Course Syllabus
AG 597 – Advanced Nutritional Biochemistry

Spring Semester, 2014
Web-Based

Instructor: Dr. Jackie Wahrmund, Assistant Professor of Animal Science
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Office hours: MWF 11:00 – 12:00 and TR 10:00 – 12:00

COURSE INFORMATION

Text: Lehninger Principles of Biochemistry, 6th Edition
By: David L. Nelson and Michael M. Cox

Course Description: A course in biochemistry using nutrition as a model. Topics will include the energetics of metabolism; the structure and metabolism of proteins, carbohydrates, and lipids; and the integration of metabolic systems. Included also will be the chemistry of nitrogenous bases and how transcription and translation is accomplished on the cellular level.

Student Learning Outcomes: Students will learn the biochemical mechanisms of nutrition and metabolism. Student progress will be evaluated by exams over class content and reviews of current research papers involving topics of nutrient metabolism and biochemistry.

COURSE REQUIREMENTS

Grading criteria will include mini-tests and paper reviews. Mini-tests will evaluate your knowledge of the material, will count for 100 points each, and must be completed by **11:59 PM on Sunday** of each mini-test week. Six paper reviews will be designed to enhance your critical thinking skills, and will count for 50 points each. Paper review assignments will be distributed at least one week prior to due date. Late assignments will be penalized in the following fashion:

1 day late:	10 point deduction
2 days late:	20 point deduction
3 days late:	30 point deduction
4 days late:	40 point deduction
5 days late:	No credit

Grading:	Mini Tests	800	(8 @ 100 points each)
	Paper Discussions	300	(6 @ 50 points each)
	Total	1100 points	

Grading, continued

A: 990-1100 points
B: 880-989
C: 770-879
D: 660-769
F: Less than 660 points

OTHER COURSE INFO

Although this is an online course, please feel free to come visit me in my office anytime. There is a great deal of material that we will cover this semester, and I understand most of you will require some face-to-face time to grasp all of the concepts. Please note my office hours at the top of this syllabus. If these times do not work with your schedule, please contact me (e-mail is best) to set up an appointment.

Material will be posted week-by-week at 12:00 AM on Mondays. You will not be able to work through the entire course on your own schedule. I guarantee, this is a courtesy to you! While old material will remain active, new material will appear week-by-week. Please note deadlines provided in this syllabus and in assignments to follow. Contact me any time with questions.

UNIVERSITY POLICIES

ADA Statement

Students with Disabilities:

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library
Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).

COURSE CALENDAR

Week 1	Fundamentals of Biochemistry, Water
Week 2	Nucleotides and Nucleic Acids, **MINI TEST 1**
Week 3	Amino Acids, Peptides, Proteins, **Paper Review 1 due**
Week 4	3-D Structure of Proteins, **MINI TEST 2**
Week 5	Protein Function, Enzymes, **Paper Review 2 due**
Week 6	Carbohydrates and Glycobiology, **MINI TEST 3**
Week 7	Lipids, **Paper Review 3 due**
Week 8	Biological Membranes and Transport, Bioenergetics, **MINI TEST 4**
	NO SCHOOL – SPRING BREAK
Week 9	Glycolysis, Gluconeogenesis, **MINI TEST 5**
Week 10	Pentose Phosphate Pathway, Metabolic Regulation, **Paper Review 4 due**
Week 11	Citric Acid Cycle, Oxidative Phosphorylation, **MINI TEST 6**
Week 12	Fatty Acid Catabolism, Lipid Biosynthesis, **Paper Review 5 due**
Week 13	Amino Acid Oxidation, Urea Production, **MINI TEST 7**
Week 14	Biosynthesis of Amino Acids and Nucleotides, **Paper Review 6 due**
Week 15	Hormonal Regulation of Metabolism, Protein Metabolism, **MINI TEST 8**

DATES MAY CHANGE AT INSTRUCTOR'S DISCRETION
ADVANCE WARNING WILL BE GIVEN FOR ANY CHANGES