you have a preliminary understanding of what is being said. Coming to class prepared also means bringing the proper materials for taking notes: lab manuals, pens, a notebook, highlighter, computer, or tablet.

- **Bring your textbook** to class. Although many students think they do not need to bring their textbooks to class if they have read the homework, you will find that many instructors repeatedly refer to the text while lecturing. The instructor may ask you to highlight, underline, or refer to the text in class, and following along in the text as the instructor lectures may also help you organize your notes.

- **Ask questions** and participate in class. Two of the most critical actions you can perform in class are to ask questions and to participate in the class discussion. If you do not understand a concept or theory, ask questions. Don't leave class without understanding what has happened and assume you'll pick it up on your own.

**YOU’LL BE SEEING STARS**

What Is The L-STAR System and How Can It Be Used?

One of the most effective ways to take notes begins with the **L-STAR system**, outlined in Figure 9.3.

This five-step system will enable you to compile complete, accurate, and visual notes for future reference. Along with improving your note-taking skills, using this system will enhance your ability to participate in class, help other students, study more effectively, and perform well on exams and quizzes.

**L—Listening**

One of the best ways to become an effective note-taker is to become an active listener. A concrete step you can take toward becoming an active listener in class is to sit near the front of the room, where you can hear the instructor and see the board and overheads. Choose a spot that

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**Figure 9.3** The L-STAR System

- L = Listening
- R = Remembering
- S = Setting it down
- A = Analyzing
- T = Translating
allows you to see the instructor's mouth and facial expressions. If you see that the instructor's face has become animated or expressive, you can bet that you are hearing important information. Write it down. If you sit in the back of the room, you may miss out on these important clues. If you are listening to an instructor who is online, be certain to take notes, jot down questions for later, and participate as often as allowed.

S—Setting It Down

The actual writing of notes can be a difficult task. Some instructors are organized in their delivery of information; others are not. Some stick to an easy-to-follow outline and others ramble around, making it more difficult to follow them and take notes. Your listening skills, once again, are going to play an important role in determining what needs to be written down. In most cases, you will not have time to take notes verbatim. Some instructors talk very fast. You will have to be selective about the information you choose to set down. One of the best ways to keep up with the information being presented is to develop a shorthand system of your own. Many of the symbols you use will be universal, but you may use some symbols, pictures, and markings that are uniquely your own. Some of the more common symbols are:

\[
\begin{align*}
&w/ & w/o & \text{with} & \text{without} \\
= & \text{equals} & \ne & \text{does not equal} \\
< & \text{less than} & > & \text{greater than} \\
\% & \text{percentage} & \# & \text{number} \\
& & ^ & \text{increase} \\
+ & \text{plus or addition} & - & \text{minus or subtraction} \\
* & \text{important} & \text{etc.} & \text{and so on} \\
e.g. & \text{for example} & \text{vs} & \text{against or as compared to} \\
esp & \text{especially} & " & \text{quote} \\
? & \text{question} & \text{...} & \text{and so on}
\end{align*}
\]

These symbols can save you valuable time when taking notes. Because you will use them frequently, it might be a good idea to memorize them.

T—Translating

Translating can save you hours of work as you begin to study for exams. Many students feel that this step is not important, or too time-consuming, and leave it out. Don't. Often, students take notes so quickly that they make mistakes or use abbreviations that they may not be able to decipher later.

After each class, go to the library or some other quiet place and review your notes. You don't have to do this immediately after class, but before the end of the day, you will need to rewrite and translate your classroom notes. This process gives you the opportunity to put the notes in your own words and to incorporate your text notes into your classroom notes. This practice also provides a first opportunity to commit this information to memory.

Translating your notes helps you to make connections among previous material discussed, your own personal experiences, readings, and new material presented. Translating aids in recalling and applying new information. It is very difficult trying to decipher and reconstruct your notes the night before a test, especially when they were made several weeks earlier.
A—Analyzing

This step takes place while you translate your notes from class. When you analyze your notes, you are asking two basic questions: (1) What does this mean? and (2) Why is it important? If you can answer these two questions about your material, you have almost mastered the information. Though some instructors will want you to spit back the exact same information you were given, others will ask you for a more detailed understanding and a synthesis of the material. When you are translating your notes, begin to answer these two questions using your notes, textbook, supplemental materials, and information gathered from outside research. Once again, this process is not simple or quick, but testing your understanding of the material is important. Remember that many lectures are built on past lectures. If you do not understand what happened in class on September 17, you may not be able to understand what happens on September 19. Analyzing your notes while translating them will give you a more complete understanding of the material. Asking questions using Bloom’s Taxonomy can greatly assist you, too.

R—Remembering

Once you have listened to the lecture, set your notes on paper, and translated and analyzed the material, it is time to study, or remember, the information. Some effective ways to remember information include creating a visual picture, speaking the notes out loud, using mnemonic devices, and finding a study partner.

THREE COMMON NOTE- TAKING SYSTEMS

Why Doesn’t Everyone Listen and Take Notes the Same Way?

There are three common note-taking systems: (1) the outline technique; (2) the Cornell, or split-page technique (also called the T system); and (3) the mapping technique.

THE OUTLINE TECHNIQUE

Is It As Simple As A, B, C—1, 2, 3?

The outline system uses a series of major headings and multiple subheadings formatted in hierarchical order (see Figure 9.4). The outline technique is one of the most commonly used note-taking systems, yet it is also one of the most misused systems. It can be difficult to outline notes in class, especially if your instructor does not follow an outline while lecturing.

When using the outline system, it is best to get all the information from the lecture, and then to combine your lecture notes and text notes to create an outline afterward. Most instructors would advise against using the outline system of note-taking in class, although you may be able to use a modified version. The most important thing to remember is not to get bogged down in a system during class; what is critical is getting the ideas down on paper. You can always go back after class and rearrange your notes as needed.

If you are going to use a modified or informal outline while taking notes in class, you may want to consider grouping information together under a heading as a means of outlining. It is easier to remember information that is logically grouped than to remember information that is scattered across several pages. If your study skills lectures on listening, you might outline your notes using the headings “The Process of Listening” and “Definitions of Listening.”

After you have rewritten your notes using class lecture information and material from your textbook, your notes may look like those in Figure 9.4.
THE CORNELL SYSTEM

Is It A Split Decision?

The basic principle of the Cornell system, developed by Dr. Walter Pauk of Cornell University, is to split the page of your notebook into two columns. Column A is to be used for major headings or questions and section B is to be used for actual notes from the class, text, or online readings. See Figure 9.5 for an example of the Cornell note-taking system.
Figure 9.5 Outline Using a Cornell Frame

Oct 30

Topic: Maslow's Hierarchy of Basic Needs

I. Published in 1943 in
   "A Theory of Human Motivation"
   Study of human motivation
   Observation of innate curiosity
   Studied exemplary people

II. Needs arranged like ladder
   Basic needs at the bottom
   Basic needs = deficiency needs
   Highest need = aesthetic need

I. Physiological needs
   Breathing
   Food, water
   Sex
   Sleep

II. Safety needs
   Security of body
   Security of employment
   Resources of
     Family
     Health

III. Love - Belonging needs
   Friendships
   Family
   Sexual intimacy

To implement your note-taking system, you will want to choose the technique that is most comfortable and beneficial for you. You might use mapping (Figure 9.6, discussed later), mapping on a Cornell frame (Figure 9.7), or outlining on a Cornell frame (Figure 9.5).
THE MAPPING SYSTEM

Are You Going Around in Circles?

If you are a visual learner, the mapping system may be especially useful for you. The mapping system of note-taking generates a picture of information (see Figure 9.6). The mapping system creates a map, or web, of information that allows you to see the relationships among facts or ideas. A mapping system using a Cornell frame might look something like the notes in Figure 9.7.

Your note-taking system must work for you. Do not use a system because your friends use it or because you feel that you should use it. Experiment with each system or a combination to determine what is best for you.

Work hard to keep your notes organized, dated, and neat. Notes that cannot be read are no good to you or to anyone else.

Figure 9.6 The Mapping System
TM!TMI! (TOO MUCH INFORMATION)

What Do I Do if I Get Lost While Taking Notes During the Lecture?

Have you ever been in a classroom trying to take notes and the instructor is speaking so rapidly that you cannot possibly get all of the information? Just when you think you're caught up, you realize that he or she has made an important statement and you missed it. What do you do? How can you handle, or avoid, this difficult note-taking situation? Here are several hints:

- Raise your hand and ask the instructor to repeat the information.
- Ask your instructor to slow down.
If he or she will do neither, leave a blank space with a question mark at the side margin. You can get this information after class from your instructor, a classmate, the text, or your study buddy. This can be a difficult task to master. The key is to focus on the information at hand. Focus on what is being said at the exact moment. Don’t give up!

- Meet with your instructor immediately after class or at the earliest time convenient for both of you.
- Form a note-taking group that meets after each class. This serves two purposes: (1) you can discuss and review the lecture, and (2) you will be able to get any notes you missed from one of your note-taking buddies.
- Never lean over and ask questions of another student during the lecture. This will cause them to lose the information as well, and it will probably annoy your peers and the instructor also.
- Rehearse your note-taking skills at home by taking notes from TV news magazines like Dateline or 60 Minutes or channels like the History Channel.
- Ask the instructor’s permission to use a recording device during the lecture. Do not record a lecture without permission. We suggest that you try to use other avenues, such as the ones listed above, instead of taping your notes. It is a time-consuming task to listen to the lecture for a second time. However, if this system works for you, use it.

**CHANGING IDEAS to Reality**

**REFLECTIONS ON LISTENING AND NOTE TAKING**

Yes, listening is a learned skill, but it is more than that. It is a gift that you give to yourself. It is a gift that promotes knowledge, understanding, stronger relationships, and open-mindedness. Good listening skills can help you manage conflict, avoid misunderstandings, and establish trusting relationships. Perhaps most importantly at this point in your life, listening can help you become a more successful student. Once you learn how to listen with your whole body and mind, you will begin to see how your notes, your grades, your attitude, your relationships, and your learning processes changes.

**LISTENING WITH AN OPEN MIND**

Utilizes levels 4 and 5 of the Taxonomy (see Bloom’s Taxonomy at the front of this text)

**Explanation:** Seldom (if ever) would you pop in a CD, click your iPod, or tune your radio to a station that you strongly disliked. It just does not seem like a good use of time and it is not something that you would probably enjoy on a daily basis. However, for this exercise, we are going to ask that you do precisely what we’ve described above and then apply what you’ve experienced and learned to answer several questions.

**Process:** Over the course of the next few days, find a song from your least favorite genre. If you are a huge fan of R&B,