**Course Description**

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| **Faculty** | **Pharmacy** | | | | | | |
| **Department** | **Clinical Pharmacy** | | | **Level** | | |  |
| **Course** | **Clinical Nutrition** | **Code** | **1702407** | **Prerequisite** | | |  |
| **Credit hours** | 2 | **Theoretical** | 2 | **Practical** | | |  |
| **Coordinator** | Dr. Rasha Hussein | **Email** |  | | | | |
| **Teachers** |  | **Emails** |  | | | | |
| **Lecture Time** |  | **Place** |  | | **Attendance mode** |  | |
| **Semester** |  | **Preparation date** |  | | **Modification Date** |  | |

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| **Abstracted Course Description** |
| Basic principles of clinical nutrition during both normal and diseased conditions. Obesity and its relation with physical exercises, home parenteral nutrition, food-induced allergy, special nutrition for disease states, and the diagnosis of diseases related to vitamins and minerals deficiency. |
| **Course Goals** |
| * To understand the basic principles of clinical nutrition. * To explore the relationship between obesity and physical exercises. * To comprehend the concept of home parenteral nutrition. * To examine the impact of food-induced allergies on nutrition. * To understand specialized nutrition for different disease states. * To diagnose diseases related to deficiencies in vitamins and minerals. |

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| **CILOs** |
| **Knowledge** |
| a1. Demonstrate understanding of fundamental principles of clinical nutrition.  a2. Explain the relationship between obesity and physical exercises.  a3. Comprehend the concept of home parenteral nutrition.  a4. Analyze the impact of food-induced allergies on nutrition.  a5. Understand the principles of specialized nutrition for different disease states.  a6. Identify and diagnose diseases related to deficiencies in vitamins and minerals. |
| **Skills** |
| b1. Apply knowledge of clinical nutrition principles to real-world scenarios.  b2. Evaluate the role of physical exercises in managing obesity.  b3. Develop plans for home parenteral nutrition.  b4. Analyze and manage nutrition in the presence of food-induced allergies.  b5. Formulate specialized nutrition plans for specific disease states.  b6. Utilize diagnostic tools to identify diseases related to nutrient deficiencies. |
| **Competencies** |
| c1. Apply clinical nutrition principles in promoting health and preventing diseases.  c2. Demonstrate the ability to manage nutrition in obesity through exercise.  c3. Implement home parenteral nutrition effectively.  c4. Manage nutrition in the presence of food-induced allergies.  c5. Develop and implement specialized nutrition plans for various disease states.  c6. Utilize diagnostic skills to identify and address diseases related to nutrient deficiencies. |
| **Learning Methods** |
| * Lectures on clinical nutrition principles and their applications. * Case studies exploring real-world scenarios in nutrition management. * Practical exercises on developing nutrition plans. |
| **Evaluation Tools** |
| Quizzes, Midterm exam, Final Exam |

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| **Week** | **Topics** | **Learning methods** | **Evaluation tool** | ILOs | **hours** |
| **1.** | Introduction | Practical exercises | Midterm exam | A1,2b1 | **2** |
| **2.** | Food Groups | Case studies | A3,2 | **2** |
| **3.** | Nutritional Facts and Claims | Lectures | A3 | **2** |
| **4.** | Vegetarian and Mediterranean Diet | Practical exercises | A4 | **2** |
| **5.** | Dietary Reference Intakes (DRIs) | Case studies | B1,2 | **2** |
| **6.** | Diet Planning Principles | Lectures | C3,c2 | **2** |
| **7.** | Energy Balance | Practical exercises | C3,2b4 | **2** |
| **8.** | Midterm Exam | Case studies |  | A1,4,3 | **2** |
| **9.** | Respiratory Quotient (RQ) | Lectures |  | A3,2 | **2** |
| **10.** | BEE Estimation and TER Calculation | Practical exercises | Quizzes | B3,2 | **2** |
| **11.** | Basic Clinical Nutrition Calculation | Case studies | C3,4**,5** | **2** |
| **12.** | Anthropometrics and Body Morphology | Lectures | A1b5 | **2** |
| **13.** | Weight Loss Concepts | Practical exercises | A2,b6 | **2** |
| **14.** | Eating Disorders | Case studies | B1,2 | **2** |
| **15.** | Final Exam |  |  |  | **2** |
| **16.** |  |  |  | ILOs | **2** |

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| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Plan of Course Evaluation** | | | | | | | | | | **Evaluation Tools** | | **Mark** | **ILOs** | | | | | | |  | | | | | | | **First Exam (Mid-term)** | |  |  |  |  |  |  |  | |  | |  | **A1** | **B2** | **A3,4** | **C2,3,5** |  |  | | **Final Exam** | |  |  |  |  |  |  |  | | **Activities** | |  |  | | | | | | | **Activities Evaluation** | Homework/Tasks |  |  |  |  |  |  |  | | Case Study |  |  |  |  |  |  |  | | Discussion and Interactions |  |  |  |  |  |  |  | | Group Activities |  |  |  |  |  |  |  | | Laboratory Exams |  |  |  |  |  |  |  | | Presentations |  |  |  |  |  |  |  | | Quizzes |  |  |  | **A2,3** | **B2** | **A3,4** |  | | Others |  |  |  |  |  |  |  | | **Total** | |  |  |  |  |  |  |  |   **Components** | |
| **Book** |  |
| **References** |  |
| **Recommended Readings** |  |
| **Electronic materials** |  |
| **Other websites** |  |