

Planning and Quality Assurance Affairs

Form (A)

Course Specifications

General Information

Course name	Clinical Nutrition
Course number	MDCN2228
Faculty	
Department	
Course type	Major Needs
Course level	2
Credit hours (theoretical)	2
Credit hours (practical)	0
Course Prerequisites	

Course Objectives

- 1 - Understand the principles of human nutrition: Students should acquire a comprehensive understanding of the basic principles of human nutrition, including macronutrients (carbohydrates, proteins, and fats) and micronutrients (vitamins and minerals), as well as their roles in maintaining health and preventing diseases
- 2 - Evaluate nutritional needs: Students should be able to assess and evaluate the nutritional needs of individuals across the lifespan, taking into consideration factors such as age, sex, physiological status, and specific health conditions
- 3 - Interpret dietary patterns: Students should learn how to interpret dietary patterns and assess the nutritional adequacy of various diets. This includes understanding the different types of diets (e.g., vegetarian, vegan, Mediterranean) and their potential impacts on health
- 4 - Identify nutritional deficiencies and excesses: Students should be able to identify signs, symptoms, and consequences of nutritional deficiencies and excesses. They should understand the importance of laboratory tests and other diagnostic tools in assessing nutritional status
- 5 - Design and implement therapeutic diets: Students should learn to design and implement appropriate therapeutic diets for individuals with specific health conditions, such as diabetes, cardiovascular disease, renal disease, gastrointestinal disorders, and obesity
- 6 - Consider cultural and social factors: Students should recognize the influence of cultural, social, and economic factors on dietary choices and nutrition-related health outcomes. They should be able to provide culturally sensitive and contextually appropriate nutrition recommendations
- 7 - Assess nutritional interventions: Students should understand the evidence-based approach to evaluating the effectiveness of different nutritional interventions and therapies. They should be able to critically analyze research studies and apply the findings to clinical practice
- 8 - Stay updated with current research and trends: Students should develop the ability to stay updated with the latest research, guidelines, and emerging trends in the field of clinical nutrition. They should be able to critically evaluate new information and incorporate it into their practice
- 9 - Communicate effectively: Students should develop effective communication skills to educate and counsel individuals and groups about nutrition-related topics. They should be able to translate complex scientific concepts into clear and practical recommendations

Intended Learning Outcomes

Knowledge and Understanding	<ul style="list-style-type: none"> * Demonstrate a comprehensive understanding of the fundamental principles of human nutrition, including macronutrients, micronutrients, and their roles in physiological processes * Explain the relationship between nutrition and the prevention, development, and management of various diseases and health conditions * Identify and analyze the nutritional needs of individuals across different life stages and health statuses * Critically evaluate research studies, scientific literature, and evidence-based guidelines related to clinical nutrition * Describe the social, cultural, economic, and environmental factors that influence dietary choices and nutritional status * Cultural Competence: Demonstrate cultural sensitivity and competence in providing nutrition care to individuals from diverse cultural backgrounds, respecting their beliefs, practices, and preferences related to food and health
Intellectual Skills	<ul style="list-style-type: none"> * Problem Solving: Identify and analyze complex nutritional problems and develop appropriate strategies and interventions to address them, taking into consideration individual needs, cultural factors, and health conditions * Analytical Thinking: Apply critical thinking skills to evaluate and interpret scientific literature, research studies, and nutrition-related data, and use evidence-based reasoning to make informed decisions in clinical nutrition practice * Data Interpretation: Demonstrate the ability to collect, analyze, and interpret nutritional data, including dietary assessments, biochemical markers, and anthropometric measurements, to assess nutritional status and guide nutrition interventions * Information Literacy: Access, evaluate, and utilize a wide range of nutrition-related information sources, including scientific journals, databases, and professional guidelines, to stay updated with current research and trends in clinical nutrition * Lifelong Learning: Develop a commitment to lifelong learning by seeking out opportunities for professional development, staying updated with advancements in the field of clinical nutrition, and engaging in continuous self-reflection and improvement
Professional Skills	<ul style="list-style-type: none"> * Patient Counseling: Apply counseling techniques and motivational interviewing skills to effectively educate, empower, and support individuals in making informed nutrition decisions and behavior changes * Interprofessional Collaboration: Collaborate effectively with healthcare professionals from different disciplines, such as physicians, nurses, and dietitians, to provide comprehensive and coordinated patient care that integrates nutrition interventions * Documentation and Record-Keeping: Develop proficiency in maintaining accurate and detailed documentation of nutrition assessments, interventions, and outcomes in compliance with legal and regulatory requirements * Time Management and Organization: Effectively manage time and resources to prioritize and meet the demands of clinical nutrition practice, including timely completion of assessments, documentation, and patient follow-ups * Quality Improvement: Participate in quality improvement initiatives by identifying opportunities for practice improvement, implementing evidence-based changes, and evaluating outcomes to enhance the delivery of nutrition care * Communication: Demonstrate effective communication skills, both written and oral, in conveying nutrition-related information to individuals, groups, and interdisciplinary healthcare teams

General Skill	<ul style="list-style-type: none"> * Nutritional Assessment: Gain competency in conducting comprehensive nutritional assessments, including dietary analysis, medical history review, and physical examination, to identify nutritional needs and develop individualized nutrition care plans * Meal Planning and Modification: Demonstrate the ability to design and modify meal plans that meet the nutritional needs of individuals with specific health conditions, taking into account dietary restrictions, cultural preferences, and individualized goals * Educational Strategies: Develop effective educational strategies and materials to communicate nutrition information and promote behavior change, tailoring approaches to diverse audiences and considering cultural and socioeconomic factors * Technology Utilization: Utilize technology tools and software, such as nutrition analysis software, electronic health records, and mobile applications, to support nutrition assessment, monitoring, and communication in clinical practice * Problem-Solving and Decision-Making: Apply problem-solving skills and evidence-based decision-making approaches to address complex nutrition-related challenges and develop appropriate nutrition interventions for individuals with diverse needs and health conditions
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Course Contents

<ol style="list-style-type: none"> 1 - Introduction to Clinical Nutrition 2 - Macronutrients 3 - Micronutrients 4 - Nutrition through the Life Cycle 5 - Nutrition and Chronic Diseases 6 - Nutrition and Gastrointestinal Disorders 7 - Renal and Metabolic Disorders 8 - Nutrition Support 9 - Nutritional Counseling and Behavior Change 10 - Nutritional Epidemiology and Research 11 - Specialized Diets and Cultural Considerations
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Teaching and Learning Methods

<ol style="list-style-type: none"> 1 - Lectures 2 - Interactive Discussions 3 - Case Studies 4 - Practical Demonstrations 5 - Clinical Placements or Internships 6 - Group Projects 7 - Simulation Activities 8 - Guest Speakers 9 - Online Learning Platforms 10 - Laboratory Sessions

Students Assessment

<u>Assessment Method</u>	<u>TIME</u>	<u>MARKS</u>
First exam	6th week	20
attendance	At the end of the course	10
Research	8th week	20
Final exam	At the end of the course	50

Books and References

Essential books	Nutrition in Clinical Practice by David L. Katz, Rachel S.C. Friedman, and Sean C. Lucan
Recommended books	Nutrition and Diagnosis-Related Care by Sylvia Escott-Stump, Lillian K. Mahan, and Kathleen M. Raymond Krauses Food & the Nutrition Care Process by L. Kathleen Mahan and Janice L. Raymond
Other References (Periodical, web sites, etc.)	Academy of Nutrition and Dietetics (AND) - www.eatright.org American Society for Parenteral and Enteral Nutrition (ASPEN) - www.nutritioncare.org