

Improving Lecture Note-Taking Strategies
Rick Grossman, Learning Strategies Specialist
Tompkins Cortland Community College

Lecture note taking has a number of purposes. The most obvious is to record the information that the instructor thinks is important on a given topic, so you can come back to it later. You'll most likely forget a good deal of what you heard in class, even if you are paying close attention (see more below).

It is important to recognize that an instructor is likely to "highlight" in a lecture the points that he/she thinks are most important including (but not limited to):

- clarifying points that were confusing in the text (I have a better way to explain...)
- giving his/her own view when he/she disagrees with the text (My own theory based on my research is...)
- adding information when he/she thinks the text omits something or has insufficient material (The book only briefly covers this key point...)
- clarifying common misconceptions (Many people believe... but...)
- clarifying material that his/her experience indicates is often not clearly understood (My students have trouble understanding clearly)

There are distinctly different approaches and combinations of approaches. Some instructors figure that you will read the text so they will give you added value by presenting information not in the text. Others will cover the text pretty much page by page. Still others will only highlight the information within the text they really think is most important for you to know. Most use a combination of these approaches. Recognizing which approach an instructor is using at any given point is a big plus. You can often determine the instructor's approach(es) by asking a student who has recently taken the course.

Obviously, it is not enough just to recognize the instructor's approach and take good notes. You have to do something with the notes once you've taken them. There are limits to our short-term memory (STM) and there is a lot of learning interference that takes place during and after class. Students often seem surprised when they have listened in class, everything they heard made sense, they took good notes, and they still can't recall the information later on. It shouldn't be surprising, most of what you hear in class stays only in STM and then is lost - the instructor is giving you lots of information and not giving you time to work most of it into your long-term memory (LTM). That leads us to a more specific reason to take notes. You need to have a record of the material because you recognize that much of what you get in lecture won't stick, based on what we know about what it takes on our part to process and learn new material - time and effort (the rehearsal and elaboration processes). So, you need to do the processing and actual learning of the material when you can be in control of the time and select the approach. Sure, some of the information will go into your LTM during class, especially if the instructor spent considerable time on it or used multiple ways of presenting the material, you read it in the text in preparation for class, or you did an interesting class activity. In that case, when you go back to your notes, what you are doing is trying to make sure you can retrieve the material from your LTM.

Students often express that it is difficult to really listen and take notes at the same time. They wonder if they would be better off just really focusing on listening and not taking notes. The research shows that students usually concentrate better and learn more when they take notes. Studies have been done where the class is divided into two groups - those who take notes and those who just listen. Then, the students who took the notes have them immediately taken away so they do not have an opportunity to review them. All of the students are then given the same exam. As a group, the students who took the notes do better (even though they never got a chance to study them)! The researchers theorize that it was because the students who took notes were more focused and more actively engaged. It makes sense to me, but everyone is different, so I can't say this would apply to you in any given situation. But, your best bet, I would think, is to get down what you can in any way that you can.

Here are some simple (but powerful) strategies for dealing with a tough lecture situation:

1. Sit up front. (It doesn't work for everyone and in every situation, but it's worth a try!)
2. Find someone else in class who you think takes great notes. Ask if you can photocopy them for one class. See what you can learn about how that person formats their notes and what they choose to write.
3. Form a study group or get a study partner. Meet after every class (or at least once a week) to review the notes and deal with questions/problems.
4. Move to another section of the course taught by the same instructor at a better time (during one of your peak energy times, or maybe not right after another tough class). Ask the instructor if he/she teaches the same course at a different time and explain your reasons for wanting to switch sections.
5. Ask the instructor if you can have access to his/her PowerPoint presentations.
6. See the instructor in his/her office, or see a tutor who is familiar with that instructor's teaching style.

Some thoughts on using a recorder in class:

First of all, you must ask the instructor's permission. Unless you are a student with a disability who has been allowed the use of a recorder as an accommodation, the choice is up to the instructor. Some instructors see the lecture as their "property". Also, consider that there may be times, like discussions, where the instructor may feel your recorder will keep people from participating. Second, I strongly urge you to try it a few times before buying an expensive recorder. And, of course, take notes on the key points even though the recorder is running. Recognize that many instructors walk around the room, turn toward the board, etc., so the quality of the recording may be a significant issue.

My experience has been that some students don't find recording as useful or practical as they hoped; they usually know in the first few days whether this approach is enhancing the process. This can be for many reasons, the auditory approach just doesn't seem to work - there may be a lot of visual information missed, it is very time consuming to listen to the tape, stopping and starting over and over, etc. It does work for some people as a back-up plan or to use for "doubling-up". If you keep the recording until you review the material in the notes, you can listen to it to clarify a point here or there as needed. I've seen this work with study groups when the group meets regularly. Or, if you have a lot of "drive time", a big lawn to mow, etc., you can listen to the recording while you are doing the other activity – "doubling up"!

Some thoughts on the Cornell Note Taking System:

There is no "right way" to do the Cornell note-taking system. Basically, the Cornell note-taking system (CNS) is an excellent method for actively processing and learning new material. It is also an excellent method to use for testing your ability to retrieve material once you have learned it. And, it incorporates many of the tips and techniques mentioned above. One key is that it promotes an active post-lecture review process. By using an extra-wide left margin soon after class to write questions/cues on the material and then quizzing yourself, you are actively involved in learning. Many students just read over their notes passively - it is often a poor use of time. Another key is that it gets you to leave behind questions or cues that you can use later to check retrieval when it's test time. If you use the CNS on a regular basis, you spend much more time on the business of learning. You "front-load" the system, taking things in smaller bites week by week when they are fresher. When it's time to prepare for a test, you're way ahead of the game!

Google "Cornell Note Taking System" for more information.

Lecture Note Taking: Before, During, and After

There are many things you can do before, during, and after class to improve effectiveness and efficiency of the note taking process. Here are some for you to consider:

Tips and techniques for **before** the lecture:

- Review the material from the last session (notes, handouts, text, etc.)
- Preview the material for the upcoming session. Try to get the "big picture", familiarize yourself with new terms, and look for connections to the last lecture. If you don't have time to read the entire chapter, just look over the charts, graphs, etc. and then read the summary.

This is an often-overlooked area. It is one where just 5 or 10 minutes of work the night before, or the morning of, each class can pay big dividends in both reducing stress and taking clearer lecture notes. It also leads to better retention for tests because of the regular review.

Tips and techniques for **during** the lecture:

- Use a lot of paper. Consider using only one side of each page. You can put additional notes from the book or make quiz questions on the opposite page. You can also, if you use a loose-leaf notebook, take out the notes and spread them out to study. Leave lots of space between ideas and start each new topic on the top of the next page.
- Focus on the first few minutes and last few minutes of class. The introduction, overview, summary, and next-class highlight can help a great deal.
- Write down anything (almost) the instructor puts on the board or puts on a PowerPoint slide.
- Recording tips:
 - use complete thoughts/phrases (not just a word or two)
 - show organization by indenting details under main points and numbering items
 - leave space between topics
 - label everything possible (definition, 2 examples, 3 causes, 4 stages, 5 methods, 6 results)
 - use abbreviations and codes (abbrev = abbreviation, LS = left side, + = and)
 - leave out little words like "a" and "the"
 - leave a bracket to indicate where missing information starts and ends
- Listen and look for cues to important information:
 - listen for verbal cues (saying so, change of tone, pitch, etc.)
 - listen for signal words and phrases to main ideas (three causes of..., the key differences between..., most significant was..., the results were...)
 - listen for signal words and phrases to important details
(items in a list: first, also, in addition, next, last, finally; items in a sequence: first, next, then, finally; items being contrasted: however, but, on the other hand, although)
 - look for non-verbal cues (facial expression, gestures, etc.)
- Identify special information and make notes on it.
 - indicate important ideas (!, *, or T)
 - indicate confusing information (use???)
 - indicate page numbers if information is taken directly from the textbook

Tips and techniques for **after** the lecture:

(This is a crucial, but often ignored, part of the process.)

- 1) Go back to your notes as soon as possible after class. The longer you wait the harder it will be to make sense of your notes and the longer it will take to learn them. When possible, get back to your notes the same day that you took them.
- 2) Review and "clean up" the material, adding information from your head and the textbook to clarify. Rewrite the notes, if appropriate, to improve readability and organization.
- 3) Generate labels and/or questions for the information so you can quiz yourself now and later. You can use the chapter objectives, study guide, chapter review questions to help in creating questions. A study group can work together on this - two or three heads are usually better than one. For example: 3 types of skin cancer, what is the definition of episodic memory?, 6 steps in the information processing model, what are the 5 leading causes of forgetting?. This feedback and retrieval step is vital. Just because the material makes sense does not mean you have processed and learned it. This is a critical point - you have to be actively engaged and take some time. Until you try to retrieve information, you don't know if it is in LTM or can be recalled from LTM. Use whatever method works best for you to rehearse the material and give yourself feedback that you have actually learned the material. You can write, recite, make pictures, etc., but you have to do something! What you are doing, in essence, is predicting test questions and actively seeing if you can answer them. That's a great way to learn and prepare for an exam.