

**Biochemistry BISC 3521 Course Syllabus  
Summer Session I 2018**

**Instructor:** Usha Sankar, PhD

**Class Schedule:**

**Lecture:** Mon through Thurs 9:00 AM -12:00 Noon

**Office Hours:** Mondays 12:00 Noon to 1:00 PM, and by appointment

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**Text book:** BIOCHEMISTRY, 8th Edition by J.M. Berg, J.L. Tymoczko, and Stryer, L

**ISBN** 9781464126109

**General course information**

This is a lecture course on principles of Biochemistry. Topics covered will include the chemistry and function of carbohydrates, lipids and proteins: enzymology; metabolism and bioenergetics.

**STUDY GUIDE**

The power point slides are posted in blackboard before each lecture. Please remember that slides are just a guideline for you to study and you are supposed to refer to your textbook to have a thorough understanding of the topics. This will allow you to perform very well in the exams. *You are encouraged to stop me at any time during the lecture if you have questions or need clarification.*

**Exams and Grading**

Exams – 90% of final grade (each exam 20%)

Quizzes and class participation– 10%

The examinations will cover information and concepts discussed in the lectures and in the assigned readings. You should utilize the relevant chapters of the text to strengthen your understanding of what we cover in class but if it has not been mentioned in lecture you will NOT be tested on it. Exams will include multiple choice, true/false, fill in the blank and short answer questions and will challenge you to integrate and apply what you have learned in class.

I will not makeup exams without a valid excuse.

**Attendance**

You are required to attend every lecture. Numerous *unexcused* absences will cost you points.

**Disability**

Under the Americans with Disabilities Act and Section 504 of the Vocational Rehabilitation Act of 1973, all students, with or without disabilities, are entitled to equal access to the programs and activities of Fordham University. If you believe that you have a disabling condition that may interfere with your ability to participate in the activities, coursework, or assessment of the object of this course, you may be entitled to accommodations. Please schedule an appointment to speak with someone at the Office of Disability Services (Rose Hill - O'Hare Hall, Lower Level, x0655).

The Office of Disability Services (ODS), headed up by Carolyn Mooney (mooney@fordham.edu), works with students, faculty, and staff to ensure appropriate services for students with disabilities. Fordham University will make reasonable accommodations, and provide auxiliary aides and services to assist otherwise qualified students who self-identify as having a disability in achieving equal access to its programs, services, and facilities.

It is essential that students who ask for accommodations have registered with the Office of Disability Services. Until a student self-identifies as having a disability and presents an academic accommodation letter written by ODS on ODS letterhead, faculty are not allowed to provide any academic accommodations to that student.

Date	Lecture	Topic	Chapter
May 29	1 & 2	Introduction	1
		Protein composition and structure	2
May 30	3 & 4	Exploring proteins and proteomics	3
		Hemoglobin and Myoglobin	7
May 31		<b>Exam 1 (Lectures 1-4)</b>	
Jun 4	5	Enzyme kinetics	8
	6	Catalytic strategies	9
Jun 5	7	Regulatory Strategies	10
	8	Regulatory Strategies (cont)	
Jun 6		<b>Exam 2 (Lectures 5-8)</b>	
Jun 7	9	Carbohydrates	11
	10	Lipids and Cell Membranes	12
Jun 11	11	Membrane Channels and Pumps	13
	12	Signal Transduction Pathways	14
Jun 12		<b>Exam 3 (Lectures 9-12)</b>	
Jun 13	13	Metabolism : Basic concepts and Design	15
	14	Glycolysis and Gluconeogenesis	16
Jun 14	15	Glycolysis and Gluconeogenesis (cont)	16
	16	Citric Acid Cycle	17
Jun 18		<b>Exam 4 (Lectures 13-16)</b>	
Jun 19	17	Oxidative Phosphorylation	18
	18	Pentose Phosphate Pathway	20
Jun 20	19	Glycogen Metabolism	21
	20	Fatty Acid Metabolism	22
Jun 21	21	Protein Turnover and Amino Acid Metabolism	23
	22	Integration of Metabolism	27
Jun 25		Review	
Jun 26		Review	
Jun 27		<b>FINAL EXAM (Lectures 17-23)</b>	

