

## Shri Vaishnav Institute of Home Science

Choice Based Credit System (CBCS) in Light of NEP-2020 B. Sc. Food and Nutrition Sem VI (2021 – 2024)

			Teaching	and Eval	uation Scl	heme					
Subject		Subject	Theory			Practica	1				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment	L	Т	P	CREDITS
FSN601	СС	Diet Therapy II	60	20	20	0	0	3	0	0	3

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

### Course Educational Objectives (CEOs): The students will

- **CEO 1**: understand the foundation sciences which involve therapeutic dietetics practice, the principles of disease prevention and health promotion, the principles of therapeutic intervention practice.
- **CEO 2**: define and memorize the degenerative diseases, role of diet in the management of various types of diseases through various feeding technique.

#### Course Outcomes (COs): Student should be able to

- CO1: comprehend diabetes, associated metabolic changes, management, and related complications.
- CO2: develop profound understanding for various types of renal diseases and their dietary management.
- CO3: expertise in planning of preoperative and post operative diet.
- **CO4**: comprehend with food allergies and intolerance.
- **CO5:** understand and learn the nutritional care in cancers.

## FSN 601: Diet Therapy II

#### Unit I

- Nutrition in Diabetes Mellitus: prevalence, classification, factors influencing, risk Factors, clinicalcharacteristics.
- Metabolic changes in Diabetes and diagnosis and management of Diabetes Mellitus.
- Complications of Diabetes-Hypoglycemia, DKA, Fasting Hyperglycemia long term complications.

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



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Subjec tCode	Category	Subjec tName	End Sem University Exam (60%)	Two Term Exam	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
FSN601	CC	Diet Therapy II	60	20	20	0	0	3	0	0	3

**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 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: preoperative 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.
- Food challenge comprehend with food allergies and intolerance.

#### Unit V

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



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			Teaching	and Eval	uation Scl	neme					
Subjec		Subject	Theory			Practica	1				
Subjec tCode	Category	_	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
FSN601	СС	Diet Therapy II	60	20	20	0	0	3	0	0	3

**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

#### **Suggested Readings**

- Srilakshmi.B, (2005): *Dietetics*, 5th edition, New Age International(P) Limited Publishers, New Delhi Therapeutic Nutrition, 17th Ed.,
- Antia, F.P. (2005): *Clinical Nutrition and Dietetics*, Oxford University Press, Delhi Mahan, L.K.,
- Shubhangini A Joshi (2002): *Nutrition and Dietetics*, 2nd edition, Tata Mc Graw-Hill Publishing Company Limited, New Delhi.
- 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. (2000). *Normal and Therapeutic Nutrition.* Mac Millan Publishing Co.
- Mac Millan Publishing Co Williams's (1989): Nutrition and diet Therapy. 6th edition. Times Mirror/Mosby College Publishing, St. Louis. Antia, F.P. (2005). Clinical Nutrition and Dietetics. Oxford University Press. Delhi

class, given that no component shall exceed more than 10 marks.



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Subjec			Tì	<b>1eo</b> 1	ry					Pı	acti	cal					
Subjec tCode	Category	Subject Name	End Sem	University	Exam (60%)	Two Term	Exam (20%)	Teacher	Assessment	End Sem	University	Teacher	Assessment	L	Т	P	CREDITS
FSN601 (P)	CC	Diet therapy II Practical	0			0		0		30	)	20	)	0	0	4	2

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

## Course Educational Objectives (CEOs): The students will

- **CEO 1**: understand the foundation sciences which involve therapeutic dietetics practice, the principles of disease prevention and health promotion, the principles of therapeutic intervention practice.
- CEO 2: develop comprehensive understanding of different nutraceuticals and functional foods.

### Course Outcomes (COs): Student should be able to

- **CO1**: formulate therapeutic diet for critically ill patients.
- **CO2:** Formulation educational tools for Nutritional counseling.

#### Diet Therapy II Practical's.

- 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 of preoperative and post operative diet.
- Planning and preparing diet for cancer patients.

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



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				Tea	ching an	d Evalu	ation So	chem	e		
Cubica			Theory			Practi	cal				
Subjec tCode	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment	End Sem University Exam	Teacher Assessment	L	Т	P	CREDITS
FSN601 (P)	CC	Diet therapy II Practical	0	0	0	30	20	0	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.

## **Suggested Readings:**

- Antia, F.P. (2005). *Clinical Nutrition and Dietetics*. Oxford University Press. Delhi
- Srilakshmi, B.(2005). *Dietetics*, New Age International Limited Publishers. New Delhi.
- Shubhangini A Joshi (2002). *Nutrition and Dietetics*. Tata Mc Graw-Hill Publishing Company Limited New 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.



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			tion Sche	me						
		,	Theory		Pra	ctical				II
Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University	Teacher Assessment (40%)	L	Т	P	CREDI
DSE	Nutritional Counseling	60	20	20	0	0	3	0	0	3
		Name Nutritional	Category Subject Name Subject Nuiversity Nutritional	Category Subject Name Exam (60%) Nutritional  Theory  Theory  (%05)  Exam (20%)  Nutritional	Category Name Exam (60%) Nutritional Theory  Nutritional Theory  Theory  Theory  Theory  Theory  Theory  Theory  Nutritional	Category Name  Subject Name  Exam (60%) Propertion of the Sem (20%) Properties of the	Category Name  Subject Name  Exam (20%)  Exam (20%)  Exam (20%)  Exam (20%)  Exam (20%)  Exam (20%)  Fund Sem  University  Assessment  Assessment  Assessment  Nutritional	Category Name End Sem University Exam (60%) End Sem University Exam (20%) End Sem University Teacher Assessment Assessment (40%)	Category Name Subject Name Exam (20%) Practical Exam (20%) Practical Exam (20%) Practical Exam (20%) Practical Pract	Category Name Subject Name Practical Exam (60%) Practical Exam (70%) Practical Property (100%) P

**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 Educational Objectives (CEOs): The students will

- **CEO1**: understand the influence of counseling on disease management adidentify components of counseling skills.
- **COE2**: develop skills of counseling for specific disease conditions.
- CEO3: acquire the basic skills required for conducting interviews and counselling sessions related to the field of nutrition and dietetics.

#### Course Outcomes (COs): Student should be able to

- **CO1**: define nutrition counseling and the interview process.
- CO2: discuss the dietetic practitioner's role in conducting interviews and counseling clients.
- CO3: become proficient in the basic skills and techniques for conducting interviews and counseling as related to field of nutrition and dietetics.



## Shri Vaishnav Institute of Home Science

Choice Based Credit System (CBCS) in Light of NEP-2020 B. Sc. Food and Nutrition Sem I (2021 - 2024)

				Teacl	ning and	Evaluat	ion Sch	eme			
				Theory		Prac	ctical				$\mathbf{S}$
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
FSN6022	DSE	Nutritional Counseling	60	20	20	0	0	3	0	0	3

**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.

### FSN6022: Nutritional Counseling

#### **UNIT I**

- Nutrition Counseling: Concept and importance of counseling in the nutrition care process.
- Understanding dietary patterns and food choices and their impact on counseling.
   Counseling strategies and factors to be considered for counseling.
- Conventional and non-conventional tools in counseling.

#### **UNIT II**

- Basics of Communication: Meaning, forms and methods of Communication.
- Characteristic and barriers s of effective communication,
- Skills, and attributes of a communicator.
- Current and emerging methods/tools of communication.

#### **UNIT III**

- Processes involved in dietary counseling: Managing resources of the communicator/counselor.
- Designing counseling plans: goals & objectives, evaluation instruments.
- Implementation: facilitating self-management of disease condition.
- Evaluation: evaluating adherence to dietary changes.



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Choice Based Credit System (CBCS) in Light of NEP-2020 B. Sc. Food and Nutrition Sem I (2021 - 2024)

				Teacl	hing and	Evaluat	ion Sch	eme			
				Theory		Prac	ctical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University	Teacher Assessment	L	Т	P	CREDITS
FSN6022	DSE	Nutritional Counseling	60	20	20	0	0	3	0	0	3

**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 IV**

Dietary counseling through the life span:

- Prenatal and pregnant women, Lactating women, Childhood nutrition problems like SAM.
- School children, adolescents, young adults.
- Fitness, weight management, eating disorders.

#### **UNIT V**

- Nutritional/medicinal role of traditional foods traditional food beliefs.
- Role of Ayurveda, Naturopathy, Yoga and other traditional medicines in disease management.

#### **Suggested readings:**

- Mahan, L. K. and Escott Stump. S. (2016) Krause's Food & Nutrition Therapy 14th ed.
- Devito Joseph A. (2015). *Human Communication: The Basic Course.* New York: Pearson Snetselaar L. (2009). *Nutrition Counseling Skills for the Nutrition Care Process*. FourthEd. Sudbury, Massachusetts: Jones Bartlett Publishers.
- Midwinter R and Dickson J.(2015). Embedding *Counseling and Communication Skills*. Relational Skills Model. Routledge.
- Holli B Betsy and Beto A Judith. (2014). *Nutrition Counseling and Education Skills forDietetics Professionals*. Sixth edition.
- Gable J. (2016). *Counseling Skills for Dietitians*. Florida, USA.
- King K and Klawitter B.(2007). *Nutrition Therapy*. Advanced Counseling Skills. Third Edition. Philadelphia.



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				Teac	ching an	d Evalu	ation Sc	hem	e		
			T	heory		Prac	tical				
Subject Code	Category	Subject Name	End Sem University Exam(60%)	Two Term Exam(20%)	Teachers Assessment(	End Sem University	Teachers Assessment(	L	Т	P	CREDITS
FSN603	CC	Nutrition through life cycle	60	20	20	0	0	3	0	0	3

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

### Course Educational Objectives (CEOs): The students will -

**CEO1:** able to discuss, contrast and evaluate the roles of nutrition within the complexprocesses of pregnancy, lactation, child development and ageing.

CEO2: discuss the impact of socioeconomic, cultural, and psychological factors on food and number behavior.

## Course Outcomes (COs): Student should be able to-

**CO1**: acquire knowledge about physiological status and nutrition of pregnancy and lactation.

CO2: understand about physiological status and nutritional requirements of infancy and childhood.

CO3: familiarize with development and nutritional requirements of preschool and school going children.

CO4: learn about nutritional requirements of adults and old age.

### FSN603: Nutrition through life cycle

#### Unit I

- Infancy: physiological development and nutritional requirements.
- Complimentary food: weaning pattern, composition, general principles in feeding infants, special feeding problems and nutritional requirements of toddlers (1-3years).

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				Teac	ching an	d Evalu	ation Sc	chem	e		
			Т	heory		Prac	tical				
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teachers Assessment (20%)	End Sem University	Teachers Assessment(40%)	L	Т	P	CREDITS
FSN603	CC	Nutrition through life cycle	60	20	20	0	0	3	0	0	3

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

#### **UNIT II**

• Childhood - pre-school and school going growth and development, nutritional requirements, factors influencing food intake and nutritional concerns.

#### **UNIT III**

• Adolescence - growth and development, physiologic changes, nutritional requirements and situations with special needs. Eating disorder.

#### **UNIT IV**

- Adulthood- nutrient needs, modifications for different activity levels and different income groups. Complication of adulthood.
- Geriatrics -Nutrient requirements during old age, process of aging and nutrition related problems of old Age.

#### **UNIT V**

- Pregnancy- 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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				Te	aching a	nd Evalu	ation Sch	eme			
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Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teachers Assessment (20%)	End Sem University Exam (60%)	Teachers Assessment (40%)	L	Т	P	CREDITS
FSN603	CC	Nutrition through life cycle	60	20	20	0	0	3	0	0	3

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

### **Suggested readings:**

- Shubhangini A Joshi (2021). *Nutrition and Dietetics*. Tata Mc Graw-Hill PublishingCompany Limited. New Delhi.
- Chadha R and Mathur P eds. (2015). *Nutrition: A Lifecycle Approach*. Orient Blackswan, New Delhi.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). *Textbook of Nutrition and Dietetics*. Delhi: Elite Publishing House Pvt. Ltd.
- Antia, F.P. (2005). Clinical Nutrition and Dietetics. Oxford University Press. Delhi.
- Srilakshmi, B. (2005): Dietetics. New Age International Limited Publishers. New Delhi Mahan,
- L.K., Arlin, M.T. (2000). *Krause's Food, Nutrition and Diet therapy*, W.B.Saunders Company. London.

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			Teaching a	and Evaluati	ion Sch	eme					
			Theory			Practical					
Subject Code	Category	Subject Name	End Sem University Exam (60%)	Two Term Exam (20%)	Teachers Assessment	End Sem University Exam (60%)	Teachers Assessment	L	Т	P	CREDITS
FSN 6021	VI	Health and Fitness	60	20	20	0	0	3	0	0	3

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

### Course Educational Objectives (CEOs): The students will

- **CEO 1**: understand the foundation sciences which involve therapeutic dietetics practice, the principles of disease prevention and health promotion, the principles of therapeutic intervention practice.
- **CEO 2**: define and memorize the degenerative diseases, role of diet in the management of various types of diseases through various feeding technique.

#### Course Outcomes (COs): Student should be able to

- **CO1**: comprehend diabetes, associated metabolic changes, management, and related complications.
- CO2: develop profound understanding for various types of renal diseases and their dietary management.
- CO3: expertise in planning of preoperative and post operative diet.
- **CO4**: comprehend with food allergies and intolerance.
- **CO5:** understand and learn the nutritional care in cancers.

### FSN 6021: 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.

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Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Pract					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teachers Assessment	End Sem University Exam (60%)	Teachers Assessment	L	Т	P	CREDITS
FSN 6021	VI	Health and Fitness	60	20	20	0	0	3	0	0	3

**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 II

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

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



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			Theory			Prac					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teachers Assessment	End Sem University Exam (60%)	Teachers Assessment	L	T	P	CREDITS
FSN 6021	VI	Health and Fitness	60	20	20	0	0	3	0	0	3

**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 V**

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

### **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.