

A Study Skills Guide for Psychology Students
Note-taking, Learning and Writing Examinations
(Revised Version, June 2004)

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Introduction

According to Jim Clark of the Department of Psychology at the University of Winnipeg (personal communication to Stuart McKelvie, May 2004), university differs from high school in a number of important ways:

- More material to learn
- Much of learning is independent
- Ideas can be challenging
- Emphasis on developing academic and motivational competencies.

To learn academic material, you must *take your time* and you must possess *effective study skills*. This guide explains how to take notes from books and from lectures, how to study these notes so that you will remember their contents for examination purposes (and, hopefully, beyond!) and how to write the examinations themselves. It is divided into three sections:

- I. General: Active Learning, Time for Study and Study Environment
- II. Note-taking: Text and Lectures
- III. Examinations: Preparing, Writing and After.

I General: Active Learning, Time for Study and Study Environment

IA *Active Learning*

How can I become an active learner?

1. Learning improves if you are *active* rather than passive. You can promote active learning

- by reading with a *focus*,
- by *paying attention* in lectures,
- by *participating* in class discussions (including seminars) and
- by *thinking* about everything you learn.

Thinking means seeking to understand and asking critical questions. For example:

- Do you agree or disagree?
- Do you detect a flaw in the argument?
- If you are reading about a research study, could it have been done better?
- Is there an alternative interpretation of the results other than the one given by the writer?

2. You can also learn actively by *discussing* class material with fellow-students, and by *quizzing* each other. In a university, where everyone is a learner, you should also *question what your professors say*.

IB *Time for Study***How much time should I devote to studying?**

1. There is no hard and fast answer to this question, but one rule of thumb is that you should work *two hours outside class for every hour in class*. Thus, if you are taking 5 courses that meet 3 hours each week (a total of 15 hours of class time), then you should be studying another 30 hours, for a grand total of 45 hours of academic work. This may seem like a lot, but if a full-time student is considered as a person with a full-time job, then a 45-hour week is not excessive. Indeed, with class requirements such as essays and projects, and tests at periodic intervals, you may have to spend even more time on your academic pursuits.
2. *Buy a planner* that covers the whole academic year. At the beginning of the semester, as each course meets, you should enter important information for each course (e.g., times, deadlines for work to be submitted, dates of examinations).
3. *Make a weekly plan for your study*, and stick to it. Divide the week into days and the days into hours. Fill in times that are fixed (e.g., classes, meals, sleep), then add studies and leisure activities. Although commitments such as classes may restrict your choice of study times, schedule your study periods when you are likely to be *alert and at your energy peak*. It is not easy to concentrate if you are tired (e.g. at the end of a busy day).
4. Although you may become so absorbed and interested in your work that you can study continuously, most people find that it is a good idea *to take breaks*. You probably know best what the optimal time schedule is for you. It might be a break of 15 minutes every 90 minutes, 10 minutes every hour or 5 minutes every half hour. Some people find that they lose concentration after only 20 minutes, and therefore need a break at that time.

IC *Study Environment***What should my study environment be like?**

1. Your study environment should be a place where you will *not be interrupted*, e.g., the library. However, if you study in your room in residence or at home, you should eliminate outside stimulation to remove distractions.
2. It is *not* a good idea to study where people are talking or television is on. If you are using a computer, you should turn off all unnecessary programmes (e.g., e-mail, chat). Another idea is to post a notice that you do not wish to be disturbed.
3. If you have roommates, make agreements with them about your quiet study time.
4. Turn off your cell phone!
5. However, you *may like to have some quiet music in the background*. Some people function better while stimulated in this way.
6. You should also have a *clear, spacious, uncluttered workspace*, ideally a desk with a flat surface to read and to write on and a supportive chair to sit on. However, it should *not* be *too* comfortable. It not a good idea to study in an armchair, couch or bed, which are places that are cues for relaxation and sleep!

7. The *temperature should be comfortable* and you should have *good light* to read by. A desk lamp that does not cast a shadow on your work is ideal. You should have a stock of *study materials*: paper, pens, pencils, eraser, highlighters.
8. If you are working with a computer, make sure you have an adequate supply of paper and cartridges for the printer. *And don't forget to save frequently and back up your work.*

ID *Concentrating*

The major reason for being active, controlling your study time and creating an optimal environment is to permit you to *concentrate*. Taking breaks, switching topics and rewarding yourself when you complete a task are techniques for encouraging concentration. If you still find that your attention wanders, you can try this “thought-stopping” technique:

Say to yourself “*Be here now.*”

This should bring your attention back to the task at hand. *Repeat* the self-instruction if necessary.

II **Note-taking: Texts and Lectures**

IIA *Texts: Books and Journal Articles*

IIAa **Why** should I take notes from texts?

1. Note taking requires active participation in the learning process. As noted above, the more active we are, the more we remember.
 - (a) The text must be *read and understood* to put it in note form.
 - (b) The main ideas must be *learned* – at least temporarily – to get them down on paper.
 - (c) Note taking requires a *critical attitude* to the material to discriminate between what is more and less important, and between principles and specifics. It forces you to *think* what you are doing.
 - (d) Note taking involves at least *two practice trials* – one when reading and one when writing.
2. A good set of text notes makes reviewing for examination and other purposes easier and more effective.
 - (a) Good notes can reduce 20 or 30 pages of text to 3 or 4 pages of notes, yet leave out nothing of importance.
 - (b) Because the notes are mostly in your own words, they are familiar and easy to understand.
 - (c) Reviewing notes will alert you to points that you do not yet fully understand, and thus guide you to supplementary re-reading of the text.
 - (d) The organization of your notes into major and minor topics will help you anticipate examination questions.

- (e) Practice in note writing will make it easier for you to organize and write your responses to short-answer and essay examination questions.
3. Being able to take good notes on required reading has other positive consequences.
- (a) Some of your assigned reading will not be covered in class, and will have to be *learned independently*. In addition, you will have to submit essays and projects, which you will have to research for yourself. You may conduct an honours dissertation project in which you have to master previous research on your topic.
 - (b) Students applying for graduate school may have to write tests such as the Graduate Record Examination. *A good set of notes for each course* can be an invaluable resource for studying.
 - (c) Students who go to graduate school will have study completely independently for their research and for comprehensive examinations. Being a skilled note-taker will be invaluable.

IIAb How do I take notes?

1. To prepare for reading and note-taking, *find out exactly what you are expected to cover in each course, whether it be textbook chapters or other readings*. This should be listed in your course handout. Observe the dates during which material has to be covered and *enter them in your study planner*.
2. Although your pleasure reading (e.g., novel, magazine, newspaper) can often be done quickly, it takes *considerable time* to read, understand and absorb *academic material*. Speed reading is *unlikely* to help you in this situation. In fact, you must read slowly.
3. However, an exception to this general rule is that when you open a text for the *first* time, it may be useful to quickly *skim the material* to obtain the general gist.

For example, you should *read the headings* in summary form at the beginning of a chapter and understand what the ideas are that will be discussed. You should then go through the chapter, looking at *opening sentences* of the main paragraphs under each heading so that you have an overall appreciation of what is being discussed. Then you can *read slowly* for understanding.

4. The important point about this kind of reading is that it should be *active*. That is, you should be constantly asking yourself *if you understand what is being said*. If you don't, you should re-read the material. It is often helpful to use different-coloured markers or pens to highlight or underline important ideas and to make comments in the margins. The reading material (textbook, journal articles) is *yours* – do not be afraid to mark it up. Of course, this does *not* apply to library books!
5. A highly-recommended technique for studying textbook material is the **SQ5R or PQ5R** method (Survey or Preview, Question, Read, Record, Recite, Review, Reflect). Here is how it works:
 - (a) SURVEY the material generally. The most frequent type of material that you will be working on is a textbook chapter.

- Read the title and understand what it means.

- Look at the table of contents.
- Read the headings and subheadings.
- Then find them in the chapter itself. Note material that is emphasized in italics, in boldface, in a different size of print or in a different colour. The purpose here is to scan the chapter, but *without reading the details*. Within a few minutes you should be able to say roughly what ground the material covers. Simply try to grasp the *very general outline*.

You should also apply the SURVEY stage and the SQ5R system to *each section* of the chapter and to the *subsections under each heading*. Although the time for this initial survey will vary on whether you are reviewing a chapter, section or subsection, it should not take long. Your purpose is only to understand the general framework.

- (b) QUESTION yourself about the material in very *general* terms. What is it attempting to do, what approach does it follow, why is it important? Then use the headings to *formulate questions* about what they might mean. Think of a time when you were interested in something. When you looked it up, you easily remembered it. So, if you read with a question in your mind, you will find it easier to concentrate and to learn.

Some textbooks actually *provide focus questions* (“advance organizers”) in the margins. Use them to structure your reading. There may also be study questions at the *end* of the chapter. Read them first and have them in mind when you read the material.

- (c) With the questions in mind, READ the material *as a whole* to grasp the *overall pattern*. Don’t concern yourself with all the small details at this stage. Always pay attention to the first paragraph and the first sentence in each paragraph.

It is probably *not* a good idea to mark text on this first reading, because you may not know what the most important information is. If you do mark the text to help you concentrate, or perhaps to note points that you do not immediately understand (e.g., new vocabulary) *use a pencil* so that the marks can be erased if necessary.

- (d) Now *READ the material a second time*, carefully trying to answer the questions. Here you should *focus on detail* to understand the main points.

At this stage, people often find it useful to *mark the text*. This can be by highlighting or underlining, perhaps in different colours.

- (e) During this *second* reading, RECORD by underlining, highlighting the main points in the text **and by taking notes** (see 5. below). In addition to highlighting in different colours, you might also take or underline your notes in different colours, perhaps to reflect different levels of importance (e.g., the main idea in red and examples in blue).

- (f) RECITE the material. Try to say to yourself very briefly *what* you have read. Can you answer the questions from memory? This will show where you need further study. Self-testing is extremely important in giving feedback.

- (g) REVIEW your notes shortly after studying to make sure that they are clear. Check that you understand the answers to the questions that you used as guides. At the end of each page or section, you might write a short summary of it.
- (h) REFLECT about what you have read. Think of examples and applications. Jot them down.

6. Here are some specific suggestions for effective note taking:

- (a) As you go through the text section by section, you should *write down the exact headings* and *record the main idea under them in your own words*. This helps you to think about the meaning of the material in advance.
- (b) Within a section, examine it in detail to determine the important subordinate ideas that are relevant to the main idea. *Record these in your own words*. This helps you to concentrate and to understand. If you do this carefully when you are reading the material, you will have a good set of notes to study later.
- (c) Be particularly alert for *definitions*. They should be *copied* into your notes *exactly as given by the author* in **quotation marks**, with the page reference. The quotation marks remind you that these words are *not your own*.

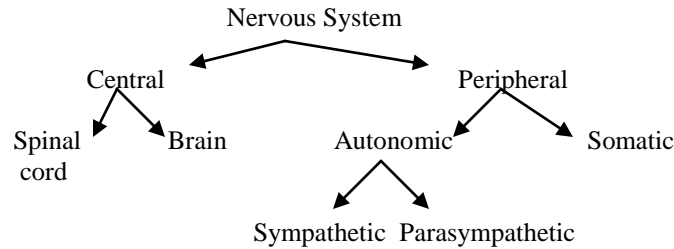
To help understand the definition, you might also paraphrase it in your own words. If there are terms within the definition that you are not familiar with, you should look them up and write out their definitions in a similar manner.

- (d) Definitions can also be *written on card*. On one side put the term or concept and on the other side write the definition. You can later test yourself by looking at the word and trying to recall the definition and by reading the definition and trying to recall the word.
- (e) Use a *standard method of indenting* and a *consistent system of lettering or numbering*. Textbook chapters are usually already organized, but not indented and identified in the summary form that is useful for notes. If the author does not use such a system, make up your own (e.g., the present guide is one example). This will help you to understand the map of the territory covered by the author.

Here is another example of the format of this kind of system (from www.studygs.net/mapping/index.htm):

- I. First item
- II. Second item
 - A. sub item
 - B. sub item
 - 1. sub sub item
 - 2. sub sub item
- III. Third item

- (f) Another note-taking idea is *concept mapping*. You arrange concepts in a *hierarchical diagram*, with the most general ones at the top splitting into sections, and then these sections splitting into subsections. Here is an example:



- (g) Some reading will be *difficult*. If you do not understand something the first time, return to it later, perhaps even the next day. You might also read the material into a tape recorder and listen to that. If you are still having difficulty, seek help from other students or your instructor.

IIAc How do I make and preserve notes from texts?

1. Your textbook notes should be *durable and easy to access*. It is recommended that you use a sturdy three ring loose-leaf binder (11 X 17cm).
 - (a) *Have at least one binder for each course*. Use dividers to split it into sections. The sections might correspond to textbook notes and notes from other readings, with subsections for chapters or topics. If you do not have a separate binder for lecture notes, this can be a section too.
 - (b) At the end of the notebook keep a liberal supply of clean ruled paper.
 - (c) Always take your notebook to class or to study.
 - (d) Start your notes for a new chapter on a new page.
 - (e) Label notes with the title of the text, the title and number of the chapter with text pages, and perhaps also specific text pages at particular points in your notes.
2. You must be able to read your notes weeks or even months or years (!) after you have written them, so *make them legible*. Consider typing them on your word processor. This means that you can also store them on your computer as well as in the binder. However, if this means re-copying your notes, the time might be better spent studying them.

II B *Lectures and Other Classes*

Most of your classes will probably be formal lectures, but the following suggestions also apply to other formats such as class discussions and seminars.

II Ba Why should I take lecture notes?

1. In high school, and perhaps even in CEGEP, notes are often dictated or given in some other way. That is, the method of teaching does not require you to take notes or, to be more accurate, *make* notes. However, at university, *you are responsible* for *creating a record* of what happens in class. Therefore, *it is essential that you*

make notes in class, whether it be a lecture or another forms of instruction (e.g., discussion). Think of taking notes as making or creating notes.

2. Another reason to take/make notes is that *you will not remember everything that was said*. Some professors may supply you with a handout that gives the structure of the lecture and some may provide their lecture notes in schematic form, but you should be prepared to write down the important material by yourself.
3. There is likely to be material presented in class that is not available elsewhere. This is your only chance to record it. A textbook can also be consulted but *once a lecture has been given, it is no longer there!*
4. If the instructor writes on the blackboard or uses some other form of presentation such as overheads or Powerpoint, you should record that information.
5. The *act of taking notes* will help you to concentrate so that you understand the underlying organization of the lecture.
6. Note making and taking requires active listening, and active listening results in better learning.
 - (a) The instructor's remarks and comments must be *listened to* in a *critical* manner. That is, you must search for the instructor's meaning, the import of what has been said.
 - (b) The material must be organized by you.
 - (c) You must record *your* understanding and organization of the lecture material. To accomplish this, you must have learned the material, at least temporarily, in order to reproduce it.
7. Note taking helps you to recognize and define the material that you do *not* understand. Either at the time of taking notes, or upon subsequent review, your notes should alert you to aspects that you do not grasp as well as refresh your recollection of those that you do.
8. A good set of lecture notes provides a sound basis for examination preparation, particularly because the instructor will emphasize what is important, and he/she probably formulates the exams.

IIBb How do I take lecture notes?

1. *Prepare for each lecture.*
 - *Check the course outline* to find out if a particular topic is going to be covered on that day.
 - *Review the material from the previous class* and *read ahead* in your textbook, taking notes on material that you know will be covered in the next class.
 - *Have questions in your mind* that may be answered in the lecture (and if they are not, ask them!).
2. To enhance your ability to concentrate on the lecture, sit *nearer the front* than the back. Because attention tends to wane in the middle of a lecture, remind yourself to concentrate during that section. Listen for important summary points at the end.
3. Avoid eating and drinking in class. Indeed, the instructor may prohibit it.

4. Because instructors vary in the way that they present material, you may have to adapt your note taking to their styles. However, there are some general principles that can be enumerated.

- (a) If the professor begins with a *preview* of the lecture, make notes on these points.
- (b) If the professor ends with a *summary* of the lecture, make notes on these points.
- (c) Try to grasp the way in which the lecturer has *organized* the material. As observed above, record any *headings or notes* from the blackboard or other media sources. Be on the alert for such clues as *repetitions* of statements, change of *voice emphasis* or *pace* in speaking, characteristic *gestures* that serve to emphasize statements or the use of such expression as these (from College of Saint Benedict/Saint John's University at

<http://www.csbsju.edu/academicadviding/help/lec-note.html>):

“Now, the main point is....”
 “The basic idea is...”
 “There are three reasons why....”
 “First.... Second.... Third....”
 “A major development was...”
 “Here is a summary of...”
 “An important experiment is...”
 “On the other hand...”
 “Similarly...”
 “Furthermore...”
 “Here is an example..”
 “In conclusion...”
 “So it seems that...”
 “Remember that....”

And maybe even.... “*You will be tested on this!*”

5. *Take brief notes* in the lectures. Do *not* worry too much about writing down *every* word that is said. The most important thing is to listen carefully, *understand* what is said, then record the *main ideas* and *important details and facts*, particularly if they are not available in the assigned course readings.

However, you should develop a system with *abbreviations* and *phrases rather than full sentences* to speed up the process of taking notes so that you can also listen carefully. Construct abbreviations whose meaning you will remember!

Here are some suggestions from abbreviations from the Academic Resource Center at Sweet Briar College in Virginia (<http://www.arc.sbs.edu/notes.html>):

+, & for and, plus
 = for equals
 # for number
 X for times
 < for less than, smaller, fewer
 > for more than, greater, larger

w/ for with
 w/o for without
 w/in for within

Here are some other ideas:

Numerals not words for numbers: e.g., 2, 156 for two, one hundred and fifty six

approp for appropriate	psy for psychology	mem for memory
btw for between	perc for perception	soc for social psychology
	lg for learning	ab for abnormal psychology
	CC for classical conditioning	
	OC for operant conditioning	

6. If an idea is particularly important, mark it with a symbol such as a circle, arrow or star.
7. One circumstance in which you might *break the rule* not to write down almost everything the instructor says is when you *know nothing* about the topic or are extremely *confused* (Mealey & McIntosh, 1995). It might help to *record as much as possible* and digest it later.
8. Make notes in your *own words*, unless you are copying something specific that is given in class (e.g., definitions, formulae, some facts). If an instructor says something in a way that you find highly memorable, you might also record that verbatim.
9. *Be on the alert for any references to your text or readings*. For example, the instructor may mention a section in a particular chapter and may summarize it. Look up these references, read them and make notes.
10. A highly-recommended technique for note-taking is the **Cornell System**.
 - (a) Draw a vertical line to split each page with about 1/3 to the left and about 2/3 to the right. The line will be 2 1/2 inches or 15 cm from the left.
 - (b) *Record* all notes on the *right hand side* of the line.
 - (c) Use the *left hand side* to *reduce* or *annotate* your notes.
 - (i) Write the names of key terms or concepts
 - (ii) Make comments or ask questions about the material in your notes
 - (iii) Perhaps mark important points with a symbol (e.g., *)
 - (iv) You might also note links to other sources that you have read
 - (v) Use this information in the left-hand column for self-testing later when you revise.
 - (d) In fact, the Cornell system is well suited to the last 4Rs in the SQ5R study method. You **RECORD** the notes on the right, you **REDUCE** them on the left and you **REVIEW** and **REFLECT** on all the notes.
11. When you take notes, *leave space* between the main points. You may wish to add information later, particularly if there is something you do not fully understand. If that happens, make a note of it, but do not dwell on it because you may miss other points in the lecture.

12. Use the *outlining method* in which you place major points on the *left side* of your notes (still on the *right side* of the line!), then indent subordinate points underneath that heading, taking a new line for each one. You can continue this system by indenting again if there are more detailed points under the less major ones. Here is an example:

Conditioning = learning associations

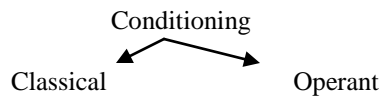
- two kinds

- classical

- operant

As already observed under text note-taking, it might also be helpful to organize your work with numbers and letters. The present guide is like this.

13. Again, arranging concepts in *maps or hierarchies* can also help. For example:



14. Another suggestion is to take text and recreate it in *both* note and semi-diagrammatic form. Here is an example (from <http://www.studygs.net/reading.htm>):

Text

Classical conditioning is learning that takes place when we come to associate two stimuli in the environment. One of these stimuli triggers a reflexive response. The second stimulus is originally neutral with respect to that response, but after it has been paired with the first stimulus, it comes to trigger the response in its own right.

Notes

Rather than read every word, you might decode this text graphically, using abbreviations:

CC = lg = assoc 2 stim

1st stim triggers a resp

2nd stim = originally neutral, but paired with 1st --> triggers resp.

15. Here is an example of what a page in the Cornell system might look like (from <http://www.studygs.net/Lcturnote.htm>):

Date & Heading	Page Number
<p>2nd. Reduce After class note:</p> <ul style="list-style-type: none"> • key/cue words • phrases • questions <p>Link information from the text or other sources</p>	<p>1st. Record/take notes here:</p> <p>identify the main points capture the main ideas</p> <p>Use outlines or concept maps</p> <p>Use words and pictures and graphs or whatever it takes to get the information down quickly. Avoid quoting unless it is very necessary.</p>
<p>Later. Review: Summarize the page, especially challenging content.</p>	

16. Write on the *front side* of the page only. Sometimes you can test yourself by turning the page so that the information is hidden and then by trying to recall it.
17. Take a *fresh page for each lecture*. Date it and give it a title or a heading with the main topic. Number your pages.
18. If there is a chance to do so during class, *ask questions* about points that you did not understand. There may also be an opportunity to ask at the end of class. Otherwise consult your textbook or visit the instructor during office hours.
19. *If you miss a class*, find out from the instructor what was covered and obtain notes from someone who was there. *Beware*, however, that these notes may not be as accurate as yours! If they are not clear, you should read up on the topic by yourself or consult the instructor.
20. If you are permitted to *tape record* a lecture, you may wish to do so. However, do not substitute this for listening and taking notes. Use the recording only as a backup. This may be useful if you had trouble understanding the lecture.

IIBc How do I preserve lecture notes?

1. Make sure that your notes are *legible* and that you *understand the abbreviations*.
2. A major finding in memory research is that *information is forgotten at a faster rate soon after* it is presented than later.

Therefore, one of the *most important* things that you can do is to ***go back to the lecture notes soon after the class is over and fill in details that you may not have had time to record but are still in your memory.***

This should certainly be done on the *same day* as the class took place. Returning to your notes will also give you a chance to record information that you did not have time to take down during class, but is still in memory. Moreover, it will also serve as a review of the material that was covered.

3. Some people like to *completely re-write their notes*, partly because the ones taken in class may be hurried and somewhat disorganized, but also because the act of writing helps you to concentrate and remember. However, it may be better to *work hard at recording good notes in class* then use the later time to re-read the notes, add to them and think about them.
4. In addition to going over the notes on the *same day* as the lecture, you should review all your notes at the end of *each week*.
5. Keep the final form of your lecture notes for a particular class in a *three-ring binder*. You may record your lecture notes in a notebook, but the use of the binder permits more flexibility. For example, you can insert extra pages with additional information.
6. Another suggestion is to *coordinate the notes that you took in class with the notes from your texts*. Very often, lectures will refer to the course readings. You should re-read the parts of the course readings that were mentioned and check that you have accurate notes for that material.
7. Assuming that you have separate binders for readings notes and for lecture notes, coordinate them by making reference (e.g., page number) to each other for corresponding topics.
8. *Summary*: By following the principles of *preparation* for a lecture, effective concentration and *note-taking* during the lecture and *review* of the lecture soon after, *you will already have rehearsed material*, so that the formal study for examinations will be easier.

III Examinations: Preparing, Writing and After

The examination is a very important part of the educational process. It provides your instructors with the basis for determining your comprehension and mastery of the subject, and it provides you with the opportunity to demonstrate what you have learned.

IIIA *Preparing for Examinations*

IIIBa How do I **prepare** for examinations?

1. Develop a *positive attitude* towards examinations. They should be a *welcome challenge* to demonstrate what you know. Preparing and writing examinations are skills that can be learned, so the more you have practiced them the better you will be. The result will be self-confidence and a positive attitude.
2. Record in your diary the *time, place and length* of all tests and examinations. Know exactly *what material* the test will cover. It is particularly important to find out whether a final examination is *cumulative* (covers the whole course) or not (only covers a part of the course, probably the last part).

3. Make sure that you know what *kind of test* it will be (e.g., multiple-choice, short-answer, essay) and how much it is worth in the course grading scheme. If this information is not in the course handout, ask your instructor.
4. If a *study guide* to the examination has been given, read it carefully and follow it.
5. *Practice effective study habits consistently from the beginning of the academic year.*
Your methods of taking notes from texts and from lectures and budgeting your time for studying them all contribute to your performance on examinations.
6. “*Don’t put off tomorrow what you can do today.*”

According to Jim Clark (personal communication to Stuart McKelvie, May 2004), up to 70% of students say that they often *procrastinate*. So start studying and reviewing material well in advance of the test!

7. *Cramming the night before is not recommended.*
8. When you prepare to revise, have your required texts, your notes from these texts and your notes from classes. Use the notes as your main source of information, going back to the texts if you find that they are not clear or lack some detail. You can then add this information to your notes.
9. However, this is *not* the time to be obtaining completely new information. Your notes should already be in good shape for this final review process.
10. Organize your time for the final review.
 - (a) Prepare a *schedule of review for each examination*, integrating it with the examination timetable.
 - (b) Plan your review periods for a subject to be about *1 to 1.5 hours long, with periods of rest between the review periods*. As noted earlier, within that, you should also develop a system of timing that suits you. You might also vary which subjects you review as you switch review periods. This might help you to focus freshly on the material for each exam.
 - (c) If you follow your schedule and meet your study goals, *reward yourself*.
 - (d) Get plenty of sleep so that you are rested for the examination. Eat nutritious food so that you have energy. Exercise to keep fit.
11. Your goal at this point is to learn the material so that you can answer questions on it.
 - (a) The easiest way to remember something is to have an interest in it. You are motivated. One of the reasons for having specific questions before you is to stimulate this interest.
 - (b) There are various *techniques that can enhance your memory* for specific facts that are difficult to remember simply through understanding.
 - (i) *Association*. Try to link the new information to something that you already know.

- (ii) *Visual imagery*. Try to form a picture in your mind's eye.
- (iii) One of these is the use of *mnemonics*, which are short-cut memory devices. Here is an example:

Fact: the relevant variables are habit, age, transfer and environmental influences.

Mnemonic: HATE.

Fact: The traits in the Big 5 personality theory are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism.

Mnemonic: OCEAN.

- (c) You should *actively re-read* your notes.

Periodically stop and *test yourself* to see what you remember. If there is logical material that depends on understanding, the understanding itself should help you to remember it. If there are concepts that you must know, practice recalling their definitions. If there are details of an argument or details of a research study that you must know, practice recalling them. Not only will you be testing yourself, you will also be practicing what you have to do on the examination – produce information.

- (d) *Review the material from the examiner's point of view*. Ask yourself what kinds of question might be posed on the topic. Pay attention to points in your notes that were emphasized in class.
- (e) However, do not only predict questions that you *hope* will be asked. Try to predict any question that *could* be asked.
- (f) Plan your review to anticipate the *type of examination* that you will be taking – objective or short-answer/essay. You may even have to prepare for both kinds.

- (i) The *objective examination* comes in various formats:

Multiple-choice: Choosing one or more of a number of alternatives

True/False: Deciding if statements are *true or false*,

Matching: Take pairs of concepts or statements and match them with each other

Completing sentences from a stem

Filling in the blanks in a statement or sentence.

In the multiple-choice, true-false and matching questions, you will have to *recognize* rather than recall information. To prepare for this, you should focus on re-reading your notes, rather than reciting or recalling them.

- (ii) The *short-answer and essay* examination requires you to *recall* what you have learned and write it in your own words.

For this type of question, you must both choose and organize the material that you will use. Thus you should give more attention to organization and recitation.

(f) As a general principle, *the more you study, the more you will remember.*

Even if you think that you know the material, *you can still go over it one more time.* If you combine this technique of “*overlearning*” with the suggestions for effective study that have been outlined above, you will increase your chances remembering on the examination.

12. If you have access to previous examinations, practice by answering them.

13. If the examination that you are studying for is a cumulative final, review any mid-term or progress tests too remind yourself what was asked. That material is likely to be important. Also, understand any mistakes that you made.

IIIB Writing Examinations

How do I write examinations?

IIIBa General Advice

1. Arrive at *least 10 minutes before* the examination is due to begin and be ready to start as soon as you are allowed.
2. *Bring all relevant materials* (pens, ruler, calculator, aids if permitted). Highlighters and pens of different colours are useful for marking the instructions and providing emphasis to your answers.
3. Start by *carefully reading the instructions* at the beginning of the examination. Note *how much each part of the test is worth*. If one part is worth more marks, allocate more time to it. If the instructions are not clear, ask.
4. Scan over the examination to see the kinds of question and how many there are of each.
5. **Make sure that you understand precisely what a question is asking and reply to that question.** That is, tailor your answer precisely to the question. Do not jump to conclusions on the basis of the way that you have learned the material. The question may be posed in a different way.
6. If possible, leave time at the end for a *review* of what you have written. Check it over for accuracy and clarity. Be on the lookout for slips (e.g., 6% instead of 60%), spelling errors or missing words.

IIIBb Objective Questions

1. Multiple-choice and True-false

- (a) *Read the directions carefully.* Pay attention to the *scoring rules*. If there is a penalty for guessing, you may not wish to answer every question. If there is no penalty for guessing, you should answer every question – there is nothing to lose!

- (b) On most multiple-choice questions, you will be asked to choose one response (the best one) from the alternatives. However, on rare occasions, you may be told that more than one alternative is correct and that you should choose all of them. Sometimes, an option refers to other options (e.g., both a and b are correct, all are correct, none are correct).
- (c) If the questions are multiple-choice, read *all the alternative answers* before choosing which one you think is best. If you are uncertain about the best one, try to *eliminate alternatives* that are almost certainly wrong. Note that more than one answer may be correct in a general way, but only one of these will be the best answer.
- (d) Read the stem and *treat each alternative as a true/false question*. In this way, you can eliminate the ones that are probably wrong.
- (e) You might also read the stem only and *try to answer the question using your own recall*. Then inspect each alternative to see which one best fits what you were thinking of.
- (f) *Do not spend too long on each question*, particularly if you do not know the answer. It is probably best to complete the questions that you are sure of, then go back and try the ones that you had difficulty with.
- (g) It has been said that you should not change any choice that you make. However, research indicates that changing an initial response can often lead to the correct answer.
- (h) If you are in serious doubt, choose a *longer answer* rather than guessing randomly.
- (i) Finally, from <http://www.studygs.net/Lcturnote.htm>, here is a summary of suggestions for dealing with difficult multiple-choice questions:

- **Eliminate options you know to be incorrect**
- **Question options that grammatically don't fit with the stem**
- **Question options that are totally unfamiliar to you**
- **Question options that contain negative or absolute words.**
Try substituting a qualified term for the absolute one, like *frequently* for *always*; or *typical* for *every* to see if you can eliminate it
- **"All of the above:"**
If you know two of three options seem correct, "all of the above" is a strong possibility
- **Number answers:**
toss out the high and low and consider the middle range numbers
- **"Look alike options"**
probably one is correct; choose the best but eliminate choices that mean basically the same thing, and thus cancel each other out
- **Echo options:**
If two options are opposite each other, chances are one of them is correct

- **Favor options that contain qualifiers**
The result is longer, more inclusive items that better fill the role of the answer
- **If two alternatives seem correct,**
compare them for differences,
then refer to the stem to find your best answer

2. Matching

Here you are given two columns of information and you have to match statements or terms from each column. *Read both columns completely before making your selections.* Then begin by answering the ones you know.

3. Sentence Completion and Fill in the Blank

Regard the key words as cues that should help you remember

IIIBc Short-answer and Essay Questions

1. *Read the general directions carefully.* Note any questions that are *compulsory* and attempt all of them. If you have a choice, scan the questions to find out which ones you can answer best. Plan the amount of time that you should allocate to each question.
2. *Attempt the total number of questions that you are asked to answer.* If you spend too much time on one, you may not gain extra marks and you will certainly lose all the marks for any question that you omit.
3. *Begin by answering the questions that you know best.* Again, however, do not spend too much time on any single question. If you know more than is asked, avoid the temptation to show it all. *Focus only on what the question demands.*
4. To make sure that you answer the question the way that it is asked, you might put it into your own words then compare this description with the original. If the meanings do not match, you have probably misunderstood the question.
5. Pay attention to *key words*, which indicate what kind of answer is expected. *Highlight them* or *underline them* with you markers or coloured pens. It is a good idea to use one colour for all instructions words and another colour for connectives such as “and” or “or”.

Here is a list of important instruction words, with their meanings:

Analyze

Break down the problem into parts to solve it.

Assess

Carefully appraise the problem, citing both advantages and disadvantages (limitations). Cite the views of various psychologists and also include your own. Make judgments.

Classify or Categorize

Put information into “boxes” or classes. Define them.

Comment

Describe, discuss, explain and make a judgment.

Compare

Look for qualities or characteristics that resemble each other. However, mention differences as well as similarities.

Contrast

Emphasize differences.

Criticize

Express your judgment about the merit or truth of something. Give your analysis, discussing strengths and weaknesses.

Define

Give concise, clear meanings.

Describe

Recount, sketch or relate in "story" form.

Diagram

Provide a drawing, chart, figure or graph. Label it!

Discuss

Describe, examine, analyze carefully and give reasons pro and con. Be complete and give details. Explain where your argument is going.

Distinguish

Emphasize distinctions.

Enumerate

Write in list or outline form, giving each point concisely.

Evaluate = Assess

Explain

Clarify, interpret and spell out the material you present. Give reasons and analyze causes.

Illustrate

Use a figure, diagram or written example to show that you understand.

Interpret

Translate, give examples of, solve or comment on a subject, usually giving your judgment of it.

Justify

Prove or give reasons for conclusions. Be convincing.

List = Enumerate

Name

List single terms or words.

Outline

Organize a description under main points and subordinate points, omitting minor details and stressing the arrangement or classification of things.

Prove

Establish that something is true by giving a logical derivation or by citing factual evidence or clear logical reasons.

Relate

Show how things are like each other or are connected to each other, perhaps via correlation or causation.

Review

Examine a subject critically, analyzing and commenting on the important statements to be made about it.

State

Present the main points or facts in a brief, clear sequence, usually omitting details, illustrations or examples.

Summarize

Give the main points or facts in condensed form, like the summary of a chapter or the abstract of a journal article. Again, omit details.

Trace

In narrative form, describe progress, development or historical events from some point of origin.

6. If the question requires a short answer, do not write an essay! If the question requires an essay, do not write a short answer!
7. For *essay questions*, *outline your answer*, probably on the left-hand page of the examination booklet (which the examiner will not read or mark). This can help you to remember the important points that should be made. If ideas occur to you as you write the essay itself, you can jot them down in your outline.
8. Write your answer so that its *structure is identical to the structure of the question*. For example, the question might ask you to define terms, compare and contrast them, and present scientific evidence for them. Present the information in this sequence, clearly indicating to the examiner what you are doing as you go along.
9. *Help the examiner!*
 - Write directly and to the point. Be explicit.
 - Clearly state what you mean to say.
 - Connect your argument, and explain where it is going.
 - Do not write ambiguous statements that force the examiner to guess or infer what you mean.
 - Illustrate points with examples from the course material. However, do not use examples *as* definitions.
10. Watch out for essay questions that require you to combine material in new ways. Keep an open mind and ask yourself what information could fit the question.
11. *Write neatly, clearly (legibly) and grammatically in good English*. Although you are being graded in content, appearance and style will earn you a fairer mark. If the

examiner cannot understand what you are saying, he/she will probably mark it as wrong.

Avoid pencil, because this can be difficult for the examiner to read. If you make an error, cross it out clearly. You might also use different coloured ink to make separate headings or distinctive points.

IIIC *After the Examination*

When your test is returned, go over it to see where you made mistakes. Understand where you went wrong. Look up the correct answers. Ask other students of your professor if you need help.

References

Mealey, D. L., & McIntosh, W. D. (1995). *Studying for psychology*. New York: HarperCollins

<http://www.arc.sbs.edu/notes.html>

<http://www.studygs.net/>

Although not referred to in this document, here are two other very useful websites:

<http://www.csbsju.edu/academicadvising/helplist.html>

<http://www.how-to-study.com/>