi
Lect3	Therapeutic adaptation of normal diet	Prof. V. Vijaya Lakshmi
Lect4	Principles of therapeutic diet	Prof. V. Vijaya Lakshmi
Lect5	Diet during fevers	Prof. V. Vijaya Lakshmi
Lect6	Diet in lung disease	Prof. V. Vijaya Lakshmi

Week7	Therapeutic nutrition	
Lect1	Diet during diarrhoea	Prof. V. Vijaya Lakshmi
Lect2		Prof. V. Vijaya Lakshmi
Lect3	Diet in disorders of liver	Prof. V. Vijaya Lakshmi
Lect4	Diseases of gall bladder	Prof. V. Vijaya Lakshmi
Lect5	Diet in Diabetes	Prof. V. Vijaya Lakshmi
Lect6	Diseases of Heart & blood vessels	Prof. V. Vijaya Lakshmi
Week8	Therapeutic nutrition	Prof. V. Vijaya Lakshmi
Lect1	Diet for myocardial infarction	Prof. V. Vijaya Lakshmi
Lect2	Diet in kidney disorders	Prof. V. Vijaya Lakshmi
Lect3	Diet in renal failure	Prof. V. Vijaya Lakshmi
Lect4	Diet in cancer	Prof. V. Vijaya Lakshmi
Lect5	Diet in metabolic disorders	Prof. V. Vijaya Lakshmi
Lect6	Diet in stress, burns & surgery	Prof. V. Vijaya Lakshmi