

Course Description Form

1. Course Name:	
Clinical Chemistry	
2. Course Code:	
PhcIs23-512	
3. Semester / Year:	
1 st Semester/5 th year	
4. Description Preparation Date:	
1/9/2023	
5. Available Attendance Forms:	
Students' signature on attendance sheet	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours theory + 2 hours practical (total 75)/4 unit	
7. Course administrator's name (mention all, if more than one name)	
Theoretical	
Assis. Prof. Mohammed Khalid Al-Nori, Email: alnorimkj@uomosul.edu.iq Assis. Prof. Muther Nazar Email: muthear78@uomosul.edu.iq Lec. Dr. Manal A. Ibrahim, Email: alfarhamanal@uomosul.edu.iq Lec. Dr. Hiba Hatim Email: hiba.Radhwan@uomosul.edu.iq	
Practical	
Assis. Prof. Mohammed Khalid Al-Nori, Email: alnorimkj@uomosul.edu.iq Assis. Prof. Muther Nazar Email: muthear78@uomosul.edu.iq Lec. Dr. Manal A. Ibrahim, Email: alfarhamanal@uomosul.edu.iq Lec. Dr. Hiba Hatim Email: hiba.Radhwan@uomosul.edu.iq Assis. Lec. Inas Hazim Email: enashazim@uomosul.edu.iq	
8. Course Objectives	
Course Objectives Enabling the student to obtain basic theoretical information for clinical chemistry and how to obtain and preserve samples specimens, and using various kits for laboratory measurement	The important metabolic pathways for different bioactive substances in the body with different disease relation, and their concentrations in body fluids, especially blood, due to their importance in diagnosing diseases such as diabetes and kidney failure,
9. Teaching and Learning Strategies	
Strategy	Lecturing Seminars Homework Quiz
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2+3	Disorders of Carbohydrates metabolism, Hyperglycemia & Diabetes mellitus, Hypoglycemia	Diagnostic test basic	Theoretical lectures & laboratory work	Paper-based exams
2	2+3	Disorders of lipid metabolism	Determination of serum glucose	Theoretical lectures & laboratory work	Paper-based exams
3	2+3	Disorders of lipid metabolism	oral glucose tolerance test	Theoretical lectures & laboratory work	Paper-based exams
4	2+3	Kidney Function Tests	Serum urea determination	Theoretical lectures & laboratory work	Paper-based exams
5	2+3	liver Function Tests	Creatinine determination	Theoretical lectures & laboratory work	Paper-based exams
6	2+3	Diagnostic enzymology	Serum triglyceride	Theoretical lectures & laboratory work	Paper-based exams
7	2+3	Hypothalamus & pituitary endocrinology, disorders of anterior pituitary hormones, disorders of adrenal gland, hypopituitarism.	Total cholesterol	Theoretical lectures & laboratory work	Paper-based exams
8	2+3	Hypothalamus & pituitary endocrinology, disorders of anterior pituitary hormones, disorders of adrenal gland, hypopituitarism	HDL-c determination	Theoretical lectures & laboratory work	Paper-based exams
9	Mid-term exam				
10	2+3	Reproductive system, disorders of gonadal function in males & females, biochemical	Estimation of CK	Theoretical lectures & laboratory work	Paper-based exams

		assessment during pregnancy			
11	2+3	Reproductive system, disorders of gonadal function in males & females, biochemical assessment during pregnancy	Serum bilirubin	Theoretical lectures & laboratory work	Paper-based exams
12	2+3	Tumor markers	Estimation of phosphate	Theoretical lectures & laboratory work	Paper-based exams
13	2+3	Drug interaction with laboratory Tests	Alkaline phosphatase determination	Theoretical lectures & laboratory work	Paper-based exams
14	2+3	Disorders of calcium metabolism	Estimation of ALT	Theoretical lectures & laboratory work	Paper-based exams
15	2+3	Acid-base disorders	Estimation of AST	Theoretical lectures & laboratory work	Paper-based exams

11. Course Evaluation

- 20 M Theoretical assessment (paper-based mid-term exam + quiz + attendance)
 - 20 M practical assessment (attendance + quiz + practice)
 - 60 M paper-based theoretical final exam
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- 100 M total

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	Clinical Biochemistry and Metabolic Medicine . Eighth edition. Martin-crook
Recommended books and references (scientific journals, reports...)	
Electronic References, Websites	Different scientific websites