**بسم الله الرحمن الرحيم**

**University: Al-Nahrain**

**College: Medicine**

**Department: Chemistry and Biochemistry**

**Stage: PhD / First semester**

**Lecturer name: Dr. Najat Abdul-Razaq, Dr. Rayah S. Baban and Dr. Estabraq Abdul Rasoul**

**Qualification: Prof. and Assistant Professor**

**Place of work: Chemistry and Biochemistry Department**

**Republic of Iraq**

**The Ministry Of Higher Education**

**& Scientific Research**



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| --- | --- |
| Course Instructor | Dr. Rayah Sulaiman Baban |
| E-mail | rayah.baban@colmed-alnahrain.edu.iq |
| Title | Clinical Biochemistry |
| Course Coordinator | Dr. Najat Abdul-Razaq Hasan |
| Course Objective |  The true objective of clinical biochemistry course is to provide an advanced understanding of the core principles and topics of clinical biochemistry and their experimental basis to enable students to acquire a specialized knowledge and understanding of clinical biochemistry lecture series and a research project. |
| Course Description | Theory course 3 hrs/w; Practical 3hrs/w |
| Textbook | Clinical chemistry and metabolic medicine, Martin A. Crook, 7th edition(2006) |
| Course Assessments | Term Tests | Laboratory | Quizzes | Project | Final Exam |
| 20% | 10% |  |  | 70% |
| General Notes | Type here general notes regarding the course |

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**Course Weekly Outline**

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| --- | --- | --- | --- | --- |
| **Week** | **Date** | **Topics Covered** | **Lab. Experiment Assignments** | **Notes** |
| 1 |  | Abnormal carbohydrate metabolism | Glucose tolerance Test | Dr. Rayah S. Baban |
| 2 |  | Amino acid and protein metabolic disorders | Total protein and protein electrophoresis | Dr. Rayah S. Baban |
| 3 |  | Enzymes; clinical aspects |  | Dr. Estabraq Abdul Rasoul |
| 4 |  | Lipoproteins and apoproteins; metabolism and disorders | Lipid profile test | Dr. Rayah S. Baban |
| 5 |  | Water and electrolyte balance disorders | Na-K-estimation method | Dr. Najat Abdul-Razaq |
| 6 |  | Blood gases, acid-base balance and disorders | CO2 estimation method | Dr. Najat Abdul-Razaq |
| Mid Exam |  |  |  |  |
| 7 |  | Liver function and disorders | LFT | Dr. Najat Abdul-Razaq d |
| 8 |  | Renal function and disorders | RFT | Dr. Najat Abdul-Razaq |
| 9 |  | Gastro-intestinal and pancreatic test | Amylase determination | Dr. Estabraq Abdul Rasoul |
| 10 |  | Cardiac ischemia markers | e.g. Ck,LDH enzyme | Dr. Najat Abdul-Razaq |
| 11 |  | Tumor marker | e.g. Acid phosphatase,  | Dr. Rayah S. Baban |

**INSTRUCTOR Signature: Dean Signature:**