

# How to Manage Your Time Efficiently and Study More Effectively

Richard O. Straub, The University of Michigan at Dearborn

How effectively do you study? Good study habits make the job of being a college student much easier. Many students, who *could* succeed in college, fail or drop out because they have never learned to manage their time efficiently. Even the best students can usually benefit from an in-depth evaluation of their current study habits.

There are many ways to achieve academic success, of course, but your approach may not be the most effective or efficient. Are you sacrificing your social life or your physical or mental health in order to get A's on your exams? Good study habits result in better grades *and* more time for other activities.

## EVALUATE YOUR CURRENT STUDY HABITS

To improve your study habits, you must first have an accurate picture of how you currently spend your time. Begin by putting together a profile of your present living and studying habits. Answer the following questions by writing *yes* or *no* on each line.

- \_\_\_\_\_ 1. Do you usually set a schedule to budget your time for studying, recreation, and other activities?
- \_\_\_\_\_ 2. Do you often put off studying until time pressures force you to cram?
- \_\_\_\_\_ 3. Do other students seem to study less than you do, but get better grades?
- \_\_\_\_\_ 4. Do you usually spend hours at a time studying one subject, rather than dividing that time between several subjects?
- \_\_\_\_\_ 5. Do you often have trouble remembering what you have just read in a textbook?
- \_\_\_\_\_ 6. Before reading a chapter in a textbook, do you skim through it and read the section headings?
- \_\_\_\_\_ 7. Do you try to predict exam questions from your lecture notes and reading?
- \_\_\_\_\_ 8. Do you usually attempt to paraphrase or summarize what you have just finished reading?
- \_\_\_\_\_ 9. Do you find it difficult to concentrate very long when you study?
- \_\_\_\_\_ 10. Do you often feel that you studied the wrong material for an exam?

Thousands of college students have participated in similar surveys. Students who are fully realizing their academic potential usually respond as follows: (1) yes, (2) no, (3) no, (4) no, (5) no, (6) yes, (7) yes, (8) yes, (9) no, (10) no.

Compare your responses to those of successful students. The greater the discrepancy, the more you could benefit from a program to improve your study habits. The questions are designed to identify areas of weakness. Once you have identified your weaknesses, you will be able to set specific goals for improvement and implement a program for reaching them.

## MANAGE YOUR TIME

Do you often feel frustrated because there isn't enough time to do all the things you must and want to do? Take heart. Even the most productive and successful people feel this way at times. But they establish priorities for their activities and they learn to budget time for each of them. There's much in the saying "If you want something done, ask a busy person to do it." A busy person knows how to get things done.

If you don't now have a system for budgeting your time, develop one. Not only will your academic accomplishments increase, but you will actually find more time in your schedule for other activities. And you won't have to feel guilty about "taking time off," because all your obligations will be covered.

### Establish a Baseline

As a first step in preparing to budget your time, keep a diary for a few days to establish a summary, or baseline, of the time you spend in studying, socializing, working, and so on. If you are like many students, much of your "study" time is nonproductive; you may sit at your desk and leaf through a book, but the time is actually wasted. Or you may procrastinate. You are always getting ready to study, but you rarely do.

Besides revealing where you waste time, your diary will give you a realistic picture of how much time you need to allot for meals, commuting, and other fixed activities. In addition, careful records should indicate the times of the day when you are consistently most productive. A sample time-management diary is shown in Table 1.

Table 1 Sample Time-Management Diary: Monday

BEHAVIOR	TIME COMPLETED	DURATION HOURS:MINUTES
Sleep	7:00	7:30
Dress	7:25	:25
Breakfast	7:45	:20
Commute	8:20	:35
Coffee	9:00	:40
French	10:00	1:00
Socialize	10:15	:15
Videogame	10:35	:20
Review Biology	11:00	:25
Biology	12:00	1:00
Lunch	12:25	:25
Study Lab	1:00	:35
Biology Lab	4:00	3:00
Work	5:30	1:30
Commute	6:10	:40
Dinner	6:45	:35
TV	7:30	:45
Study Biology	10:00	2:30
Socialize	11:30	1:30
Sleep		

Prepare a similar chart for each day of the week. When you finish an activity, note it on the chart and write down the time it was completed. Then determine its duration by subtracting the time the previous activity was finished from the newly entered time.

### Plan the Term

Having established and evaluated your baseline, you are ready to devise a more efficient schedule. Buy a calendar that covers the entire school term and has ample space for each day. Using the course outlines provided by your instructors, enter the dates of all exams, term paper deadlines, and other important academic obligations. If you have any long-range personal plans (concerts, weekend trips, etc.), enter the dates on the calendar as well. Keep your calendar up to date and refer to it often. I recommend carrying it with you at all times.

### Develop a Weekly Calendar

Now that you have a general picture of the school term, develop a weekly schedule that includes all of your activities. Aim for a schedule that you can live with for the entire school term. A sample weekly schedule, incorporating the following guidelines, is shown in Table 2:

1. Enter your class times, work hours, and any other fixed obligations first. *Be thorough.* Using information from your time management diary, allow plenty of time for such things as commuting, meals, laundry, and the like.

2. Set up a study schedule for each of your courses. The study habits survey and your time management diary will direct you. The following guidelines should also be useful:

(a) Establish regular study times for each course. The 4 hours needed to study one subject, for example, are most profitable when divided into shorter periods spaced over several days. If you cram your studying into one 4-hour block, what you attempt to learn in the third or fourth hour will interfere with what you studied in the first 2 hours. Newly acquired knowledge is like wet cement. It needs some time to "harden" to become memory.

(b) Alternate subjects. The type of interference just mentioned is greatest between similar topics. Set up a schedule in which you spend time on several *different* courses during each study session. Besides reducing the potential for interference, alternating subjects will help to prevent mental fatigue with one topic.

(c) Set weekly goals to determine the amount of study time you need to do well in each course. This will depend on, among other things, the difficulty of your courses and the effectiveness of your methods. Many professors recommend studying at least 1 to 2 hours for each hour in class. If your time diary indicates that you presently study less time than that, do not plan to jump immediately to a much higher level. Increase study time from your baseline by setting weekly goals (see 4.) that will gradually bring you up to the desired level. As an initial schedule, for example, you might set aside an amount of study time for each course that matches class time.

(d) Schedule for maximum effectiveness. Tailor your schedule to meet the demands of each course. For the course that emphasizes lecture notes, schedule time for a daily review soon after the class. This will give you a chance to revise your notes and clean up any hard-to-decipher shorthand while the material is still fresh in your mind. If you are evaluated for class participation (for example, in a language course), allow time for a review just *before* the class meets. Schedule study time for your most difficult (or least motivating) courses during times when you are the most alert and distractions are fewest.

(e) Schedule open study time. Emergencies or additional obligations could throw off your schedule. And you may simply need some extra time periodically for a project or for review in one of your courses. Schedule several hours each week for such purposes.

3. After you have budgeted time for studying, fill in slots for recreation, hobbies, relaxation, household errands, and the like.

4. Set specific goals. Before each study session, make a list of specific goals. The simple note "7-8 PM: study biology" is too broad to ensure the most effective use of the time. Formulate your daily goals according to what you know you must

Table 2 Sample Weekly Schedule

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	Dress, eat	Dress, eat	Dress, eat	Dress, eat	Dress, eat		
1	Psychology	Study Psych.	Psychology	Study Psych.	Psychology	Dress, eat	
9-10	English	Study English	English	Study English	English	Study English	
10-11	Study French	Free	Study French	Open study	Study French	Study Biology	
11-12	French	Study Biology	French	Open study	French	Study Stats.	
12-1	Lunch	Lunch	Lunch	Lunch	Lunch	Lunch	
1-2	Statistics	Biology Lab	Statistics	Study or free	Statistics	Free or errands	Study Psych.
2-3	Biology	Biology Lab	Biology	Free	Biology	Free or errands	Study French
3-4	Free	Biology Lab	Free	Free	Study Psych.	Free or errands	Study Stats.
4-5	Job	Job	Job	Job	Job	Free	Free
5-6	Job	Job	Job	Job	Job	Free	Free
6-7	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner	Dinner
7-8	Study Biology	Study Biology	Study Biology	Study Biology	Free	Free	Study Biology
8-9	Study English	Study Stats.	Study Psych.	Study Stats.	Free	Free	Study Stats.
9-10	Study Stats.	Study English	Study Stats.	Study French	Free	Free	Study English
10-11	Study Psych.	Study French	Study English	Open study	Free	Free	Open study

This is a sample schedule for a student with a 16-credit load and a 10-hour-per-week part-time job. Using this chart as an illustration, make up a weekly schedule, following the guidelines outlined here.

accomplish during the term. If you have course outlines with advance assignments, set systematic daily goals that will allow you, for example, to cover fifteen chapters before the exam. Be realistic: can you actually expect to cover several chapters in one session? Divide large tasks into smaller units; stop at the most logical resting points. When you complete a specific goal, take a 5- or 10-minute break before tackling the next goal.

5. Evaluate how successful or unsuccessful your studying has been on a daily or weekly basis. Did you reach most of your goals? If so, reward yourself immediately. You might even make a list of five to ten rewards to choose from. If you have trouble studying regularly, you may be able to motivate yourself by making such rewards contingent on completing specific goals.

6. Finally, until you have lived with your schedule for several weeks, don't hesitate to revise it. You may need to allow more time for chemistry, for example, and less for some other course. If you are trying to study regularly for the first time and are feeling burned out, you probably have set your initial goals too high. Don't let failure cause you to despair and abandon the program. Accept your limitations and revise your schedule so that you are studying only 15 to 20 minutes more each evening than you are used to. The point is to identify a regular schedule with which you can achieve some success. Time management, like any skill, must be practiced to become effective.

## TECHNIQUES FOR EFFECTIVE STUDY

Knowing how to put study time to best use is, of course, as important as finding a place for it in your schedule. Here are some suggestions that should enable you to increase your reading comprehension and improve your notetaking. A few study tips are included as well.

### Using SQ3R to Increase Reading Comprehension

How do you study from a textbook? If you are like many students, you simply read and reread in a *passive* manner. Studies have shown, however, that most students who simply read a textbook cannot remember more than half the material ten minutes after they have finished. Often, what is retained is the unessential material rather than the important points upon which exam questions will be based.

This Study Guide employs a program known as SQ3R (Survey, Question, Read, Recite, and Review) to facilitate, and allow you to assess, your comprehension of the important facts and concepts in *BIOLOGY, Fifth Edition*, by Helena Curtis and N. Sue Barnes.

Research has shown that students using SQ3R achieve significantly greater comprehension of textbooks than students reading in the more traditional passive manner. Once you have learned this program, you can improve your comprehension of any textbook.

**Survey** Before reading a chapter, determine whether the text or the study guide has an outline or list of objectives. Read

this material and the summary at the end of the chapter. Next, read the textbook chapter fairly quickly, paying special attention to the major headings and subheadings. This survey will give you an idea of the chapter's contents and organization. You will then be able to divide the chapter into logical sections in order to formulate specific goals for a more careful reading of the chapter. In this Study Guide, the *Major Concepts* summarizes the major topics of the textbook chapter.

**Question** You will retain material longer when you have a use for it. If you look up a word's definition in order to solve a crossword puzzle, for example, you will remember it longer than if you merely fill in the letters as a result of putting other words in. Surveying the chapter will allow you to generate important questions that the chapter will proceed to answer. These questions correspond to "mental files" into which knowledge will be sorted for easy access.

As you survey, jot down several questions for each chapter section. One simple technique is to generate questions by rephrasing a section heading. For example, "The Spindle" head could be turned into "What is the spindle?" Good questions will allow you to focus on the important points in the text. Examples of good questions are those that begin as follows: "List two examples of..." "What is the function of...?" "What is the significance of...?" Such questions give a purpose to your reading. Similarly, you can formulate questions based on the chapter outline.

The *Guided Study of the Chapter* section of this Study Guide provides the types of questions you might formulate while surveying each chapter. This section is a detailed set of questions covering the points made in the text.

**Read** When you have established "files" for each section of the chapter, review your first question, begin reading, and continue until you have discovered its answer. If you come to material that seems to answer an important question you don't have a file for, stop and write down the question.

Using this Study Guide, read the chapter one section at a time. First, preview the section by skimming it, noting headings and boldface items. Next, study the appropriate section questions in the *Guided Study of the Chapter*. Then, as you read the chapter section, search for the answer to each question.

Be sure to read everything. Don't skip photo or art captions, graphs, or footnotes. In some cases, what may seem vague in reading will be made clear by a simple graph. Keep in mind that test questions are sometimes drawn from illustrations and charts.

**Recite** When you have found the answer to a question, close your eyes and mentally recite the question and its answer. Then *write* the answer next to the question. It is important that you recite an answer in your own words rather than the authors'. Don't rely on your short-term memory to repeat the authors' words verbatim.

In responding to the objectives, pay close attention to what is called for. If you are asked to identify or list, do just that. If asked to compare, contrast, or do both, you should focus on the similarities (compare) and differences (contrast) between the concepts or theories. Answering the questions carefully will not only help you to focus your attention on the important concepts of the text, but it will also provide excellent practice for essay exams.

Recitation is an extremely effective study technique, recommended by many learning experts. In addition to increasing reading comprehension, it is useful for review. Trying to explain something in your own words clarifies your knowledge, often by revealing aspects of your answer that are vague or incomplete. If you repeatedly rely upon "I know" in recitation, you really *may not know*.

Recitation has the additional advantage of simulating an exam, especially an essay exam; the same skills are required in both cases. Too often students study without ever putting the book and notes aside, which makes it easy for them to develop false confidence in their knowledge. When the material is in front of you, you may be able to *recognize* an answer, but will you be able to *recall* it later, when you take an exam that does not provide these retrieval cues?

After you have recited and written your answer, continue with your next question in the same way.

**Review** When you have answered the last question on the material you have designated as a study goal, go back and review. Read over each question and your written answer. Your review might also include a brief, written summary that integrates all of your questions and answers. This review need not take longer than a few minutes, but it is important. It will help you retain the material longer and will greatly facilitate a final review of each chapter before the exam. (An excellent way to review your understanding of the chapters of BIOLOGY, Fifth Edition, is to complete the questions at the end of each chapter and those in the *Testing Your Understanding* section of this Study Guide. Then go through the *Performance Analysis* section, which explains why the correct answers are correct. You may discover that you don't know the chapter as well as you thought you did!)

One final suggestion: Incorporate SQ3R into your time-management calendar. Set specific goals for completing SQ3R with each assigned chapter. Keep a record of chapters completed, and reward yourself for being conscientious. Initially, it takes more time and effort to "read" using SQ3R, but with practice, the steps will become automatic. More important, you will comprehend significantly more material and retain knowledge longer than passive readers do.

### Taking Lecture Notes

Are your class notes as useful as they might be? One way to determine their worth is to compare them with those taken by other good students. Are yours as thorough? Do they provide you with a comprehensible outline of each lecture? If not,

then the following suggestions might increase the effectiveness of your notetaking.

1. Keep a separate notebook for each course. Use 8 1/2 X 11 inch pages. Consider using a ring binder, which would allow you to revise and insert notes while still preserving lecture order.

2. Take notes in the format of a lecture outline. Use roman numerals for major points, letters for supporting arguments, and so on. Some instructors will make this easy by delivering organized lectures and, in some cases, by outlining their lectures on the board. If a lecture is disorganized, you will probably want to reorganize your notes soon after the class.

3. As you take notes in class, leave a wide margin on one side of each page. After the lecture, expand or clarify any shorthand notes while the material is fresh in your mind. Use this time to write important questions in the margin next to notes that answer them. This will facilitate later review and will allow you to anticipate similar exam questions.

## EVALUATE YOUR EXAM PERFORMANCE

How often have you received a grade on an exam that did not do justice to the effort you spent preparing for the exam? This is a common experience that can leave one feeling bewildered and abused. "What do I have to do to get an A?" "The test was unfair!" "I studied the wrong material!"

The chances of this happening are greatly reduced if you use an effective time-management schedule and use the study techniques described here. But it can happen to the best-prepared student and is most likely to occur on your first exam with a new professor.

Remember that there are two main reasons for studying. One is to learn for your own general academic development. Many people believe that such knowledge is all that really matters. Of course, it is possible, though unlikely, to be an expert on a topic without achieving commensurate grades, just as one can, occasionally, earn an excellent grade without truly mastering the course material. During a job interview or in the workplace, however, your A in Fortran won't mean much if you can't actually program a computer.

In order to keep career options open after you graduate, you must know the material *and* maintain competitive grades. In the short run, this means performing well on exams, which is the second main objective in studying.

Probably the single best piece of advice to keep in mind when studying for exams is to *try to predict exam questions*. This means ignoring the trivia and focusing on the important questions and their answers (with your instructor's emphasis in mind).

A second point is obvious. How well you do on exams is determined by your mastery of *both* lecture and textbook material. Many students (partly because of poor time manage-

ment, concentrate too much on one at the expense of the other.

To evaluate how well you are learning lecture and textbook material, analyze the questions you missed on the first exam. If your instructor does not review exams during class, you can easily do it yourself. Divide the questions into two categories: those drawn primarily from lectures and those drawn primarily from the textbook. Determine the percentage of questions you missed in each category. If your errors are evenly distributed and you are satisfied with your grade, you have no problem. If you are weaker in one area, you will need to set future goals for increasing and/or improving your study of that area.

Similarly, note the percentage of test questions drawn from each category. Although most courses involve exams that cover *both* lecture notes and the textbook, the relative emphasis of each may vary from instructor to instructor. While your instructors may not be entirely consistent in making up future exams, you may be able to tailor your studying for each course by placing *additional* emphasis on the appropriate area.

Exam evaluation will also point out the types of questions your instructor prefers. Does the exam consist primarily of multiple-choice, true-false, or essay questions? You may also discover that an instructor is fond of wording questions in certain ways. For example, an instructor may rely heavily on questions that require you to draw an analogy between a theory or concept and a real-world example. Evaluate both your instructor's style and how well you do with each format. Use this information to guide your future exam preparation.

The Testing Your Understanding sections and Review Tests of this Study Guide will provide you with an important aid in studying for exams. Although the practice exams will help you determine how well prepared you are, they do not cover all the important topics in the chapter. If these tests don't include all of the types of questions your instructor typically writes, make up your own practice exam questions. Spend extra time testing yourself with the question formats that are most difficult for you. There is no better way to evaluate your preparation for an upcoming exam than by testing yourself under the conditions most likely to be in effect during the actual exam.

## A FEW PRACTICAL TIPS

Even the best intentions for studying sometimes fail. Some of these failures occur because students attempt to work under conditions that are simply not conducive to concentrated study. To help ensure the success of your self-management program, here are a few suggestions that should assist you in reducing the possibility of procrastination or distraction.

1. If you have set up a schedule for studying, make your roommate, family, and friends aware of this commitment, and ask them to honor your quiet study time. Close your door and post a "Do Not Disturb" sign.

2. Set up a place to study that minimizes potential distractions. Use a desk or table, not your bed or an extremely comfortable chair. Keep your desk and the walls around it free from clutter. If you need a place other than your room, find one that meets as many of the above requirements as possible—for example, in the library stacks.

3. Do nothing but study in this place. It should become associated with studying so that it “triggers” this activity, just as a mouth-watering aroma elicits an appetite.

4. Never study with the television on or with other distracting noises present. If you must have music in the background in order to mask outside noises, for example, play soft instrumental music. Don't pick vocal selections; your mind will be drawn to the lyrics.

5. Study by yourself. Other students can be distracting or can break the pace at which your learning is most efficient. In addition, there is always the possibility that group studying will become a social gathering. Reserve that for its own place in your time schedule.

If you continue to have difficulty concentrating for very long, try the following suggestions.

6. Study your most difficult or most challenging subjects first, when you are most alert.

7. Start with relatively short periods of concentrated study, with breaks in between. If your attention starts to wander, rest up immediately and take a break. It is better to study for 15 minutes and then take a break than to study for 45 minutes out of an hour. Gradually increase the length of study periods, using your attention span as an indicator of successful pacing.

#### SOME CLOSING THOUGHTS

I hope that these suggestions not only help make you more successful academically, but also enhance the quality of your college life in general. Having the necessary skills makes any job a lot easier and more pleasant. Let me repeat my warning: not to attempt to make too drastic a change in your lifestyle immediately. Start by establishing a few realistic goals; then gradually shape your performance to the desired level. Good habits require time and self-discipline to develop. Once established they can last a lifetime.

#### Top 10 Study Recommendations from former IB Bio students

1. READ text and take notes BEFORE the lecture.
2. ASK QUESTIONS! Don't be afraid. Complete labs/projects at least 1 day before due date so you have time to ask questions.
3. Have your lab rubric in front of you while you write up your lab and refer to it.
4. Use the textbook CD & other online resources.
5. Print off ppt slides prior to lecture to take notes on or review them online prior to quiz/test.
6. Study partners/parties.
7. Don't waste your late pass, save it.
8. Use flash cards for vocab.
9. Organize and keep all of your notes, you'll use them for IB exam preparation.
10. “You may get D's, C's & F's on projects, I got many, but I still got an A in the class, don't quit! We all know that you'll procrastinate, so focus on prioritizing, know what to procrastinate on and when ”