



Principles of Biochemistry with a Human Focus, Garrett and Grisham, 2002.

### **Class Attendance**

Class attendance is strongly recommended. Those students who attend class regularly are the most likely to succeed in this course. Also, quizzes will be given regularly and if you don't attend class you will likely miss one or more quizzes. As mentioned above, a significant part of the material presented in this course will **not** be in the textbook. So attending class is necessary to obtain all the information that you will be held responsible for on the tests. Any student who is absent from class for 4 class meetings without contacting me may be dropped from the course with a WF.

### **Make-up Policy**

Make-up exams will be given **only** at my discretion. If you must miss an exam for an unavoidable, significant and validated reason, contact me by email or phone (leave a message) **BEFORE** the time of the scheduled exam.

No make-up quizzes will be given.

### **Potential Writing Assignments / Presentations**

**(Tentative ~~~ could include all or some of the assignments described below; may be assigned either as group or individual work at the discretion of the instructor)**

#### *1) Comprehensive Prescription Drug Project*

Each group or individual (depending on how I choose to give the assignment) will be given drug advertisement(s) or a commercial for their drug. The drug will be analyzed in the following four part project. The first three parts involve analyzing the pharmacological, biochemical and marketing of each assigned drugs. The fourth part, the capstone assignment, requires the students to write case studies, including patient description, examination and lab values that center on a patient that either has a disorder their drug treats or has experienced an overdose or adverse reaction to their drug.

#### *2) Playing House Analysis Assignment*

Each group or individual will be assigned an episode of the television show House, M.D. and the episode will be analyzed in detail including an in depth, biochemical explanation of diseases suspected in the diagnosis and the lab tests used to rule them out. The final diagnosis will be analyzed in similar detail. An overall description of the logical deduction involved in the final diagnosis will be given as well as a critique distinguishing the realistic aspects of the episode from the creative liberties taken.

#### *3) Case Studies*

Throughout the semester, a variety of case studies will be assigned. A description of a hypothetical patient's symptoms will be given to the class. You will be expected to use resources outside of class to analyze the case studies **in-depth**. The analyses will be turned in and graded. More information to come.

### **Group Work Considerations:**

Group work is a challenging, unavoidable aspect of life in general and science in particular. Learning to cooperate and discovering how one's specific gifts contribute to achieving group goals are important aspects of science education. Therefore, group project(s) will be assigned this semester.

### **Synopsis:**

Some assignments in this course may require group work. Students will be required to make the necessary arrangements with the members of their groups to schedule sufficient meeting times to ensure their own active participation in the group project. It is completely at the instructor's discretion to decide what constitutes "adequate participation". Students who do not participate adequately may receive a substantially lower grade than the group project grade or may even not receive any credit for the project depending on their level of participation. Again, it is solely the discretion of the instructor what constitutes sufficient participation and what grade individual group members will receive.

**(1) Be prepared to meet often and to work a lot!:** A couple of intense, high workload projects will be assigned during the semester. Each student enrolled in the class is expected to participate fully in their assigned group. Because these projects are worth a very substantial fraction of the total number of possible points to earn during the course, students who feel that their schedules (i.e. employment, commute time, extracurricular activities, etc.) or other life considerations (including a lack of motivation or concern) may preclude their FULL participation in the group meetings / project completion should consider dropping the course. Students who wish to continue in the course despite these personal considerations should be aware that their grades will suffer significantly from lack of participation. This aspect of the project promotes an acknowledgement of responsibility to group members for your participation.

**(2) Assessment of Group Members:** To insure a significant level of participation by all members of a group, each group member will be required, as part of their project grade, to assess the participation/contribution of the other members of their group. Each group member's assessment will include a numerical grade for each group member along with a critical justification for each grade assigned. Giving all or most group members the same grade or providing general, wishy washy justifications for grades will not be acceptable and will negatively impact the assessing member's grade. This aspect of the project provides experience in critically evaluating peers (not blaming them or justifying their own lack of participation) in an honest, constructive way. Most students are uncomfortable assessing others primarily because they worry about their peer's response to the honest evaluation. This fear must be overcome to be an effective participant in any field of work.

**(3) Grade Distribution:** Projects are graded as one complete work and if all participants contributed significantly, all will receive the same grade. However, if it is deemed by the Professor that one or more members of a particular group did NOT contribute sufficiently to the project, then the project grade can be redistributed in an uneven fashion to account for the difference in performance or workload. All grade decisions, including project grade distribution among group members, are left entirely to the discretion of the course instructor. In other words,

in general all group members receive one project grade. However, the grades for group members do not have to be the same and all grading is left to the discretion of the Instructor.

**(4) Hints for Success:** Having assigned these projects for many years now, I have noticed some behaviors that help lead to project success:

(a) *Don't divide to conquer!!* Each person should be intimately involved with every part of the project. If project parts are divided initially among the group members, they should be brought back together early in the project and **every group member should read, understand, and agree with every bit of information included in the project!!!** The project is graded as a whole so if you do very well on your part but your partners are slackers, your grade will suffer.

(b) *Don't let one person do all the work.* Again, each person in the group should be involved in all aspects of the project. The information on the project may be included in quizzes or on exams and so if one person does the majority of the work or this information happens not to be in "your part" then you are going to be in trouble grade-wise.

(c) *Don't procrastinate.* This tendency is the one thing that I have found will absolutely, unequivocally doom your project to failure. These projects are 35-75 pages each on average so if you wait until the week before they are due to start on them, your grade will suffer.

(d) *Use me.* Come by often and check with me if you have questions. Let me look at your work in progress so that I can tell you if you are on the right track or not (I will not grade your project for you... but I will give you direction.) Use the expertise of other Professors in the department (and in biology too!) You can cite them if you cannot find a primary reference (ONLY IF) on your reference page with their last name, department, and phone number.

(e) *Enjoy the pursuit of knowledge.* Having a good attitude is crucial in group work and especially in biochemistry. Look for something that interests you... look for what is beautiful and intriguing in your project... Let the questions that come to you while you are researching your project compel you to plunge deeper and to go further in your exploration. This type of learning is just as important as examinations or facts in books... maybe even more important.

### **Academic Dishonesty**

The penalties for cheating (i.e. representing someone else's work as your own) are SEVERE!! Penalties include, but are not limited to, assigning an "F" for the work and/or the course to expulsion from the University.

### **Cell Phones / PDA's**

Cell phones and PDA's are not allowed in the student's possession during exams and/or quizzes. Any student wishing to bring one of these devices to class during testing are required to leave the device on the desk at the front of the classroom at their own risk. The student is solely responsible for the safety of their devices if they choose to bring them into the classroom during exam times. Calculators are allowed only during those quizzes/exams requiring them. Calculators may be allowed during some quizzes but not during exams. This is solely at the instructor's discretion.

Possession of cell phones / PDA's is permitted during regular lectures, labs and reviews, however these devices should be silenced prior to class to minimize the potential disruption of the lecture or other class activities.

### **Academic Dishonesty**

If there is one thing I can not tolerate, it is a cheater! The penalties for cheating (ie. representing someone else's work as your own) are SEVERE!! Don't do it.

### **Exams and Grading**

The following is a *tentative* description of the exams/quizzes/assignments included in this class. Specific numbers may be changed if deemed necessary. Four Exams will be given in addition to a number of announced quizzes. Quizzes are intended to help keep you up to date on your studies. Final exam will be comprehensive.

<b>Exams (3)</b>	3 exams @ 100pts	<b>300 points</b>
<b>Quizzes (0-5)</b>	5 quizzes @ 10pts	<b>50 points</b>
<b>Assignments, Case studies and/or Presentations</b>		<b>0-100 points</b>
<b>Final Exam (comprehensive)</b>		<b>200 points</b>
<b>Total</b>		<b>500-650 points</b>

### **Tentative Scale (subject to change):**

- A = 90% +**
- B = 80 – 89%**
- C = 68 – 79%**
- D = 60 – 68%**
- F = < 60%**

### **Important Dates**

- Jan 15, last day to register or add a class**
- Mar 5, mid-term grades due to registrar**
- Apr 4, last day to drop with a “W”**
- Apr 18, last day to drop with “WP”**
- Wednesday, Apr 30th, FINAL EXAM (2 – 4 pm)**

### **Drop policy**

The last day to drop with a “W” is April 4th. If a student drops on or before this date, a “W” is assigned regardless of the student's grade in the course. Students may officially drop the course until Apr 18th, *however, the grade assigned after April 4th will depend on the student's grade status in the course at the time of the withdraw*. For example, if the student withdraws from the course on April 5th and at that time has earned a “C” or better in the course up to that point, a grade of “WP” will be assigned. If, however, the student's grade is below a “C” at the time of withdraw (after April 4th but on or before April 18th) then a grade of “WF” will be assigned at

the discretion of the instructor. Again, the grade assigned at this point is at the sole discretion of the instructor. ***This designation is punitive and will negatively affect your grade point average!***

Students not attending class for whatever reason for more than four class periods may be dropped from the course by the instructor, at the instructor's discretion.

### **Disability Disclosure**

The University of Central Arkansas adheres to the requirements of the Americans with Disabilities Act. If you need an accommodation under this Act due to a disability, contact the UCA Office of Disability Services at 450-3135.

### **Student Handbook Policies**

You should familiarize yourself with the policies listed in the 2007-2008 UCA student handbook, especially those related to academics (p. 37-41) and the sexual harassment policy (p. 114-118).

## Tenative Class Schedule

**\*all dates are subject to change!\***

<u>Week</u>	<u>Lecture</u>	<u>Exams</u>
Jan 10-11	Acid/Base Intro	
Jan 14-19	Acid/Base (cont.) & Thermodynamics	
Jan 23-26	Thermodynamics (cont.)	
Jan 28-Feb 1	Thermo (cont.) & Proteins	Exam #1
Feb 4-8	Proteins (cont.)	
Feb 11-15	Proteins (cont.)	
Feb 18-22	Enzymes	
Feb 25-29	Enzymes (cont.)	Exam #2
Mar 3-7	Enzymes (cont.)	
Mar 10-14	Carbohydrates & Lipids	
Mar 17-21	Carbohydrates & Lipids (cont.)	Exam #3
Mar 24-28	<b>Spring Break</b>	
Mar 30-Apr 4	Metabolism	
Apr 7-11	Metabolism (cont.)	
Apr 14-18	Integration of Metabolism	Exam #4
Apr 21-25	Integration of Metabolism	
*****	Final Exam: Tuesday, April 29th, 8:00 – 10:00 am	*****