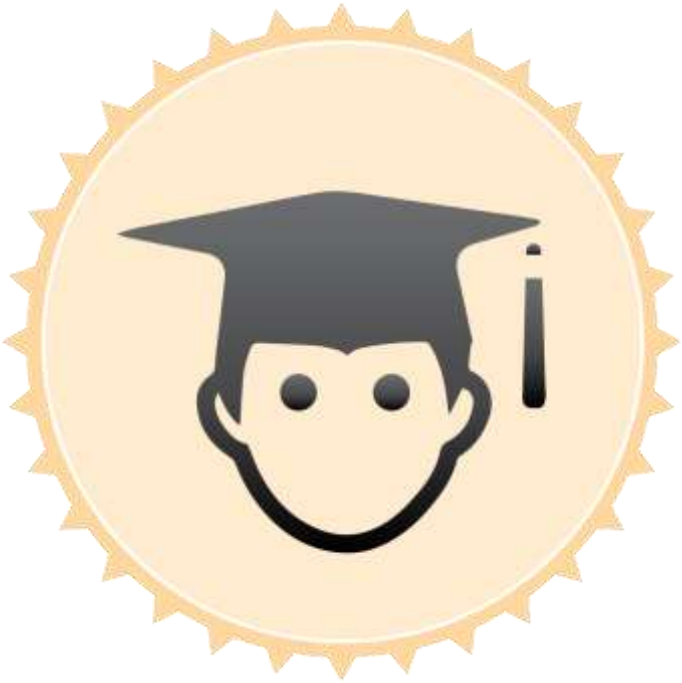
Effective Study Techniques



What Can I Do To Become a More Successful Student?

Student Learning Development
University of Otago

This booklet is an introduction to some of the skills and strategies that will help you successfully complete your studies at Otago.

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Introduction

The intention of this guide is to help you to be a more effective learner in time management, note-taking, reading, and preparing for exams. During your first year at university, in particular, you may be finding out what kind of learner you are. It might be necessary for you to explore and experiment with different ways of learning and working with material to see what works for you. In fact, you may find that you use different learning strategies for different papers to process academic information so that you understand and remember it.

Everyone has a different way of learning and there's no one right way for everyone or for every paper you're studying. However, the crucial element is that you're actively engaged in the process by thinking about information from various angles rather than solely the way it's been presented in lectures. This approach will set you up well for being a critical thinker and for preparing effectively for assignments, tests and exams.

The more strategies you bring to study, the better will be your understanding, retention and recall. This Guide introduces a series of techniques to help you to foster deep learning which requires active engagement with the material, whereas surface learning is where you have only a superficial understanding of the information, and have difficulty explaining and applying it to other concepts or contexts. By engaging in a deep approach not only will your learning be more effective but there's a greater likelihood that you'll enhance your learning experience and enjoyment at university. Remember that active engagement is paramount to effective learning.

Time management

Underpinning any effective study strategy is time management, a skill that can be learnt. Students sometimes have a cluster of assignments or tests during certain periods of the semester so it's imperative to be organized. Being so means that you're more likely to be an effective learner, you'll enjoy your time at university more, and your stress levels will be minimised. The sooner you equip yourself with good time management strategies, the more effective you'll be with your study because having a plan focuses your mind. Remember that friends, leisure and sport are important for a healthy life and that a balance between work and other activities will help you to stay motivated. Good time management skills are also an asset in your personal life and in your future profession.

If you find one topic or paper harder than others, then obviously you'll need to devote extra time to it. Remember to consider how much learning happens in class, labs and tutorials versus how much work you're expected to do by yourself. It's also important to know the learning objectives for each of your papers and the topics within them to guide and structure your study and the amount of time you spend on it. Every week at university is different in terms of workload, so you need to take a flexible approach to accommodate changing priorities or circumstances. A time plan is a guide only, so don't panic if there are disruptions to it some weeks.

Setting goals

Identifying goals is particularly important to avoid procrastination and help you to remain focused and motivated. Be clear about what you want to achieve at university and work out some short-term, medium-term and long-term goals. Make sure that these goals are realistic and achievable because doing so means you're more likely to attain them. You may be unclear about which profession you're aiming for but you obviously want to pass your exams.

Setting priorities

Know your priorities for the semester, for the week and for the day. This knowledge will help you to have a clear idea of what tasks need to be achieved. However, having too many high priorities could have negative consequences. Attending lectures, tutorials, and labs and meeting assignment deadlines are top priorities, but balance these commitments by making time for social and leisure.

Making plans

Making plans for the semester, the week and the day involves knowing exactly what tasks are coming up and taking the steps required to achieve them. A wall planner, a weekly planner and a diary are necessary for you to plan appropriately.

Semester plan

Have a written plan which factors in dates for assignments and tests for the whole semester. Doing so means there are no nasty surprises regarding assessments and you can see the "lie of the land" for the semester, including periods that may be particularly busy because of a cluster of assessments or tests.

- This plan should include dates for assignments, tests, oral presentations, and lab reports.
- Be specific about the information you include in your time plan—e.g. HIST 105 Essay 20% — so that you know the weightings and you can prioritise tasks and plan accordingly.
- Use different coloured pens for different subjects to make tracking your assignments easier.
- Mark in assignment deadlines and work out the time you'll need to complete each one.
- Ask yourself what steps you need to take to prepare for them. For example, if an
- Essay is due in three weeks' time, decide approximately how long you'll spend on research, planning, writing, and editing.
- Note these tasks and dates for completing them in your diary or on a wall planner. Use the value of the assignment (e.g. 15%, 30%) as a guide to how long you should spend on it.
- Put the plan in a prominent place such as in the front of your folder or diary or on your bedroom wall. That way there are no excuses for not knowing what your workload is, and there's the satisfaction of being able to tick off tasks as you complete them.

Don't minimise the importance of noting these details even if, for example, a lab report is due every fortnight and only worth 5%. Sticking to the plan (within a day or two) will make the process more manageable, and you'll do greater justice to the assessment. Writing assignments is a process which takes time and reflection, and it can't be hurried. Also note any employment and social commitments so that you can clearly see what time you have available to complete study tasks.

Weekly plan

- Work out your priorities for the week in terms of forthcoming assignments, tests, labs and tutorials.
- Don't minimise the importance of including slots for doing assigned readings for lectures or tutorials as these are important tasks that also vie for your time.

Break tasks into smaller steps. For example:

- Start research for Assignment 299
- Reserve Library book for Assignment 218
- Set up meeting for MANT group presentation
- Review lecture notes

This breakdown will make the overall task more manageable and less daunting. Furthermore, you'll have the satisfaction of achieving the incremental tasks, and hence you'll be more inclined to stay motivated. A similar procedure applies to preparing for a test or exam: what concepts, terms, or theories do you need to revisit? Do you find some ideas more difficult than others? For approximately how long do you anticipate studying each section so that you get through all the material before the test or exam? These are important questions to consider so that your study is purposeful and tasks are achieved on time.

Daily plan

Decide your priorities for the day and list them in your diary in order of importance. Planning each day in this way will help you to stay focused on the tasks you want to achieve.

Remember that not achieving one of these tasks may have consequences for what you have to know or achieve the next day. For example, you may need to seek clarification from a lecturer about an essay question so that you can begin research that day. Again, make your tasks specific. For example:

- Read 2 poems for tomorrow's English tutorial
- Learn German vocab list, lesson 4
- Brainstorm for HIST Assignment 2
- Read chapter 2 of Reid.

If you don't achieve one of the listed priorities, note it at the top of your list of priorities for the following day.

Note-taking

Taking notes in lectures

There are many different lecturing styles and these vary not only between people, but also between departments and class size. Nevertheless, your role is that of active participant as you decide which information is important to record. Whatever note-taking style or method you adopt, your notes have to be easy to work with because they're a resource for assignments and exams.
Taking notes in lectures helps you to concentrate and forces you to process information. This active approach requires multi-senses because you have to listen, write and think about what information to take note of. Lectures are an opportunity for a topic to "come alive" as the lecturer explains ideas, theories and processes, highlights important points and integrates the assigned reading material.
Therefore, it's very important to attend lectures! If you skip lectures and just rely on notes from Blackboard, your knowledge of the topic will possibly be superficial and fragmented. Blackboard material or other lecture handouts may be the "bare bones" of the material, which is then "fleshed out" during lectures for you to gain a greater understanding of it and then be able to integrate it with and apply it to other information. If an outline is provided before the lecture, make sure you read it and take it to your lecture.
Time spent developing good note-taking strategies is time well spent. The sooner you work with your notes after lectures and the more you work with them and integrate them with other material, the better your understanding, retention and recall will be. Furthermore, you'll feel encouraged as your confidence in your knowledge of the topic increases.
Here are some of the concerns students raise about what they find difficult when taking notes in lectures:

- "How will I know what's important to note? Sometimes it seems that everything's important."
- "How can I listen and take notes at the same time?"
- "How can I keep up when some lecturers talk quickly?"

These questions are addressed below:

The three-pronged approach to note-taking during lectures
Becoming good at a task is a process that requires practice and the same applies to note-taking. Furthermore, as you revisit your notes on an ongoing basis and apply them to other material you'll be able to monitor your progress in understanding them and determine which areas of information require more attention than others. To be an active learner it's important that you think about

lectures before, during and after they occur. If you adopt this interactive and integrated approach, you'll be in a better position than if you merely turn up to a lecture without having considered the reason for today's lecture and haven't read any of the assigned material. This three-pronged approach will also help you to keep on top of your workload and stay motivated. You'll minimise an unnecessary build-up of work, and you'll be better equipped to revisit course material as tests and exams approach.

Before the lecture

In lectures, some ideas will be more important than others and by taking cues from the course objectives, the structure of the lecture, and how the lecturer presents information you'll latch onto what's important.

- Firstly, look at the course objectives or the objectives for the module you're studying, and understand what's expected of you for this part of the course. Doing so will alert you to what points to focus on during the lecture.
- Revisit your notes from the previous lecture to prepare for the new ideas and concepts introduced in the next lecture.
- What are the themes or ideas running through the lectures? How does today's lecture fit into the rest of the course?
- Read any assigned readings or handouts before your lecture. This preparation means that you'll be familiar with the language and any new terms.
- Are there any points from the reading that you'd like clarified? If so, note them.
- Does the reading raise any questions for you? If so, note them.
- What are the themes or ideas running through the lectures?

During the lecture

The lecture should be your first review of the material to be covered, not your first exposure! Get into revision rhythm from day one of lectures and you'll reap the benefits.

- Sometimes the lecturer gives the class a brief reminder of what material was covered in the last lecture and then goes on to outline the content of today's lecture. This approach helps you to put the new information in context and to see the connection between ideas.
- Some lecturers conduct their lecture like an essay with an introduction, main body and conclusion, so this structure will help you to follow the trail of ideas. Note the sub points which expand on a main idea, as well as any examples which illustrate these points.
- The first few minutes (introduction) may provide some particularly important information regarding what points will be covered. The

introduction may also provide a clear idea of the main headings that you can use in your notes but don't rely on this to be the case.

- The last few minutes (conclusion) may provide a summary of the points covered. This is a good time to check whether these points feature in your notes. However, sometimes lecturers run out of time so don't expect every lecture to have a conclusion.
- The lecturer may help you to discern what's important by prefacing information with "This is important", for example, or "Don't worry about this aspect too much; what I want you to focus on is the next piece of information." Also note the use of signposting words such as firstly, in particular, especially or most importantly which categorise or emphasise the information. These words help you to know what's important and to see the relationship between ideas. Also, if a lecturer says a concept or term is important, it is! If you're told to concentrate on a particular aspect of a theory or a concept, then do! Be aware of such messages as they will help you to stay focused and to prioritise material.
- Some lecturers state the objectives of a lecture and they may also provide you with a set of questions which you should be able to answer at the end of the lecture. These questions will provide you with some focus for the lecture.
- There may be rules, principles or subordinate topics which go together to form the main ideas. Therefore, look for supporting information in the form of definitions, explanations, examples and/or proof of the topics.
- The lecture is an opportunity to challenge and draw together information you're reading.
- Be a hardworking listener and don't write down word for word what the lecturer says. If possible, try to think about the points before writing them down, as this will help you to make sense of the material later on.
- Lecturers may also refer to knowledge that must be known first in order to understand other knowledge. This approach is useful because it makes links between ideas and helps you to put information in context.
- Many lecturers have a number of main points with sub points and sub sub points. This ordering provides structure and helps you to understand how the different points relate to each other. To help you to frame the lecture you could use lettering or numbering to show the sequence or priority of the information. You could also categorise the ideas as 1) 2) 3) or A, B, C, for example.
- If the lecturer writes a date, term, equation, or an author's or theorist's name on the board, then you should take a note of it and the context in which it's given.
- Don't double up on information. If your textbook has the content covered, there's no point in rewriting it.
- Leave a couple of lines between pieces of information, rather than having

a dense body of script. Such a layout will make your notes easier to read and will facilitate working with them.
- Make sure you date your lecture notes and handouts.
- As the lecturer refers to information already on handouts, don't rewrite it. Instead, supplement it with the new details or examples provided.
- Capitalise or underline key words so that they stand out when you revisit your notes.
- If you don't understand something, put a question mark in the margin and seek clarification after the lecture, that day, or the next.

Listening and writing at the same time

- To be an effective learner you need to be an active participant in lectures by listening and noting important ideas. This is the first stage in the note-taking process. The sheer volume of information that is often disseminated in lectures means that it is sometimes hard to multi-task. However, there are some strategies you can use to make the process easier:
- You may find that it is more beneficial to listen only for some of the time and note the important points following the lecture.
- Don't write in full sentences because that's wasting time and it's unnecessary. Just write the words you need to capture the idea, explain it and give an example of it where appropriate. After all, your notes don't have to read as an essay!
- You can develop your own shorthand and symbols to speed up your note-taking. Abbreviate some words to save time. For example, "development" could be written as dvpt; "important" as impt; "increases" as => and "decreases" as <=

The Cornell system of note-taking

Many students find the Cornell system a useful note-taking format because it helps them to keep track of ideas. It also provides an effective tool to prepare for tests and exams. The system is explained as follows.

- On the left hand side of your lecture pad draw an 8-10 cm vertical column. Leave this column blank during your lecture.
- On the right hand side note the main details of the lecture and any relevant examples. Make sure you leave enough space between your notes so that they are easier to add to and revisit.
- After the lecture, ask yourself questions that help you to make sense of your notes, establish links between ideas and see the "big picture". In the left hand column summarise the key facts and ideas. Fill in any gaps and clarify any points about which you're confused.
- After the lecture add examples or further explanations of material on the right hand side and key words and page numbers from course readings on the left hand side. This side of the page acts as the cue column because it is a prompt for targeting important information or raising further questions

you need to explore. Recall the facts and ideas meaningfully in your own words aloud or in written form. Then, uncover your notes to check that what you've said or written is correct.

- At the bottom of each page of your notes, have a horizontal summary space to condense the information into two to three sentences. This space provides a handy study reference. Adapt the above suggestions to suit your own style. For example, if you find it preferable to reserve the left hand side column for notes and the right hand side column for key facts and ideas, that's fine.

The benefits of developing your notes using this framework are manifold:

- You have to review your notes in order to fill in the cue column. Failure to do so acts as a prompt for you to take action!
- It's easier to identify the difference between the main ideas and lesser details.
- It lends itself well to regularly revising your notes as preparation for tests and exams.

CUE COLUMN	**DETAILED NOTES**
• **After** your lecture summarise main ideas. • Use as a cue for reviewing, questioning and reflecting. • Include prompts (e.g. mnemonics, dates and diagrams) for understanding and remembering. • Don't overload with text.	• **During** your lecture take notes according to the course objectives or the lecture's objectives. • Where appropriate give explanations or provide examples. • Take cues from the emphasis that the lecturer gives to ideas, concepts, processes and theories. • Leave plenty of space to add in points later.
Summary: The Cornell system is a useful note-taking strategy because the cue and summary columns provide a quick reference to lecture material. Also a resource for tests and exams.	

After the lecture

To be an effective learner it's very important that you review your notes as soon as possible. By actively doing so frequently, you'll increase your understanding of them. If you have a gap in your timetable straight after a lecture, what better time to revisit the material! It's amazing what can be achieved in a 20-30 minute slot, and it's often these short bursts of study that work well. If, however, you're unable to revisit your lectures straight away, do so as soon as possible. You'll be very pleased you did to retain important information and to better understand subsequent lectures.

One strategy for working with your notes is to discuss ideas, concepts, theories and terms with other students. Indeed, many students say that the ideal way to understand material and to remain motivated is to work with someone else. This collaborative approach also helps you to make sense of new ideas and concepts. You can test your understanding when you attempt to explain it to someone else, and you may gain new perspective which may not happen if you study alone. Also, bouncing ideas off someone else helps you to make connections and raises questions that you may not arrive at by yourself. However, if there are still gaps in your understanding, it's important to seek clarification from a tutor or lecturer. Speak to them after class or visit them during their office hour which will be indicated in your course information or posted on their office doors. Do this sooner than later because poor understanding of a concept may very well mean that you have trouble understanding future concepts or other related material.

It's not always a useful technique to rewrite your lecture notes because your handwriting is messy or you scored out a few words. Rewriting notes can be a mechanical and non-interactive task where it's easy to think about something else rather than your notes. If you did this for every lecture a lot of time would be spent which could be used more productively, that is, by making sure that you understand the information such as testing yourself about it or creating concept maps or cue cards. Your learning will benefit from this approach more so than from merely having a neat set of notes.

- Do you understand what you've written? Separate what you understand from what you don't understand so that you're clear about what information needs to be learnt.
- How does the lecture relate to the topic or the course overall?
- Can you identify the structure of the lecture with its main topics and subtopics?
- What do you consider the key points?
- Can you identify key terms, define them and provide examples?
- Think critically about the ideas—i.e. analyse, assess, question and reflect on them. One technique to test yourself is to look away from the information and explain the concepts and give examples of them. Ask

yourself key question words such as who, what, why, and how. Go back to your notes and check if you're right.

- You might find it helpful to colour code or number aligned pieces of information from your lectures (if time doesn't allow during lectures) and readings so that you can see the relationship between ideas. This strategy will help you to keep track of the main points and associated details and be able to identify them quickly.
- You may wish to organise some cue cards based on key terms or concepts. To do so, put the name of the term or concept on a piece of paper or cardboard about the size of your hand, and on the back give a brief definition in short phrases or single words. A date or a theorist's name may also be appropriate, depending on the subject you're studying. Cue cards are easily portable, they're a good way to keep track of information, and they act as useful prompts for tests and exams.
- Another useful way to remember information is by creating a mnemonic. For example, take the first letter of the points you have to remember and create a word out of them. To be an effective learner requires Time management, Active participation, Motivation and Efficiency. In other words, TAME.
- You could condense information into a table, or a cause and effect diagram, or a time line (for events or sequences which occur chronologically), depending on the kind of information you're studying. For example, a time line works well for some History papers.
- Practise different ways of representing the concepts or theories, remembering that different strategies work for different papers and that there's no one right way for all students or for all papers.
- Remember: your notes need to make sense to you now as well as in two to three months' time.

Strategies to revise lecture

- Cue cards
- Master summary of notes
- Diagrams
- Study group
- Concept maps
- Post-it notes Lists
- Tables
- Equations

Taking notes from readings

To make a coherent and full set of notes you'll be drawing from material covered in lectures, tutorials, handouts, and course readings. This integration is an active process whereby you prioritise information, make further connections between ideas as you decide how they relate to create meaning, and supplement the framework of any lectures. Building up such a resource provides you with information that will be invaluable as you prepare for tests and exams. It's a much better idea to put in time creating a useful set of notes from the beginning of semester than hastily reading assigned texts and trying to understand your notes prior to a test or exam.

When taking notes, use your own words, bullet points, short phrases, abbreviations, and bold lines to emphasise information. Obviously the process of note-taking is a learning curve, and you won't necessarily end up with the best set of notes the first time round. That's OK because the more experience you have with note-taking, the better you become as you see what does and doesn't work. Don't be restricted by what others do.

Try new structures and approaches, and be an active learner. Continue to review your notes once you've collated your material and work on consolidating them. For example, you could write a summary of the topic from your detailed notes and staple it to the front of these notes. Alternatively, you could represent this information in visual form via a concept map. Either resource will be very useful when you prepare for tests and exams. Organise your notes into topics, rather than lecture-by-lecture, as this approach will better help you to make links and see developments between ideas and thus see the "big picture". This process is part of actively working with your information so that:

1. You understand it.
2. You remember the most important parts.
3. You can apply it to new situations.

By synthesising or bringing together the various strands of information via questions and applications to other ideas, you're helping to enhance your understanding. If note-taking is taking up too much of your time at the expense of other study commitments, you may need to review your approach. Talk to other students about their strategies, or talk to one of the staff at Student Learning Development.

- Set yourself up to read well. Where do you read best?
- What is the best time for you to read?
- Will there be any interruptions? If so, develop strategies to handle them.
- Remember you're reading to learn, so read with a mission. In other words, have a clear reason for reading the text. Refer to the section on effective reading strategies for further information.
- Remember that your current reading doesn't exist in a void but is part of

an integrated body of knowledge.

As you approach the reading, ask yourself the following questions:

1. Why am I reading this?
2. What do the title and subheadings suggest?
3. What do I want to get from this reading?
4. Is the aim to support my lecture notes or extend or elaborate existing information?
5. How does this reading fit in with the objectives for my current module or set of lectures?
6. How does this reading fit in with this week's lecture(s)?
7. Take notes that reflect the purpose of your reading.

Focus on the central ideas or key points of the reading, and when taking notes don't simply copy material word for word. Instead, use your own words as much as possible as this will help you to think about the information, make sense of it and keep you focused. By doing so, you may find that you end up with four lines of the author's ten lines because you've extracted the essence of the idea. Consider the following when taking notes from your readings to guide your understanding and plot the ideas:

a) topic areas
b) chronological sequence (sequence of dates and associated events)
c) sub points

In your notes be sure to differentiate between direct quotes and your own words by putting "quote" or "me" in the margin. Record the author, name of the publication and the page number(s) of all your sources because it can be very frustrating and time consuming trying to find this information later on.

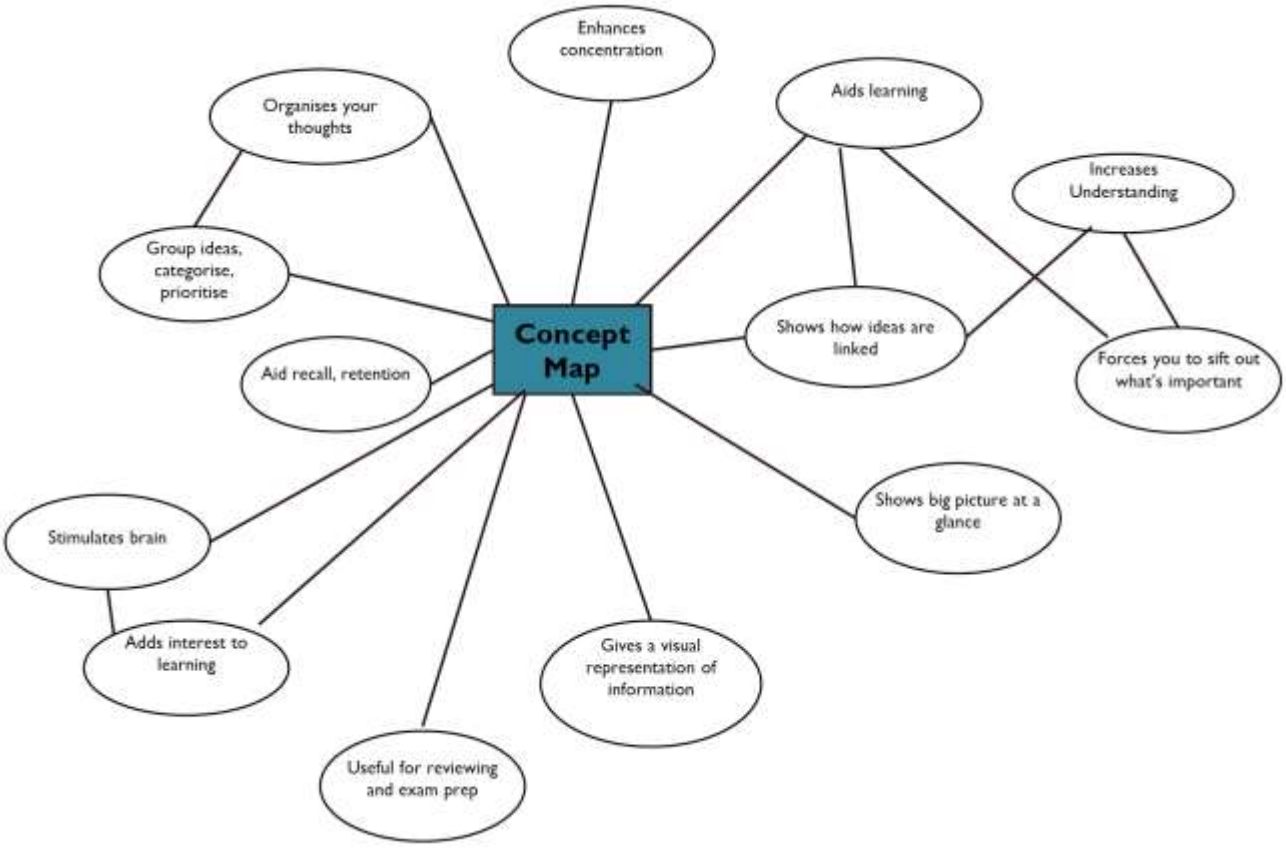
Concept maps

Concept maps, which can include diagrams, tables, mind maps and flow charts, are another way of representing and working with information in an interactive and flexible way. This learning tool is useful for helping you to see connections between ideas, for summarising lecture notes and for retaining and recalling material for tests and exams. If you're a visual learner, you may find that concept maps are a useful way to capture a lot of information. They help you to categorise ideas and this hierarchy can be shaped into a triangle or a pyramid, for example, or in the form of a mind map as explained later on. However, not everyone finds it useful to make notes in this way, or you may find that concept maps work well for some subjects but not so well for others. As with all forms of note-taking, creating a concept map requires practice and experimentation. You may not necessarily be happy with the first one you create, but you'll learn

how to refine it when you create the next one.
Apart from using concept maps to integrate notes, they can also be used in other ways to:

- Brainstorm ideas;
- Take notes during a lecture (however, this can be difficult if you're unsure of the structure of the lecture);
- Take notes while reading;
- Revise before exams;
- Counteract writer's block or "blanks" during exams or other situations.

Example of a concept map



- Add symbols, pictures, and colour to make it more meaningful to you.
- Don't crowd your mind map with too much information. Use key words or phrases rather than full sentences. The key words will act as a springboard for other words and enable you to weave additional content around them.
- A series of lectures can be encapsulated in a mind map and stapled to your notes as a summary. Alternatively, some students prefer to put a diagram in a more prominent place such as on their wall or wardrobe door, especially for a core part of a course.

Reading Strategies

When students are asked about their frustrations regarding reading academic material, the following concerns are inevitably mentioned:

- Volume of reading—"How will I get through all the readings?"
- Time management—"How will I find the time to do the readings?"
- Concentration—"Sometimes I read five pages but I have no idea what I've just read."
- "How do I know what's important?"
- "How will I retain all the information?"

Reading at university level may necessitate a change in your usual concept of reading. It's not just a matter of stringing words together and making your way through yet another ten pages of material. Rather, it's a question of becoming an effective and efficient reader which means reading with a purpose or being clear about what ideas you're looking for in the reading. You'll read differently for assignments and exams so be clear about why you're reading a text. Knowing how to read effectively involves understanding the structure of texts, how this structure can direct your reading, the purpose of your reading and reflecting on it. For most students this is a process which requires experimentation and practice, and the more actively you read, the greater the benefits. These are some of the issues that will be dealt with in this section. Firstly, however, it is important to know that:

1. How you approach the reading depends on the nature of the text.
2. The overriding aim of effective reading is to plot the author's message by reading strategically.
3. The essence of reading is thinking, and reading is a form of research. Tips on how to do this will be discussed later on.

Managing reading workload

Many subjects at university often require a lot of reading so it's important to adopt some good time management strategies to ensure you align the required readings with your lectures and tutorials. By doing so, you'll reinforce the information and be better able to follow subsequent lectures. Sometimes there's so much to read and so little time. Therefore, factor in time(s) on your wall planner or in your diary when you intend to do the readings for your respective subjects. When are the gaps in your day or week when you could do your readings? Do you have several slots during which you can read particularly dense information in sections? Is it best for you to read material which requires a high level of concentration in manageable chunks in the morning or at night, in other words when you are most alert?

Another important aspect to consider is the priority of your readings. In the scheme of university life, some readings are more important than others, and you give priority to essential readings. Some readings are deemed essential, while others are called secondary or suggested readings, and some courses have both required and recommended readings.
The good news is that you don't usually have to read everything at university; it's a question of taking cues from lecturers and from how the readings are classified. If a lecturer says a particular reading is important, then it is! If the reading is classified as essential, then it is!
In an ideal world you'd be able to do all the readings but a key survival strategy is the ability to be selective. Life being life, sometimes you might get behind with your readings. If this happens, it's best to keep up with the current readings. Otherwise, you'll be perpetually behind. Furthermore, the current readings will have ramifications for understanding this week's lectures which build on next week's. Catch up on the readings you've missed when your timetable allows.

Maintaining concentration while reading

Sometimes students say they can read several pages of an assigned reading without being able to recall any of the ideas. In fact, people can carry on reading whether or not it's productive. To avoid this situation it's important to be an active reader rather than mechanically reading or rereading material without being engaged in the process.
Strategies to effectively read include:

- Breaking up your readings into sections so that the process and volume are manageable;
- Making your way through the reading step-by-step or section-by-section;
- Taking short breaks, taking notes or creating concept maps from the readings.

Also, consider where you read best: do you need to be by yourself or surrounded by others? Where are there no or few distractions? Make sure that you have good lighting and that you're comfortable, and if you need a change of scenery, work in different libraries or locations around campus. Tips on plotting the reading's message, which are discussed further in the next section, will also help with concentration.

Plotting the message

Effective reading is all about working out what a text means, or "getting under the skin" of the text to extract its essence. There's a reason you've been assigned the reading. Therefore, before embarking on it, ask yourself the

following questions:

- Why am I reading the article or chapter?
- How does it fit into this week's lectures and look forward to next week's lectures?
- What assumptions arise from the title and subheadings?
- What do I want to find out?
- What terms or ideas do I want to have clarified?
- Why do I need the information—for a lecture or an exam?

By answering these questions, you're already establishing meaning and looking for connections. Some lecturers provide a set of questions to be answered following the reading, so looking at these before starting the article or chapter will help you to focus and to know what to look for in the text. In other words, they give you a framework on which to hang the ideas. Be sure to check that you can answer these questions at the end of the reading! If you struggle to fully answer some questions, then it's important to revisit the information concerned and decide to what extent you need to fill in the gaps.

The features which apply to effective reading, that is, reading for understanding, also apply to effective writing, so by paying attention to the former there's a greater likelihood that you'll improve the latter.

How text is organised

Meaning is found in the structure of the text so it's important to be able to identify this structure and see how the ideas are built up. Thinking carefully about how a text is organised fosters an appreciation of structure and linking ideas in an argument, and this recognition will help you to consider how you're ordering your ideas in your own writing. Structure helps to provide meaning at the macro and micro level of the text, and ideas are built up from the sentence level to a paragraph and then to the text as a whole. The development of the argument is built up via the development of sentences and paragraphs, and the argument is expanded through the evidence or examples provided.

Good writing is all about making meaning clear, establishing relationships between ideas and providing appropriate evidence or examples to support the points being made. Therefore, in a reading it's important to see how the ideas are ordered, how they connect or flow one to the other and how they build on one another to form a road map of ideas. It can be potentially daunting to be faced with a lengthy article, particularly one which is dense, but considering how its parts make up the whole will make the reading process easier and more profitable.

To further help you to plot the author's message, pay attention to signposting words or words which give you an idea of how the next piece of information is going to be dealt with. For example, *however* denotes that some contrast to the previous idea is being introduced, while *furthermore* denotes that the previous idea is being elaborated. When you read such words, you can anticipate the angle of the next part of the author's message.
Some students find it helpful to initially read the introduction and the conclusion because the introduction briefly tells the reader what the article or chapter is about and the order of points which are to be addressed, and the conclusion summarises the key points or findings. By adopting this technique you have a head start because you have a potted version of the whole, as opposed to mechanically reading paragraph by paragraph without being truly engaged.

An even better approach though is to take this strategy further and read the opening sentence of each paragraph. Why? Good academic writing deals with one central idea at a time and the topic sentence of each paragraph tells you what the paragraph is about, and it allows you to plot the author's message. The structure of the text holds the text together so look for the anchors or topics of each paragraph. This framework should leap out at you and allow you to sketch out a plan of what you've read. If you're in doubt about the main point of each paragraph or the overall thrust or point of the reading, skip to the conclusion where the finding or thesis statement is located. Until you can identify the overall structure, you can miss the point of the reading.

This approach to plotting the message will capture the key ideas of an article or chapter but then you need to go back and read about the specifics. That is, you need to read each paragraph in its entirety to "flesh out" the information gleaned from the topic sentence. You could look upon the topic sentence as a coat hanger on which the rest of the paragraph hangs. In other words, the evidence, which follows the topic sentence, supports the argument, and that evidence helps to forge a connection or relationship with the argument. Making connections is what effective reading is all about, and the more you practise this, the better you'll become at the process.

Understand what you are reading

To be an effective reader you need to interpret the material to understand it and explain it, whether to yourself or to someone else. Therefore, by asking yourself what the author is saying in each paragraph, you're saving a lot of time and effort, and at the same time you're gaining direct information about the text's overall message. Also, ask yourself what conclusions can be drawn about the various messages. Interpreting the text in these interactive ways inevitably

requires analysis and critical thinking about what you've read, which means deciding what the key points are, how they fit together to create meaning, weighing them up against other information or viewpoints, and assessing their strengths and weaknesses. Identify important ideas or principles and work out which ones are more important than others. By adopting this approach you should be able to summarise the key points.

As you're unpacking the information in this way, you could put the key ideas into circles or place arrows between them. You may even like to create a diagram of the information you've gleaned from the text. Also, keep track of key words, dates, names and phrases as you chart the message, and note your response to the ideas and arguments, and any questions that arise. This approach helps you to be in control of the material, to feel less daunted by its volume and content, and to be more motivated to keep reading.

This process also helps you to understand what the text is about. Ideas "stick" when you think about them and when you can understand and use the vocabulary that is specific to the paper(s) you're studying. Otherwise, you can feel alienated from the information and start to think about something else. However, you'll likely need to read some sections of a difficult text more than once.

If you're having trouble with this vocabulary, you need to practise spelling it and saying it. Keep a notebook with a glossary of your subject's specialised terms and establish this technical language before proceeding with the next reading. Noting and revisiting these terms will help you to reinforce and keep track of them. You could also keep a list of non-specialist language used to increase your vocabulary.

Another facet of the interactive approach to reading is to test yourself or have someone else test you on the concepts and examples. Many students find it helpful to explain or discuss the text with other students because it helps to solidify concepts and it boosts confidence by showing you what you know, and it picks up areas where you need to do more work. Working with others can be a motivating factor because when everyone is doing the same reading there's a sense of unity and you gain energy and encouragement from the others in the group. Consequently, the whole reading process is more "doable" and you don't feel so overwhelmed. Furthermore, by talking and writing about the ideas in whatever form and listening to how others have interpreted the concepts, the better you'll understand it. Also, the more you apply the ideas to what you already know, reflect on connections between the text and other material you've read, and then incorporate it with new knowledge, the more likely you'll remember it.

Reading For Assignments

When you're researching material for an assignment and deciding which information is relevant, a similar approach as discussed above can be adopted. Ask yourself what you're looking for in the text. If it's a date, a key word or a theorist's name you could run your finger down the middle of the page and glance from side to side to find such facts.
Just like approaching key assigned readings for a lecture or tutorial, you need to be strategic. Don't photocopy multiple articles only to subsequently discover that only a few are pertinent to your assignment. Before photocopying the material you need to decide whether it's relevant or not to your topic. To arrive at this decision, you could read the abstract or the introduction and the conclusion, which will give you direction. If you decide it's relevant, make a note of the title, author, date, and publisher, so that you have all the relevant details to accurately reference the source in your assignment.
Work from your lecture notes outwards when preparing an assignment. From there, the list of books, chapters or articles in your assigned reading list for your paper will be a good starting point for research, and those authors may mention or quote other authors whose work you wish to investigate. Next, you'll no doubt undertake some independent library research which involves considering the 3 Rs: is the work relevant, reputable and recent?

- *Relevant*: Answering the assignment question is your priority, so keep the question beside you while you're deciding whether a source is worth reading or not. If your lecturer has mentioned the author several times, or the author's name appears on your assigned reading list, then obviously s/he is relevant and reputable.

- *Reputable*: Be wary of using information from internet sites where no author or article title is given. Even if the author and title are cited, still be wary of any bias.

- *Recent*: Has the publication which you're thinking of using for your assignment been superseded by more recent publications on the same topic?

Taking notes from your readings is a different process which was dealt with in the chapter, *Taking notes from readings*.

Exam Preparation

Study for exams is effective if you're motivated, have a positive outlook and a plan. By breaking your tasks into incremental steps, you'll be able to cover the areas required and you'll feel more positive about the whole process. For some students the word "exam" induces anxiety, so try to look upon it as an opportunity for you to show what you know. Believe it or not, some students quite look forward to some exams because they've particularly enjoyed the paper and are keen to write about what they've learnt.

If you've been following the note-taking and effective reading strategies suggested in the previous chapters, you'll be better equipped for exams. No revision plan is perfect, and the nature of academic work is such that you could go on and on studying. You can only do your best and have a positive attitude about the process. Remember, it's not just your efforts in the two or three weeks before exams which count (important as they are) but also how you've been working with course material during semester. Study revision starts from day one at university so by attending lectures, tutorials, oral classes or labs throughout the semester, you accumulate a lot of knowledge.

Obviously the few weeks leading up to exams require a special concerted effort, but don't lose sight of the wealth of information you have at your disposal. You already know a lot! When in doubt about aspects of a topic, begin with what you know and work towards what you're not so sure of. That way, you have some established knowledge on which to "peg" what you have yet to learn. This relational understanding will help you greatly in preparing for your exams. Also, be mindful not to extend the thought that you may not know much about a particular aspect of your paper to feeling that you don't know anything about the entire paper! The aspects which you're unsure of are only a part of the whole, so remind yourself about what you do know and seek clarification where necessary.

Remember it is quality that counts and it is often the short bursts of study which work well and keep you focused. Please DO NOT labour over your notes for hours at a time. Breaks are important so that you remain fresh and motivated, and effective study is all to do with how you're spending your time, rather than the amount of time you're studying. The few weeks of study before exams are ideally when you further consolidate course material and fine-tune your knowledge and understanding.

The weeks before the exams are also a time to think about exam technique. Obviously, what you're studying and how you're studying will have

ramifications on the day of the exam, so in that respect, exam preparation and exam technique dovetail. Consider how you intend to approach the exam in terms of allocation of time per question, and in which order you envisage answering the questions. Some students opt to first answer questions with which they feel most comfortable, while others prefer to systematically make their way through the paper.

Exam preparation is also a time for a personal reminder of your strengths and weaknesses and feedback from assignments and tests. Tutors' and lecturers' comments are useful to bear in mind as you approach the exam. For example, have you been told to provide more detail and analysis in your essays or to directly address the question? Have you been told that you provide too much detail in short answer questions? These points can easily be rectified. If you need help in these areas or others you can contact the Student Learning Development office and make an appointment to speak to a staff member.

Compiling a time plan for revision

Underpinning exam preparation is good time management. Rather than just having a rough idea of the modules, themes and terms you need to know, make a timetable which incorporates all the material you need to cover. Allocate your time carefully and realistically, and note any other commitments that you have over the exam period so that you have a clear idea of the time available. Other points to consider for your timetable:

- Make a note of your exam dates and consider these when making a study plan. For example, do your exams occur in the first few days of the exam period? Do you have two exams on one day?
- How much is the exam worth versus the internal assessment component? If your paper is 60% internally assessed and the exam carries a 40% weighting, you'll spend less time studying for that paper than for a paper which has a 20% internal assessment component and an exam worth 80%.
- Make your time plan as specific as possible. For example, instead of HUBS 191, note Anatomy of the Tongue, for example, as the focus of the study slot. By breaking your modules and themes into specific topics, you know exactly what material to cover and there's a greater likelihood of a sense of achievement at the end of that study session.
- If you're finding a paper harder than others, you'll need to spend more time preparing for that exam.
- Allocate time according to your priorities. Is one of your papers more for interest, while the others constitute your main reason for being at university?
- Remember that your timetable is not set in concrete and that it needs to be

flexible to accommodate changing priorities. For example, you may discover that you need to spend more time on a module than initially thought.

Deep learning vs passive learning

Whatever study approach you adopt it's important that you're an active and engaged learner, as opposed to a passive and superficial learner. Deep learning means that you engage with the material at a deep level, as opposed to passively skimming the surface. For example, you may have a rough idea of a concept but have trouble giving an example of it, or applying it to another concept. All exam questions require understanding and reasoning, even though the kind of response they call for may vary.

Tips for being an active learner

For the information to "stick" you must understand it, be able to explain it and apply it logically to the next idea in that module or theme. You need to be able to see how ideas "fit" together and build on each other. As you work with and further consolidate concepts, it's important to use as many of your senses as possible. Furthermore, you're making your learning come alive, and this process is more enjoyable than merely reading through your notes which is too passive an approach to have any real and lasting value.

- Work out what ideas are important by revisiting the learning objectives for a module or course. The content of your lectures has levels of importance and establishing a hierarchy or order of importance of information will help you to focus your study. There should be no great mystery regarding what you need to study for exams because the learning objectives and cues from the lecturer are what you hang onto.
- Ask yourself questions. What does this concept mean? Can I give an example of it? How does it apply to what I've already learnt about this topic?
- Clarify the meaning of important or difficult areas of the paper and relationships between ideas and concepts. There are bound to be areas you find difficult so be sure to follow up these points with a tutor or lecturer.
- Add more detail to information where you think it's appropriate. For example, if a lecturer has emphasised some ideas over others but you have scant detail about them in your notes, it's important to expand on your existing information by referring to assigned readings and handouts.
- If you were the examiner, what questions would you ask? From what other angle could a question be asked on this topic?

- Try different techniques to work with the information. For example, give yourself a mini lecture, explain a theory to a friend, create a concept map, or write a summary of key points.
- Attempt some questions from old exam papers in the amount of time you'd have per question in the real exam. The benefits of this task are two-fold: a)you're reinforcing the information and seeing what you know and what you don't know so well; b)you're rehearsing the timeframe for the real exam.
- At the end of this task, continue actively learning, rather than filing your answer in your folder without any further attention. How well do you think you answered the questions? What were your strengths/weaknesses? If there are any gaps in your knowledge, this is the key time to fill them in.

Strategies for handling different types of questions

Whatever type of question you face, it's always a priority to answer it appropriately so make sure you are clear about what is being asked of you.

Multiple-choice questions

Multiple-choice questions can require a range of responses such as:

- Recognizing the answer to a problem;
- Recognizing the correct reason for a relationship;
- Establishing causal links;
- Demonstrating an understanding of principles or rules.

A common trap with multiple-choice questions is to misread questions, so read them carefully.

- Look for and underline any distinguishing words or phrases.
- Don't labour over questions of which you're unsure. Move on to those you can answer more comfortably and return to those you're unsure of when you've completed the remaining questions.
- Change answers only if you have a strong feeling that your first response was

Short answer questions

Look for and underline key instruction words or phrases that tell you how to answer the question. These questions are most often used to test knowledge and understanding of definitions, formulae, principles and explanations. Your answers should be succinct, so first look for and underline key instruction words in the question to help you to know how to answer. For a list of such words see p.10 of *Planning and Writing University Assignments* in the Otago Study Guide series and available online at : http://sld.otago.ac.nz/find-online-resources/
For example:

- Define: Give clear, precise meanings.
- State: Write down the main points.
- Explain: Clarify the meaning of a statement or concept.
- Show: Demonstrate by examples.
- Gauge how much information is required by the number of marks assigned to each question, and allocate time accordingly. For example, if a question is worth 2 marks you won't provide as much detail as for a question worth 5 marks.

Essay questions

Exam essay questions test understanding of themes, ideas and concepts, and the ability to interpret, and analyse information. Therefore, it's essential that you have a sound understanding of important concepts or theories in your course and that you think carefully about applying them to various ways that a question could be asked. For example, in a Sociology paper where the Treaty of Waitangi has been focused on in relation to social workers in a service agency, you could also consider the role and implications of the Treaty from their client's point of view. It's not advisable to have a set of pre-determined essays memorised before you sit the exam because this approach will not equip you with the flexibility to be able to answer a specific question.

Your preparation can also be assisted by discussions with fellow students and planning an answer to past exam essay questions. Both these approaches will help to reinforce important facts from your course. At the end of that exercise, ask yourself how you performed. Have you answered the question? Is your argument relevant and convincing? Do your points move from one to the other in a logical way? Have you provided strong examples?

Read essay questions carefully. See examples above in the section on short answer questions regarding instruction words.

- Begin with the essay question with which you feel most comfortable and which deals with the material you know best.
- Plan your response in the supplementary booklet(s) if these are available. Some papers, however, require you to do any planning/notes in the official answer booklet. The time you spend planning is time well spent. For example, if you have 40 minutes in which to write an essay spend about 10 minutes planning. Note the key points and examples you intend to include in bullet point form or via a concept map. As you plan, reread the question to make sure you're on track.
- Standards are obviously important, but the marker won't necessarily be as picky when marking an exam essay as an internal assessment essay. Nevertheless, you need to show a clear understanding and application of ideas to appropriately and fully answer the question. Remember that if you have poor grammar and punctuation your message may be lost. Don't leave it to the marker to make the connections between the ideas; you must make them yourself with appropriate explanations, linking words and phrases. Refer to pp. 3-5 of *Guidelines for Writing and Editing* in the Otago Study Guide series and available online at: http://sld.otago.ac.nz/find-online-resources/.
- No reference list is required in an exam essay.
- If you run out of time (although that's less likely if you go into the exam with a time plan and stick to it) use bullet points to indicate how you would have completed your answer.
- Some departments embargo their exam papers but generally, copies of past exam papers are available for viewing and printing from the Library website: http://www.otago.ac.nz/library

The student voice

Students have a collective wealth of knowledge about preparing for exams. Here are some of their tips collated from various exam preparation workshops in response to the following questions:
What strategies/techniques have helped you in the past when you have studied for exams? Or what have other people told you is effective?

- "Plan how I'm going to revise before I begin."
- " Use concept or mind maps with lots of colour. They may be more effective than pages of written notes"
- " Rewrite notes from lectures/textbook into a condensed form and in your own words so you understand them."
- "Don't study for long periods. Forty minutes and then a break."
- "Do old exams for that course. They'll show you what you know and don't know."

- “Read what is expected of you in the course objectives.”
- “Study with others, and work on areas of confusion with them.”
- “Write a list of motivational goals and consider the benefits of studying well.”

A friend of yours gets bored reading the same old lecture notes and textbooks. Your friend is also concerned about retaining information. What different note-making approaches can you recommend to your friend?

- “ Use mind maps, cue cards for definitions and posters. Create a flow diagram of the information.”
- “Answer questions in the textbook to apply the information.”
- “Discuss the key learning objectives, concepts and theories with someone.”
- “Listen to lectures again on podcast.”
- “Be an active learner—ask yourself lots of questions.”
- “Write notes on post-its and stick them around your room so you read them as often
- as possible.”

A friend talks to you about lacking in motivation during the study period leading up to exams. What could you recommend?

- “Study in a group and motivate each other. Study in different places.”
- “Look at the big picture i.e. what are your long-term goals?”
- “Have some kind of reward for every few hours of study achieved.”
- “It’s only three weeks of your life. You’ll be very grateful you put in the effort for many years after.”
- “Set goals for each day. Small steps are sometimes better in the long run.”
- “Study somewhere with no distractions.”
- “Even if it’s a compulsory paper you’re taking, think of it as a stepping stone to get to where you want to be —there may be choices next semester.”
- “Mix up different ways of studying.”
- “Think about the consequences of not studying enough.”
- “Plan something fun to look forward to after exams.”
- “Adopt a positive attitude—think about how much you want to achieve, the steps to get there and how good it will feel when your hard work pays off.” What are some good strategies to keep body, mind and spirit healthy for the period leading up to the exams?”
- “Don’t study 24/7. Take small breaks.”
- “Avoid late nights and have good time management to avoid stress.”
- “Keep your body healthy as well as your brain—balance.”
- “Keep up exercise and have time with family and friends.”
- “ Reward yourself when study has gone well.”

- “Think positively—the exam period is short so give it your best shot.”
- “Go to bed and get up at about the same time each day.”
- “Consider what the best time of day is for you to do the most effective learning, especially for difficult subjects.”
- “Drink plenty of water.”
- “Know your commitments and your limits.”
- “Don’t be too hard on yourself. Just do your best.”

What do you have to think about when planning your time so that you get all your revising done?

- “How much time is there between now and the exam?”
- “Be realistic about how much time you allow for each task.”
- “Make a plan with the times, day and study for that course.”
- “Don’t spend all your time on one subject, even if it’s your worst.”
- “Study timetables have worked for me, as long as they are kept to.”
- “Do I have to cut back on extra-curricular activities in order to achieve my goals?”
- “Consider your strengths/weaknesses in your papers. “Which subject needs more attention than others?”
- “Vary the subjects for study so that you don’t get bored.”
- “Make a priority list of things to do.”

Sitting the exam

It’s important to think about the order in which you might answer the exam questions, particularly if there’s a mix of multiple-choice answer questions, long answer questions, short answer questions and essays. Which questions might you feel most comfortable answering first? Should you do the question(s) you find most difficult first? Or will you systematically answer all questions in chronological order? There’s no one right way to approach the exam but consider these matters BEFORE the exam.

It’s also important to work out how long to spend per section or question BEFORE going to your exam so that you’ll complete the paper. For example, in a three-hour exam which has four essays, you would spend 45 minutes per essay. Be sure you know whether the exam is two hours or three hours so that you can work out a time plan, and remind yourself that you intend to move on to the next question at the end of the time you’ve allotted for it. You can return to the incomplete one(s) if you have time at the end.

Attempt to answer every question and don’t choose a particularly difficult essay question thinking that it will gain you a higher mark. This is not the case, so opt

for a question in which you're interested. In the exam booklet you might also like to consider writing on alternate lines so if you want to add some information it'll be easier to do so. You may also want to write only on the right hand side of the answer booklet and on alternate lines so that if you need to add several lines, or a paragraph, they can be slotted in on the left hand side of the booklet. Make sure you indicate the inclusion of this extra information to the marker with an arrow or asterisk.

Try to have a positive outlook and not hook into other people's negativity about what they haven't studied. Another part of having a positive attitude is having Plan B. For example, if your results preclude you from being accepted into a course, think about some alternative options rather than adopting an all or nothing attitude. The efforts you've put into your current course don't need to be devalued or wasted if you adopt this flexible and realistic approach regarding other possible interests and careers. Furthermore, having Plan B will put you under less pressure and help you to remain motivated.

Practicalities

- Check out the exam venue well in advance of the day.
- Double-check the date and time of the exam.
- Take several pens, pencils (for multi-choice questions) and an eraser, calculator and ruler if required/permitted.
- Don't forget your ID card.

Student Learning Development (SLD) runs workshops on time management, note-taking, reading, and preparing for exams, and can offer one-to-one appointments with one of their staff. Come into SLD reception to book an appointment or send us an email at hedc.studentlearning@otago.ac.nz

Check out our resources online at http://sld.otago.ac.nz/find-online-resources/