



Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
Shri Vaishnav Institute of Home Science
Choice Based Credit System (CBCS) in Light of NEP-2020
B. Sc. Food and Nutrition Sem VI (2022 - 2025)

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Practical		L	T	P	CREDITS
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)				
FSN601	Major	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 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.

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FSN 601: Diet Therapy II

Unit I

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

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.

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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 management
- Role of antioxidants and nutritional problems in cancer treatment.

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

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FSN602 (P)	Major	Nutrition Lab	0	0	0	30	20	0		4	2

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

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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.

FSNP 604: 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.

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FSN603	DSE 2	Food Quality Control	60	20	20	0	0	4	0	0	4		

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Course Educational Objectives (CEOs): The students will

- CEO1: get oriented with the basic principles of quality control.
- CEO2: understand the importance of good personal hygiene and ensuring food safety.
- CEO3: be familiar about different Indian and International food laws.

Course Outcomes (COs): Student should be able to

- CO1: gain knowledge about quality control and quality assurance.
- CO2: develop skills of different evaluation methods.
- CO3: develop skills of color, flavor and texture analysis.
- CO4: familiarize about food safety laws, acts and certifications.

Syllabus

UNIT I

- General concepts of quality and quality control and its functions.
- Quality Assurance and Total Quality Control.
- Importance of quality control lab and research and development lab in food industry.

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UNIT II

- Concept of organoleptic and objective properties: physical, chemical, nutritional, microbial, and sensory evaluation.
- Methods of evaluation in different types of food: manufacturing product, raw materials and testing of finished products.

UNIT III

- Color: Importance and need of color determination, methods of color determination with Hunter Colorlab, CIE system and their applications.
- Flavor: Importance of flavor, food flavors and flavors, measurement of food flavors. Texture: Food texture, working of texture measuring instruments such as Texture Analyzer.

UNIT IV

- Food safety and Quality Control: Quality assurance from farm to table, GHP, GMP, GAP, TQM, HACCP and SOP.

UNIT V

- Food standards and laws: Codex alimentarius, FSSAI, ISO 9000, ISO 22000, ISO 14000. Introduction of BIS/IS, FSSA, FSSC, FPO, MPO, MMPO and Agmark.

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Suggested Readings:

- Mathur, P. (2018). *Food Safety and Quality Control*. India: The Orient Black Swan.
- Amihud K. and Bernard T. (2017). *Quality Control for the Food Industry - Fundamentals & Applications*. New Delhi: MEDTEC publisher.
- Prabhakar, K. (2017). *A Practical Guide to Food Laws and Regulations*. India: Bloomsbury India.
- Bhatia, R. and Ichhpujan, R. L. (2014). *Quality Assurance*. New Delhi: CBS Publication.
- Philip, A.C. (2011). *Reconceptualizing Quality*. Bangalore: New Age International, Publishers

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FSN604	IV	Nutritional Counseling	60	20	20	0	0	3	0	0	3

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Course Educational Objectives (CEOs): The students will

- **CEO1:** understand the influence of counseling on disease management and identify 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.

MFSN 402: 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.

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UNIT IV

Dietary counseling through the life span:

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

UNIT II

- Basics of Communication: Meaning, forms and methods of Communication.
- Characteristic and barriers 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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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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