

## **Study Guidelines**

Focus on studying from the top down. Understand bigger concepts or themes first and then work to fill in the details and evidence.

Understand how concepts and ideas are related. What is similar, different, and incompatible? Do some revolve around a central assumption or theme?

Generate possible exam questions and then answer them in writing. Check the syllabus to see what the central themes or goals of the course are. Your essay question will likely have something to do with these. Also focus on ideas or areas that were given particular emphasis or attention in lecture.

Use mind maps or graphic organizers to visually organize the material.

Start studying early so you can let the information 'percolate'.

#### Writing the Exam

Read the instructions carefully. Must you answer all the questions or do you have a choice?

Read through the entire exam and budget your time based on the marks allocated to each question. As you read the instructions to the question underline the key words or 'instruction' words (refer to the handout).

Jot cues alongside each question as you read through them, including key words or a quick phrase that immediately comes to mind.

Start with the easiest question. This will help you relax and think clearly.

Make a summary or outline before you start writing. Write it where the marker will see it (if you are using exam booklets write it there, not on the back of the exam paper). This will give the marker an idea of your thought process and if you run out of time they may use your outline to award you part marks.

Print neatly and legibly and on every other line. This will help if you need to add information later.

Leave time at the end to read through your exam. Correct any glaring errors or misplaced ideas or words which would hamper comprehension of your answer and potentially lose you marks.

## Writing the Exam

Read the instructions carefully.

Do the questions in the order presented, marking the difficult ones clearly so you can come back to them at the end. Don't waste time on questions you don't know when doing your first pass through the exam.

Junderline the key terms in the question, especially if there are qualifiers such as 'not' or 'always'.

**Try to answer the question before looking at the options.** 

Eliminate the incorrect options first by crossing them out so they don't distract you.

Do NOT initially mark up the Scantron sheet. If you think you'll have time, mark your answers clearly on the test paper itself and then transfer your answers to the Scantron at the end when you've gone back and completed all the questions. This will avoid skipping bubbles or missing a row which could mess up your entire Scantron sheet and cost you marks.

### **Guessing**

Unlike other types of exams, you have the answer in front of you and have a 25% chance of getting the question right. So, when all else fails and you have no idea guess! Hopefully your studying pays off, but for the questions you come across that you have no idea for try these tips for educated guessing.

Avoid extreme values – few things are 'always' or 'never' true. Instead chose moderate statements ('a few', 'often') or numbers in the middle of the range.

Select 'all of the above' if you think at least one of the options is true and 'none of the above' if none of the options look familiar or plausible.

Check for look-alike options or opposite options. One of them is usually the answer.

Deptions which seem foolish or completely unfamiliar are likely incorrect.

Choose the longest option.

Go with your gut.

When nothing else works pick a response and move on – don't waste time on a question you don't know.



## **Study Guidelines**

Multiple choice exams test your ability to recall information, not just recognize it. They also test:

- Understanding of concepts and ideas
- o Ability to connect details to key ideas
- o Ability to apply facts, concepts and theories

Review the study guide, especially if the professor is using questions from the question bank provided by the textbook/study guide publisher.

denerate possible exam questions yourself.

Look at previous tests to get an idea of the type of information and depth of detail you'll be responsible for.

# **Types of Questions**

Recognition/Recall: tests knowledge from lectures and text
 How to Study? Memorization
 Example: Who was one of the five 'good' Roman emperors?

 a). Galba
 b) Nerva
 c) Marc Anthony
 d) Augustus

**Comprehension:** tests how concepts are related to each other or requires knowledge beyond straight memorization

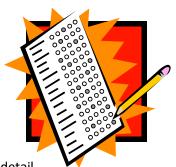
*How to Study*? Elaborate and draw connections between concepts and evidence *Example:* Which of the following is not related to the process of elaborative rehearsal?

- a) adding details to ideas and concepts
- b) analyzing component parts of an idea
- c) restating knowledge in your own words
- d) none of the above

**S** Elaboration and Application: tests your ability to understand the relationship between a theory and its evidence and then apply this understanding to a hypothetical relationship or case study

How to Study? Practice recalling theories, elaborating and creative thinking

- *Example:* In the study by Bahrick and Hall (1991) we find that graduates of college math courses recall high school math knowledge for many years after. According to Bahrick and Hall, which of the following would you expect to be true of a group of university graduate who did not take math courses at university?
  - a) they would recall their high school math to essentially the same extent as those who took math at university
  - b) most would recall little or none of their high school math 50 years after
  - c) they'd best recall math they learned more about in university courses
  - d) both b) and c)
  - e) all of the above



# After the Exam

- Relax! Even if you have to study for another exam, give yourself at least an hour to decompress and rest your brain. You won't expect your other muscles to run a marathon and then head to the gym for a work out right after, so don't expect this kind of perform from your brain.
- Don't hang around and discuss the exam afterward. This doesn't (a) help your anxiety levels (especially if you have more exams to write) or (b) change what you wrote. The exam is over celebrate that!
- Review your exams once they are marked. You have the right to see your exam so even if they aren't handed back, ask you professor when you can come in and take a look. Analyze where you went right and where you made mistakes. This is the study skill that is most often overlooked during the exam process. Without knowing what mistakes you made how will you be able to improve for next time? As well, reflect on what study strategies you used to prepare for the exam and if they worked for you. If they did, keep them up; if they didn't, try something new next time.
- If you are not happy and feel that you deserved a better mark talk to your professor or T.A. Some instructors are happy to discuss the exam and explain why you didn't receive full marks. If you still think you deserved a high mark you can appeal your grade, first by talking to the professor and then by filing a formal appeal. This appeal will not guarantee that your mark will be changed. Keep in mind too that your exam will be remarked so you do run the risk of having your mark drop.
- Congratulate yourself on doing so well! Good job!!



What <u>TO</u> do!

# **During the Exam**

- Get comfy ... you're going to be there for a while! Make sure you have your pens, student card and other supplies out of your coat or bag and on your desk.
- If you are feeling anxious or nervous take a few deep abdominal breaths to calm yourself down. Visualize your success at the end of the exam as you hand in your paper (which you've aced)!
- As soon as you start dump any information you're scared you might forget on the back of the exam paper. This could be formulas, definitions, or things to jog your memory such as acronyms or key words. This will help ease your anxiety as you will no longer have to worry about 'going blank' on this information.
- Read through <u>all</u> the instructions before you start the exam. Make sure you're not missing any pages in your exam booklet. If you have choices on which questions to answer make sure you understand the directions clearly and only answer as many questions as is necessary (if you answer them all markers are instructed to mark the first ones, not the best ones).
- Make up a rough time budget. Allot more time to questions that are worth more points. Be realistic about multiple choice – give yourself at least 1 minute per question to be safe. Also, try to allot at least 10-15 minutes to look through your paper at the end.
- If you exam is made up of multiple parts have a look through the entire thing before you start. Often answering one part of the exam will help you answer another. For example, doing the multiple choice questions may trigger your memory or provide valuable information for answering the short answer questions.
- Do the easiest questions first. This will guarantee marks and also boost your confidence and ease your nerves.
- Write neatly. Study show that students who wrote their answers neatly received higher marks than those who were sloppy, even if the information was identical!
- If you start to run out of time don't panic. Do your best to write down <u>some</u> information for each question, even if it's just a formula or a couple of key points. If you are writing an essay exam try to write out a rough outline before starting your answer. This will help keep you organized while you write and if you run out of time at least the marker will know where you were heading and will be more likely to award you part marks even though you didn't finish.
- Leave yourself ample time to fill out your Scantron form if you have multiple choice. Markers will <u>not</u> refer to the exam paper if you leave it blank. Also, check it over at least once to make sure you didn't miss a bubble or mess up the form.





# **Before the Exam**

- Get a good night's sleep. Pulling an all-nighter is not a good idea. Studies have shown that after 19 consecutive hours or more without sleep, performance on tests is equivalent to that at a blood alcohol level of 0.1%. In other words, if you pull an all-nighter before an exam, your concentration and cognition is no better than if you showed up legally drunk!
- Get together all your supplies the night before. Putting together an 'Exam Ziplock Baggie of *Fun*!' (note the broad definition of the word "fun") helps to keep your pens, pencils, erasers, calculator (if needed), Kleenex, ChapStick and student card all in one place so you don't forget anything. Also, if you are permitted to bring a formula sheet make sure you have it ready before you go to bed.
- Set as many alarm clocks as you need!! If you're really worried about over sleeping organize a back up plan: call home and see if your parents or siblings can give you a 'wake up call', or ask your neighbor or roommate to make sure you're up at a certain time. Set your alarm so that you have enough time to comfortably get ready. You don't want to feel rushed or anxious about making it to your exam on time. Don't forget to factor in commute time (particularly if you are writing in a building you have never been to before).
- Eat breakfast, but nothing too big (you don't want to feel sick), or too sugary/caffeinated (you don't want to hit a sugar or coffee low in the middle of the exam either).
- Arrive at least 10-15 minutes early to the exam location. This will give you time to calm down and find a good seat (nothing worse than getting a wobbly desk or an uncomfortable chair).
- Don't bring your study notes with you to the exam. This will only increase your stress level which is detrimental to your performance. Very last minute studying doesn't work. By the time you leave for your exam you know all that you are going to, so no point stressing out now.
- Try not to chat with high strung students before the exam. This isn't when you should start your 'group studying'! Often this only shakes your confidence and increases your anxiety.



What NOT to do! Learning Skills Services Student Success Strategies York University http://lss.info.yorku.ca

# Memory: GULP Method

The GULP Method is a four step process to improve both short and long-term memory. As well, this method helps move information from short-term to long-term memory, which is stored for a significantly longer time!



# <u>Get</u> It

- Pay attention while you're initially learning.
- Experience the initial learning with as many senses as possible.
- Get the information right the first time. False ideas and misunderstandings can be difficult to unlearn.



## <u>Use</u> It

- Review material at least 24 hours after your lecture and then review it again within a week's time. 70% of material is forgotten in 2 days if it is not used or reviewed.
- Repeat, recite, sing, chant, or write down the material. Try to recreate the experience of learning. Use as many senses as possible. Put the material into your own words.



# <u>Link</u> It

- Associate new learning with something you already known.
- Try to see the significance of what you're learning and how it relates to the bigger picture of the topic, course or even your program of study.
- Elaborate on the material: add details, make inferences, analyze ideas for component parts, and apply the concept to a new situation or analogy.
- Link key words, names or places to something they sound like.
- Create acronyms or mnemonics to link lists or steps.
- Group or categorize the material using hierarchical organization.
- Make up a rhyme, song, or story involving the info.
- If there's a basis for doing so, divide the info into chunks or bunches.
- Involve yourself it's easier to remember information that is personally relevant in some way.



# <u>Picture</u> It

- Create a visual image of the information (make it bizarre and exaggerated).
- Use colour and draw pictures or diagrams.
- Use mind maps to visualize how the information links or is organized.



A great way to physically organize your study notes is the Cornell Method. Each page should include a title (i.e. the major topic), and a summary section at the bottom which can be used as a quick reference (great for studying during found time or reviewing before bed). In the left column (which should be wider than the red margin on lined paper) list the sub-topics, key words, theory titles, formulas, etc. Beside each sub-topic use the right column to record the detailed information.

*Now, here's the fun part!* Notes made using the Cornell Method can be easily turned into selftesting tools. When you are ready to check your knowledge, cover up the right hand column and see if you can easily discuss the details pertaining to each sub-topic in the left hand column. Want a bigger challenge? Cover up everything below the title and see if you have mastered the information related to the major topic.

| Behaviour Modification |  |
|------------------------|--|
| Classical              | -Ivan Pavlov and his dogs  |
| Conditioning<br>•      | -initially presence of unconditioned stimulus (meat) caused unconditioned  |
|                        | response (salivation)  |
|                        | -paired uS with <b>neutral stimulus</b> (bell) – presented dogs with meat and rang bell each time  |
|                        | -after many trials N.S became <b>conditioned stimulus</b> as ringing the bell itself<br>would elicit the <b>conditioned response</b> (salivation) in the absence of U.S<br>Unconditioned Response: |
|                        | us (meat) $\rightarrow$ ur (salivate)  |
|                        | Conditionina:  |
|                        | us (meat) + NS (bell) → UR (salívate)  |
|                        | Conditioned Response:  |
|                        | CS (bell) $\rightarrow$ CR (salivate)  |
| Operant                | - B.F. Skinner and his Skinner box   |
| conditioning           | - modification of a voluntary behaviour (unlike classical)   |
|                        | - changing the frequency of a behavior by changing the consequence of the behaviour  |
|                        | -reinforcement = behaviour followed by consequence that causes freq. of  |
|                        | behaviour to increase  |
|                        | -punishment = behaviour followed by consequence that causes freq. of   |
|                        | behaviour to decrease  |
|                        | -extinction = behaviour followed by no consequence which causes freq. of   |
|                        | behaviour to decrease  |
|                        | - 4 types of consequences:   |
|                        | 1) <b>Positive Reinforcement</b> = pleasant consequence to behaviour   |
|                        | -e.g. press lever $ ightarrow$ food  |
|                        | 2) <b>Negative Reinforcement</b> = removal of unpleasant consequence   |
|                        | -e.g. press lever → stops loud noise   |
|                        | з) <b>Positive Punishment</b> = unpleasant consequence to behaviour  |
|                        | -e.g. press bar → electríc shock   |
|                        | 4)Negative Punishment = removal of pleasant stimulus   |
|                        | -e.g. press bar → food taken away  |
| Summary:               |  |
|                        | <u>ditioning</u> involves pairing a NS with a US to elicit a CR when the CS  |
| (previously the N      |  |
|                        | <b>ioning</b> involves following a voluntary behaviour with a PR or NR to increase   |
| (reinforce) benavi     | iour or following a voluntary behaviour with a PP or a NP to decrease (punish)   |



Both making and reading through study notes are great ways of preparing for exams. Here's one method for creating and using study notes. Also, try using different coloured paper for each course (it will help you keep your notes organized and aid in remembering the information).



# **1. MAJOR TOPICS OUTLINE:**

Make a skeleton outline of the major topics that were covered. This can often be found in the syllabus. This outline will be used to keep the information organized and as a quick reference to check your knowledge after you are confident you have learned the information on the summary sheets.

# 2. SUMMARY SHEETS:

Make a summary sheet(s) for each major topic. This should be organized according to sub-topics and include more detailed information. Information may include definitions, formulae, names, dates, concepts, theories, etc. Don't just rewrite you lecture notes however; try to summarize, reorganize (if needed) and put the material into your own words. This will help you to remember the material more easily. Don't be tied to organizing your notes according to lectures or textbook chapters/readings – if a topic or theme is discussed over a couple of lectures/readings then treat this information as a set. These summary sheets will form the basis of your study notes and will be the place you go to learn the information.



## Match Your Study Strategies to the Exam Format

- Memorizing works for some exams (such as multiple choice), while others require more critical thinking, analysis, application and integration of ideas (such as problem based and essay exams). Match the way you study to the type of exam you're taking.
- Group, compare, contrast and expand on broader themes/ideas if you have an essay exam.
- For a problem based finals (math, chemistry, physics, accounting, etc.) do lots of practice problems and understand how to (a) manipulate formulas and (b) have an understanding of what each formula helps you find.
- Look over case studies and know how to apply theories to real life situations if your exam is more application and analysis based.



# Know Your Learning Style

- Visual learners benefit from using mind maps, colour coordinating their study notes and posting study aids in their room and on their walls/mirrors.
- Auditory learners learn well by reciting info out loud, making rhymes or songs, teaching the info to their friends or stuffed animals, and listening to music while they study (classical music or 60 beats per minute works best).
- **Kinesthetic learners** benefit from rewriting (not typing) their notes, walking or exercising while they recite info or 'acting out' the material (nothing like making up an interpretative dance for photosynthesis!).
- No matter what type of learner you are, our brains are best able to organize and retain information when learned in a **multi-modal or multi-sensory fashion**, so incorporate a few strategies from each into your routine.



# Commit to a Study Group

- Studies show that students who study in a group for 25% of their total review time have higher grades than those who study exclusively on their own.

