

What's Your Learning Style?

Different people have different learning styles. Style refers to a student's specific learning preferences and actions. One student may learn more effectively from listening to the instructor. Another learns more effectively from reading the textbook, while another student benefits most from charts, graphs, and images the instructor presents during a lecture.

Learning style is important in college. Each different style, described later in more detail, has certain advantages and disadvantages compared with other styles. None is "right" or "wrong." You can learn to use your own style more effectively.

College instructors also have different teaching styles, which may or may not match up well with your learning style. Although you may personally learn best from a certain style of teaching, you cannot expect that your instructors will use exactly the style that is best for you. Therefore it is important to know how to adapt to teaching styles used in college.

Different systems have been used to describe the different ways in which people learn. Some describe the differences between how extroverts (outgoing, gregarious, social people) and introverts (quiet, private, contemplative people) learn. Some divide people into "thinkers" and "feelers." A popular theory of different learning styles is Howard Gardner's "multiple intelligences," based on eight different types of intelligence:

1. Verbal (prefers words)
2. Logical (prefers math and logical problem solving)
3. Visual (prefers images and spatial relationships)
4. Kinesthetic (prefers body movements and doing)
5. Rhythmic (prefers music, rhymes)
6. Interpersonal (prefers group work)
7. Intrapersonal (prefers introspection and independence)
8. Naturalist (prefers nature, natural categories)

The multiple intelligences approach recognizes that different people have different ways, or combinations of ways, of relating to the world.

Another approach to learning styles is called the VARK approach, which focuses on learning through different senses (**V**isual, **A**ural, **R**eading/Writing, and **K**inesthetic):

- Visual learners prefer images, charts, and the like.
- Aural learners learn better by listening.
- Reading/writing learners learn better through written language.
- Kinesthetic learners learn through doing, practicing, and acting.

You can take a free learning style assessment at <http://www.personal.psu.edu/bxb11/LSI/LSI.htm>.

There are still more systems used by educators to describe the various ways in which people learn. All of these systems can help you learn more about how **you as an individual person and college student learn best**. You can use the online assessment in the "Outside the Book" section at the end of this chapter to learn more about your style.

Just knowing your style, however, doesn't automatically provide a solution for how to do your best in your college courses. For example, although you may be a kinesthetic learner, you'll likely still have

textbook reading assignments (verbal learning) as well as lecture classes (listening). All students need to adapt to other ways of learning.

The following sections look at the key ways in which learning occurs in college classes and offer some suggestions about how to adapt your strengths for success.

Reading

Reading skills are critically important in college. Most classes involve reading assignments. Although many instructors may cover some of the textbook's content in lectures or class discussions, students cannot skip the reading assignments and expect to do well.

If your personal learning style is verbal and independent—that is, if you learn well by sitting alone and reading—then you will likely not have difficulty with your college reading. Here are some tips to help maximize your learning:

- Underline and highlight key ideas when reading.
- Take good notes on your reading, using your own words.
- Write descriptions that summarize information presented in nonverbal modes, such as through charts and graphs.
- Do all optional and supplemental readings.
- Take good notes in class, as you may remember more from your written words than from the instructor's spoken words.
- If a class involves significant nonreading learning, such as learning hands-on physical processes, study with other students who are kinesthetic or “doing” learners.

If you have a different learning style, then you may need to give more attention to your reading skills. Always allow plenty of time for reading assignments—rushing makes it harder to understand what you are reading. Do your reading at times of the day when you are most alert. Find a quiet, comfortable place conducive to reading.

Try also to maximize your learning through your personal style. If you learn better by listening, for example, sit up front in lecture classes where you can see and hear the instructor better. If needed, ask if you can tape-record an instructor's lectures and then listen again at a convenient time, such as when commuting to class or work. If you are more of a visual learner, sit in class where you can see PowerPoint slides and other visual presentations most clearly. Use a visual approach in your class notes, as described in Chapter 4 “Listening, Taking Notes, and Remembering”. Check out whether video podcasts may be available for reviewing lectures. Try to relate all of these visual images to the textbook's content when you're reading an assignment. In addition, pay special attention to illustrations and diagrams in the book, which will further help you understand the written ideas and information. If you are more of an interpersonal learner, form a study group with other students and talk with others about the course topics. Take advantage of your instructors' office hours to help clarify your understanding after reading assignments.

Listening

Listening skills are as important in college as reading skills. College students are expected to listen to their instructors in class and remember and understand what is said. In discussion classes, listening is important also for participating well in discussions.

If your personal learning style favors listening, then you may already be good at understanding class lectures. Chapter 4 “Listening, Taking Notes, and Remembering” provides tips to help you pay close attention, take good notes, and recall the information and ideas you have heard. Here are some more tips:

- Sit where you can best hear the instructor, away from other distractions.
- Study with other students and listen to what they say about the course material. Hearing them talk from their class notes may be more helpful than reviewing your own written notes.
- Record lectures and listen to them again later when reviewing material before a test.
- When studying, read your notes aloud. Review previous tests by reading the questions aloud and speaking your answers. If a section in your textbook seems confusing, read it aloud.
- Talk with your instructor if you feel you are not understanding course readings.
- Use rhymes or acronyms to recall verbal information. For more information, see Chapter 4 “Listening, Taking Notes, and Remembering”.
- Explore supplemental learning aids, such as audio and video podcasts (even from other colleges and universities) on the course’s subject matter.

Seeing

A “seeing” learner learns more effectively through seeing than through reading or listening. Some college courses include demonstrations and physical processes that can be observed. If you are a visual learner, work on developing your reading and listening skills, too, because you will need to learn in these ways as well. Here are some tips to improve learning related to seeing:

- Pay special attention in class to visual presentations, such as charts, diagrams, and images.
- Take lecture notes using a visual approach. Do the same when taking notes on class readings. Use diagrams, different colors, lists, and sketches to help you remember. For more information, see Chapter 4 “Listening, Taking Notes, and Remembering”.
- Use video podcasts or other visual aids for reviewing lectures.
- Pay special attention to your textbooks’ illustrations and diagrams.
- If your instructor or textbook uses few visuals to help you understand and recall information and ideas, try to imagine how you would present this information visually to others if you were giving a class presentation. In your notes, create sketches for a PowerPoint slideshow capturing the highlights of the material.
- Study with other students who may learn better by reading or listening, and watch how they explain the material.

Doing

People who learn best by doing are often attracted to careers with a strong physical or hands-on component, which can vary from athletics to engineering. But these students may need to use other learning skills as well. Here are some tips to help maximize your learning related to doing:

- Try to engage all your senses when learning. Even when reading about something, try to imagine what it would feel like if you touched it, how it might smell, how you could physically manipulate it, and so forth.
- Think about how you yourself would teach the topic you are presently learning. What visuals could you make to demonstrate the idea or information? Imagine a class lecture as a train of boxcars and think about what things you would put in those cars to represent the lecture topics.
- When it becomes difficult to concentrate when reading while sitting in a quiet place, get up and move around while studying; make gestures as you read aloud.

- Use your hands to create a range of study aids rather than just taking notes: make charts, posters, flash cards, and so on.
- When taking notes, sketch familiar shapes around words and phrases to help you remember them. Try to associate abstract ideas with concrete examples.
- The act of writing—handwriting more than typing at a keyboard—may increase retention; write key things several times.
- Study with other students who may learn better by reading or listening.

Feeling

Feeling learners focus on the emotional side of information and learn through personal connections. Too often they may feel that a college textbook or a class is “dry” or “boring” if it focuses exclusively on written information. In addition to improving their reading and listening skills, students with this style can enrich their learning by focusing on what they and others feel about the information and ideas being learned. Here are some tips to help maximize your learning related to feeling:

- Try to establish an emotional connection with the topic you are learning. In a history class, for example, imagine yourself as someone living in the period you are studying: what would you feel about the forces at work in your life? In a science class, think about what the implications of a particular scientific principle or discovery might mean for you as a person or how you yourself might have felt if you had been the scientist making that discovery.
- Talk with your instructor during office hours. Express your enthusiasm and share your feelings about the subject. Even instructors who may seem “dry” in a lecture class often share their feelings toward their subject in conversation.
- Do supplemental reading about the people involved in a subject you’re studying. For example, reading an online biographical sketch of a historical figure, scientist, or theorist may open your eyes to a side of the subject you hadn’t seen before and increase your learning.
- Study with other students who may learn better by reading or listening. Talk with them in a personal way about what the material means to them. Try teaching them about the topic while explaining your feelings about it.
- Also try the strategies listed for the “doing” learning style.

Your Style, Your Instructor’s Style

Many college classes tend to focus on certain learning styles. Instructors in large lecture classes, for example, generally emphasize listening carefully and reading well. Don’t worry, however, if these are not your particular strengths, for much of this book focuses on learning study skills and other college skills related to these activities. Take responsibility for your own learning, rather than expecting the instructor to help you through the subject in your own personal way. For example, if you are a visual learner but your instructor simply stands at a podium and lectures, then provide your own visual stimulation by sketching concept maps in your notes or by visualizing how information being presented might look in a pie chart or graph. For more information, see Chapter 4 “Listening, Taking Notes, and Remembering”.

As you move further into your college curriculum, you will likely have more small classes with class discussions, demonstrations, group presentations, and other learning activities. Once you are in classes closely related to a career path that interests you, you will find your personal style more relevant to the kinds of material you will be learning.

Much learning in college also comes from interactions with others, who often have different learning styles. Be open to interacting with other students and instructors who are different from you, and you will find yourself learning in ways that may be new to you.

Finally, if a genuine mismatch is occurring between your learning style and your instructor's teaching style to the extent that you may not succeed in a course, talk to your instructor privately during office hours. You can explain how you best learn and ask for suggestions about other resources that may help you.

Now that You Know Your Learning Style, How Do You Effectively Take Notes?

Everybody takes notes, or at least everybody claims to. But if you take a close look, many who are claiming to take notes on their laptops are actually surfing the Web, and paper notebooks are filled with doodles interrupted by a couple of random words with an asterisk next to them reminding you that "This is important!" In college, these approaches will not work. In college, your instructors expect *you* to make connections between class lectures and reading assignments; they expect *you* to create an opinion about the material presented; they expect *you* to make connections between the material and life beyond college. Your notes are your road maps for these thoughts. Do you take good notes? After learning to listen, note taking is the most important skill to ensure your success in a class.

Effective note taking is important because it

- supports your listening efforts,
- allows you to test your understanding of the material,
- helps you remember the material better when you write key ideas down,
- gives you a sense of what the instructor thinks is important,
- creates your "ultimate study guide."

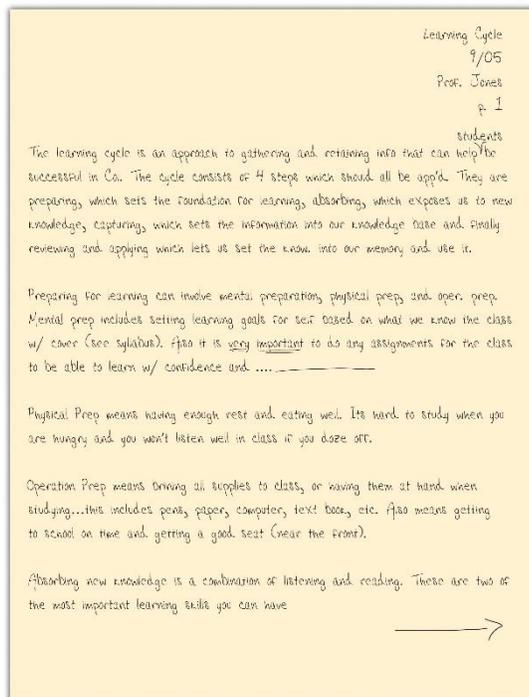
There are various forms of taking notes, and which one you choose depends on both your personal style and the instructor's approach to the material. Each can be used in a notebook, index cards, or in a digital form on your laptop. No specific type is good for all students and all situations, so we recommend that you develop your own style, but you should also be ready to modify it to fit the needs of a specific class or instructor. To be effective, all of these methods require you to listen actively and to think; merely jotting down words the instructor is saying will be of little use to you.

- There are four primary ways of taking notes (lists, outlines, concept maps, and the Cornell method).
- Select the note-taking method that best serves your learning style and the instructor's teaching style. Remember that methods may be combined for maximum effect.
- Completing assignments and reviewing the syllabus can help you define the relative importance of the ideas the instructor presents.
- Don't expect to capture everything the instructor says. Look for keywords and central ideas.
- Anything the instructor writes on the board is likely to be important.
- Review your notes as soon as possible after the class, to annotate, correct, complete, and summarize.

Method	Description	When to Use
Lists	A sequential listing of ideas as they are presented. Lists may be short phrases or complete paragraphs describing ideas in more detail.	This method is what most students use as a fallback if they haven't learned other methods. This method typically requires a lot of writing, and you may find that you are not keeping up with the professor. It is not easy for students to prioritize ideas in this method.
Outlines	The outline method places most important ideas along the left margin, which are numbered with roman numerals. Supporting ideas to these main concepts are indented and are noted with capital letters. Under each of these ideas, further detail can be added, designated with an Arabic number, a lowercase letter, and so forth.	A good method to use when material presented by the instructor is well organized. Easy to use when taking notes on your computer.
Concept Maps	When designing a concept map, place a central idea in the center of the page and then add lines and new circles in the page for new ideas. Use arrows and lines to connect the various ideas.	Great method to show relationships among ideas. Also good if the instructor tends to hop from one idea to another and back.
Cornell Method	The Cornell method uses a two-column approach. The left column takes up no more than a third of the page and is often referred to as the "cue" or "recall" column. The right column (about two-thirds of the page) is used for taking notes using any of the methods described above or a combination of them. After class or completing the reading, review your notes and write the key ideas and concepts or questions in the left column. You may also include a summary box at the bottom of the page, in which to write a summary of the class or reading in your own words.	The Cornell method can include any of the methods above and provides a useful format for calling out key concepts, prioritizing ideas, and organizing review work. Most colleges recommend using some form of the Cornell method.

The List Method

The list method is usually not the best choice because it is focused exclusively on capturing as much of what the instructor says as possible, not on processing the information. Most students who have not learned effective study skills use this method, because it's easy to think that this is what note taking is all about. Even if you are skilled in some form of shorthand, you should probably also learn one of the other methods described here, because they are all better at helping you process and remember the material. You may want to take notes in class using the list method, but transcribe your notes to an outline or concept map method after class as a part of your review process. It is always important to review your notes as soon as possible after class and write a summary of the class in your own words.



The Outline Method

The advantage of the outline method is that it allows you to prioritize the material. Key ideas are written to the left of the page, subordinate ideas are then indented, and details of the subordinate ideas can be indented further. To further organize your ideas, you can use the typical outlining numbering scheme (starting with roman numerals for key ideas, moving to capital letters on the first subordinate level, Arabic numbers for the next level, and lowercase letters following.) At first you may have trouble identifying when the instructor moves from one idea to another. This takes practice and experience with each instructor, so don't give up! In the early stages you should use your syllabus to determine what key ideas the instructor plans to present. Your reading assignments before class can also give you guidance in identifying the key ideas.

If you're using your laptop computer for taking notes, a basic word processing application (like Microsoft Word or Works) is very effective. Format your document by selecting the outline format from the format bullets menu. Use the increase or decrease indent buttons to navigate the level of importance you want to give each item. The software will take care of the numbering for you!

After class be sure to review your notes and then summarize the class in one or two short paragraphs using your own words. This summary will significantly affect your recall and will help you prepare for the next class.

Learning Cycle
9/03
Prof. Jones
pg. 1 of _____

Learning is a Cycle made up of 4 steps

- I. Preparing: Setting the Foundation for Learning
- II. Absorbing: (Data Input) Exposure to new knowledge
- III. Capturing: Taking ownership of the knowledge
- IV. Review & Apply: Putting new knowledge to work

I. Preparing:

A-Mental Prep -

- 1- Do Assignments - New knowledge is built on prior knowledge
 - a) Assignments from prior classes
 - b) Readings! (May not have been assigned in class - see Syllabus!)
- 2- Review Syllabus
 - a) Know what instructor expects to cover
 - b) Know what assignments you need to do
 - c) Set yr. own obj.

B-Physical Prep

- 1- Get right amount of rest - Don't zzz in class.
- 2- Eat right - Hard to focus when you are hungry.
- 3- Arrive on time.

C-Practical Prep: (Organizational Prep)

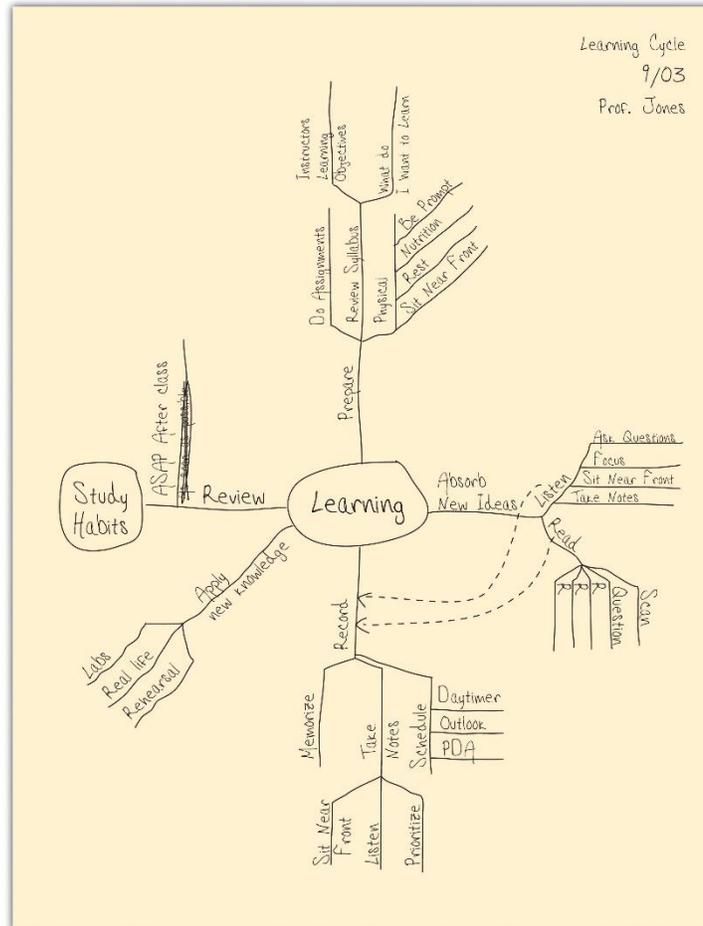
- 1- Bring right supplies - (Notebooks, Texts, Pens, etc.)
- 2- Sit in the front of class
- 3- Arrive on time
 - a) Get organized and ready to listen
 - b) Don't interrupt the focus of others
 - c) Get a good seat

The Concept Map Method

This is a very graphic method of note-taking that is especially good at capturing the relationships among ideas. Concept maps harness your visual sense to understand complex material "at a glance." They also give you the flexibility to move from one idea to another and back easily (so they are helpful if your instructor moves freely through the material).

To develop a concept map, start by using your syllabus to rank the ideas you will listen to by level of detail (from high-level or abstract ideas to detailed facts). Select an overriding idea (high level or abstract) from the instructor's lecture and place it in a circle in the middle of the page. Then create branches off that circle to record the more detailed information, creating additional limbs as you need them. Arrange the branches with others that interrelate closely. When a new high-level idea is presented, create a new circle with its own branches. Link together circles or concepts that are related. Use arrows and symbols to capture the relationship between the ideas. For example, an arrow may be used to illustrate cause or effect, a double-pointed arrow to illustrate dependence, or a dotted arrow to illustrate impact or effect.

As with all note-taking methods, you should summarize the chart in one or two paragraphs of your own words after class.



The Cornell Method

The Cornell method was developed in the 1950s by Professor Walter Pauk at Cornell University. It is recommended by most colleges because of its usefulness and flexibility. This method is simple to use for capturing notes, is helpful for defining priorities, and is a very helpful study tool.

The Cornell method follows a very specific format that consists of four boxes: a header, two columns, and a footer.

The header is a small box across the top of the page. In it you write identification information like the course name and the date of the class. Underneath the header are two columns: a narrow one on the left (no more than one-third of the page) and a wide one on the right. The wide column, called the “notes” column, takes up most of the page and is used to capture your notes using any of the methods outlined earlier. The left column, known as the “cue” or “recall” column, is used to jot down main ideas, keywords, questions, clarifications, and other notes. It should be used both during the class and when reviewing your notes after class. Finally, use the box in the footer to write a summary of the class in your own words. This will help you make sense of your notes in the future and is a valuable tool to aid with recall and studying.

Prof. Jones
 9/03
 Page 1

LEARNING CYCLE

*Chart from
Powerpoint

NTS: What brain foods should I include in my diet?

What is the difference between hearing and listening?

How does Jones signal something is important?

4 Steps of Learning Cycle

I Preparing

II Absorbing

III Capturing

IV Reviewing and Applying

```

graph TD
    Prepare --> Learning
    Learning --> Capture
    Capture --> Review
    Review --> Prepare
          
```

I Preparing

- Mental: Do Assignments
- Review syllabus
- Set learning goals
- Physical: Get sleep
- Eat right
- Operational: Supplies on hand
- Sit in the right part of the class

II Absorbing: Listening and Reading

I Listening - Hearing w/ the obj of UNDERSTANDING.

Focus on what is being said - give the speaker your undivided attention. Don't prejudge. Find ways of confirming what you just heard is what they intended. Eliminate distractions.

Look for Signals: Each instructor uses different ways to let you know what is important: Writing on the board, repetition, change of inflection.

There are 4 steps to effective learning: Preparing, absorbing, capturing and reviewing. Each of these steps must be used continually to be a successful student.

Using Index Cards for the Cornell Method

Some students like to use index cards to take notes. They actually lend themselves quite well to the Cornell method. Use the “back” or lined side of the card to write your notes in class. Use one card per key concept. The “front” unlined side of the card replaces the left hand “cue” column. Use it after class to write keywords, comments, or questions. When you study, the cards become flash cards with questions on one side and answers on the other. Write a summary of the class on a separate card and place it on the top of the deck as an introduction to what was covered in the class.

I used to tape my lecture classes so I could fill in my sketchy notes afterward. Now that I’m using the Cornell system, my notes are complete and organized in much less time. And my regular five-minute reviews make learning almost painless. No more taping and listening twice.

You will have noticed that all methods end with the same step: reviewing your notes as soon as possible after class. Any review of your notes is helpful (reading them, copying them into your computer, or even recasting them using another note-taking method). But **THINK!** Make your review of notes a thoughtful activity, not a mindless process. When you review your notes, think about questions you still have and determine how you will get the answers. (From the next class? Studying with a friend? Looking up material in your text or on the net?) Examine how the material applies to the course; make connections with notes from other class sessions, with material in your text, and with concepts covered in class discussions. Finally, it's fun to think about how the material in your notes applies to real life. Consider this both at the very strategic level (as in "What does this material mean to me in relation to what I want to do with my life?") as well as at a very mundane level (as in "Is there anything cool here I can work into a conversation with my friends?").

General Tips on Note Taking

Regardless of what note-taking method you choose, there are some note-taking habits you should get into for all circumstances and all courses:

1. **Be prepared.** Make sure you have the tools you need to do the job. If you are using a notebook, be sure you have it with you and that you have enough paper. Also be sure to have your pen (as well as a spare) and perhaps a pen with different colored ink to use for emphasis. If you are taking notes on your laptop, make sure the battery is charged! Select the application that lends itself best to your style of note taking. Microsoft Word works very well for outline notes, but you might find taking notes in Excel to work best if you are working within the Cornell method. (It's easier to align your thoughts in the cue or recall column to your notes in the right column. Just be sure you keep one idea per row!)
2. **Write on only one side of the paper.** This will allow you to integrate your reading notes with your class notes.
3. **Label, number, and date all notes at the top of each page.** This will help you keep organized.
4. **When using a laptop, position it such that you can see the instructor and white board right over your screen.** This will keep the instructor in your field of vision even if you have to glance at your screen or keyboard from time to time. Make sure your focus remains with the instructor and not on your laptop. A word of caution about laptops for note taking: use them if you are very adept at keyboarding, but remember that not all note-taking methods work well on laptops because they do not easily allow you to draw diagrams and use special notations (scientific and math formulas, for example).
5. **Don't try to capture everything that is said.** Listen for the big ideas and write them down. Make sure you can recognize the instructor's emphasis cues and write down all ideas and keywords the instructor emphasizes. Listen for clues like "the four causes were..." or "to sum up...."
6. **Copy anything the instructor writes on the board.** It's likely to be important.
7. **Leave space between ideas.** This allows you to add additional notes later (e.g., notes on the answer to a question you or one of your classmates asked).
8. **Use signals and abbreviations.** Which ones you use is up to you, but be consistent so you will know exactly what you mean by "att." when you review your notes. You may find it useful to keep a key to your abbreviations in all your notebooks.

9. **Use some method for identifying your own thoughts and questions to keep them separate from what the instructor or textbook author is saying.** Some students use different color ink; others box or underline their own thoughts. Do whatever works for you.
10. **Create a symbol to use when you fall behind** or get lost in your note taking. Jot down the symbol, leave some space, and focus on what the instructor is covering now. Later you can ask a classmate or the professor to help you fill in what you missed, or you can find it in your textbook.
11. **Review your notes as soon after class as possible (the same day is best).** *This is the secret to making your notes work!* Use the recall column to call out the key ideas and organize facts. Fill in any gaps in your notes and clean up or redraw hastily drawn diagrams.
12. **Write a summary of the main ideas of the class in your own words.** This process is a great aid to recall. Be sure to include any conclusions from the lecture or discussion.