Taking Charge of Your College Career

LEARNING GOALS

1. Develop a plan for managing your college career.
2. Create a system for learning in college.
3. Understand the role of critical thinking in academic success.
4. Master the four essential components of critical thinking.
5. Apply and adapt your study and critical thinking skills to the academic disciplines.

DID YOU KNOW?

- The average graduate of a four-year college earns $29,250 more per year than the average high school graduate.¹
- Employers value a college education and are willing to contribute to their employees’ tuition. Nine percent of financial aid given to undergraduates comes from employers. Twenty-two percent of graduate students and professional degree students receive aid from their employers.²

You are now a college student. Reaching this point has required years of hard work, preparation, and planning. Now that you are here, you are ready to begin the challenging, exciting tasks that college involves. At this point it is only natural for you to be wondering, “How successful will I be?” or “How will I meet these new demands and challenges?” This chapter describes the demands of college, offers numerous success strategies, and teaches you how to become an active, involved learner. It also introduces you to the key critical thinking skills and demonstrates their importance in college success.
Managing Your College Career

Whether you have just completed high school or are returning to college with a variety of work experiences and/or family responsibilities, you will face new demands and expectations in college. Use the following suggestions to help you rise to the challenge.

Set Operating Rules

Unlike high school or jobs you may have held, college imposes few clear limits, rules, or controls. There are no defined work hours except for classes; your time is your own. Often, you face no threats or penalties for missing classes or failing to complete assignments (other than bad grades). You do what you want, when you want, if you want to.

For many students, this lack of structure requires some adjustment; at first, it can be disconcerting. Some students feel they should spend all their free time studying; others put off study or never find quite the right time for it.

One of the best ways to manage this flexibility is to establish a set of operating rules for yourself. For example, you might decide to limit yourself to two absences in each course. Here are examples of some rules successful students have set for themselves:

◆ Study at least three hours each day or evening.
◆ Start studying for a major examination at least a week ahead.
◆ Complete all homework assignments at least one day in advance.
◆ Read all assigned chapters before the class in which they will be discussed.

You may feel more committed to the rules you set if you write them down and post them above your desk, or as a screen saver on your computer or phone, as a constant reminder.

Take Charge of Your College Experience

Students without definite plans and goals drift through college passively, letting things happen and allowing others to control their lives and schedules. In contrast, active decision makers know what they want (a good grade, a good job, the opportunity for an internship or prestigious volunteer position) and plan strategies to obtain it. Here’s how to take charge of your college experience.

Accept Responsibility for Grades

Certainly you have heard comments such as, “Dr. Smith gave me a B on my last paper” or “I got a C on my first lab report.” Students often think of grades as rewards that teachers give them. But grades are earned, not given. If you got a C on your lab report, you met only the basic standards set by your instructor.

You will not always earn the grades you want and you will not always score as well as you expect on every exam or term paper. Analyze what you could have done to improve a disappointing grade, and put this experience to work when you prepare for the next exam or write the next paper.

Don’t Make Excuses

Studying is not easy; it requires time and conscious effort. Try not to create stress for yourself by avoiding study. Here are a few common excuses:

◆ I can’t study tonight because I promised to drive my sister to the mall.
◆ I can’t study for my physics test because the dorm is too noisy.
I can’t finish reading my psychology assignment because the chapter is boring.
I didn’t finish writing my essay because I spent too much time texting or on Facebook.

If you find yourself making excuses to avoid studying, step back and analyze the situation. Consider possible causes and solutions. For example, if the dorm really is too noisy to study, could you study at a different time or find a new place to study, such as the library or a local coffee house?

EXERCISE 1.1
Analyze Study Situations

Directions Analyze your past study performance by answering the following two questions honestly:
1. What excuses have you used to avoid study?
2. Whom have you blamed when you did not study or did not earn the grade you expected?

Develop Essential, Marketable Skills

Many students enter college with a narrowly defined and often limiting academic self-image. They express their academic self-image with comments like these:

“I’m not good with math.”
“I can’t spell, and I’ll never be a good writer.”
“If I have to speak in front of a group, forget it.”

Work on expanding and modifying your skills by taking courses to strengthen your weaknesses and to acquire basic competencies in a variety of areas. (If you are worried about grades, elect a pass-fail option.) For example, an elective course in public speaking will boost your confidence in your ability to present yourself effectively. Becoming

CRITICAL THINKING IN ACTION 1.1
TAKING CHARGE OF YOUR LEARNING AFTER EXAMS

Analyze the following case study; then answer the questions that follow.

A political science professor has just returned graded midterm exams to her class. One student looks at the grade on the first page, then flips through the remaining pages while commenting to a friend that the exam was “too picky.” She files the exam away in her notebook. A second student reviews his exam for grading errors and finds one error. Immediately, he raises his hand and asks for an adjustment to his grade. The instructor seems annoyed and says she will not use class time to dispute individual grades. A third student reviews her exam to identify a pattern of error, and she notes topics and areas in which she is weak.

1. Compare the three students’ responses to the situation.
2. What does each student’s response reveal about his or her approach to learning?
3. What alternatives might have been more appropriate for the second student?
proficient in math is equally important; potential employers expect at least minimum competency with numbers. Build a marketable package of skills that will place you in a competitive position to land that all-important job after graduation.

ExERCiSE 1.2
Examining Your Strengths and Weaknesses

Directions Define your current strengths and weaknesses as a student. If you find that your strengths and weaknesses vary in different courses, make your list specific to each course you are taking. Chart a course of action to address each weakness.

Build Academic Integrity

Academic integrity involves presenting yourself as a serious and honest student. Students with academic integrity do not cheat, and they avoid intentional and unintentional plagiarism.

Avoid Cheating

At many schools, the consequences of cheating are severe and immediate. Cheaters may fail the course automatically; they may even be asked to leave the school completely.

There are many forms of cheating. Obvious forms of cheating include sharing homework assignments or exchanging information with other students during exams. Less obvious forms of cheating include the following:

- Using unauthorized notes during an exam
- Changing exam answers after grading and requesting regrading
- Falsifying or making up results for a lab report
- Submitting the same paper twice for more than one course without instructor approval
- Not following rules on take-home exams
- Using someone else’s work or ideas as if they are your own (plagiarism)

Here’s a good piece of advice to follow: If you think you might be cheating, you probably are.

Avoid Plagiarism

Plagiarism means borrowing someone else’s ideas or exact words without giving that person credit. Plagiarism is intellectually dishonest because those who plagiarize take someone else’s ideas or wording and pass them off as their own. For example, if you take information on Frank Lloyd Wright’s architecture from a reference source but do not indicate where you found it, you have plagiarized. If you take the six-word phrase “Martinez, the vengeful, despicable drug czar” from an online news article about the war on drugs, you have plagiarized.

Plagiarism can be intentional (planned) or unintentional (done by accident or oversight). If you buy a paper from an Internet site or deliberately copy and paste information you found on a Web site into your paper, your plagiarism is intentional. If you take notes from a source and copy the exact wording, forget to enclose the wording in quotation marks, and later use that exact wording in your paper, your plagiarism is unintentional, but just as serious. The academic penalties for both types of plagiarism are similar to those for cheating: a failing grade or academic dismissal.
As you write papers for college classes, you will probably use sources to locate the information you need. As you read and take notes (and, later, as you write the paper), you need to know the rules for indicating and listing the sources of your information.

To avoid plagiarism, use the following suggestions:

- When you take notes from a source, place anything you copy directly from the source in quotation marks.
- As you read and take notes, separate your ideas from ideas taken from sources so that you do not mistakenly present other people’s ideas as your own. One way to do this is to use different colors of ink for each type of information; another is to use different sections of a notebook page or computer file for each type of information.
- Keep track of all sources you use, clearly indicating where each idea came from.
- When paraphrasing someone else’s words, change as many words as possible and try not to follow the exact same organization or sentence structure. Write your paraphrase without looking at the original text so that you rephrase it in your own words. Give credit to the source of the idea.
- When writing your paper, use quotation marks to designate exact quotations.
- Use citations to indicate the source of quotations and all ideas and information that are not your own. A citation is a parenthetical notation referring to a complete listing of sources (Works Cited) at the end of the paper.
- Never copy and paste directly from a Web site into your paper without enclosing the words in quotation marks and identifying the source.

Avoid Cyberplagiarism

Cyberplagiarism involves borrowing information from the Internet without giving credit to the source. It is also called cut-and-paste plagiarism, referring to the ease with which a person can copy something from an Internet document and paste it into his or her own paper. Cyberplagiarism also refers to buying pre-written papers from a Web site and submitting them as one’s own.

Instructors have access to Web sites that easily and quickly identify papers that have been shared or purchased, so most instructors can easily spot a paper that has been purchased on the Web. Other programs help instructors identify plagiarism in papers that students have written from scratch.

WHAT IS PLAGIARISM?

- **Plagiarism** is the use of another person’s words without giving credit to that person.
- **Plagiarism** occurs when a writer uses another person’s theory, opinion, or idea without indicating the source of the information.
- **Plagiarism** results when a writer does not place the exact words of another person inside quotation marks. Both the quotation marks and a citation (reference) to the original source are needed.
- Paraphrasing (rewording) another person’s words without giving credit to the source is plagiarism.
- Using facts, data, graphs, charts, and so on without stating their source is plagiarism.
- Using commonly known facts or information is not plagiarism and you need not give a source for your information. For example, the fact that Neil Armstrong set foot on the moon in 1969 is widely known and does not require documentation.
Chapter 1

EXERCISE 1.3 Recognizing Plagiarism

Directions Read the following passage from Sociology for the Twenty-First Century by Tim Curry, Robert Jiobu, and Kent Schwirian. Place a check mark next to each statement that is an example of plagiarism from this passage.

Mexican Americans. Currently, Mexican Americans are the second-largest racial or ethnic minority in the United States, but by early in the next century they will be the largest group. Their numbers will swell as a result of continual immigration from Mexico and the relatively high Mexican birth rate. Mexican Americans are one of the oldest racial–ethnic groups in the United States. Under the terms of the treaty ending the Mexican-American War in 1848, Mexicans living in territories acquired by the United States could remain there and were to be treated as American citizens. Those that did stay became known as “Californios,” “Tejanos,” or “Hispanos.”

—Curry et al., Sociology for the Twenty-First Century, p. 207

X a. Mexican Americans are the second-largest minority in the United States. Their number grows as more people emigrate from Mexico.

b. After the Mexican American War, those Mexicans living in territories owned by the U.S. became American citizens and were called “Californios,” “Tejanos,” and “Hispanos” (Curry, Jiobu, and Schwirian, p. 207).

X c. “Mexican Americans are one of the oldest racial–ethnic groups in the United States.”

d. The Mexican-American war ended in 1848.

CRITICAL THINKING IN ACTION 1.2

CHECKING YOUR ACADEMIC INTEGRITY

The following list identifies some common student behaviors. Check off those behaviors that would violate academic integrity. In groups of three or four students, compare your results with classmates’; discuss any items on which you disagree.

• Asking an upperclassman for help with a difficult course
• Getting a copy of a professor’s exams from a fraternity house
• Buying a copy of the teacher’s edition of a text and using it to find answers to homework assignments
• Visiting an instructor during office hours to get clarification on specific topics
• Using the Internet to conduct research
• Purchasing pre-written term papers from a fellow student
• Using a word processor’s spell-check and grammar-check functions before handing in a paper
• Asking an instructor for a better grade because a higher grade is needed to remain on a college sports team
• Talking to students who have had a particular instructor in the past about strategies for doing well on assignments and group projects
Learning in College

In college, professors function as guides to the course. They define and explain what is to be learned, but you do the learning. Class time is far less than in high school; there is not enough time to provide numerous drills, practices, and reviews of factual course content. College class time is used primarily to introduce what is to be learned, to provoke thought, to discuss ideas, and to engage in collaborative learning. Instructors expect you to learn the material and to discuss it in class. Following are some suggestions to help you create a system for learning in college.

Become an Active Learner

A first-year student who had always thought of herself as a good student found herself getting low Cs or Ds on her first quizzes and exams. She was spending a lot of time studying but was not earning the grades she expected. After discussing the problem with her professors, she realized that her approach to learning was a passive one. She did what her instructors requested. She read what was assigned, completed assignments as required, and followed instructions carefully. To be more successful, she realized that she needed to develop a more active approach to learning. An active approach to learning means interacting with the material as you read it: asking questions, sorting out what is important to learn, and deciding how to learn it. Table 1.1 lists the characteristics of the two types of learners. As you read through the list, determine which type you are.

Why Become an Active Learner?

Think about the many types of learning you have experienced. How did you learn to ride a bike, cook a particular meal, or play baseball? In each case, you learned by doing, by active participation. While much of what you will learn in college is not as physical as riding a bike or playing baseball, it still can be learned best through active participation. Studying and thinking are forms of participation, as are making notes, taking part in class discussions, and reviewing chapters with a friend or classmate.

In a nutshell, active involvement is a key to effective learning. Throughout this text, you will learn strategies to promote active learning. Assess your active learning strategies by completing the questionnaire shown in Figure 1.1.

| TABLE 1.1 Characteristics of Passive and Active Learners |
|---------------|------------------|
|               | Passive Learners | Active Learners |
| Class lectures| Write down what the instructor says. | Decide what is important to write down. |
| Textbook assignments | Read. | Read, think, ask questions, and connect ideas. |
| Studying | Reread. | Make outlines and study sheets, predict exam questions, look for trends and patterns. |
| Writing class assignments | Carefully follow the professor's instructions. | Try to discover the significance of the assignment; look for the principles and concepts illustrated by the assignment. |
| Writing term papers | Do what is expected to get a good grade. | Try to expand their knowledge and experience with a topic and connect it to the course objectives or content. |
To be an active learner, you should be thinking about and reacting to the material in front of you. Here are some tips for engaging with the materials you are reading.

**Ask questions about what you are reading.** You will find that asking questions helps you focus your attention and improve your concentration.

**Discover the purpose of assignments.** For example, why might a sociology assignment require you to spend an hour at the monkey house of the local zoo?

**Try to see how the assignment fits into the course.** For instance, why does a section titled “Consumer Behavior” belong in a retailing textbook chapter titled “External Retail Restraints”?

**Relate what you are learning to what you already know.** Use your background knowledge and personal experience. Connect a law in physics with how your car’s brakes work, for example.

### Analyzing Learning Tasks

**Directions** Working in pairs, consider each of the following learning situations. List ways to make each an active learning task.

1. Revising a paper for an English composition class
2. Reading an assignment in an online news magazine
3. Studying a diagram in a textbook chapter
4. Preparing a review schedule for an upcoming exam
5. Looking up synonyms in a thesaurus for a word for your sociology term paper
6. Reading the procedures in your chemistry lab manual for the next laboratory session
Develop New Approaches to Learning

Because college courses focus on evaluation and synthesis, rather than the memorization of facts, college requires new attitudes and approaches toward learning.

Focus on Concepts, Not Facts

Each course you take will seem to have endless facts, statistics, dates, definitions, formulas, rules, and principles to learn. For this reason, it is tempting to become a robot learner—absorbing information from texts and lectures, and then spewing that information back on exams and quizzes. Actually, factual information is only a starting point, a base from which to approach the real content of a course. Most college instructors expect you to go beyond facts to analysis: to consider what the collection of facts and details means. In their first year, many students have difficulty seeing “the forest for the trees.” They fail to see the larger, overriding concepts of their courses because they get caught up in specifics. Concerned with memorizing information, they fail to ask, “Why do I need to know this?” “Why is this important?” or “What principle or trend does this illustrate?” Here are a few examples of details from a course in American government and the more important trend, concept, or principle they represent:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Detail</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Rights Act of 1965</td>
<td>Federal registrars were sent to southern states to protect blacks’ right to vote.</td>
<td>This was the beginning of equality in voter registration.</td>
</tr>
<tr>
<td>Supreme Court case: Roe v. Wade</td>
<td>Court ruling forbade state control over abortion in first trimester of pregnancy; permitted states to limit abortions to protect the mother’s health in the second trimester; permitted states to protect fetus in the third trimester.</td>
<td>Established policy on abortions; opened questions of “right to privacy,” “a woman’s right to choose,” and “right to life.”</td>
</tr>
</tbody>
</table>
Identifying Key Concepts

**Directions** Choose one of your textbooks and turn to a section of a chapter you have already read. List six consecutive headings that appear in that section. After each heading, explain why each topic is important. In other words, indicate its significance and the concept or principle it illustrates.

**Focus on Ideas, Not Right Answers**

Through previous schooling, many students have come to expect their answers to be either right or wrong. They assume that learning is limited to a collection of facts and that their mastery of the course is measured by the number of correct answers they have learned. When faced with an essay question such as the following, they may become distraught:

Defend or criticize the arguments that are offered in favor of construction of border fences to control immigration. Refer to any reading you have done.

You can see that there is not one correct answer; you can either defend the argument or criticize it. The instructor who asks this question expects you to think and to provide a reasoned, logical, consistent response using information acquired through readings. Here are two more examples of questions for which there are no single correct answers:

- Would you be willing to reduce your standard of living by 15 percent if the United States could thereby eliminate poverty? Defend your response.
- Imagine a society in which everyone has exactly the same income. You are the manager of an industrial plant. What plans, policies, or programs would you implement that would motivate your employees to work?

Exercising Issues

**Directions** Examine two or three newspapers or magazines to identify controversies—issues that people disagree about—currently in the news. Based on what you read, compose a list of five questions for which there are no single correct answers (that is, questions for which different viewpoints or opinions exist).

Recognize Early Warning Signals of Low Academic Performance

A major part of getting ahead academically is monitoring your progress in each course and then adjusting your study strategies accordingly. In courses with weekly quizzes or frequent assignments, it is easy to assess how well you are doing. In courses with fewer assignments, knowing how well you are doing is more difficult. Some instructors give only two or three exams per semester; others may require only a term paper and a final exam. Such courses offer no grades during the term for you to determine whether you are doing well. In these courses, you will have to be alert for the early warning signals of low academic performance.

**Questions for Self-Monitoring**

Here are some questions to help you determine whether you are on the right track in a course.

**Are you falling behind on assignments?** Do you put off studying, saying, for example, “I’ll wait until this weekend to work on these calculus problems; then I’ll
have enough time to really focus on them”? Meanwhile, you fall further behind as the week goes by. If you are behind on assignments, you may be avoiding them because they are difficult. This is a signal that you are not understanding key course content, concepts, and ideas.

**Have you missed several classes recently?** Most instructors agree that student attendance is a good predictor of success in a course; students who attend class regularly tend to earn good grades. If you have missed several classes without a legitimate reason for doing so, you may be avoiding the course. Ask yourself: “Why am I missing these classes? Is it that I have difficulty following what the instructor says?” (If so, ask the instructor for help.)

**Do you feel lost or confused in any course?** If you are having trouble making sense of what the instructor is doing day to day or cannot see how various topics and assignments fit together, you may be experiencing academic difficulty. The course may be at the wrong level for your background, or you may need to take a remedial course or visit the tutoring center.

**Are you relying heavily on a friend for help in completing assignments?** Depending on a classmate for help suggests that you are not able to handle the course alone. Unfortunately, your friend won’t be much help when it comes to writing the required term paper and taking the final exam.

**Do you feel restless or listless, as if something is wrong but you’re not sure what it is?** If you feel anxious and depressed, most likely something is wrong. Look for patterns and discover where and when you feel this way. Try talking with your academic advisor, who may help you pinpoint the problem.

**Do you feel constantly tired or spend a lot of time sleeping?** Exhaustion may be a reaction to stress. It may also be an indicator of medical problems. Try to diagnose the source of your exhaustion.

### How to Handle Academic Problems

Discovering and admitting that you are having trouble with a course can be difficult, even traumatic. “Can this really be happening?” is a very common question. Here is some advice to follow if you realize you are experiencing serious academic difficulty.

**Maintain your self-confidence.** Don’t lose your confidence just because you are having trouble with one course. Remind yourself of the successes you are experiencing in other courses. Don’t start thinking differently about yourself; realize that you are gaining additional experience, and new skills, that will help you learn more.

**Remember that you are not alone.** The first semester of college is often the most difficult one for most students. A review of students’ grade point averages throughout their college experience confirms this assertion. The first semester or quarter grades are the lowest; grades gradually rise as students develop skills and acquire experience in handling college courses. Keep striving and you will improve.

**Take immediate action.** As soon as you suspect you are having trouble in a course, take immediate action. Things seldom improve on their own. In most cases the longer you wait, the further behind you will fall and the more difficult it will be to catch up.
Talk with your instructor. Before things get too bad, talk with your instructor. Most instructors have office hours each week; during these hours, they are available to talk with students. They are also available by phone and e-mail. When you talk with your instructor, try to clearly define topics, areas, or skills that are troublesome. Have specific questions in mind. State the steps you have already taken, and ask for advice. Your instructor may recommend additional reading to fill in gaps in your background knowledge or suggest a new approach to follow as you read and study.

Explore sources of help. Many colleges and universities offer resources to provide academic assistance to struggling students. Find out if there is an Academic Development Center or Learning Center on your campus. Such centers offer brush-up courses and sponsor peer tutoring programs for many courses first-year students take. Check to see if the library or media center has DVDs or printed study guides that deal with the subject matter of your course. Additional resources may be available, free of charge, on the Internet. If free tutoring is not available, consider hiring a junior or senior student as a tutor. Your instructor may be able to recommend someone.

Consider withdrawing from the course. If you and your instructor feel you cannot handle the course or if you have fallen so far behind that it is nearly impossible to catch up, consider withdrawing from the course. (Your college catalog explains policies and deadlines for course withdrawal.) While it is painful to admit that you were not able to handle the course, withdrawal will free your mind from anxiety and enable you to concentrate and do well in your remaining courses.

If you decide to withdraw from a required course and you must reregister for the course in a subsequent semester, consider taking the course from another instructor whose approach and teaching style may work better for you. Because course withdrawal is an expensive option, use it only as a last resort.

CRITICAL THINKING IN ACTION 1.4

CONSIDERING AN INSTRUCTOR’S EFFECTS ON YOUR LEARNING

As a responsible student, you take charge of and accept responsibility for your learning. While you should not “blame” a professor for giving you poor grades, it is true that certain instructors may be more in sync with your learning style (or even your personality) than others.

Below, list a course you will have to take in the next two terms and the names of two or three instructors who teach it. Talk to other students, or use the Web site http://www.ratemyprofessors.com to get a sense of each instructor’s approach and style. Based on your research, which professor do you think would be the best match for you?

Course Name: ____________________________

<table>
<thead>
<tr>
<th>Instructor’s Name</th>
<th>Strengths and Weaknesses</th>
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Critical Thinking: The Key to Academic Success

In college you are expected not only to learn and memorize new information, but also to analyze what you are learning, formulate your own opinions, and even conduct your own research. In other words, your college instructors expect you to engage in critical thinking—to interpret and evaluate what you hear and read, rather than accept everything you read as “the truth.” The term critical does not mean “negative.” Rather, it means “analytical” and “probing”—that is, thinking more deeply about the subjects you study.

In college, critical thinking skills allow you to do the following:

◆ Do well on essay exams.
◆ Write effective essays and research papers.
◆ Evaluate whether print and online sources are reliable.
◆ Distinguish good information from bad, incomplete, inaccurate, or misleading information.

In most college assignments, critical thinking means the difference between a grade of A or B and a grade of C or D. Students who simply memorize and regurgitate facts are not thinking at the college level and often earn Cs or below. In contrast, those who engage with the material, think deeply about it, evaluate it, and use it to create an integrated body of knowledge receive top marks.

The benefits of critical thinking extend beyond your college courses. In your everyday life, critical thinking skills will help you do the following:

◆ Become a savvy consumer and make good financial choices.
◆ Understand when companies are trying to manipulate you with their advertising or public-relations efforts.
◆ Resolve conflicts or come to acceptable compromises.
◆ Solve problems and make decisions using a logical, step-by-step process.

CRITICAL THINKING IN ACTION 1.5

VIEWING COURSE CONTENT FROM DIFFERENT PERSPECTIVES

Form groups of three or four students. To start developing new ways to think about what you will be learning in college, discuss each of the following questions and what they mean to the study of the discipline to which they relate. Summarize your responses in a paragraph or an oral presentation to the class.

- **History** There’s an old saying that “history is written by the winners.” What do you think this means? Can you think of any examples to support your answer? (For example, think of the history of the United States of America.)
- **Psychology** One of the big questions in psychology revolves around the topic of “nature vs. nurture.” In a nutshell, the nature vs. nurture debate asks whether people are who they are because of their genetic makeup (“nature”) or because of the way they were raised or what happened to them as children (“nurture”). Do you think this debate can ever be resolved? Just from listening to or watching the news, what do you know about this topic? What do you know about it from your own experiences?
The Levels of Thinking

To give you a better understanding of the variety of critical thinking skills involved in academic learning, a model is shown in Table 1.2. This model, developed by Bloom (1956) and revised by Anderson (2000), describes a hierarchy, or progression, of thinking skills. These levels of thinking will help you master textbook material, prepare for exams, and predict exam questions. Notice that the levels move from basic literal understanding to more complex critical thinking skills. The first two levels are information gathering skills—they reflect the ability to remember and understand information. The remaining four are critical thinking skills.

When college instructors write exams, they assume that you can operate at each of these levels. Table 1.3 shows a few items from an exam for a sociology course. Notice how the items require different levels of thinking. Answering questions based on remembering or understanding will get you a passing grade; to achieve a grade higher than that, you must be able to apply, analyze, evaluate, and create.

<table>
<thead>
<tr>
<th>TABLE 1.2</th>
<th>Levels of Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>Description</td>
</tr>
<tr>
<td>INFORMATION GATHERING SKILLS</td>
<td>Remembering Recalling information; repeating information with no changes</td>
</tr>
<tr>
<td></td>
<td>Understanding Understanding ideas; using rules and following directions</td>
</tr>
<tr>
<td>CRITICAL THINKING SKILLS</td>
<td>Applying Applying knowledge to a new situation</td>
</tr>
<tr>
<td></td>
<td>Analyzing Seeing relationships; breaking information into parts; analyzing how things work</td>
</tr>
<tr>
<td></td>
<td>Evaluating Making judgments; assessing the value or worth of information</td>
</tr>
<tr>
<td></td>
<td>Creating Putting ideas and information together in a unique way; creating something new</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 1.3</th>
<th>Test Items and Levels of Thinking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Item</td>
<td>Level of Thinking Required</td>
</tr>
<tr>
<td>Define &quot;stereotype.&quot;</td>
<td>Remembering</td>
</tr>
<tr>
<td>Explain how a stereotype can negatively affect a person.</td>
<td>Understanding</td>
</tr>
<tr>
<td>Give an example of a stereotype that is commonly held for a particular age group.</td>
<td>Applying</td>
</tr>
<tr>
<td>Study the two attached interviews. Which of the interviewers appears to hold stereotypical beliefs? Explain in detail.</td>
<td>Analyzing</td>
</tr>
<tr>
<td>Evaluate a television commercial, discussing how stereotypes were revealed and approached.</td>
<td>Evaluating</td>
</tr>
<tr>
<td>Construct a set of guidelines that might be used to identify a stereotype.</td>
<td>Creating</td>
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</table>
The various categories of thinking are not distinct or mutually exclusive; they overlap. For example, taking notes during a lecture class involves understanding, but it also involves analyzing, evaluating, and creating. Taking an essay exam may involve, at one point or another, all six levels of thinking. Throughout this text you will learn strategies for improving each level of thinking.

**Exercise 1.7**

**Directions** Read the following excerpt from an interpersonal communication textbook and then complete the items that follow. Then, working with a partner, use each level of thinking to discuss, understand, and evaluate the excerpt.

**Forms of Nonverbal Communication**

Nonverbal elements, as already noted, sometimes work separately from verbal communication; that is, we may receive a nonverbal message without any words whatsoever. But usually the nonverbal domain provides a framework for the words we use. If we think of nonverbal communication as including all forms of message transmission not represented by word symbols, we can divide it into five broad categories: emblems, illustrators, affect displays, regulators, and adaptors.

In their early work in this area, Jurgen Ruesch and Weldon Kees outlined just three categories: sign, action, and object language. Sign language includes gestures used in the place of words, numbers, or punctuation. When an athlete raises his index finger to show his team is “Number One,” he is using sign language. Action language includes all those nonverbal movements not intended as signs. Your way of walking, sitting, or eating may serve your personal needs, but they also make statements to those who see them. Object language includes both the intentional and unintentional display of material things. Your hairstyle, glasses, and jewelry reveal things about you, as do the books you carry, the car you drive, or the clothes you wear.

—Weaver, *Understanding Interpersonal Communication*, pp. 283–284

<table>
<thead>
<tr>
<th>Exercise 1.7</th>
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<tbody>
<tr>
<td>1. <strong>Remembering</strong></td>
<td>What is the definition of “object language”?</td>
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<tr>
<td>2. <strong>Understanding</strong></td>
<td>What does object language include?</td>
</tr>
<tr>
<td>3. <strong>Applying</strong></td>
<td>Give an example of object language.</td>
</tr>
<tr>
<td>4. <strong>Analyzing</strong></td>
<td>Analyze and describe the object language used by a friend.</td>
</tr>
<tr>
<td>5. <strong>Evaluating</strong></td>
<td>Do you agree or disagree with Ruesch and Kees’s categorization of nonverbal communication? Explain your answer.</td>
</tr>
<tr>
<td>6. <strong>Creating</strong></td>
<td>Identify objects that are important means of communication among your group of friends. Rank them in order of importance.</td>
</tr>
</tbody>
</table>

**Exercise 1.8**

**Directions** For each activity or situation described below, indicate the levels of thinking that are primarily involved.

1. Answering the following short-answer test question: Give an example of defensive behavior.
2. Solving a math problem
3. Taking notes on a college lecture
4. Translating into English a poem written in Spanish
5. Studying a famous painting for an art history course
6. Selecting a topic for a term paper in a criminal justice class
7. Revising a composition to make its thesis clearer and to improve its organization
8. Completing a biology lab in which you dissect an insect
9. Writing a computer program for a class assignment in a computer programming course
10. Answering the following essay exam question: Most people would probably be outraged if someone sprayed them with poisonous air or fed them dangerous chemicals. In effect, this is what industrial polluters and many of their products are doing. Why, then, are people not outraged?

—Neubeck, Social Problems, p. 267

The Four Essential Components of Critical Thinking

If you can master the following four essential components of critical thinking, you will be well on your way to becoming a master reader, thinker, and learner. These four key critical thinking skills are at the heart of all students’ abilities to adapt their thinking to various academic disciplines. Mastering the critical thinking skills will allow you to approach all of your courses—in the humanities and social sciences, in business, in mathematics, in the life sciences and physical sciences, and in vocational/technical courses—with confidence.

1 Develop Your Inference Skills

At the heart of critical reading and thinking is the ability to make inferences. An inference is a reasonable guess about what the author or speaker does not say based on what he or she does say. It is a logical connection that you draw between what you observe or know and what you do not know. When you “read between the lines” of any text, conversation, or presentation, you are making inferences.

All of us make numerous inferences daily. For example, when you wave at a friend and he or she does not wave back, you assume that he or she didn’t see you. When you are driving down the highway and see a police car with its lights flashing behind you, you usually infer that the police officer wants you to pull over and stop.

Although inferences are reasonable guesses made on the basis of available information, they are not always correct. For instance, although you inferred that the friend who did not wave did not see you, it may be that he or she did see you, but is angry with you and decided to ignore you. Similarly, the police car with the flashing lights may only want to pass you on the way to an accident ahead. An inference is the best guess you can make given the available information and circumstances.

As an exercise in inference, read the following description of an event:

Their actions, on this sunny afternoon, were carefully organized and rehearsed. Their work began weeks ago with a leisurely drive through a quiet residential area. While driving, they noticed particular homes that seemed isolated and free of activity. Over the next week, they took similar drives at different times of day. Finally, they chose a house and their work began in earnest. Through careful observation and several phone calls, they learned where the occupants worked. They studied the house, noting entrances and windows and anticipating the floor plan. Finally, they were ready to act. Phone calls made that morning confirmed that the occupants were at work.

What is about to happen in this description? From the facts presented, you probably realized that a daytime home burglary was about to occur. Notice, however, that the burglary is not mentioned anywhere in the paragraph. Instead, using the
information provided, you made the logical connection between the known and the unknown.

The following tips will help you make reasonable and valid inferences as you read.

1. Be sure you understand the literal meaning first. What is the author saying directly?

2. Ask critical questions. To be sure that you are extracting the most meaning from the reading selection, ask yourself these questions: What is the author trying to suggest? What do all the facts and ideas point toward or add up to? Why did the author include these facts and details?

3. Look at the writer’s choice of words. The writer’s choice of words suggests his or her attitude toward the subject. Look for descriptive words, emotionally charged words, and words with strong positive or negative connotations (associations).

For instance, notice how the underlined words in the following sentence suggest the author’s positive feelings about her grandmother: “Grandmother had been an unusually attractive young woman, and she carried herself with the graceful confidence of a natural charmer to her last day.” Now notice the writer’s negative feelings toward the child described in this sentence: “The withdrawn child eyed the teacher with hostile disdain. When directly spoken to, the child responded in a cold but carefully respectful way.”

4. Determine the author’s purpose. Why has the author written the piece? Is he or she conveying information, trying to persuade you to do something, arguing a point? When you know the writer’s purpose, it is easier to make valid inferences.

5. Verify your inference. Once you have made an inference, check to be sure that it is accurate. Look back at the stated facts and details to check whether you have sufficient evidence to support the inference. Also check to make sure that you have not overlooked equally plausible or more plausible inferences.

**EXERCISE 1.9**

**Making Inferences**

**Directions** Read each paragraph and answer the questions that follow.

1. Our parents and grandparents worked hard during their lives, in many cases for decades at one company. Upon retirement they were rewarded with a nice pension and a monthly government check—some well-deserved security in their old age. Today’s workers cannot rely on that same retirement scenario. Corporate pension funds are gambled away on bad investments, and Social Security is running out of cash. As executives retire early with obscene bonuses, people who have worked hard on the front lines of America’s companies are left to struggle during the years when they should be relaxing and treating themselves and their families. When did corporate America forget about the people who keep it going?

   a. What can you infer about the author’s attitude toward large corporations and the Social Security Administration?
      The author is angry at large corporations for not being responsible with the money set aside for workers’ retirement benefits and at the SSA for running out of cash.

   b. What inference can you make about the author’s feelings toward the older generation?
      The author respects the older generation and thinks they deserve their benefits and Social Security checks.
c. What would the author think about a corporation that shared profits with all its workers?

   The author would probably support profit sharing.

2. Modern building techniques and materials have helped make Americans more comfortable and more healthy. We no longer have to live in drafty old houses or work in unpleasant buildings. Today’s windows, doors, and insulation keep the cold air out of our homes. Meanwhile, climate-controlled work environments ensure a constant comfortable temperature all year round. Airtight construction keeps us healthy and happy, which in turn makes living and working more enjoyable and productive.

   a. What inference does the author make about our health and being warm or cold?

      Health is related to staying warm and avoiding drafts.

   b. How concerned is the author likely to be about “sick building syndrome,” an illness that workers get from indoor air pollution?

      The author is seemingly unconcerned since he or she advocates airtight buildings.

   c. How would the author react to someone who believes a window should always be open, even just a crack in winter?

      The author would disagree.

3. Documentary films and films based on true stories do so much more than purely fictional movies to enlighten and educate us. Stories of real life adventures, drama, and successes bring with them hope and inspiration. Through such tales brought to life on the big screen, we can learn and plan and strive for our dreams. These types of films also give our young people the introduction to real accessible heroes whom they can learn more about and perhaps even emulate. With so many great true stories in the world and in history, why watch fiction?

   a. What inference can you make about the author’s attitude toward fiction?

      The author thinks fictional movies are not worth watching.

   b. How would the author respond to someone who said he or she was inspired by a film such as Star Wars?

      The author would argue that it is not worthwhile since it is not based on real experience.

4. Standardized tests measure whether students have learned the basics. Children whose scores are less than the national average should receive special instruction until their scores increase. Through this process teachers will be able to identify children with learning difficulties and put them into the appropriate special education programs. Likewise, students who excel on standardized tests can be grouped together for more challenging lessons and work. Everyone can be measured and assessed through the use of standardized tests.

   a. What inferences can you make about the author’s attitude toward standardized testing?

      The author favors it and thinks it is a fair measure of performance.

   b. How would the author respond to a school district’s plan to mix high- and low-ability students in each classroom?

      The author would oppose such a plan.

   c. What would this author say to someone who worries about teachers “teaching to the test”?

      The author would not be worried, because, no matter how the students learn, the test demonstrates that students have mastered the skill.
2 Examine Your Opinions and Beliefs

If you are like many beginning college students, you view the world through the lens of your family, upbringing, friends, culture, and education. Your views are shaped by your experiences, and you take for granted many opinions and beliefs. In college you will meet other students from very different backgrounds, and they may hold very different opinions and beliefs. Your professors will expose you to new ways of thinking and present you with different perspectives through lectures, discussions, collaborative work, and assigned readings.

College is about opening your mind to new ways of thinking. Different college disciplines ask you to approach topics in new and unexpected ways. For example, economics courses often ask you to think as much about the choices you do not make as the choices that you do make. (For instance, an economist might ask you, “Why did you choose to attend college instead of working a full-time job? What did you give up by not taking a job?”) Courses in history or literature may ask you to view world events through the eyes of women or minority groups (among other perspectives).

These new ways of thinking may challenge some of your opinions or beliefs. Avoid the temptation to reject them only because they are different from yours. Rather, take the time to study, analyze, and evaluate them.

3 Recognize Emotional Appeals

Business owners understand consumer psychology, and they use all sorts of techniques to get people to buy their products. Ads for cosmetics show women transformed from Plain Janes into ravishing beauties—and the message to the consumer

CRITICAL THINKING IN ACTION 1.6

CONSIDERING ALTERNATIVE VIEWPOINTS

Consider the following situation. Two students from very different backgrounds are roommates. Sally grew up with politically liberal parents, both professionals, in a small town near Boston. She has several friends with two moms, volunteers at the local recycling center, and was active in Barack Obama’s presidential campaign. Veronica is from Detroit, where she grew up in a blue-collar household—both of her parents work in the auto industry. She has strong conservative religious beliefs, and, like her parents, voted for Mitt Romney in the presidential election of 2012.

What do you think these two students might say about the following topics?

- Legalizing gay marriage
- Bailing out the auto companies
- Passing stricter environmental legislation

To answer this question you made some assumptions about each of the students, based on the information provided. Do you think you might have answered differently if you knew more about each student? How much do you think your own background and experience influenced your responses to this question?
Suppose you are working for an animal rights organization on a fund-raising activity. Your organization, PPOF (People for the Protection of Foxes), believes that too many foxes are being trapped in the wild, then killed for their fur. You are writing a letter asking for donations to help end this practice. Look at the two photos below. You have to decide which one to use on the envelope in which you are mailing your fund-raising letter. Which one would you choose to use? Why? Write a few sentences explaining your reasons.

CRITICAL THINKING IN ACTION 1.7
RECOGNIZING EMOTIONAL APPEALS

is “Buy our cosmetics, and you too will look like a model.” An advertisement for a sports car shows a handsome young man driving along the highway with a beautiful woman in the passenger seat, implying that men who drive that specific car are highly attractive to the opposite sex. Even nonprofit organizations that have admirable goals (such as animal-rescue operations and save-the-children foundations) use emotional appeals to get you to donate money to their causes.
College reading materials also offer emotional appeals. For example, your sociology instructor may ask you to read a memoir written by a drug addict or a victim of child abuse. Your history instructor may ask you read different viewpoints on the idea of paying reparations to the descendants of slaves. Thinking critically enables you to recognize the emotional appeal in an argument and step away from it, so that you can evaluate the argument or source logically and clearly.

4 Look for What Is Not Said

Writers and speakers sometimes mislead by omitting information. They deliberately leave out essential details, ignore contradictory evidence, or include only those details that support their position. Consider the following example, which might be found in a textbook anthology that discusses controversies in education.

A woman who homeschools her children writes an article about the benefits of homeschooling. As an advocate for this method of education, she emphasizes her children's educational progress, as well as the sense of personal fulfillment she experiences through teaching them. However, she omits another aspect of the argument, which is that homeschooled children sometimes feel lonely or isolated from their peers. She also describes a research study that concludes that homeschooled children excel academically, but she does not report that other studies have demonstrated that homeschooled children do not differ in academic achievement from traditionally educated students.

In this example, the writer has chosen to ignore contradictory evidence, using only information that supports her argument in favor of homeschooling.

Whenever you encounter material from a source that seems biased or possibly unreliable, ask yourself the following questions.

CRITICAL THINKING IN ACTION 1.8

LOOKING FOR PURPOSEFUL OMissions

In each of the following academic situations, identify what information is being withheld from you. (In other words, what other information would you need to critically evaluate the situation?) Then compare your answers with those of other students.

1. You are reading an economics textbook. The author presents the work of John Maynard Keynes, who believed that the best way for the government to stimulate the economy during a recession is to spend money, even if it has to borrow money first. (This approach to government spending is called Keynesian economics.)

2. You are reading a sociology textbook that discusses key social institutions: the family, religion, education, government. The textbook author argues that social institutions function to oppress most people while putting relatively few people in positions of great wealth and power. (This sociological perspective is known as the conflict perspective.)
Based on my own experiences, how do I evaluate this material? Is there another side to this case that I should consider?

What important information might have been omitted? What am I not being told?

What contradictory evidence is not reported?

Has the author or speaker selectively reported details to further his or her cause?

Where can I go to find out what information might be missing (textbook, journal, newspaper, database, the Internet)?

Also ask yourself whether the writer or speaker is using words to hide information rather than provide it. A **euphemism** is a word or phrase that is used in place...
of a word that is unpleasant, embarrassing, or otherwise objectionable. For example, a company may say that it is “downsizing” its workforce when it is actually firing people. A company that is “internationally outsourcing” is actually eliminating jobs in the United States and sending them overseas. Euphemisms almost always seek to sugarcoat an unpleasant reality, and you should be generally suspicious of them.

**Applying and Adapting Your Skills to the Academic Disciplines**

Each academic discipline is a unique system of study; each takes a specialized approach to the study of the world around us. To illustrate, let’s choose as an example human beings—and consider how various disciplines might approach the study of humans.¹

- An artist might consider a human being as an object of beauty and record a person’s flexible muscular structure and meaningful facial expressions on canvas.
- A psychologist might study the human needs that are fulfilled by various human behaviors.
- A historian might research the historical importance of human decisions—for example, a government’s decision to enter a war or form an alliance with another country.
- A mathematician might calculate human life expectancies based on lifestyle, gender, or race.
- An economist might focus on the supply of and demand for certain goods (food, clothing, transportation) and the amount of business that they generate.
- A biologist or nurse would be concerned with human bodily functions (breathing, heart rate, body temperature).
Each academic discipline, then, approaches a given object, topic, or event with a different focus or perspective. Because each discipline is unique, each requires you to adapt your learning and study strategies.

1 Why Adapt Your Skills?

To understand why adapting your skills is essential to success in your college courses, let’s go back to our example of the ways the different academic disciplines might approach the study of humanity.

◆ In the art course, you would have to develop your visual analysis skills in order to understand artistic methods and techniques. These visual skills require a different “way of seeing” than your analysis of Figure 1.2, where you needed to think critically about the way information is presented. If you limited your visual analysis of great artworks to simply understanding the information they portray, you would be unable to develop an appreciation for artistic talents and techniques.

◆ In the economics course, your instructor might ask you to read and analyze complicated graphs to help you understand how human beings make decisions regarding the purchase of a house. But these analysis skills would not be the same skills you’d need for a history course in which the instructor talks about a country’s decision to enter a war. Both courses involve an analysis of decisions, but each course requires you to think in different ways about decisions at different scales and in different parts of society.

◆ In the math course, you will be focusing on numbers and calculations. These skills will then be helpful in nursing courses, which teach nursing students how to determine the correct dosages of medicine for their patients. But in biology courses studying human anatomy, the emphasis will be more on words and less on numbers. In those courses, you will need to learn a large number of new vocabulary words; and learning vocabulary words requires a different set of skills from learning how to perform mathematical operations.

These are just a few examples of the flexibility required for college success. One of the primary goals of this text is to teach you how to adapt your skills to each of your academic courses. Throughout the book, look for the following features to help you adapt your skills:

◆ Marginal notes provide specific tips for the most common courses first-year students take, such as history, economics, sociology, psychology, criminal justice, business, and math.

◆ “Critical Thinking in Action” and “Thinking Critically” features will help you think critically about course content and expand your thinking skills.

◆ “Working Together” exercises will help you develop your ability to collaborate with your peers.

2 Getting Started: How to Approach New Fields of Study

In your first years of college, you are likely to encounter disciplines with which you have had no prior experience. Anthropology, political science, or organic chemistry may be new to you. Do not lose self-confidence if you are new to the discipline. Rather, adapt your existing study techniques as follows.

1. Spend more time than usual reading and studying. Until you feel more confident in the course or discipline, overlearn by reading the assignments multiple times.
2. **Because you do not know how you will eventually use it, organize the same information in several different ways.** For example, in an anthropology course, you might learn events and discoveries chronologically (according to occurrence in time) as well as comparatively (according to similarities and differences among various discoveries). In an accounting course, you might organize information by procedures as well as by controlling principles.

3. **Use several methods of learning.** Because you are not sure which will be most effective for the types of learning and thinking that are required, try several methods at once. For example, you might highlight textbook information (to promote factual recall) as well as write outlines and summaries (to interpret and consolidate ideas). You might also draw diagrams that map the relationships among concepts and ideas (see Chapter 7).

4. **Look for similarities between the new subject matter and other academic fields that are familiar to you.** If similarities exist, you may be able to modify or adapt existing learning approaches and strategies to fit your new field of study.

5. **Establish an overview of the field.** Spend time studying the table of contents of your textbook; it provides an outline of the course. Look for patterns, progression of ideas, and recurring themes, approaches, or problems.

6. **Obtain additional reference materials, if necessary.** Some college textbooks delve into a subject immediately, providing only a brief introduction or overview in the first chapter. If your text does this, spend an hour or so online or in the library getting a more comprehensive overview of the field.

   - Read or skim several online encyclopedia entries in your field of study, taking notes if necessary.
   - Check the library’s online catalog to see how the subject is divided.
   - Locate two or three introductory texts in the field. Study the table of contents of each and skim the first chapter.

### 3 Analyzing the Demands of Each of Your Courses

The single best way to prepare for each of your college courses is to analyze the demands each will place on you. Before you walk into class on the first day of the semester, prepare yourself by doing the following.

1. **Talk to your advisor before registration.** Your advisor can look at your academic record and advise you on which courses you are ready to take. He or she might also provide advice on which instructors are the best match for your learning style.

2. **Read the course catalog.** Your school’s course catalog (which is often available online as well as in print) provides specific information regarding course content. Read the course descriptions to help you determine which courses may be more challenging and which will be less challenging. Try to balance easier and more difficult courses within each term. Be sure you are taking required courses before you attempt to register for higher-level courses.

3. **Research the required courses for the major(s) you are interested in.** Before deciding to major in a particular area, check the required courses for completing the major. For example, many students who are interested in nursing do not realize that they will have to take many courses in math and statistics.

After you have registered for a course, do the following:

1. **Visit the instructor’s Web page.** This will give you an overview of the instructor’s interests and typical assignments.
2. **Be sure you are prepared technologically.** Determine which technologies your instructor will use. Will you need a specific Web browser, an account for a campus course management system, an access code for an online e-book or course pack? Which types of software will you be required to purchase and use? Does the instructor expect that you will enter the class proficient in a particular program, such as SPSS (which is frequently used in statistics and psychology courses)? If you feel unprepared technologically, use the tips in Table 1.4 to get up to speed.

3. **Talk with other students to determine what will make you successful in the instructor’s class.** Many college campuses have a thriving network for sharing this type of information. For example, does the instructor value class participation? Does he place a lot of weight on the term paper? Does she grade on a curve or drop the lowest grade?

4. **Buy the textbook before class starts.** Spend time with the preface, which explains how the book is organized. Preview the textbook for special learning aids that will help you master course content.

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<th>Table 1.4</th>
<th>Troubleshooting Guide: Campus Technology</th>
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<td><strong>Problem</strong></td>
<td><strong>Possible Solutions</strong></td>
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| The Technology Blues: You are not computer savvy, but everyone thinks you should be. | • *Learn the most commonly used programs: Microsoft Word and Excel.* Learn enough about computer hardware to know how to use a CD-ROM drive, how to boot up and shut down, how to “escape” if you are about to make a mistake, how to undo actions, how to sign on to student accounts in the course management system, and how to download and access software programs.  
• *Bookstores are filled with hundreds of step-by-step workbooks to help you learn computer basics.* Ask someone in the computer center for recommendations. |
| Problems with Course Management Systems: Your instructor conducts much of the course online, but you don’t understand the system. | • *The home page of the course management system* (such as Blackboard, Canvas, Moodle, or Sakai) *is the “dashboard” from which you navigate to your various assignments.* Become familiar with the home page and check it daily. Immediately read any announcements from your instructor, and respond accordingly.  
• *Quizzes and tests are often given in course management systems, and the same test-taking tips apply to computer testing as to regular testing.* For more details on how to take tests, see Part Five of this text, “Exams: Thinking Under Pressure.” |
| Getting Computer Time: The computer labs are always crowded or inaccessible. | • *Most computer labs have sign-up sheets.* Learn when the sheets are put out so that you can be one of the first to choose your desired time.  
• *Do not miss your scheduled appointments for computer time; crowded labs can make it impossible for you to get a computer, especially during midterms and final exams.*  
• *Do not expect that available computer times will necessarily be convenient for you.* You may need to rearrange your schedule.  
• *Do not wait until the last minute to begin a computer project.* Unexpected hardware, software, or network problems can cause your project to be late and your grade to be lower.  
• *If you don’t have a home computer, save your money to purchase an inexpensive laptop.* Ask your advisor if the college makes any scholarship money available to students to purchase computers.
The first week of class, do the following:

1. **Closely read the syllabus.** The syllabus is a course outline that specifies the course content and organization, as well as the instructor’s expectations. Ask the instructor if you need clarification on any point. (Syllabi are discussed in more detail in Chapter 2.)

2. **Ask the instructor, “What will make me successful?”** This question is often used by students who are interviewing for jobs—they want to know what their future employer values most. If you ask this question on the first day of class, your classmates will thank you. Listen to the instructor’s advice, and follow it!

3. **Conduct a full course analysis.** Use Figure 1.3 to conduct a full-fledged course analysis. Then, use the course analysis to create your reading and study schedule for the term.

**FIGURE 1.3 Analyzing Course Demands**

Use the following worksheet to analyze the demands of each of your courses.

1. What level of math, if any, is required for success in the course?
2. How much memorization (for example, of key terms and processes) is required?
3. How is the course organized—chronologically, thematically, topically, comparatively, or some other way?
4. How much writing is required?
5. How much reading is required? What types of reading materials must I acquire beyond the textbook?
6. What types of collaborative activity, if any, are required?
7. Does the course require a lab period?
8. How much creativity is required?
9. What additional resources (for example, a tutoring center, exam review sessions, etc.) are available outside the class?
10. Will the instructor accept extra-credit assignments?
11. What makes the course different from other courses you’ve taken? What makes it unique?
12. Will I benefit from joining a study group with other classmates?
13. Does the course require an ongoing (or end-of-term) project or community involvement?
14. How much of the course requires me to learn theory (as opposed to facts)?
15. How will the instructor assess how well I have mastered the course content?

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**REVIEW**

**Summary of Learning Goals**

1. **Develop a plan for managing your college career.**
   To manage your college career, set operating rules to maximize your success, take responsibility for your learning, and build a reputation for academic integrity.

2. **Create a system for learning in college.**
   Become an active learner and listener; focus on concepts, not facts; focus on ideas, not right answers; and monitor your performance to recognize the early warning signs of low academic performance.
3 Understand the role of critical thinking in academic success.
Academic success requires you to expand your learning from the lower levels of thinking (remembering and understanding) to the higher levels of thinking (applying, analyzing, creating, and evaluating).

4 Master the four essential components of critical thinking.
Four essential critical thinking skills are the foundation of college success: making inferences, examining your opinions and beliefs, recognizing emotional appeals, and looking for what is omitted or unsaid.

5 Apply and adapt your study and critical thinking skills to the academic disciplines.
To be successful in college, you must adapt your skills to each course you take. Begin by evaluating each course using the questionnaire in Figure 1.3.

Career Connections
What workplace skills will you develop in college? Carolyn Corbin, founder and director of the Center for the 21st Century, has coined a new word for the successful worker of the future: *indipreneur*. An indipreneur is a person who is independent and entrepreneurial, even when working for a corporation. Indipreneurs are self-reliant, are flexible, and experience change as a challenge rather than as a threat. Corbin identifies the top three skills most important to a person’s workplace success: “Know how to think, how to get along in the workplace with other people, and how to stay current in skills and technology.”

1. How will developing active learning skills in college aid you in the workplace of the twenty-first century? List eight to ten ideas.
2. What steps can you take now to ensure that you will have the top three skills Corbin considers most important for career success? List at least five steps.

Working Together
Activity 1. Form groups of three or four students and complete the following steps. Prepare a tip sheet for beginning first-year college students to be sent to them upon admission. Include useful information and advice that you wished you had known before you came on campus. Be prepared to share your results with the class.

Activity 2. Working with a partner, design a bumper sticker that communicates cleverly and succinctly a topic addressed in this chapter.

Activity 3. Form a group with three of your classmates and brainstorm the different demands and expectations on a high school student versus those on a college student. Using the chart paper provided by your instructor, create a two-column chart that presents these differences. Be prepared to share your ideas with the class.

Activity 4. Create a paragraph-long case study of a student who fails to take charge of his or her college career and clearly needs to read and take to heart the information in this chapter. You must include at least five weaknesses the student exhibits. Once you have completed the case study, form a group with three of your peers. Each group member will read his or her case study, and then all members will identify the problem areas and suggest solutions that will help the case study subject to take charge of his or her college career.