**Course Description Form**

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| 1. Course Name: | | | | | | | |
| Clinical Chemistry | | | | | | | |
| 1. Course Code: | | | | | | | |
| 560 ClCc | | | | | | | |
| 1. Semester / Year**:** | | | | | | | |
| First/ Fifth | | | | | | | |
| 1. Description Preparation Date: | | | | | | | |
| 29/2/2024 | | | | | | | |
| 1. Available Attendance Forms: | | | | | | | |
| In-person attendance | | | | | | | |
| 1. Number of Credit Hours (Total) / Number of Units (Total) | | | | | | | |
| 5/4 | | | | | | | |
| 1. Course administrator's name (mention all, if more than one name) | | | | | | | |
| Prof. Dr. Shatha Hussein Ali  shathahali@copharm.uobaghdad.edu.iq  Prof. Dr. Eman Saadi Saleh  emansaadi@copharm.uobaghdad.edu.iq  Dr. Zahraa Mohammed Ali  zahraa.naji@copharm.uobaghdad.edu.iq | | | | | | | |
| 1. Course Objectives | | | | | | | |
| **Course Objectives** | | | * Providing students with the necessary theoretical knowledge and technical skills in the field of clinical chemistry. * Understanding the role of clinical chemistry in health and disease in various body systems. * Discuss the alteration in the normal metabolic pathways and the causes of these alterations that underlie various diseases. * Interpreting the results of biochemistry analyses that augment the clinical examination to achieve definite diagnosis of the disease. | | | | |
| 1. Teaching and Learning Strategies | | | | | | | |
| **Strategy** | | | * Presentation and recitation * Reading & research * Interactive discussions * Brainstorming | | | | |
| 1. Course Structure | | | | | | | |
| **Week** | **Hours** | **Required Learning Outcomes** | | | **Unit or subject name** | **Learning method** | **Evaluation method** |
| 1 and 2 | 6 | Understanding the abnormalities in the metabolism of glucose and related disorders and the laboratory assessment | | | Carbohydrates disorders | Lectures, discussions, and reports | Theoretical exam, and classroom activities |
| 3 | 3 | Understanding the abnormalities in the metabolism of lipids and the laboratory assessment | | | Lipids disorders | = | = |
| 4 | 3 | Understanding of the metabolic, synthetic and excretory functions of the liver and the related disorders; and the laboratory assessment of liver functions | | | Liver function tests | = | = |
| 5 | 3 | Understanding of the excretory functions of the kidney and its role in maintaining blood hemostasis and elimination of waste products | | | Kidney function tests | = | = |
| 6 | 3 | Study of the acute and chronic kidney diseases and the laboratory tests of kidney functions; and types of kidney stones | | | Kidney function tests | = | = |
| 7 | Midterm Examinations | | | | | | |
| 8 and 9 | 6 | Study of different diseases associated with change in enzymatic activity in blood | | | Clinical Enzymology | = | = |
| 10 | 3 | Study of different tumor markers in blood that can be used for detection and monitoring tumors | | | Tumor markers | = | = |
| 11 | 3 | Understand of hormones types, functions and regulation, with special emphasis on the hypothalamic hormones | | | Introduction to hormones  and the Hypothalamic hormones | = | = |
| 12 | 3 | The pituitary gland hormones actions and disorders; and the laboratory analyses of pituitary gland disorders | | | Pituitary gland hormones and diseases | = | = |
| 13 | 3 | The adrenal gland hormones actions and disorders; and the laboratory analyses of adrenal gland disorders | | | Adrenal gland hormones and diseases | = | = |
| 14 | 3 | The thyroid gland hormones actions and disorders; and the laboratory analyses of thyroid gland disorders | | | Thyroid gland hormones and diseases | = | = |
| 15 | 3 | The male and female reproductive glands hormones and the physiologic and pathologic alterations in their levels | | | Reproductive glands hormones and diseases | = | = |
| 1. Course Evaluation | | | | | | | |
| Midterm examination 15 marks  Quiz and classroom activities 5 marks  Practical part 20 marks  Final examination 60 marks | | | | | | | |
| 1. Learning and Teaching Resources | | | | | | | |
| Required textbooks (curricular books, if any) | | | | Clinical Biochemistry & Metabolic Medicine, Crook 8th edition 2012 | | | |
| Main references (sources) | | | | Tietz Clinical chemistry& Molecular Diagnostics 7th edition; 2015. | | | |
| Recommended books and references (scientific journals, reports...) | | | | Clinical Chemistry, Kaplan 2012 | | | |
| Electronic References, Websites | | | |  | | | |