

Jordan University of Science and Technology
 Faculty of Applied Medical Sciences
 Department of Medical Laboratory Sciences
 Second Semester 2007

Course Information	
Course Title	Medical Biochemistry (LM 721) (3CH)
Course Number	LM723
Prerequisites	None
Course Website	NA
Instructor	Mohammad Gharaibeh
Office Location	M5 Level -4
Office Phone	23772
Office Hours	TBA
E-mail	Younisgh@just.edu.jo
Teaching Assistant	None
Course Description	
Advanced comprehensive study of the molecular organization, physiological functions and bio-energetic principles of biomolecules amino acids, proteins, enzymes, carbohydrates, lipids and nucleic acids. Emphasis is on the structure-function relationships, solution behavior and metabolism of biomolecules	

Text Book	
Title	Textbook of Biochemistry with Clinical Correlations
Author(s)	Thomas M. Devlin
Publisher	Wiley-liss
Year	2006
Edition	6 th -Edition
Book Website	NA
References	Handout

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam	7 th week	25%
Second Exam	12 th week	25%
Final Exam	Assigned by registration department	50%

Course Objectives	Weights
1. To understand the molecular organization and physiological functions of biomolecules	25%
2. To discuss the bio-energetic principles of amino acids, proteins, enzymes, carbohydrates, lipids and nucleic acids	25%
3. To discuss structure-function relationships of biomolecules	25%

4. To understand solution behavior and metabolism of biomolecules	25%
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Teaching & Learning Methods
Lectures, presentations and group discussions

Learning Outcomes: Upon successful completion of this course, students will be able to		
Related Objective(s)		
1		Chapters 14, 3, 10, 15 and 16
2		Chapters 14, 15 and 16
3		Chapters 9 and 22
4		Chapters 18, handout2

Useful Resources
University library, internet

Course Content		
Week	Topics	Chapter in Text (handouts)
1	Thermodynamics review	Chapter 14
2	Protein structures	Chapter 3
3	Vitamins, coenzymes and enzyme kinetics	Chapter 10
4	Glycolysis and gluconeogenesis	Chapter 15
5	Glycogen metabolism	Chapter 16
6	Regulations of blood glucose levels.	Handout 2
7	TCA and oxidative phosphorylation	Chapter 16
8	Protein: structure-function relationship	Chapter 9
9	Metabolism of lipids	Chapter 18
10	Cholesterol metabolisms	Chapter 18
11	Metabolic interrelationships	Review 22

13	Urea metabolisms	Chapter 19
14	Nucleic acid structures	Chapter 2
15	Nucleic acid metabolism	Chapter 20

Additional Notes	
First Exam	Weeks: 1-5
Second Exam	Weeks: 6-10
Final-Exam	All weeks

His book Textbook of Medical Biochemistry is very popular not only in SAARC countries but also in the Gulf. Another titles Clinical Chemistry: Organ Function Tests, Laboratory Investigations and Inborn Metabolic Diseases has just been released. Contents Chemistry of Carbohydrates, Chemistry of Lipids and Eicosanoids, Chemistry of Proteins and Amino Acids, Immunoglobulins Chemistry and Functions, Chemistry of Nucleotides and Nucleic Acid, Chemistry of Enzymes, Biologic Lippincott illustrated reviews: biochemistry. Related Posts. New Books, [ááá@ááášá~ á-á~á'áfœáf"áf'áf~](#) (New Books). Georgia: a cultural journey through the Wardrop collection. New Books, [ááá@ááášá~ á-á~á'áfœáf"áf'áf~](#) (New Books). [áf@áf"áf'áf~ áf'áfáf'áfáfœáf"áf'áf"áf'áf~](#). New Books, [ááá@ááášá~ á-á~á'áfœáf"áf'áf~](#) (New Books).