



وزارة التعليم العالي والبحث العلمي
جهاز الاشراف والتقويم العلمي
دائرة ضمان الجودة والاعتماد الاكاديمي
قسم الاعتماد الدولي

وصف مقرر مادة كيمياء سريرية

الجامعة: جامعة الفرات الاوسط التقنية
الكلية المعهد: المعهد التقني الطبي كوفه
القسم العلمي: التحليلات المرضية
المادة: كيمياء سريرية
تاريخ ملء الملف:

التوقيع :
اسم رئيس القسم : ا.م.د. ابتسام فارس
التاريخ:

التوقيع :
معد المقرر : ا.م.د. ابتسام فارس
التاريخ:

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programmed specification.

1. Teaching Institution	Al-Furat AL-Awsat technical university
2. University Department/Centre	Medical Technical Institute
3. Course title/code	
4. Programme(s) to which it contributes	Weekly contribute
5. Modes of Attendance offered	
6. Semester/Year	Semester for Clinical chemistry
7. Number of hours tuition (total)	180 hrs.
8. Date of production/revision of this specification	
9. Aims of the Course	
General aim :- Having idea about clinical chemistry and about the instrument using in it.	
Special aim :- Knowing how to make the analytical chem.. and have thought about the disease appeared for each abnormal condition.	

10. Learning Outcomes, Teaching ,Learning and Assessment Method

A- Knowledge and Understanding

General aim :-

Having idea about clinical chemistry and about the instrument using in it.

Special aim :-

Knowing how to make the analytical chem.. and have thought about the disease appeared for each abnormal condition.

B. Subject-specific skills

B1.Apply the laboratory works in its specialization .

B2.Analyzed all the tests .

B3.To run and maintain lab. Equipments used.

Teaching and Learning Methods

Lectures ,practice ,training and summer training , power point presentations, seminars .etc.

Assessment methods

Oral exam . written exam .mid exam .final exam . in addition to daily assessment ,absences , and seminars.

C. Thinking Skills

C1.Internet survey.

C2. Discussions.

C3. Follow up of graduate students.

C4. Programs for graduate students after graduation ..

Teaching and Learning Methods

Lectures, theoretical and practical.

Reality visiting.

Power point illustrations

Meetings and discussions.

Assessment methods

- 1-A questionnaire .
- 2- Programs conferences.
- 3- Meetings and discussions.

D. General and Transferable Skills (other skills relevant to employability and personal development)

- 1- internet use
- 2- student use methods of researches.
- 3- Follow up of graduate students.
- 4- Programs for graduate students after graduation

Ministry of higher education and scientific research Foundation of technical education

Medical Laboratory

Subject	Study term	Week hour		
Clinical chemistry	Second year	Theoretical L.	Practical L.	total
		2	4	6
Study language : English	Study book Clinical chemistry by Teitz and Latner			

Theoretical syllabus	
weeks	Topics
1	Introduction , collection and handing of blood samples , anti coagulant protein receipt ant kinds ,urine compassion ,urine collection methods urine preservative .
2	Electrolyte (NA ⁺ , K ⁺ , ph ⁻³ , Fe ^{+3,4})

3	Trace element [cu , co , zn , mg] ,disease appeared in abnormal metabolism of these metals .
4	Acid base balance in body disease appeared in disturbance of acidity and alkanty of blood ,types of buffer system in body .
5	Carbohydrate .
6	Digestion , absorption in normal condition and abnormal condition .
7	Glucose Tolerance test in normal condition and in D.M.
8	Glucose metabolism , No. of hormones reside glucose level , hormone decrease blood glucose level .
9	Types of D.M. ,canoes , ketosis , glucoseuria . Glycosylated Hemoglobin (HbA1c)
10	Proteins .
11	Digestion and absorption of proteins in normal and abnormal condition .
12	Abnormal proteins types and the disease appeared with these protein .
13	Protein metabolism , types of metabolism , protein function .
14	Electrophoresis of plasma protein types of blood protein , disease accompanied with these proteins .
15	Protein urea , causes disease accompanied with it .
16	Protein determination methods
17	Lipid , types of lipids , function classification .
18	Digestion , absorption of lipid .
19	Metabolism of lipid , disease appeared with abnormal condition .
20	Lipid profile , Cholesterol , triglyceride , free fatty acid .
21	Lipo proteins ,types ,disease accompanied with abnormal condition .
22	Hyper lipedemia , acidosis ketones body .
23	Enzyme , important in body .
24	Classification , properties .
25	Factors effect on enzyme activity .
26	Changes in Enzyme activity and the disease accompanied with that change .
27	liver function test .
28	Hormones , types , properties , function .
29	Hormones mechanism , disease accompanied with

	abnormal secretion .
30	Tests and comprehensive .

Practical syllabus	
Week no.	Topics
1	Titration of permanganate potassium against oxalis acid ,un known
2	Electrolyte ,Estimation of Ca^{+2} in serum ,un known
3	Estimation of (Cl) in plasma ,un known
4	Colourimetric analysis ,Maximum absorption curve ,standard curve
5	Estimation of inorganic phosphate in Serum ,un known
6	Estimation of Iron in Serum and TIBC ,un known
7	Flame photometry ,Estimation of (Na^{+}) by Flame photometry
8	Estimation of (K^{+}) by Flame photometry
9	Carbohydrates ,Estimation of glucose in blood ,un known
10	Glucose Tolorana Test ,un known , HbA1c Estimation
11	Proteins ,Estimation of total proteins ,Albumin ,globulin in serum ,un known
12	Electrophoresis ,un known
13	Estimation of bilirubin in Serum ,un known
14	Enzymes ,Estimation amylase activity in Serum ,un known

15	Estimation (LDH) activity in blood ,un known
16	Estimation of (AIP) activity in Serum ,un known
17	Estimation of Lipase activity in blood ,un known
18	Estimation of ACP activity in Serum and urine ,unknown
19	Estimation of GOT activity in Serum ,un known
20	Estimation of GPT activity in Serum ,un known
21	Lipids ,Estimation of Serum cholesterol ,un known
22	Estimation of lipid profile (TG,HDL,LDL,vLDL)
23	Estimation of urea in blood and urine ,un known
24	Estimation of Creatin & Creatinine in Serum and urine ,un known
25	Estimation of Uric acid in Serum ,un known
26	Calculi analysis ,un known
27	General urine test ,un known
28	Visit to clinical education labs for having a knowlge and seen the Laboratory instrument
29	Comprehensive test
30	Comprehensive test

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	