



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

DUAL DEGREE PROGRAM (B.Sc- M.Sc. Food and Nutrition) 2020-2023

B. Sc. Food and Nutrition Sem VI

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Practical		L	T	P	CREDITS
			End Sem University Exam	Two Term Exam	Teachers Assessment	End Sem University Exam	Teachers Assessment				
FSN 601	VI	Diet therapy II	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks

**Course Objectives**

- Student should be able to classify the nutritional disorder.
- Student should be able to describe the treatment for each type of the disorder.

**Course Outcomes**

- The student should be able to identify the major causes of different nutritional disorders.
- Students should be able to list the nutrients commonly modified in the dietary treatment of chronic kidney disease (CKD).

**FSN 601: Diet Therapy II**

**Unit I**

Nutrition in Diabetes Mellitus: prevalence, classification, factors influencing, risk Factors, clinical characteristics, metabolic changes in Diabetes, diagnosis of Diabetes Mellitus. Principles of nutritional therapy. Complications of Diabetes-Hypoglycemia, DKA, Fasting Hyperglycemia long term complications.

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#### Unit II

Nutrition in Renal Diseases: Renal Function in Disease etiology, clinical symptoms and course of Disease, dietary management, feeding Pattern for Glomerulonephritis, Nephrotic Syndrome , Chronic Kidney disease and Kidney Dialysis.

#### Unit III

Nutrition in Surgical Conditions: pre operative and post operative Diet. Fluid & Electrolyte Repletion, Medical Nutritional Therapy in trauma and hormonal response.

#### Unit IV

Medical Nutritional Therapy for food allergy and food intolerance: definitions, symptoms, risk factors, food intolerances, diagnosis and food challenge.

#### Unit V

Cancer Nutritional care in Cancer: pathophysiology, causes, types, treatment-nutrition and medical management, role of antioxidants and nutritional problems in cancer treatment.

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FSNP 604	VI	Diet therapy II Practical	0	0	0	30	20	0		4	2

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks

#### FSNP 604: Diet Therapy II Practicals.

- Planning and preparing diet for NIDDM patients.
- Planning and preparing diet for IDDM patients.
- Planning and preparing diet for Glomerulonephritis and Nephritic Syndrome.
- Planning and preparing diet for Renal Failure Patients.
- Planning and preparing diet for a patient with Gout.
- Formula feed preparation for cancer and burns patients.

#### Reference Books:

- Antia, F.P. (2005). Clinical Nutrition and Dietetics. Oxford University Press. Delhi
- Mahan, L.K., Arlin, M.T. (2000), Krause's Food, Nutrition and Diet therapy, 11th edition, W.B.Saunders Company, London.
- Robinson, C.H. Lawler M.R., Chenoweth, W.L., and Garwick, A.E.(1986).Normal and Therapeutic Nutrition. Mac Millan Publishing Co.
- Shubhangini A Joshi (2002). Nutrition and Dietetics. Tata Mc Graw-Hill Publishing Company Limited.New Delhi.
- Srilakshmi,B.(2005).Dietetics, New Age International Limited Publishers. New Delh.i

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FSN 602	VI	Health and Fitness	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks

**Course Objectives**

- Students able to understand the importance of health for quality living.
- To introduce the fundamental concepts of physical education, health and fitness.

**Course Outcomes**

- Students acquire knowledge about health, fitness and wellness and in developing and maintaining a healthy life style.
- To provide a general understanding on sports nutrition.

**FSN 602: HEALTH AND FITNESS**

**UNIT I**

Health: definition, meaning of health and factors affecting health. Health hazards: environment, population explosion, explosives, adulteration, dampness and measures to prevent health hazard.

**UNIT II**

Food for health promotion: definition of food, Nutrition, Nutrients and Nutritional status. Functions of food: physiological, psychological and socio - cultural functions, constituents of food and their functions.

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FSN 602	VI	Health and Fitness	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks

**UNIT III**

Physical fitness components - speed, strength, endurance, flexibility and coordinative abilities. Types of physical fitness, health related physical fitness, performance related physical fitness and cosmetic fitness.

**UNIT IV**

Sports nutrition: introduction to kin anthropometry, requirements during training and performance for athletes and endurance games, aerobic and anaerobic exercise, fuel for exercise and glycogen load. Exercise to maintain fitness.

Health club equipments & activities: tread mill, hammer strength, steppers, cycles, body sculpting, kick boxing. reebok ridge rocker, hanging, hand grips, swing, climbing and lifting weight.

**UNIT V**

Health insurance scheme (government & non government): Mediclaim policy, Employee state insurance scheme, ICICI health scheme, specialized insurance scheme and others.

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FSNP 605	VI	Health and Fitness Practical	0	0	0	30	20	0		4	2

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### FSNP 605: Health and Fitness Practicals

##### A. Fitness

- Identification of health hazards
- Food intake during cultural festivals.
- Food selection for balanced diet for different age groups.
- Planning a health education for any specific group.
- Visit to a health club / fitness centre.
- Assessment of fitness – simple test, Stepper technique (any two)..
- Observation of / Compulsory yoga exercise.
- Observation of physical training for sports person.

##### B. Health

- Preparing Complimentary Feeds for Infants-weaning foods
- Planning and preparation of a day's diet for a school going child with special emphasis on packed Lunches.
- Planning and preparation of a day's diet for an adolescent girl/boy.
- Planning and preparing a day's diet for a senior citizen.

#### Reference Books:

- Narayan dash B. (2003). Health & physical education. Neelkamal publications. Hyderabad.
- Mahan, L.K., Arlin, M.T. (2000). Krause's Food, Nutrition and Diet therapy. W.B. Saunders Company. London.

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FSN 603	VI	Nutrition in the Life cycle	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

\***Teacher Assessment** shall be based following components: Quiz/Assignment/ Project/Participation in Class, given that no component shall exceed more than 10 marks.

#### Course Objectives

- Students able to discuss, contrast and evaluate the roles of nutrition within the complex processes of pregnancy, lactation, child development and ageing.
- To discuss the impact of socioeconomic, cultural and psychological factors on food and nutrition behavior.

#### Course outcomes

- The student gains knowledge about the changing nutritional needs of an infant and about complementary feeding.
- The students will be able to relate nutrient needs to developmental stages and plan diets which will adequately meet nutritional needs during childhood.

#### Unit I

Nutrition during Pregnancy and lactation: physiological stages of pregnancy, effect of nutritional status on pregnancy outcome, nutritional requirements, guide for eating during pregnancy, complications of pregnancy and their dietary implications. lactation: physiology and nutritional requirements.

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FSN 603	VI	Nutrition in the Life cycle	60	20	20	0	0	4	0	0	4

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**Unit II**

Nutrition during Infancy: physiologic development, nutritional Requirements, milk for Infants: composition of human and cow’s milk. Complimentary food:weaning pattern, composition, general principles in feeding infants, special feeding problems AND nutritional requirements of toddlers (1-3years).

**Unit III**

Nutrition in childhood pre-school and school going: growth and development. nutritional requirements, factors influencing food intake and nutritional concerns.

**Unit IV**

Nutrition in adolescence: growth and development, physiologic changes, nutritional requirements and situations with special needs.

**Unit V**

Nutrition in adults: nutrient needs modifications for different activity levels and different income groups. Nutrient requirements during old Age: process of aging, nutrient requirements and nutrition related problems of old Age.

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FSN 603	VI	Nutrition in the Life cycle	60	20	20	0	0	4	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

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- Mahan, L.K., Arlin, M.T. (2000). Krause's Food, Nutrition and Diet therapy, W.B. Saunders Company. London.
- Robinson, C.H. Lawler, M.R. Chenoweth, W.L and Garwick, A.E (2006) Normal and Therapeutic Nutrition. Mac Millan Publishing Co.
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FSNP 606	VI	Project II & Presentation	0	0	0	90	60	0	0	0	4

**Legends:** L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit;

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#### FSNP 606: Project II & Presentation

##### Course Objectives

- To acquire professional skills as diet consultant in hospitals/ public health Institutions or food industry.
- At the end of the professional training the student has to submit a report and to present a Power Point presentation.
- At the end of the professional training the student has to submit a report for which viva will be conducted both by Internal and External Examiners.

##### Course outcomes

- To acquire professional skills as diet consultant in hospitals/ public health Institutions and various fields of food industry.
- To become an entrepreneur by starting his own startup. Every candidate shall undergo professional training for 90 days in Hospitals /Large scale/Small scale food industries/Food processing units in VI Semester of the course.

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FSNV 607	VI	Comprehensive- Viva	0	0	0	90	0	0	0	2	

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**Note:** Comprehensive Viva of the candidates in presence of subject expert and faculty members.

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