

# STUDY TACTICS

## FOCUSING

Studying isn't just putting in time with a book in front of you. Worthwhile studying requires an attentive, active mind that's focused on the task at hand.

## ENVIRONMENT

To get the most out of your study time, you need to work in an environment that helps you focus.

- **Turn off the TV.** Television makes demands on your eyes and ears, so if you're "studying" while you watch, you're shortchanging something. Either that sitcom deserves more of your attention or a whole lot less.
- **Work out rules about study time** with roommates, housemates, and family so you can study without interruption. If you have pets, train them to leave you alone at these times.
- **Find a place free of distractions.** If you can study effectively in social environments like cafés, fine. If you're distracted by people-watching, be honest with yourself and don't go to the café until after you've studied. Reduce your exposure to things that compete for your attention. Don't study at your computer if email is a distraction; don't study with the radio on if you find you can't help humming along to every song you hear.
- It's helpful to have a **specific study area** with good lighting. Whether it's a room in your home, a corner of the library, or the ice-fishing shack on the lake, train yourself to go into study mode when you enter this space.
- **Libraries** are obvious candidates for good study spaces. They offer many supplementary resources, if you happen to need them, and are otherwise relatively free of time-wasting temptations.

## PROCRASTINATION

Procrastination can be doubly dispiriting: at the end of the day, not only have you not done the schoolwork you were supposed to, but you also have to face the fact that you've spent three hours rearranging your CD cases so their spines look like a rainbow spectrum. The guilt and dejection you feel can make it even harder to get started. You're better off recognizing your tendency to procrastinate—and combating it cleverly—than simply bemoaning it.

When faced with a big task like a long paper or an impending final exam, you may feel you have no idea where to begin. Sometimes, the result is paralysis. To avoid this and other, milder forms of procrastination, try the following:

- **Break the task into smaller parts.** Study one unit of a chapter. Memorize one subset of Spanish irregular verbs. Track your progress in these smaller units.
- **Tell other people what you're working on.** It's easier to procrastinate when you're the only one who knows how little work you've actually gotten done.
- **Do first whatever portion of the work you are most reluctant to do.**
- If you get to a point at which you realize you're avoiding the next step, **don't stop.** Give yourself a little procrastination time later as a reward for pushing past the difficult part and doing some portion of what you're avoiding.
- **Rewards in general are a good idea.** Beating procrastination sometimes amounts to little more than bribing your inner child—giving him dessert if he eats his broccoli. If you were going to watch a little TV before you started the paper, make yourself write four paragraphs first, or a complete outline and an introduction. Then enrich your life with a rerun of *The Dating Game*.

## PLANNING

Budgeting your time is a key to being a successful student. Before you can think about how to use the time you spend studying, you need to ensure that you make time to study.

## OBSERVE YOURSELF

Time is a resource, and before you change how you allocate it, you need to understand how you use it now. Though it may seem annoying, the best approach is to take a week and monitor your time use in half-hour blocks.

- **Have a small pad or a scrap of paper handy.** When you finish an activity, or whenever it occurs to you, write down what you've been doing. (It's harder to remember everything at the end of the day.)
- **Be honest.** The purpose of this exercise is to gain an accurate picture of how you use your time. *Only after you have an honest description of how your week passes can you evaluate your use of time and make decisions about changes.* Remember that the point isn't to eliminate all non-study or nonproductive time, but to be conscious about where your time goes so you can make informed decisions.
- How much time did you spend sleeping, eating, studying, sitting in class, participating in sports, working at a job, watching TV, playing video games, feeding your pet lizards, or whatever? Are you surprised by the results? Are you spending more time doing some activities than you'd like? Can you change this pattern?
- Now, take this information and put it to use. Plan the upcoming week.

## BUDGETING TIME

Once you have an idea of how you use your time, look at your needs and obligations for the week and budget your necessary study time across the days. Be realistic. You can't utilize every minute in the day productively—you need a little downtime, and you don't want to banish all spontaneity from your life. But knowing how much study time you need each week (and this is a figure you may have to adjust after a little trial and error), as well as how much time your other obligations require, can help you build your week around these needs—and know what consequences to expect if you don't.

- **Decide how many hours you need to spend studying.** This total may change from week to week, but you should allocate a basic amount of time below which you won't drop. For weeks when you have major papers due, or before big exams, you might need to budget more time.
- Every Sunday (or whenever your week begins), take 15 minutes and **map out your week**, scheduling in study time around your obligations.
- **Know when you're at your most alert and use this time to study.** If you get tired at night, don't put your chief study time between 10<sup>PM</sup> and midnight. Experiment with getting up earlier to see if you're sharp in the morning.

- **Prioritize.** Which schoolwork is most important? Which is most urgent? The answers may be different each week. Not all school-related activities are of equal value or importance—you know this. When you're budgeting your time, make sure you allocate enough time for the most important and most urgent tasks. If you have long-term projects that are important, don't give them short shrift just because they aren't yet urgent. *It may make more sense to spend time working on a big research paper weeks ahead of its due date and less time on a minor assignment due this week.*
- **Sleep is important.** Your study time won't be worth much if you're constantly tired. Your play time won't be much fun either.

## Dead time

You'll probably discover that you spend a lot of time just spacing out; waiting for people; or riding a bus, subway, or train. These interludes are well suited to certain forms of study—particularly memorization and repetition. So develop some portable study aids. For a language class, make cue cards of vocabulary; for chemistry, formulas; for history, names and facts. Carry them with you when you leave the house and make use of your waiting time.

## Downtime

You need to have a level of studying that you can sustain, or else you'll just wear yourself down. That means time with friends, time listening to music, watching a movie, exercising, walking, and staring out the window. Any schedule that completely eliminates these activities is probably not a schedule you are going to stick to.

## CALENDARS

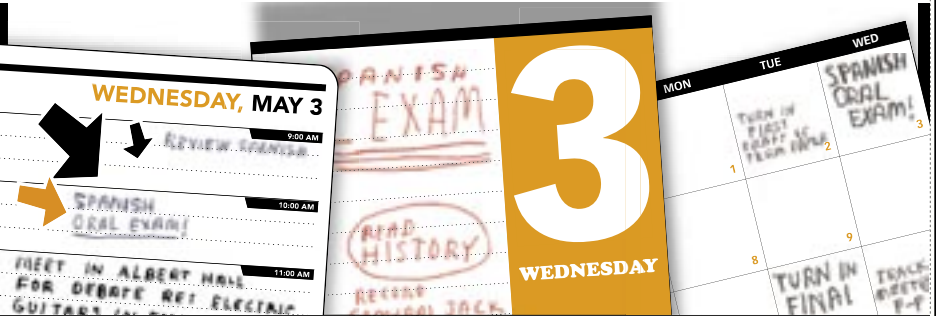
You'll need several calendars.

- A calendar with just your **classes and standing obligations** (the "where-you-have-to-be" calendar).
- A calendar with just the **due dates** you know at the beginning of the term, from your class syllabi: midterm exams, final exams, final papers, etc. Display this prominently in your work area so you can keep in mind the big picture for the whole semester.
- A calendar or planner that you add to and refer to daily. This should incorporate long-term deadlines but also include your **weekly assignments** and their due dates.
- Make a quick **to-do list** in the morning or before you go to bed. Refer to your weekly calendar. Check off each item as you finish.

## USING YOUR SCHEDULES

Unforeseen events take place, and situations change. Be as firm as you can but adjust when you have to. At least you'll know how much time you're putting in compared to how much you need to.

- Be aware of your priorities. If you keep putting something off, recognize this avoidance: it's probably something you really need to do—and something that you think is hard to do. Break it down into smaller parts and do a part of it today.
- Refer to your semester calendar and your syllabus so you can anticipate the demands on your time several weeks in advance.



## REMEMBERING INFORMATION

It is easier to remember things when you understand them. In the long run, it's also more useful. If you are trying to remember something, check yourself. Can you define it? Can you give examples of it? Can you describe how it is related to other things? Some material requires rote memorization, but teaching today places less emphasis on remembering dates and names and more on understanding relationships and processes.

- **Mnemonic devices.** This is a whole suite of memory improvement exercises and techniques. Some of these basic techniques are probably quite familiar to you. In general, it can be helpful to make associations with things you already know, so that what you know will remind you of what you've just learned.
- **Acronyms.** Ex: HOMES = Huron, Ontario, Michigan, Erie, Superior (the Great Lakes).
- **Acrostics.** Ex: Every Good Boy Does Fine = E, G, B, D, F (the notes that make up the staff lines in the treble clef).

- **Linking information to physical locations.**
- **Word association.** Associating information with words that sound similar.
- **Reviewing.** A day later, you remember very little of what you have read. This doesn't mean you have totally forgotten the information. You see when you review it how quickly it comes back. Reviewing frequently reinforces those connections our brain makes, the mysterious machinery of memory.

# STUDY TACTICS

## TAKING NOTES

Taking notes in class and taking notes from reading material are quite different tasks, but ultimately, you'll want to combine the two types of notes into concentrated study material.

### With all types of notes:

- Review the notes soon, within 24 hours.
- Use a three-ring binder and write on one side only (so you can move pages around later).
- Refer back to notes as the course progresses. Ask yourself what still seems important and what seems trivial.
- Periodically combine your reading notes and your lecture notes into a single set of notes. Use this single set to study for the final exam.

## NOTES FROM CLASS

Many instructors make it a point not to test students on material that hasn't come up in class. While there probably will be a lot of material in the reading assignments that's inessential (both in terms of the main thrust of the course and in terms of what you will be tested on), this is less likely in lectures. When instructors speak, they do a lot of the work for you. They select what they feel is important and give the material an organized structure. Your job as a note-taker is to get down as much as you can. Decide later what you really need to focus on.

### BE PREPARED

- **Skim your notes from the previous class.** Good teachers have some continuity from one class to the next. So should you. Come into class with topics fresh in mind.
- **Do the reading!** Lectures and discussions usually coincide with a specific reading assignment—an economics handout, a chapter in a physics textbook, several poems in a literature course. If you're already familiar with the new vocabulary and the basic thrust of the material, following the lecturer will be much easier.
- **Get to class on time.** This may seem painfully obvious, but it bears repeating. When you arrive late, it may take you several minutes to get settled. Even more unsettling is the sense that you've missed the beginning of whatever argument the teacher is making.
- Another reason to get to class on time: often, teachers put information on the board before class. If you write down this information before class starts, it won't distract you during class.
- Bring your textbook, class notes, and additional reading assignments that the teacher may refer to during class.

### MAKE FRIENDS

In general, it's a good idea to make a regular habit of exchanging notes with a friend—particularly with a meticulous friend. See what he's written down and decide whether it seems important to you. **Your classmates can be your biggest resource.** Explaining the material to each other is an excellent way for both of you to ensure that you really understand it. Nothing forces you to think through what you've learned like having to explain it to someone else.

### LECTURE COURSES

It can be difficult to keep up with what the lecturer is saying. These tips will make it easier on you.

- **Listen for a synopsis** at the beginning of the lecture and a summary at the end.
- **Use abbreviations** or some form of shorthand.
- **Listen for clues.** Often, teachers repeat important points, say them slowly, or return to them later on.
- **Learn the idiosyncrasies of your instructor.** Does the teacher focus on details or on bigger concepts? Where does she place her emphasis?
- Even while you're trying to be a human tape recorder, **don't ignore your critical abilities entirely.** If you disagree with something, make a little shorthand note of it. You'll want to return to later.
- **Pay attention to handouts.**

### DISCUSSION COURSES

There are a few differences between taking notes in a discussion course and taking notes in a lecture.

- Discussion classes often present less factual material and delve more deeply into the reading. They usually explore complex issues from many angles. Getting down the who, what, and when isn't usually the main purpose. Instead, pay attention to various ideas of why and how.
- In small discussion classes, or in discussion sections of larger classes, you can stop the speaker and ask her to clarify or repeat a point.

### If you miss something or don't understand:

- Make a mark in your notes—for example, a big question mark in the margin.
- Leave a blank space for something you haven't been able to write down. The space is a reminder that you've missed something and that you need to get the information from someone else in the class.
- If appropriate, raise your hand and ask for clarification or repetition.
- Approach the teacher after class with your question.

## NOTES FROM READING

As opposed to taking notes in lectures (when your main goal is to record the material being presented to you), taking notes while you read involves a more active intelligence and constant questioning. You need to think critically and interrogate what you read, continually asking questions of it and of yourself. Don't rewrite the text in your notes or highlight or underline half of every textbook page. These practices do you little good.

### BEFORE YOU REALLY START READING

#### • Ask yourself why you're reading the assignment.

Well, you want to learn something, and you hope to demonstrate what you've learned either in a paper or on a test. If you're working on a test, what kind of test will it be? This question dictates, to some extent, what material you will pay most attention to. What kind of answers will you be asked to give eventually? (If you're working on a paper, see the *Essays and Term Papers* SparkChart for help.)

#### • Figure out the main point of the assignment.

How does this reading fit into the course as a whole? Skim the chapter, looking at section headings and key vocabulary. Chapters in textbooks may be weighed down with details, but usually there are just a few main points. If you can, write them down before you read carefully; otherwise, be sure to do so afterwards.

#### • Make a list of important terms and concepts.

It may seem weird, but these concepts often are found in the preface and introduction of novels and nonfiction books, and in the table of contents and chapter summaries of textbooks.

*"You don't want to be a shellfish in a tide pool as waves of text wash over you."*

#### Get a sense of what you're reading before you read it.

The point of studying isn't the thrill of surprise but the practical process of *getting* the material. So try reading first and last chapters, first and last paragraphs in each section, and first and last sentences of each paragraph.

#### • Note what questions this preliminary reading raises.

Write those questions down—they'll help you know what answers you'll be looking for.

#### • Ask yourself what you already know about the material.

You might know quite a bit. Write this down too. Think about your assumptions before you begin the reading. Again, the point is to enhance your engagement with the text. You don't want to be a passive recipient, a shellfish in a tide pool as waves of text wash over you. You probably know that you can read entire books cover to cover and retain very little of what you have read. You're better off—in terms of time use, and in terms of what you learn and retain—taking a little time to prepare the playing field.

## AS YOU READ

- **Try to anticipate the author's next move.** This is just part of being a critical reader. As you read, pay attention to *rhetorical structure* (the structure of an argument). See whether you can anticipate the author's next move. You'll discover that there are some basic structures to textbooks that help you figure out where your text is going before it takes you there.

1. **Pros and cons.** If the textbook describes some positive outcomes of the Treaty of Ghent, what might come next? Probably some negative outcomes.

2. **Continuity and change.** If a chapter section talks about how the advent of the railroad changed life on Long Island in the nineteenth century, what might come next? Probably a short description of what remained the same, despite the new technology.

3. **Rules and exceptions.** Often, a textbook will state a rule and then list any exceptions to the rule.

4. **Causes and effects.** If a textbook describes the issuing of the *Magna Carta* by King John in 1215 as one of the most important events in the shaping of British law, it's likely that a discussion of the historical influence of the *Magna Carta* on British law will follow.

5. **Lists and descriptions.** If a textbook lists the three types of blood cells—red blood cells, white blood cells, and platelets—it probably will describe each of those three types next.

- **Look for answers to the basic questions: who, what, when, where, why, and how.** Check yourself after you read—can you give succinct answers to these questions?

#### • Think critically about the information.

Is it being presented as fact or as opinion? Whose opinion is it? What's the point of view? What associations does this information evoke (Does it remind you of anything)? Analogies are excellent tools for understanding connections and for reinforcing memories.

#### • Ask yourself what information is important.

This is the difficult task. Pay attention to bold words and graphs (not necessarily the specific data in the graph, but the idea—a point important enough to deserve a visual aid—that the graph is meant to illustrate). Read the end-of-the-chapter questions beforehand and be on the lookout for information that helps you answer these questions. Pay attention to anything that provokes a reaction from you. This may be something you don't understand or something with which you disagree. Or, it may be something that suddenly clarifies a cloudy issue.

#### • Don't highlight masses of text.

You've done very little processing or evaluating if you've highlighted half the page. Read ahead and then look back at what strikes you as the meat of the argument and the essential details.

#### • Try to paraphrase and condense the information.

But don't go sentence by sentence, because without a larger context, you don't know what's important yet. Read a paragraph or section and *then* write down the main points in your own words. When you write these down on a separate sheet of paper in your own words, you're engaging the material more fully.

#### • Consider how new material relates to information you already know.

Don't just take your notes and stick them in a binder until test time. Once you've processed new information, take a step back and see how it relates to the information that preceded it. Updating and reconsidering your notes is better than just reading them over and over again at the end of the term.

## ORGANIZING INFORMATION

Your method of organizing should have some structure that makes sense to you and helps illustrate relationships in the material.

### DIAGRAMS

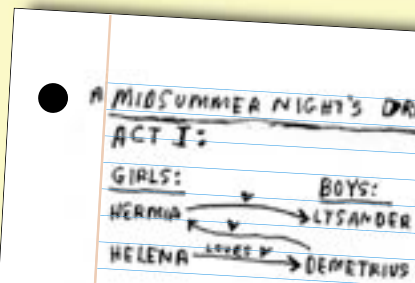
Diagrams can be extremely helpful in illustrating relationships. You'll want to make groupings of information and then link them to others. You may wish to diagram:

- **Causation:** how one event leads to another.
- **Transformation:** how one thing becomes something else.
- **Opposition:** how one thing (e.g., an idea, event, or fact) contradicts or is the opposite of another.

When complicated relationships exist, make larger diagrams so that you can draw lines indicating different kinds of relationships between one grouping and another.

## TABLES

Many people find it helpful to make tables. You might want to use graph paper, or a program like Microsoft® Excel.



CONTINUED ON OTHER SIDE

## IN-CLASS DISCUSSION

You want to learn the most you can from the discussion experience, and you want your participation in class to be both useful and recognized (particularly in classes that give grades for class participation).

- It's obvious, but it needs to be said: **DO THE READING.** You'll have something informative to say, you'll have reactions to express, and you'll have questions to ask about points that weren't clear in the reading (this is one of the great benefits of discussion).
- **If you can't do all the reading,** make sure you have a general idea of its contents and read a small portion in detail. That way you will be able to make a specific, text-based comment.
- If the class is the discussion section of a larger lecture course, review your lecture notes before each section. Again, while taking notes, you should indicate your questions in the margins or by leaving blank spaces (see Taking Notes, above). Find those questions before discussion section and bring them to class.
- Remember, intelligent questions are as useful to the class (and as indicative of your engagement in the material) as intelligent answers. Sometimes, really simple questions need to be asked too.

## DISCUSSION ETIQUETTE

A good class-discussion experience and good class-discussion etiquette involve finding a happy medium between the extremes of ninja-like invisibility and incessant yammering that annoys everyone around you, including your instructor.

- **As a bare minimum, prepare one thing to say for each class.** Don't try to out-wallpaper the wallpaper. Maybe you're shy; maybe there are overbearing blowhards in your class—still, make the effort to have your say. Raise your hand if you have to. *Try never to let an entire class go by without making some contribution.*
- **On the other hand, don't feel you have to comment on every subject.** Just be aware of your contribution and try not to dominate the discussion. You probably recognize that some of your own comments are more interesting than others. *If you find that you're doing most of the talking, do a little self-editing.*
- Try to keep your comments grounded in the class materials or at least relevant to the topic at hand.
- That being said, if the instructor asks a question and everyone else is sitting around like mimes on sedatives, chime in!
- **Listen attentively.** Respond to what people say. Refer to previous comments if they relate to yours.
- **Respect other people's opinions.** Outwardly: go easy on the eye-rolling, snickering, snorting, and hysterical mocking laughter. Inwardly: acknowledge that, if nothing else, you're learning interesting things about how other people think and how they interpret the same material you're all studying.
- **Basic ideas of good communication apply to classroom discussions.** Speak up. Don't cut people off. Make eye contact with people (but not in that creepy way that makes them think you're about to whip out a pamphlet and invite them to a friendly gathering next weekend).

## IF YOU DIDN'T DO THE READING

Make a general comment or ask a general question early in the class (e.g., ask a classmate to be more specific or clarify what she just said). Doing so avoids the problem of being conspicuously silent and also reduces the chances that the teacher will call on you later, to your embarrassment.



## READING IN A FOREIGN LANGUAGE

To a large extent, the relationship between your level of fluency and the difficulty of the text will determine how much trouble you have reading and understanding. However, if you're studying a language, whatever your level of proficiency, you should expect some difficulty with the reading (or you should be in a harder class, bucko).

- **Go easy on the dictionary.** Much of learning a language comes from figuring things out from *context*. If you look up every single word you aren't sure about, the task may become unbearable. Read ahead to see whether you get any clues. Let some of the small details go if they seem inessential. Become comfortable with a certain level of vagueness in your understanding, so long as you get the gist of what you're reading. This might mean knowing or looking up all of the verbs but letting some of the adjectives and adverbs slide. Or skimming paragraphs that seem to be describing the weather, or soccer.
- **Make abbreviated vocabulary lists.** You aren't going to remember every word you look up, every time you read. Write down the ones that seem most useful (or most interesting) and memorize this smaller, more manageable list. If you encounter a word several times, look it up and write it down.
- **Read out loud whenever you can.** Give your tongue and ears the same exercise your eyes are getting.
- **Patience, patience, patience.** Frustrating as it is that a two-year-old in San Salvador or Osaka speaks better than you do, you need to remember that learning a foreign language, for most people, takes years and years of struggle. You're in it for the long haul, so don't be hard on yourself in the short term.

## THINGS NOT TO SAY IN CLASS

*"Well, I didn't get to read the book, but it seems to me..."*

1) You're announcing to your instructor that you didn't do the work. You may as well tattoo it on your forehead. 2) You're rhetorically weakening whatever you're about to say. 3) You're angering the people who actually did the reading.

*"That's the dumbest thing I've ever heard."*

This remark just isn't in the spirit of mutual respect and open-mindedness that a good class discussion requires. It introduces a competitive element. For example, others in the class may have said even dumber things and will feel slighted by your judgment.

*"This reading sucks."*

You may believe this in your heart of hearts, but this isn't a particularly acute criticism. When the time comes to evaluate the class at the end of the semester, you'll have ample opportunity to describe in detail which aspects of the reading suck, why the author's underlying premise sucks, why his research methodologies suck, why his conclusion sucks, and so forth. Yet, there might be a few un-sucky insights to be gained, and, in all fairness, you should acknowledge these.

*"There was this movie I saw once that kind of reminds of the reading, I know it isn't really about the Civil War, but there was guy who had lost his legs in a fishing accident, and when he returned to his job it turns out his boss...."*  
Please. Please conserve oxygen.

## REFERENCES

### THE DICTIONARY

It's hard to overestimate the dictionary's value. A good college dictionary or unabridged dictionary is an excellent investment. Keep it handy when you read and look up words you don't know. If you're reading away from your dictionary, keep a list of words to look up later. Building your vocabulary while you read is ultimately one of the most useful habits you can have. Good dictionaries may also have maps, biographical entries, basic science tables and formulas, usage notes, historical information, place names, and sometimes even abbreviated dictionaries of foreign languages.

### THE THESAURUS

The thesaurus groups related words to help you find the exact word you are looking for—the one with just the right shade of meaning. Most thesauri don't give examples of usage, so you may want to use a thesaurus in conjunction with a dictionary.

### THE ENCYCLOPEDIA

Some **one-volume** encyclopedias can be helpful as a first resource and may be worth owning. **Multi-volume** encyclopedias go into greater depth and are available at your library. Also, there are many **specialized** encyclopedias for specific fields like chemistry, African-American history, Russian literature, and dance. If you're writing a paper, you'll want to rely on more expansive sources than encyclopedias. However, encyclopedias can give you an accurate and generally even-handed summary and point you in the right direction.

### STYLE GUIDES

If you're writing college-level papers, you should know the **conventions of academic writing**. A book such as the *MLA Handbook* will provide you with examples and instructions. Often your instructor will specify which style guidelines (e.g., MLA, Chicago, or APA) he expects you to follow.

### SPARKNOTES™

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### ONLINE RESOURCES

While there are many amazing learning tools on the Web, there's also a lot of outdated, misleading, misapplied, deceitful, or simply false information out there. Anyone can post any kind of information, and search engines aren't designed to discriminate between the reliable and the unreliable. While books clearly aren't infallible either, there's simply nowhere near a comparable level of oversight or accountability on the Web. Which is just another way of saying: be savvy and be skeptical of what you read.

- Try to determine whether a website has a clear political, religious, or social **agenda** and see how this agenda affects the site's content.
- See whether the website has been **updated** lately. Frequent updates can be a good sign. Do the site's authors identify themselves? If so, try to get a sense of whether they can be considered authorities on the site's subject matter.
- Sites affiliated with **universities**—and particularly with specific departments or classes, as opposed to individual students—generally are more reliable than your average hobby website.
- Talk to classmates or teachers about good Web resources in their field.
- In general, it's worth visiting your school library's website. **School and public libraries** subscribe to comprehensive (and expensive) online resources in many fields. As a student or library user, you have access to these resources, which can be very useful. For example, **Lexis-Nexis** contains the full, searchable text of articles in thousands of periodicals going back, in some cases, 20 years or more.

### ONLINE DICTIONARIES

- If you're at a computer and need to look up a word, online dictionaries can be a great help.
- **Merriam-Webster's** provides an online version of its dictionary and thesaurus at [www.m-w.com](http://www.m-w.com).
- Another easy-to-remember site is [www.dictionnaire.com](http://www.dictionnaire.com), or its companion, [www.thesaurus.com](http://www.thesaurus.com).
- The **Oxford English Dictionary** is available online but by subscription only. Many schools and library systems subscribe and will provide you with a password.

### HELPFUL WEBSITES

- The **STUDYTACTICS** website, [www.study tactics.com](http://www.study tactics.com), contains a highly comprehensive collection of the Web's top online academic resources on everything from accounting to zoology. The sites are compiled in categories specific to formal areas of study.
- **Bartleby.com** ([www.bartleby.com](http://www.bartleby.com)) is a storehouse of free reference material. It provides access to the *Columbia Encyclopedia*, the *Encyclopedia of World History* (more than 20,000 historical entries), the *Columbia Gazetteer of North America* (for geography), the *World Fact Book* (for statistics and descriptions of every country in the world), the *American Heritage Dictionary*, *Roget's Thesaurus*, several books of quotations, usage and style guides, *Gray's Anatomy*, the King James Bible, and the complete works of Shakespeare. In fact, the site contains the complete texts of selected works of authors from Jane Austen to J.S. Mill to W.B. Yeats. Online texts have the advantage of being searchable for any word or phrase (use Control-F on a PC, or Command-F on a Macintosh).
- The **Perseus Digital Library** ([www.perseus.tufts.edu](http://www.perseus.tufts.edu)) has an amazing collection of Classics translated from Greek and Latin, as well as literature of the English Renaissance.
- For a little help with your **foreign language verbs**, check out [www.verbix.com/webverbix/index.asp](http://www.verbix.com/webverbix/index.asp), where you can conjugate virtually any verb in an astounding variety of languages.



## EXAM PREPARATION

You should review your notes throughout the semester, continually asking yourself what's important and how each topic fits into the big picture of the semester. However, when exam time rolls around, these strategies will help you prepare.

### STRATEGIZING

- **Find out what kind of material is being tested.**
  - Is it mostly from the textbook? From outside reading? From lectures? Labs?
  - Will the test include material from previous exams?
- **It also helps to know what kind of test it will be.** If you ask these detailed questions of your professor or teaching assistant, do it in a way that's neither aggressive nor obsessive—you're simply trying to find how to best make use of your study time.
  - Will the questions test your knowledge of facts or analytical skills?
  - Will the format be multiple choice, short answer, or essay?
  - Will you be able to choose which questions you wish to answer (e.g., "Answer three of these five questions")?
- **Look at copies of old tests, if possible.** Tests from previous years may be available in the library, or you may know someone who has taken the course in the past. These will help you to get a sense of the kinds of questions asked.
- **Know your teacher's opinions on the issues in the course.** You don't need to parrot everything you've heard in lecture. In fact, you may take an opposite position. But it's important, in an essay, to be able to anticipate the objections to your arguments and to address them.

### REVIEWING

- **Attend review sessions.** Come prepared with a list of questions so the session won't be a waste of your time.
- **Be able to say something about the main points of the course.** If it's a final or midterm exam, look back on previous tests, which can be good indicators of what to expect.
  - What are the basic themes?
  - What are the most essential terms?
  - What are the big issues?
- **As you review your notes, ask yourself the questions you asked while reading.** If you don't know the answers, make a list of information you need to find out.
  - What is this related to?
  - Why did this happen?
  - What happened because of this?
- **Master at least one topic within the course.** Even while you're struggling to get a handle on an entire semester's worth of material, it can be worth it to go deeply into one topic. This gives you the opportunity to demonstrate a deeper understanding on at least some portion of the exam.

### CONDENSING

As you prepare for the exam, condense your notes to the essential. Try to get everything you absolutely need to know onto one sheet—and then make it your duty, as a bare minimum, to own that material.

### STUDY GROUPS

Some people work better on their own, some in groups. It may be that you study most effectively with a partner or two. If this is the case, pair up with a classmate or form a small group. Study on your own first. Then come prepared with questions to quiz each other. Trade stacks of questions; keep at it until you can all answer each other's questions and explain the answers.

### THE NIGHT BEFORE

- Review before you go to bed, then go to sleep with the material still fresh in your head. Your brain still works while you're asleep. Get a normal night's sleep if you can.
- Review casually in the morning. You're not going to do serious learning or quizzing at this point.
- You can try to cram a few last-minute things you haven't memorized right before the exam. These materials will fade quickly, so write them down in the margin as soon as the test begins.

### CRAMMING

Hey, sometimes it happens—you simply didn't give yourself enough time. If you have to cram, you need to make concessions. Optimum learning isn't really the point; optimum test-taking in unfortunate circumstances is.

- Here's where it really helps to know something about the test. What's the professor likely to focus on? What kinds of questions will be worth the most? You might have to ignore large chunks of material that you deem least likely to appear on the test, or least important if they do.
- Recite, recite, recite. Use flash cards. At this point, you're trying to lodge as much into your memory as you can.
- Don't be hard on yourself. You should've done it sooner, you shouldn't have put it off, you should be in better shape—but you'll do that next time. For now, you just have to do the best you can and salvage a good grade from an imperfect situation.

## TAKING TESTS

In theory, tests measure what you've learned. In practice, tests often measure how well you take tests. Unfortunately, there's no perfect, practical way to measure learning. Tests are a fact of life. So for better or for worse, learning how to take tests well is an extremely beneficial life skill. How well you take tests involves how well you've prepared, how well you understand the test, and how well you perform in the test room, under pressure and with the clock ticking.

### GENERAL TEST-TAKING TIPS

- **Whether or not you feel calm, approach the test calmly.** If you've crammed some last-minute information into your short-term memory, calmly write it down as you begin.
- **If you simply aren't calm, try to use your nerves.** Your adrenaline can keep you on edge and heighten your awareness. Don't spend time and energy worrying about being nervous. Tests are performances, and, as in any performance, your nervous energy can be your fuel. However, the goal is a controlled burn, not an explosion.
- **Scan the test before you wait away at the first question.** See what kinds of questions you have ahead of you. Ideally, you'll have time to give every question the attention it requires. Realistically, you may not. Some questions are worth many more points than others. An experienced test-taker will recognize this and factor it into the decisions she makes during the course of the test.
- **Read the general directions and the directions for each question.** So many mistakes occur when test-takers don't read the directions. For example, sometimes you're only required to answer *some* of the questions.
- **Don't spend too much time on questions you know the least about.** You need to budget your time intelligently. You want to be able to really nail the stuff you know, so don't leave it to the end. It's a shame (and bad test-taking) to struggle your way through the questions you don't know very well and then not have time to answer the questions you do know.
- **Check the time.** As you finish each question, quickly ask yourself how best to use the time you have left. You may have to revise your strategy, leave certain questions for last, spend more time on the questions worth more points. *The best move at any given moment is whatever makes the best use of the remaining time.*
- **Show your work!** If you make a small mistake on a math test (if you forget a negative sign, for example) and your answer is wrong, but you've applied the correct formula and taken the right steps, you may get very close to full credit. After all, you've demonstrated that you know how to answer the question; you've just made a small, careless mistake. If you don't show your work, your instructor has no idea how you came up with your answer and can't award partial credit.
- **For a math or science problem, make a logical estimation of what the answer will be before you start to work.** If your answer turns out to be nothing like your estimate (and you feel you know how to do the problem), suspect that you've made a careless mistake and check for it.

### IF YOU'RE STUCK

- **Rephrase a question in your own words.**
- **If it's acceptable, raise your hand and ask for clarification on the wording of a question.**
- **Get something down on paper.** Don't sit and struggle with everything you've learned in this mad-dash, rich pageant we call life in your head. You'll only grow more and more frustrated. Getting something down on paper can help you think. Ultimately, only what's on paper counts when you turn the test in.
- **If you can't remember something precisely, give your best approximation.** Explain your logic and reasoning. Teachers often give partial credit, so be resourceful. Show how you would have solved the problem or answered the question had you remembered the formula or quotation or event.
- **If you're running out of time, note this in the test and outline as thoroughly as you can the remaining points you want to make.** You can't get away with doing this on every question, or even more than one, but show that you know the main points and can put them in a logical order.
- **If you're really running out of time, you'll have to leave some questions blank. Don't wait until the very last minute to take this step.** If you have to leave questions blank, do so sensibly, by leaving blank the questions about which you feel least confident.

### IF YOU HAVE NO CLUE

Well, you're kind of screwed, but there are a few things to do.

- Say what you'd do if you knew.
- Try writing down what something *isn't*, if you really don't know what it *is* (in the context of the class, of course). This process of elimination may remind you of something relevant or generate ideas for another part of the test. You might even hit upon a defining characteristic that's good enough for partial credit.
- Shrug your shoulders, laugh ruefully at the injustice of it all, and move on.

### TIPS FOR DIFFERENT TYPES OF TEST QUESTIONS

#### ESSAYS

When you write an essay, you want to demonstrate that you understand the issue, take a stand, make an argument, consider the alternatives, and conclude.

- **Read the directions carefully,** paying special attention to the verbs. Does the question ask you to summarize, outline, refute, compare, state, trace, describe, criticize, or contrast? Keep these directives in mind as you write.
- **Take a moment to outline your essay,** even if only in the broadest strokes. An essay question is meant to evaluate not only what you know but whether you can organize your knowledge compellingly—this takes a bit of structure.
- **Make distinct paragraphs.** Paragraphs should be visually separate from one another, and each should follow the standard rules of composition by dealing with one main point.
- **Begin strongly.** Deliver your verdict starkly, then back it up with subtleties. End strongly, if you can.
- **Write on one side of the page and in pen.** This will make the essay easier for the grader to read.

#### SHORT ANSWER AND FILL IN THE BLANK

Your ability to flesh out an issue isn't really on display here, nor are your full rhetorical powers. You want to keep your answers succinct and factual. State the answer clearly and, if appropriate, briefly give the reasons.

#### MULTIPLE-CHOICE QUESTIONS

When you take a multiple-choice test, you have the benefit of knowing that the correct answer is in front of you. You need to recognize it and recall it, but this is much easier than having to understand it or being able to explain it.

- **Read the question VERY carefully.** To make the exam more challenging, multiple-choice and true/false questions will distract you with answers that are also familiar but do not quite fit the question at hand.
- **Try to answer the question on your own,** without looking at the multiple choices. This will help prevent your choosing the first familiar-looking answer.
- **Read all of the choices.** There might be an answer that *sort of* fits, and then one that fits better (this isn't good test-writing, but not all tests are written well).
- **If you don't know the answer, employ a process of elimination.** By eliminating the answers you know are wrong, you greatly increase your chances of guessing successfully.
- If you have to eliminate some answers but have no idea how to do so, eliminate the extreme answers (the highest and lowest numbers, for example). Often, these extremes are incorrect.
- If there are two answers that look very similar (while the others do not), the correct answer often is one of them.
- **Don't agonize if you can't figure out the answer.** Mark the question, move on, and then come back to it. Subsequent questions might give you a clue or jog your memory.
- **Multiple-choice questions are not the occasions for existential crises.** Don't overthink the deep implications of a multiple-choice question, deconstructing its meaning, wondering what exactly "is" means. The questions usually are straightforward.
- **If the question is just too ridiculously simple, you might be missing something.** Reread the question carefully.