**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)
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| Prof. Dr. Shatha Hussein Alishathahali@copharm.uobaghdad.edu.iqProf. Dr. Eman Saadi Salehemansaadi@copharm.uobaghdad.edu.iqDr. Zahraa Mohammed Ali zahraa.naji@copharm.uobaghdad.edu.iq |
| 1. Course Objectives
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| **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.
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| 1. Teaching and Learning Strategies
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| **Strategy** | * Presentation and recitation
* Reading & research
* Interactive discussions
* Brainstorming
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| 1. Course Structure
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| **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 hormonesand 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
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| Midterm examination 15 marksQuiz and classroom activities 5 marksPractical part 20 marksFinal examination 60 marks  |
| 1. Learning and Teaching Resources
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| 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 |  |