



# STUDY TIPS FOR BIOLOGY CLASSES

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Studying for biology classes is very different from studying for History or English classes. Strategies that worked well in those classes may not work well here. The following are study strategies that are geared toward students in Biology classes. You probably won't have time to try all of these strategies, but pick a few that you think may help and try those. The key is to find as many different ways to work with the information that you are given.

## BEFORE CLASS

- It's very important that you read the text before class; but HOW you read the book makes all the difference. If you don't have time to read the whole chapter, at least look at the pictures (and read the captions). Biology is a visual subject and many of the concepts are best explained as a picture. Don't try to memorize the whole chapter. Many instructors will not use ALL the information in the text, and will add information that is not in the text. The instructor will let you know which parts of the chapter are most relevant.
- Make a list of all the words in the chapter that you don't understand. It is very likely that these are terms that the teacher will explain in class. If you already have these words written down - you will have a head start on note taking in class. Also, you are more likely to understand the lecture if you have an idea about what terms will be important (even if you don't know what they mean)
- If a picture is used multiple times in the same chapter - it's probably important. You may want to photocopy the picture and bring it with you to class. Or, maybe find a similar picture online and print it out. Labeling a picture may be easier than trying to draw it in your notes. However, this strategy may not be appropriate - it depends on the class and the instructor.
- If the instructor has online notes, review sheets, or other information, read them prior to class. Also, make sure to bring them with you to class.

## DURING CLASS

- Come prepared! Bring your book as well as any note sets / review sheets that the instructor provides. You can often save yourself time if you take notes in the book or on the note sets rather than in class. One of the most common difficulties in science classes is that it's difficult to keep up with the speed of lectures. If you have the pictures from the book (or photocopies) you will be able to take notes much more quickly. If you do take notes in your book or somewhere else - make sure to include that in your notes. Write something like "see fig 3.5" in your notes so that you know when to look at the pictures in the book.
- Don't try to write down everything the instructor says. This is one of the more difficult aspects of being a student - knowing what's important in a lecture. It takes practice. Some hints for taking notes:
  - If the instructor writes it on the board - put it in your notes.
  - If the instructor says "this is important" or something similar - put it in your notes.
  - If the instructor refers to something in the book - write down the page or figure number so you can go back to it later.
- Develop a system for taking notes. There are official methods for taking notes - or you can develop your own. If there are sets of words that are used a lot in class - make up a symbol for them that you will remember. (You may want to make a list of these symbols in case you forget.) You can try working on your note-taking system by watching a TV show or movie and taking notes. If you miss something during lecture:

- Ask the instructor to repeat the information.
  - Leave a space and move on - come back and fill in what you missed later.
  - Don't miss the next point because you were asking your neighbor about the last point.
  - If something is unclear in class - ASK!
- Most instructors won't mind you asking for clarification in class. It's often embarrassing to be the one asking the questions - but your fellow students will be glad you did. (They probably have the same question, and were just too shy to ask.) Asking questions does not make you seem like a dumb student - it makes you seem like an interested student.
  - If you have the time, you may want to record the lectures. This way, if you miss something, you can always go back to it. You can also listen to the whole lecture again. Some students listen to these on their way to work - it makes time spent in traffic more productive. Or, you can listen to them as you clean the house, or go jogging. The key to this strategy is repetition - it may not stick the first time, but it will stick eventually.

#### IN A LAB CLASS

- Read the lab for that day and make sure you fully understand what you are doing in class. In most lab classes, you will be expected to be self-sufficient in completing the assignments, so you do need to understand what is expected of you that day. As an added bonus, if you are organized and have a plan - you may even finish early. On the other hand, if you spend your lab time figuring out what you are supposed to do, you may not finish the lab.
- Divide and conquer. You may not have time to do all parts of the experiment on your own. Part of the skills that a laboratory class is meant to teach is how to work together. However, make sure you understand all parts of the experiment, even if you didn't actually conduct it yourself.

#### AFTER CLASS

- Rewrite your notes. This is time-consuming but does two things. It gives you a chance to review what you covered in class and make sure you didn't miss anything. It also gives you a well-organized set of notes to study for the test. This strategy works best if the notes are redone shortly after class.
- Use the resources that are provided! Talk to your professor during office hours or see if there is a Tutor available in the Academic Success Center.
- Find online resources that cover the same information. Try typing the topic and the word "tutorial" or "quiz" into a search engine. I recommend using google.com - it's a very comprehensive search engine. Goggle also has an image library that you can search for pictures of bacteria, muscles, flowers, or whatever you are looking for.

*This TIP Sheet has been provided courtesy of Butte College Biology Instructor, Suzanne Wakim.*