

**VANITA VISHRAM WOMEN'S UNIVERSITY  
SCHOOL OF SCIENCE AND TECHNOLOGY  
FACULTY OF SCIENCE  
DEPARTMENT OF FOOD AND NUTRITION**

**MASTERS IN NUTRITION AND DIETETICS**



**VANITA VISHRAM  
WOMEN'S UNIVERSITY**  
— SURAT —

**Under Learning Outcomes-based Curriculum Framework  
(LOCF) for Post Graduate (PG) Education**

**SEMESTER II  
Core Courses (CC)**

*Syllabus applicable to the students seeking admission in the  
following program*

**MASTERS IN NUTRITION AND DIETETICS under LOCF  
w.e.f. the Academic Year 2024-2025**

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## **1. PREAMBLE – VVWU**

Vanita Vishram Women's University (VVWU) is the First-ever Women's University of Gujarat approved by the Government of Gujarat under the provisions of the Gujarat Private Universities Act, 2009. It is a University committed to achieve Women's Empowerment through Quality Education, Skill Development, and by providing employment opportunities to its girl students through its model curriculum, integration of technology in pedagogy and best-in-class infrastructure. The focus is on prioritizing practical component and experiential learning supported through academia-industry linkages, functional MoUs, skill development training, internships etc. It aims at providing opportunities to the girl students for holistic development and self-reliance.

### **VISION**

Empowerment of women through quality education and skill development, so as to make them strong pillars of stability in the society.

### **MISSION**

To provide Education & Professional Training to all women for their all-round development, so as to enable them to become economically independent and socially empowered citizens.

## **2. INTRODUCTION OF THE PROGRAM**

The program on Masters in Nutrition and Dietetics focuses on facilitating students to understand the concepts of Diet and Nutrition to further contribute as nutritionists. They need to apply knowledge drawn from relevant sciences to promote an understanding of the effects of nutrition on growth, development, and well-being. It is further strengthened with project work and internships in the food industry, hospitals & public nutrition area. A component of Research is the feature that makes the student think in an innovative manner and thus apply the skills in active research.

## **3. PROGRAM SPECIFIC OBJECTIVES (PSOs)**

- Introduce the students to the advanced aspects of Nutrition Science and Dietetics.
- Make them understand the role as a Nutritionist or a dietitian in preventive and therapeutic aspects of Health care management.
- Develop skills wherein they understand the role of various foods, nutrients they provide and imply innovative methods in food product development.
- Create awareness among them about the current and future trends in the industry and help to determine food safety and entrepreneurship.
- Create awareness about the need for Nutrition in Community emphasizing the role of Public Health Nutrition.

## **4. PROGRAMME SPECIFIC OUTCOMES (PSOs)**

- Students will be equipped with the advanced skills and knowledge that are essential for functioning in the field of Nutrition and Dietetics.
- They will develop professional behavior and competencies in handling hospital setups, counseling, and food handling.
- They will also develop a scientific outlook towards the research in this field and do active research.
- Students will be able to guide and counsel the people in the community, thereby helping in prevention of nutrient deficiencies.
- They will develop competencies that will enable them to focus on various startups, government or non-government organizations.

## 5. STRUCTURE OF THE PROGRAM

Masters in Nutrition and Dietetics - Structure & Distribution of Courses													
Courses	Theory (Credits)	Practical (Credits)	Courses	Theory (Credits)	Practical (Credits)	Courses	Theory (Credits)	Practical (Credits)	Courses	Theory (Credits)	Practical (Credits)	Total Theory & Practical Credits	Total yearly Credits
SEM I			SEM II			SEM III			SEM IV				
FN21210 Human Physiology	4	-	FN21270 Micronutrients	4	-	FN21330- Research Methodology and Biostatistics	4	-	FN21380- Public Health Nutrition	4	-	56 + 40	96
FN21220 Nutritional Biochemistry	4	-	FN21280 Food Safety and Toxicology	4	-	FN21340- Family Meal Management	4	-	FN24050- Nutrigenomics FN24060- Enteral and Parenteral Nutrition	4	-		
FN21230 Therapeutic Nutrition I	4	-	FN21290 Sports Nutrition	4	-	FN21350- Food Microbiology	4	-	FN21390- Recent Advances	-	4		
FN21240 Macronutrients	4	-	FN21300 Therapeutic Nutrition II	4	-	FN24010- Alternate Therapies/ FN24020- Pathology and Pharmacology	4	-	FN21400- Dissertation	-	12		
FN21250 Therapeutic Nutrition I (Pr)	-	4	FN21310 Therapeutic Nutrition II (Pr)	-	4	FN21360- Food Analysis	-	4					
FN21260 Innovations in Food Product Development (Pr)	-	4	FN21320 Dietetic Techniques and Internship (Pr)	-	4	FN21370- Project Work	-	4					
	<b>16</b>	<b>08</b>		<b>16</b>	<b>08</b>		<b>16</b>	<b>08</b>		<b>08</b>	<b>16</b>		

## 6. Course Structure

Semester	Course Category	Course Code	Subject Name	Credit	Total Credit
I	CC	FN21210	Human Physiology (Th)	4	24
	CC	FN21220	Nutritional Biochemistry (Th)	4	
	CC	FN21230	Therapeutic Nutrition I (Th)	4	
	CC	FN21240	Macronutrients (Th)	4	
	CC	FN21250	Therapeutic Nutrition I (Pr)	4	
	CC	FN21260	Innovations in Food Product Development (Pr)	4	
II	CC	FN21270	Micronutrients (Th)	4	24
	CC	FN21280	Food Safety and Toxicology (Th)	4	
	CC	FN21290	Sports Nutrition (Th)	4	
	CC	FN21300	Therapeutic Nutrition II (Th)	4	
	CC	FN21310	Therapeutic Nutrition II (Pr)	4	
	CC	FN21320	Dietetic Techniques and Internship (Pr)	4	
III	CC	FN21330	Research Methodology and Biostatistics (Th)	4	24
	CC	FN21340	Family Meal Management (Th)	4	
	CC	FN21350	Food Microbiology (Th)	4	
	DSE 1	FN24010	Alternate Therapies (Th)	4	
		FN24020	Pathology and Pharmacology (Th)		
	CC	FN21360	Food Analysis (Pr)	4	
CC	FN21370	Project Work (Pr)	4		
IV	CC	FN21380	Public Health Nutrition (Th)	4	24
	DSE 2	FN24050	Nutrigenomics (Th)	4	
		FN24060	Enteral and parenteral Nutrition (Th)		
	CC	FN21390	Recent Advances in Nutrition (Pr)	4	
CC	FN21400	Dissertation (Pr)	12		

## MASTER IN NUTRITION AND DIETETICS

**SEMESTER II  
CORE COURSE**

<b>FN21270- MICRONUTRIENTS (Th)</b>	
<b>Course Objectives</b>	
This course will enable students to	
<ol style="list-style-type: none"> <li>1. To understand the fundamentals of the science of nutrition.</li> <li>2. To understand the underlying biological, chemical, &amp; regulatory mechanism.</li> <li>3. To understand contemporary issues in the context of current scientific knowledge.</li> <li>4. To understand the interrelationship between Nutrients.</li> <li>5. To understand the latest developments in Human Nutrition.</li> </ol>	
<b>Course Outcome:</b> This course will help to get in-depth knowledge about various micronutrients, their functions, sources, deficiency, and the effect of excess.	
<b>FN21270- MICRONUTRIENTS THEORY COURSE CONTENTS (4 CREDIT)</b>	
<b>S.No.</b>	<b>STRUCTURE</b>
<b>Unit 1</b>	<b>Fat-Soluble vitamins- A, D, E, K</b> Structure, sources, absorption, transport, utilization, storage, excretion, functions, RDA, deficiency, toxicity, assessment of status.
<b>Unit 2</b>	<b>Water-Soluble Vitamins- B Complex and C</b> Structure, sources, absorption, transport, utilization, storage, excretion, functions, RDA, deficiency, toxicity, assessment of the status
<b>Unit 3</b>	<b>Macro Minerals: (Calcium, Phosphorus, Magnesium, Chloride, Potassium, Sodium and Sulfur)</b> Structure, sources, absorption, transport, utilization, storage, excretion, functions, bioavailability, requirements and RDA, deficiency, toxicity, assessment of the status
<b>Unit 4</b>	<b>Micro Minerals : ( Iron, Zinc, Copper, Iodine, Fluoride, Chromium, Cobalt, Selenium, Manganese, and Molybdenum)</b> Structure, sources, absorption, transport, utilization, storage, excretion, functions, bioavailability, requirements and RDA, deficiency, toxicity, assessment of the status
<b>REFERENCE</b>	
<ol style="list-style-type: none"> <li>1. Mahan, L.K. and Escott-Stump, S. (2000): Krause's Food Nutrition and Diet Therapy, 10<sup>th</sup> Edition, W.B. Saunders Ltd.</li> <li>2. Shils, M.E Olson, J.A Shike, M. and Ross, A.C. (1999): Modern Nutrition in Health and Disease, 9<sup>th</sup> Edition, Williams and Wilkins.</li> <li>3. Garrow, J.S., James, W.P.T. and Ralph, A. (2000): Human Nutrition and Dietetics, 10<sup>th</sup> Edition, Churchill Livingstone.</li> <li>4. Helen Guthrie: Introductory Nutrition, Times Mirror Publishing</li> <li>5. M. Swaminathan, 2014: Advanced Text book on Food and Nutrition Vol.-I &amp; Vol. – II</li> <li>6. Mahtab S.Bamji, Prahlad rao.N &amp; Vinodini reddy, 2003. Textbook of Human Nutrition, Oxford &amp; IBH Publishing Co. Pvt Ltd.</li> </ol>	
<b>TEACHING METHODOLOGY</b>	
<ul style="list-style-type: none"> <li>● Chalk and talk method</li> <li>● PowerPoint presentations</li> <li>● Videos and Posters</li> <li>● Quiz and Debates</li> </ul>	

**MASTER IN NUTRITION AND DIETETICS**  
**SEMESTER II**  
**CORE COURSE**

<b>FN21280- FOOD SAFETY AND TOXICOLOGY (Th)</b>	
<b>Course Objectives</b> This course will enable students to	
<ol style="list-style-type: none"> <li>1. To gain deeper knowledge of the role of microorganisms in humans and the environment.</li> <li>2. Understand the importance of micro-organism in food spoilage</li> <li>3. Understand the latest procedures adopted to prevent food-borne disorders and legal aspects involved in these areas.</li> </ol>	
<b>Course Outcome:</b> This will help the students to understand about food safety, various microorganisms causing food spoilage and its prevention.	
<b>FN21280-FOOD SAFETY AND TOXICOLOGY</b> <b>THEORY COURSE CONTENTS (4 CREDIT)</b>	
<b>S.No.</b>	<b>STRUCTURE</b>
<b>Unit 1</b>	<b>Food Microbiology- An Introduction</b> <ul style="list-style-type: none"> <li>● Microorganisms in food</li> <li>● Effect of intrinsic and extrinsic factors affecting the growth of microorganisms in food</li> <li>● Role of microorganism in fermented products</li> </ul>
<b>Unit 2</b>	<b>Food Safety- Basic concept</b> <ul style="list-style-type: none"> <li>● Importance of Safe Food</li> <li>● Factors affecting food safety- physical, chemical and biological hazards</li> <li>● Recent concerns of Food safety</li> </ul>
<b>Unit 3</b>	<b>Occurance of microorganism in food</b> <ul style="list-style-type: none"> <li>● Sources of Food contamination</li> <li>● Food contaminants of natural origin</li> <li>● Physical and chemical methods used in the destruction of microorganisms</li> <li>● Public health hazards due to contaminated foods</li> </ul>
<b>Unit 4</b>	<b>Food borne diseases</b> <ul style="list-style-type: none"> <li>● Food borne Intoxications</li> <li>● Food borne Infections</li> <li>● Food borne Toxic infections</li> <li>● Naturally occurring toxicants</li> </ul>
<b>Unit 5</b>	<b>Hygiene and Sanitation in food service establishment</b> <ul style="list-style-type: none"> <li>● Personal hygiene in food service establishment</li> <li>● Sanitation in food service establishment <ul style="list-style-type: none"> <li>○ Cleaning agents, Disinfectants, sanitizers used on working surfaces, hand washing etc.</li> </ul> </li> <li>● Street Food safety</li> </ul>
<b>Unit 6</b>	<b>Food Acts and Standards</b> <ul style="list-style-type: none"> <li>● PFA, FPO, Agmark, Codex Alimentarius, FSSAI</li> </ul>
<b>Unit 7</b>	<b>Food safety assurance</b> <ul style="list-style-type: none"> <li>● HACCP, definition, Principles, guidelines and benefits of HACCP</li> </ul>
<b>REFERENCES</b>	



1. Frazier, W.C. and Westhoff, D.C. (2003) Food Microbiology. 18th Edition, Tata McGraw Hill, Inc., New York.
2. Jay, James, M.(2000) : Modern Food Microbiology, 6th Edition, Aspen Publishers Inc. Maryland.
3. Duffus, J.H. and Worth, H.G. J. - Fundamental Toxicology; The Royal Society of Chemistry 2006.
4. Stine, K.E. and Brown, T.M. - Principles of Toxicology (2nd ed.); CRC Press 2006.
5. Richard H. Stadler and David R. Lineback - Process-Induced Food Toxicants; Wiley, 2009.

**TEACHING METHODOLOGY**

- Powerpoint presentations
- Videos
- Chalk and talk method
- Group discussions
- Quiz

**MASTER IN NUTRITION AND DIETETICS**  
**SEMESTER II**  
**CORE COURSE**

<b>FN21290- SPORTS NUTRITION (Th)</b>	
<b>Course Objectives</b>	
This course will enable students to	
<ol style="list-style-type: none"> <li>1. To Develop an understanding of human physiology during exercise regimes.</li> <li>2. To understand various aspects of health and fitness</li> <li>3. To adopt a holistic approach towards health management and disease prevention.</li> <li>4. To develop the ability to provide guidance on a healthy diet, exercise &amp; lifestyle modifications for disease prevention and management.</li> </ol>	
<b>Course Outcome:</b> This course will enable the students to understand the body's response to exercise and its implications for various preventive and therapeutic conditions.	
<b>FN21290-SPORTS NUTRITION THEORY COURSE CONTENT (4 CREDIT)</b>	
S.No.	STRUCTURE
<b>Unit 1</b>	<b>Concepts of Sports Nutrition</b> <ul style="list-style-type: none"> <li>● Introduction to Exercise, Nutrition, and Fitness</li> <li>● Benefits of Physical Activity and Exercise</li> <li>● Types of Exercises</li> <li>● Intensity of Exercise</li> <li>● Physical activity guidelines for Indians</li> <li>● Safety concerns in Exercise and Physical activity</li> </ul>
<b>Unit 2</b>	<b>Exercise Physiology-</b> Exercise and its effects on <ul style="list-style-type: none"> <li>● Cardiovascular system</li> <li>● Respiratory system</li> <li>● Digestive system</li> <li>● Urinary system</li> <li>● Endocrine system</li> <li>● Nervous system</li> <li>● Muscular system</li> </ul>
<b>Unit 3</b>	<b>Principles of Nutrition in Sports</b> <ul style="list-style-type: none"> <li>● Energy</li> <li>● Carbohydrates</li> <li>● Fat</li> <li>● Protein</li> <li>● Vitamins</li> <li>● Minerals</li> <li>● Fluid and electrolyte balance</li> </ul>
<b>Unit 4</b>	<b>Nutrient timing and Carbohydrate Loading</b> <ul style="list-style-type: none"> <li>● Importance of Nutrient timing</li> <li>● Carbohydrate loading</li> <li>● Eating to competing</li> <li>● Sports drinks, gels, bars</li> <li>● Ergogenic aids and supplementation</li> </ul>

**REFERENCES**

1. McArdle, William D; (2010): Exercise Physiology, Lippincott, William and Wilkins, Philadelphia.
2. Sharkey, Brian J and Gaskill, Steven E. (2007): Fitness and Health; 6th Edition; Human Kinetics.
3. Driskell, J. A., & Wolinsky, I. (Eds.). (2016). Nutritional assessment of athletes. CRC press.
4. Eston, R., & Reilly, T. (Eds.). (2013). Kinanthropometry and exercise physiology laboratory manual: tests, procedures and data: volume II.
5. ACSM's Health-Related Physical Fitness Assessment Manual. 4. H Aile, L., Agher Jr, G. A., Ael, M., & J Robertson, R. (2016). Perceived exertion laboratory manual. Springer New York.
6. Heyward, V. H., & Gibson, A. (2014). Advanced fitness assessment and exercise prescription 7th edition. Human kinetics.

**TEACHING METHODOLOGY**

- Powerpoint presentations
- Videos
- Chalk and talk method
- Guest Lectures
- Group discussions
- Quiz and Debate
- Field visits
- Exhibition

**MASTER IN NUTRITION AND DIETETICS**  
**SEMESTER II**  
**CORE COURSE**

<b>FN212300 - THERAPEUTIC NUTRITION II (Th)</b>	
<b>Course Objectives</b> This course will enable students to	
<ol style="list-style-type: none"> <li>1. Understand the basic principles of diet therapy</li> <li>2. Be aware of the physiological changes associated with specific diseases.</li> <li>3. Understand the relationship between dietary modifications and physiological changes observed in specific disease conditions.</li> <li>4. To assess nutritional status of patients.</li> <li>5. Acquire the ability to modify the normal diet to suit individuals suffering from specific diseases</li> </ol>	
<b>Course Outcome:</b> This course will help the students to understand various diseases, their etiology, RDA, symptoms and dietary principles of various diseases.	
<b>FN212300 - THERAPEUTIC NUTRITION II THEORY COURSE CONTENTS (4 CREDIT)</b>	
S.No	STRUCTURE
<b>Unit 1</b>	<b>Prevention of Nutritional Deficiencies</b> <ul style="list-style-type: none"> <li>● Dietary management of Micronutrient Deficiencies- Vitamin A, Vitamin D, Vitamin C, Vitamin B12, Iron, Calcium</li> </ul>
<b>Unit 2</b>	<b>Nutrition in G.I. Tract Disorders</b> Pathophysiology and Dietary management in <ul style="list-style-type: none"> <li>● Disorders of esophagus</li> <li>● Disorders of stomach</li> <li>● Disorders of small intestine</li> <li>● Disorders of large intestine</li> <li>● Malabsorption syndrome</li> </ul>
<b>Unit 3</b>	<b>Nutrition in Liver, Pancreas and Biliary System disorders</b> Pathophysiology and Dietary management in <ul style="list-style-type: none"> <li>● Viral Hepatitis, Cirrhosis of Liver, Hepatic Encephalopathy, Wilson’s disease.</li> <li>● Pancreatitis, Zollinger- Ellison Syndrome.</li> <li>● Cholelithiasis, Cholecystitis, Cholecystectomy</li> </ul>
<b>Unit 4</b>	<b>Nutrition in Renal Disorders</b> <ul style="list-style-type: none"> <li>● Classification of Kidney Diseases</li> <li>● Pathophysiology and Dietary management in               <ul style="list-style-type: none"> <li>● Renal calculi</li> <li>● Glomerulonephritis – Acute and Chronic</li> <li>● Nephrotic syndrome</li> <li>● Acute renal failure</li> <li>● Chronic renal failure</li> <li>● ESRD</li> <li>● Dialysis</li> </ul> </li> </ul>
<b>Unit 5</b>	<b>Nutrition in Stress and Trauma</b> Pathophysiology and Dietary management in <ul style="list-style-type: none"> <li>● Burns</li> <li>● Surgery &amp; SIRS/MODS</li> </ul>
<b>Unit 6</b>	<b>Food Allergy</b> <ul style="list-style-type: none"> <li>● Definitions, symptoms, Mechanism of food allergy</li> <li>● Diagnosis – History, Food record, Biochemical and immune-testing</li> <li>● Elimination diet</li> </ul>

<b>Unit 7</b>	<b>Nutrition in Cancer/HIV/AIDS</b> Types, symptoms, detection, Cancer therapies and treatment – side effects and nutritional implications
<b>REFERENCES</b> <ol style="list-style-type: none"> <li>1. Mahan, L.K. and Escott-Stump, S. (2000): Krause’s Food Nutrition and Diet Therapy, 10<sup>th</sup> Edition, W.B. Saunders Ltd.</li> <li>2. Shils, M.E., Olson, J.A., Shike, M. and Ross, A.C. (1999): Modern Nutrition in Health and Disease, 9<sup>th</sup> Edition, Williams and Wilkins.</li> <li>3. Escott-Stump, S. (1998): Nutrition and Diagnosis Related Care, 4<sup>th</sup> Edition, Williams and Wilkins.</li> <li>4. Khanna K., Gupta S., Passi SJ, Seth R, Puri S. (2013): Textbook of Nutrition and Dietetics, 2nd Edition, Elite Publishing House.</li> <li>5. MFN-005: Clinical and Therapeutic Nutrition, IGNOU Study Guide Book.</li> <li>6. B Srilakshmi. February 1, 2014: Dietetics, 7th Edition, New Age International Publisher.</li> </ol>	
<b>TEACHING METHODOLOGY</b> <ul style="list-style-type: none"> <li>● Powerpoint presentations</li> <li>● Videos</li> <li>● Chalk and talk method</li> <li>● Guest Lectures</li> <li>● Group discussions</li> <li>● Quiz and Debate</li> </ul>	

**MASTER IN NUTRITION AND DIETETICS**  
**SEMESTER II**  
**CORE COURSE**

<b>FN212310 - THERAPEUTIC NUTRITION II (Pr)</b>	
<b>Course Objectives</b> This course will enable students to	
<ol style="list-style-type: none"> <li>1. Prescribe diets and counsel patients to provide appropriate therapeutic nutritional care and counseling.</li> <li>2. To understand the basic principles of Diet planning.</li> <li>3. To plan various diets according to the requirements and disease conditions.</li> </ol>	
<b>Course Outcome:</b> To help students develop the ability to prepare and present research papers.	
<b>FN212310-THERAPEUTIC NUTRITION II</b> <b>PRACTICAL COURSE CONTENTS (4 CREDIT)</b>	
<b>S.No</b>	<b>STRUCTURE</b>
<b>Practical 1</b>	<b>Dietary management of Micronutrient Deficiencies</b> <ul style="list-style-type: none"> <li>● Prevention and treatment of Deficiency disorders</li> <li>● Market Survey of Functional foods and Supplements</li> </ul>
<b>Practical 2</b>	<b>Dietary Management for GI Disorders</b> <ul style="list-style-type: none"> <li>● Peptic ulcer</li> <li>● Ulcerative colitis</li> </ul>
<b>Practical 3</b>	<b>Dietary Management for Liver disorders</b> <ul style="list-style-type: none"> <li>● Hepatic encephalopathy</li> <li>● Cholelithiasis</li> </ul>
<b>Practical 4</b>	<b>Protein Modifications and Mineral Modifications in Renal Disease.</b> ● Nephrolithiasis <ul style="list-style-type: none"> <li>● Glomerulonephritis – Acute and Chronic</li> <li>● Nephrotic Syndrome</li> <li>● Renal Failure – Acute and Chronic</li> <li>● Dialysis</li> </ul> <b>Use of Sodium and Potassium Exchange lists in Renal</b>
<b>Practical 5</b>	<b>Elimination diets for Allergy</b>
<b>REFERENCES</b>	
<ol style="list-style-type: none"> <li>1. Mahan, L.K. and Escott-Stump, S. (2000): Krause’s Food Nutrition and Diet Therapy, 10<sup>th</sup> Edition, W.B. Saunders Ltd.</li> <li>2. Indian Food Composition Tables. T. Longvah, Irājacin̄kam An̄antaṅ, K. Bhaskarachary, K. Venkaiah · 2017. National Institute of Nutrition, Indian Council of Medical Research.</li> </ol>	
<b>TEACHING METHODOLOGY</b>	
<ul style="list-style-type: none"> <li>● Powerpoint presentations</li> <li>● Videos</li> <li>● Chalk and talk method</li> <li>● Guest Lectures</li> <li>● Group discussions</li> <li>● Quiz and Debate</li> </ul>	

**MASTER IN NUTRITION AND DIETETICS**  
**SEMESTER II**  
**CORE COURSE**

<b>FN212320 - DIETETICS TECHNIQUES AND INTERNSHIP (Pr)</b>	
<b>Course Objectives</b> This course will enable students to	
<ol style="list-style-type: none"> <li>1. Understand the principles and procedures of nutrition counseling and the role of the counselor.</li> <li>2. Develop an understanding how: (a) lifestyles influence health and well-being; (b) acute and chronic disease affects the emotional and psychological state and the behavior of the individuals.</li> <li>3. Be familiar with various techniques used in counseling.</li> <li>4. Be able to use various types and techniques of counseling to motivate patients to achieve well-being.</li> <li>5. To give students practical experience in the Hospital set up/organization /Industry.</li> <li>6. To help students to develop insight for a profession.</li> </ol>	
<b>Course Outcome:</b> The students will understand the methods of counseling and develop the skills of dealing with patients as well as explore possible career options to make them self-reliant.	
<b>FN212320-DIETETICS TECHNIQUES AND INTERNSHIP PRACTICAL COURSE CONTENTS (4 CREDIT)</b>	
S.No	STRUCTURE
<b>Practical 1</b>	<b>Counselor and Counselee</b> <ul style="list-style-type: none"> <li>● Counseling – Definition, Expectations, goals, scope and limits.</li> <li>● Counselor – Characteristics of an effective counselor</li> <li>● The Client – Characteristics, expectations</li> </ul>
<b>Practical 2</b>	<b>The Counseling Process</b> <ul style="list-style-type: none"> <li>● Interviewing skills- Clinical Information, Medical History and General Profile, Dietary Diagnosis,• Assessing food and nutrient intakes,• Lifestyles, physical activity, stress</li> <li>● Counseling skills- Assessment of Nutritional Status, Correlating relevant information and identifying areas of need</li> </ul>
<b>Practical 3</b>	<b>Counseling techniques</b> <ul style="list-style-type: none"> <li>● Communication skills</li> <li>● Rapport building and opening techniques</li> <li>● Questioning, listening, reflecting, acceptance, silence, leading reassurance, non-verbal behavior, terminating skills.</li> </ul>
<b>Practical 4</b>	<b>Body Language</b> <ul style="list-style-type: none"> <li>● Basics of Body Language</li> <li>● Territories and zones</li> <li>● Positive and negative body language</li> <li>● Etiquettes</li> </ul>
<b>Practical 5</b>	<b>Marketing skills</b> Internship in Hospital under the supervision of dietitian for 270 hours
<b>References:</b>	
<ol style="list-style-type: none"> <li>1. Gable, J. (2007): Counselling Skills for Dietitians, 2nd Edition, Blackwell Science.</li> <li>2. Holli, B.B. and Calabrese, R.J. (2009): Communication and Education Skills for Dietetics Professionals. 5th Edition, Lippin Cott Williams &amp; Wilkins, New York.</li> <li>3. Linda G. Snetselaar (2009): Nutrition Counseling Skills for the Nutrition Care Process, 4th edition, Jones and Bartlett Publishers, LLC.</li> <li>4. Bradley, C. (1990). Psychology and Diabetes: Psychosocial factors in management and control, by R W Shillitoe, London, Chapman and Hall. British Journal of Medical Psychology.</li> </ol>	