Ten Tips to Success in Biology Class

1. Come to class. In some courses all you have to do is read the book; that's not the case here. There is too much stuff in the book, and the lecture will key you in to what is important and what isn't; it will also provide a framework to stuff all the facts into. If you must miss class, get the notes from a fellow student or the web, and then go over the notes with someone who was present at the live lecture. Get the phone number and/or email of at least one other student *now*, so that you'll have someone to call if necessary. The notes & audio recordings may be on the web, but it still pays to come to class -- most students get more out of the live lecture than they do out of just reading the notes &/or listening to the audios.

2. Take notes. Everything that really matters will be discussed in class; the book is really just for back up. (This may not make sense, but this is how we do it.) There are many styles of taking notes -- some people prefer to get it all down word-for-word and some people prefer to just write down the critical points. Either way is fine, but be sure you get the point (if you are concentrating on transcribing every word) and be sure you understand the necessary details (if you are concentrating on the point). The web notes & audio recordings are posted online to help you fill in anything you missed. Extensive recopying of notes or transcribing of audios is very time consuming and we don't recommend it. You are probably better off going through your notes and using the online resources to fill in the holes. You may find it most efficient to do this with a study group.

You may be tempted to give up note taking altogether because the lecture notes & audios are available on the web, but we strongly advise against it. Taking your own notes is important because it captures your own personal take on the lecture. The taking of notes also helps you to pay attention in class and to remember the material afterwards.

3. Form a study group or partnership. Don't try to do it alone. (If you are too shy to ask anyone, we will help you find a partner. See link on the main course web page.) Study groups are generally good because they help you go over the material (see above), give you an opportunity to practice explaining your answers (see below) and provide moral support.

4. Do the problems. Seriously and carefully. This is probably the most important thing. All the other advice is just to get you in shape to do this. Do the unstarred problems first (to help you learn the material) and leave the

starred ones for later (to test yourself). Go over the unstarred problems until you feel confident with the material; go over them more than once if necessary, but don't do the starred ones until you understand the others. Once you feel on top of the material, do the starred ones as if it were a test -- write out the answers and write out explanations of how you got your answers.

5. Make diagrams, pictures, summary charts, concept maps, etc. The ones in the book (and the ones we hand out in class) may be good, but for best results, you should make your own. Don't copy over your notes or outline the book word-for-word; digest each section of the notes or text first and write your own, private, condensed version (in whatever form you prefer -- use diagrams, charts, etc.)

6. Keep up. The current material is always based on what came before, so once you get behind it is very difficult to catch up.

7. Read one of the texts (or the web notes) before class if the material is new to you. It is very hard to follow the lecture if every word and concept is unfamiliar. It probably does not pay to spend too much time on the text(s), as explained above in point 2, but some people learn better from books than they do from lectures.

8. Ask questions. If you don't understand something, ASK. That is what the TAs are here for and that's how the lecturer finds out if s/he is going at the right pace. Don't wait for the class bigmouth to speak up - do it yourself. Don't be afraid of looking stupid - looking dumb before the exam is a lot smarter than looking dumb afterwards. To get the most out of recitations and office hours, go over the problems and/or notes first and come prepared with a list of questions. The more effort you put into asking questions, the more you will get out of the answers.

9. Master the vocabulary. The stress in this course may be on *using* the vocabulary, but you won't get anywhere until you learn it first. So try to master all new terms as fast as possible. Be especially careful about words that seem similar but mean different (often related) things (such as peptide/protein, chromosome/chromatid, gene/allele, etc.) and terms whose biological meaning is not the same as their technical or general scientific meaning (spontaneous, adaptation, etc.). Once you get the vocabulary down pat, you will find it much easier to follow the lectures and do the problems.

10. A word or two about grades The two most common complaints about grades heard in this class are "the exam grade doesn't reflect my knowledge of the material" and "my grade doesn't reflect the amount of time and effort I put into this course." Sometimes these complaints are justified, but often they mean the student does not understand what is expected of him or her, or is concentrating on (and spending too much time on) the wrong things. In this course you have to know how to use the material, not just repeat it or explain it in your own words. If you think your performance on the exam does not reflect your knowledge, it often means you have memorized the facts but have not practiced enough at selecting the right ones and applying them to whatever problem is presented to you.

To sum it all up, be prepared for class (read in advance, go over previous lecture notes, etc.), rework the material afterwards (check notes, learn vocabulary, do the problems, make summaries, ask questions, etc.) and don't get behind