Along with learning to write well, learning to think critically is the most important skill you will gain in college because your success in your professional and public life will depend on it. Becoming a better critical thinker will help you to become a better writer because you will understand subjects in greater complexity and you will be better able to evaluate and revise what you write.
Become a critical reader

Critical thinking begins with critical reading. For most of what you read, one time through is enough. When you start asking questions about what you are reading, you are engaging in critical reading. Critical reading is a four-part process. First, begin by asking where a piece of writing came from and why it was written. Second, read the text carefully to find the author’s central claim or thesis and the major points. Third, decide if you can trust the author. Fourth, read the text again to understand how it works.

1. Where did it come from?
- Who wrote this material?
- Where did it first appear? In a book, newspaper, magazine, or online?
- What else has been written about the topic or issue?
- What do you expect after reading the title?

2. What does it say?
- What is the topic or issue?
- What is the writer’s thesis or overall point?
- What reasons or evidence does the writer offer?
- Who are the intended readers? What does the writer assume the readers know and believe?

3. Can you trust the writer?
- Does the writer have the necessary knowledge and experience to write on this subject?
- Do you detect a bias in the writer’s position?
- Are the facts relevant to the writer’s claims?
- Can you trust the writer’s facts? Where did the facts come from?
- Does the writer acknowledge opposing views and unfavorable evidence? Does the writer deal fairly with opposing views?

4. How does it work?
- How is the piece of writing organized? How are the major points arranged?
- How does the writer conclude? Does the conclusion follow from the evidence the writer offers? What impression does the writer take away?
- How would you characterize the style? Describe the language that the writer uses.
- How does the writer represent herself or himself?

WRITE NOW

Analyze information for students on your campus

No doubt your school mailed you a great deal of information when you were admitted. Schools continue to distribute information to students when they get to campus. You can find informative brochures and flyers at your school’s student services building and in the health center.

Pick one of the brochures or flyers to analyze. Remember that you are the intended audience. Write a one-page evaluation about why the brochure or flyer is effective or ineffective for an audience of college students. If it is ineffective, what changes need to be made to make it effective? If it works, what does it do well?
Chapter 2  READING TO EXPLORE

Look with a critical eye

Critical viewing, like critical reading, requires thinking about where the image or visual came from. Begin by asking the following.

• What kind of an image or visual is it?
• Who created this image (movie, advertisement, television program, and so on)?

King Mycerinus and his queen, Giza, Old Kingdom, 2548–2530 BCE. One of the finest statues from ancient Egypt depicts a royal couple. Compare the statue to formal portraits of couples today. Why does the queen have one arm around his waist and the other touching the king’s arm? Do you think it depicts how they looked in real life? Or how they might have wanted to look in the afterlife? How do you think people in ancient Egypt might have viewed this statue?

The following questions are primarily for still images. For animations, movies, and television, you also have to ask questions about how the story is being told.

• What attracts your eye first? If there is an attention-grabbing element, how does it connect with the rest of the image?
• What impression of the subject does the image create?
• How does the image appeal to the values of the audience? (For example, politicians love to be photographed with children.)
• How does the image relate to what surrounds it?
• Was it intended to serve purposes besides art and entertainment?
• What is it about? What is portrayed in the image?
• Where did it first appear? Where do you usually find images like this one?
• When did it appear?
Arthur Rothstein made this photograph of black clouds of dust rising over the Texas Panhandle in March 1936. Look closely at the photo. What attracts your eye first? Snapshots usually put the horizon line in the center. Why did Rothstein put the horizon at the bottom? What impression does this photo convey to you?

WORKING TOGETHER

Analyze political cartoons

Political cartoons make comments on politics in drawings combined with words. Bring a political cartoon to class. You can find many political cartoons on the Web in addition to ones in newspapers and magazines.

Answer these questions.

1. What is the point of the cartoon?
2. What do you need to know to understand the cartoon? Political cartoons usually make reference to current events, television shows, and popular culture.
3. Political cartoons often exaggerate physical attributes. Is anything exaggerated?
4. Political cartoons are often ironic—pointing to the difference between the way things really are and what they are expected to be. Is the cartoon ironic?
5. Why is the cartoon funny or not funny?

Organize in groups of three or four students. Exchange your cartoons and answer the same questions for your classmates’ cartoons.

When all finish, compare your answers for each cartoon. Where there is disagreement, stop to discuss why you came up with different answers.
Chapter 2 READING TO EXPLORE

Read actively

If you own what you are reading (or are able to make yourself a photocopy of borrowed materials), read with a pencil in hand. Pens and highlighters don’t erase, and often you don’t remember why you highlighted a particular sentence.

Annotate what you read
Using annotating strategies will make your effort more rewarding.

Mark major points and key concepts
Sometimes major points are indicated by headings, but often you will need to locate them.

Connect passages
Notice how ideas connect to each other. Draw lines and arrows. If an idea connects to something a few pages before, write a note in the margin with the page number.

Ask questions
Note anything that puzzles you, including words to look up.

Annotate difficult readings
Much of what you read in college will deal with unfamiliar concepts, which are often defined by other concepts. Annotating a difficult reading will help you understand the relationship of concepts, and the annotations will be valuable in remembering key points when you come back to the reading later. In this passage from John Heskett’s *Toothpicks and Logos, Design in Everyday Life*, the author defines function in terms of two other concepts.

A more inclusive definition of function is needed, which can be opened up by breaking the concept of function into a twofold division: the key concepts of utility and significance.

**Utility** can be defined as the quality of appropriateness in use. This means it is concerned with how things work, of the degree to which designs serve practical purposes and provide affordances or capabilities. A simple example is a professional kitchen knife used to prepare food: its primary utility value is as a cutting tool. In order for it to work effectively, the blade needs to possess material qualities enabling a sharp edge to be maintained and for it to remain stable in use.

**Significance**, as a concept in design, explains how forms assume meaning in the ways they are used, or the roles and meaning assigned them, often becoming powerful symbols or icons in patterns of habit and ritual. In contrast to the emphasis on efficiency, significance has more to do with expression and meaning.
It is possible to find designs of many kinds defined solely in terms of utility or significance. Many examples of the former are products related to the performance of professional services, tools with highly specific purposes, such as a hand saw or a lathe, or medical equipment, such as an ultrasound machine. Where information has to perform a highly specific task, as in a railway timetable, the layout and type forms should be clean, simple, and directed wholly to imparting essential facts. A primary condition of utilitarian design is that it must effectively execute or support certain tasks. In contrast, a piece of jewelry, a porcelain figurine, or a frame for a family photograph has no such specific purpose—instead their purpose can be described in terms of contemplative pleasure or adornment.

**Map what you read**

Drawing a map of a text can help you to identify key points and understand the relationships of concepts.

**Make notes**

Write down your thoughts as you read. Often you will find that something you read reminds you of something else. Jot that down. It might give you ideas for writing. Think about what impresses as you read. And think about what else you might read if you want to write about this subject.
## Recognize fallacies

Reasoning depends less on proving a claim than it does on finding evidence for that claim that readers will accept as valid. The kinds of faulty reasoning called logical fallacies reflect a failure to provide sufficient evidence for a claim that is being made.

### Fallacies of logic

<table>
<thead>
<tr>
<th>Fallacy</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begging the question</td>
<td>Politicians are inherently dishonest because no honest person would run for public office. The fallacy of begging the question occurs when the claim is restated and passed off as evidence.</td>
</tr>
<tr>
<td>Either-or</td>
<td>Either we eliminate the regulation of businesses or else profits will suffer. The either-or fallacy suggests that there are only two choices in a complex situation. Rarely, if ever, is this the case. (In this example, the writer ignores the fact that Enron was unregulated and went bankrupt.)</td>
</tr>
<tr>
<td>False analogies</td>
<td>Japan quit fighting in 1945 when we dropped nuclear bombs on them. We should use nuclear weapons against other countries. Analogies always depend on the degree of resemblance of one situation to another. In this case, the analogy fails to recognize that circumstances today are very different from those in 1945; many countries now possess nuclear weapons, and we know their use could harm the entire world.</td>
</tr>
<tr>
<td>Hasty generalization</td>
<td>We have been in a drought for three years; that’s a sure sign of climate change. A hasty generalization is a broad claim made on the basis of a few occurrences. Climate cycles occur regularly over spans of a few years; climate trends must be observed over centuries.</td>
</tr>
<tr>
<td>Non sequitur</td>
<td>A university that can raise a billion dollars from alumni should not have to raise tuition. A non sequitur (which is a Latin term meaning &quot;it does not follow&quot;) ties together two unrelated ideas. In this case, the argument fails to recognize that the money for capital campaigns is often donated for special purposes such as athletic facilities and is not part of a university’s general revenue.</td>
</tr>
<tr>
<td>Oversimplification</td>
<td>No one would run stop signs if we had a mandatory death penalty for doing it. This claim may be true, but the argument would be unacceptable to most citizens. More complex, if less definitive, solutions are called for.</td>
</tr>
</tbody>
</table>
| Post hoc fallacy     | The stock market goes down when the AFC wins the Super Bowl in even years. The post hoc fallacy (from the Latin post hoc ergo hoc,
which means “after this, therefore this”) assumes that things that follow in time have a causal relationship.

**Rationalization**

*I could have finished my paper on time if my printer was working.* People frequently come up with excuses and weak explanations for their own and others’ behavior that often avoid actual causes.

**Slippery slope**

*We shouldn't grant citizenship to illegal immigrants now living in the United States because no one will want to obey our laws.* The slippery slope fallacy maintains that one thing inevitably will cause something else to happen.

**Fallacies of emotion and language**

**Bandwagon appeals**

*It doesn’t matter if I copy a paper off the Web because everyone else does.* This argument suggests that everyone is doing it, so why shouldn’t you? But on close examination, it may be that everyone really isn’t doing it—and in any case, it may not be the right thing to do.

**Name calling**

*Name calling is frequent in politics and among competing groups (radical, tax-and-spend liberal, racist, fascist, right-wing ideologue).* Unless these terms are carefully defined, they are meaningless.

**Polarization**

*Feminists are all man-haters.* Polarization, like name-calling, exaggerates positions and groups by representing them as extreme and divisive.

**Straw man**

*Environmentalists won’t be satisfied until not a single human being is allowed to enter a national park.* A straw man argument is a diversionary tactic that sets up another’s position in a way that can be easily rejected. In fact, only a small percentage of environmentalists would make an argument even close to this one.

**WRITE NOW**

**Analyze opinion writing**

Examine writing that expresses opinions: blogs, discussion boards, editorials, advocacy Web sites, the letters to the editor on the editorial pages of your campus or local newspaper. Read with a pencil in hand, and mark where you think there may be fallacies.

Select the example that has the clearest fallacy. Explain in a paragraph the cause of the fallacy.
Chapter 2 READING TO EXPLORE

Respond as a reader

Engage in a dialog with what you read. Talk back to the author. If you are having trouble understanding a difficult section, read it aloud and listen to the author’s voice. Hearing something read will sometimes help you to imagine being in a conversation with the author.

Make notes

As you read, write down your thoughts. Something you read may remind you of something else. Jot that down.

• Imagine that the author is with you. What points does the writer make that you would respond to in person?
• What questions would you have of the author? These indicate what you might need to look up.
• What ideas do you find that you might develop or interpret differently?

Write summaries

When you summarize, you state the major ideas of an entire source or part of a source in your own words. Most summaries are much shorter than the original because they include just the main points, not most of the examples and supporting material.

John Heskett argues that the concept of function in design should be understood in terms of “utility” and “significance.” He defines utility as the degree a design accomplishes its purpose, such as how well a knife cuts. Significance is defined as the degree to which an object is designed to give pleasure or create meaning. A piece of art is an example of something designed exclusively for significance.

The keys to writing a good summary are identifying the main points and then putting those points into your own words. If you use words from the source, you have to put those words in quotation marks.
Build on what you read
Keeping a reading journal is a good practice for a writer. You'll have a record of your thinking as you read that you can return to later. Often you can connect different ideas from different readings. A reading journal is a great place to test ideas that you can later develop for a writing assignment.

Heskett says, “It is possible to find designs of many kinds defined solely in terms of utility and significance.” I’ll grant the distinction, but his examples suggest that most things have elements of both.

He uses tools as objects designed strictly for utility, but look at a tool catalog and you’ll see lots of bright colors and handsome cases. He uses a photograph frame as an example of significance. True enough that frames are often decorative, but a frame also has to fit the picture. The frame should use non-glare glass to reduce reflected light. A frame has to do more than just look good.

But a bigger point is that anything can have significance for a particular person. I have my grandfather’s hammer. It is nearly worthless because the handle is so old and worn that it would snap if you swung it hard against a nail. I took the hammer to work one day to hang a picture, and it shortly disappeared. I searched and couldn’t find it. I forgot about it, but then I noticed it in a storeroom months later and recovered it.

WRITE NOW
Respond to what you read
Select a reading in one of the chapters in Part 2 that interests you. Write a one-paragraph summary of either the entire reading or of a part that contains a stimulating idea.

Write a second paragraph that develops one or more of the ideas in the reading. Think of some way of expanding or extending one of the author’s ideas, either by relating it to your own experience or to something else you have read.