



The University of Jordan

Accreditation & Quality Assurance Center

COURSE Syllabus

1	Course title	Clinical Biochemistry II
2	Course number	1203412
3	Credit hours (theory, practical)	2(theory)
	Contact hours (theory, practical)	32 (theory)
4	Prerequisites/corequisites	Prerequisite: 1203411 Clinical Biochemistry I)
5	Program title	PharmD
6	Program code	
7	Awarding institution	The University of Jordan
8	Faculty	Pharmacy
9	Department	Biopharmaceutics & Clinical Pharmacy
10	Level of course	undergraduate
11	Year of study and semester (s)	Second semester of the 4th year
12	Final Qualification	PharmD
13	Other department (s) involved in teaching the course	NA
14	Language of Instruction	English
15	Date of production/revision	1 September 2015

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

Prof. Yasser Bustanji

E-mail: bustanji@ju.edu.jo

Office No.: 218

Office hours to be announced

17. Other instructors:

Dr. Violet Kasabri

E-mail: V.Kasabri@ju.edu.jo

Office No.: 135

Office hours to be announced

18. Course Description:

As stated in the approved study plan.

This course is a continuation to Clinical Biochemistry (I) and covers the clinical aspects of diseases and their effect on body chemistry. Topics include Lipid metabolism and lipoproteins disorders, carbohydrate metabolism disorders, cardiac function tests, pancreatic function tests, endocrinology, metabolic aspects of malignant diseases, clinical aspects of pregnancy, and main hematological disorders.

19. Course aims and outcomes:**Program Competencies Achieved:**

- 2.3 Identify pathophysiological basis of major human diseases and their effect on body fluid composition
- 2.4 Assess symptoms and diagnostic tests and correlate with associated disease.
- 2.17 Advise patients and other health professionals
- 2.20 Able to interpret patient biochemical laboratory results

A- Aims:

At the end of this course, the student will be introduced to:

1. The changes to the body's chemistry in lipid disorders and lipoprotein disorders
2. Carbohydrate metabolism disorders and their assessment
3. The principal biomarkers in assessment of cardiac function tests
4. Tumor markers
5. Biochemical changes during pregnancy
6. Endocrinology (pituitary gland disorders, thyroid gland dysfunction, gonadal function disorders)
7. Major hematological disorders

B- Course Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to ...

A. Knowledge and understanding:

1. Disorders in lipid metabolism
2. Disorders of carbohydrate metabolism
3. Tumor biochemical markers.
4. Biochemical markers involved in assessment of cardiac function
5. Biochemical markers involved in assessment pancreatic function.
6. Biochemical changes in pregnancy
7. Biochemical changes in endocrine dysfunction (pituitary dysfunction, Adrenal dysfunction thyroid dysfunction, gonadal dysfunction)

B. Intellectual skills:

1. Relate the signs and symptoms to the molecular basis of diseases.
2. Relate the changes lipid profile to chronic diseases.
3. Correlate different disorders to each other, i.e carbohydrate metabolism disorders and lipid disorders and their relation to cardiovascular diseases
4. To interpret the changes cardiac proteins, enzymes to heart and cardiovascular disease.
5. Relate hormonal changes to endocrine disorders.
6. Relate the changes blood indices to hematological disorders.

C. Subject-specific skills:

- ✓ Interpret laboratory findings performed in clinical practice.

D. Transferable skills:

- ✓ Communicate effectively with the medical team concerning the use of laboratory tests in the diagnosis of diseases.
- ✓ Develop the skills of information management.

Teaching Methods.

Lectures, Assignments, Discussions of clinical cases.

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Methods	Reference
1. Introduction	1	Dr. Yasser Bustanji			
2. Lipid metabolism disorders Lipoproteins metabolism, lipid profile and lipid disorder	1-3	Dr. Yasser Bustanji	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
3. Disorders of Carbohydrate metabolism. Tests used to diagnose and manage diabetes mellitus	4	Dr. Yasser Bustanji	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
4. Tumor markers	5-6	Dr. Yasser Bustanji	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
5. Blood indices and hematological disorders	6-7	Dr. Violet Kasabri	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
6. Cardiac function tests	8	Yasser Bustanji	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
7. Pancreatic function tests	9	Dr. Violet Kasabri	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
8. Pituitary function tests	10-11	Dr. Violet Kasabri	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below
9. Adrenal function	12	Dr. Violet Kasabri	A, B, C, D	Exams, Quizes	Specified in each lecture. General references provided below

10. Thyroid function tests	13	Dr. Violet Kasabri	A, B, C, D	Exams, Quizzes	Specified in each lecture. General references provided below
11. Biochemical changes during Pregnancy	14-15	Dr. Violet Kasabri	A, B, C, D	Exams, Quizzes	Specified in each lecture. General references provided below
12. Final Exam	16				

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following <u>teaching and learning methods</u> :		
ILO/s	Learning Methods	Evaluation Methods
	Lectures	Exams, Quizzes Homework
	Assignments	
	Discussions	
Learning skills: <ol style="list-style-type: none"> 1. Critical thinking 2. Digital literacy 3. Problem-solving skills 4. Communication skills 		

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following <u>assessment methods and requirements</u> :
<ol style="list-style-type: none"> 1. Exams 2. Quizzes 3. Students reports on assignments

23. Course Policies:

A- Attendance policies: Attendance: Mandatory.
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University regulations will be applied

B- Absences from exams and handing in assignments on time:

University regulations will be applied

C- Health and safety procedures:

NA

D- Honesty policy regarding cheating, plagiarism, misbehavior:

The participation, the commitment of cheating will lead to applying all following penalties together

- 1) Failing the subject he/she cheated at
- 2) Failing the other subjects taken in the same course
- 3) Not allowed to register for the next semester. The summer semester is not considered as a semester

E- Grading policy:

Exams and Quizzes.

Mid Exam:	40 points
Quizz:	5 points
Assignments	5 points
Final Exam:	50 points
Total	100 points

F- Available university services that support achievement in the course:

Classrooms, internet classes

24. Required equipment:

Datashow and internet connection

25. References:

A- Required book (s), assigned reading and audio-visuals:

1. An Illustrated Colour Text in Clinical Biochemistry 3rd edition, Gaw A et al. (ISBN 978-0443072697)
2. Tietz Fundamental of Clinical Chemistry. 5th edition, edited by Burtis C.A. and Ashwood E.R., 2001. (ISBN 9780721601892)
3. Clinical Chemistry in Diagnosis and Treatment. 6th edition, Mayne P.D., 1998 (ISBN 978-0340576472)
4. Clinical Chemistry. 5th edition, Marshall W.J., 2004. (ISBN 978-0723434559)
5. Textbook of Biochemistry with Clinical Correlations. T.M. Devlin Editor, Wiley-Liss, John Wiley & Sons, Inc. 7th Edition 2010 (ISBN5-60152-470-0-978)

26. Additional information:

Name of Course Coordinator: Yasser Bustanji -Signature: ----- Date: Jan, 31, 2016

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: Nailya Bulatova Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File