

Learning Strategies for Students with Learning Disabilities



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To the students with Learning Disabilities who are reading this document:

Welcome to IIMB!

We don't want our preface to highlight everything that makes IIMB special. You already know what those qualities are - that's precisely why you're here. We want the preface to highlight everything that makes *you* special. *We* already know what these qualities are because that's precisely why *you're* here.

Life was never meant to be easy. Without challenges to fire up our blood, without limitations to test our ingenuity, and without hurdles to pit our wits against, our lives would be flat and stagnant. But while challenges are necessary for progress, people with learning disabilities (LD) tend to have more struggles than most. They have more obstacles to overcome and more battles to fight. They have to flourish in a world that often makes no allowances for their needs.

We know that you are special because of everything that you've had to endure to get here today. You've demonstrated more courage and determination than most people your age. When we look at the students of IIMB, we see a gathering of India's best and brightest. When we look at you, we *also* see India's bravest and grittiest. Everybody in this program is an example of intelligence. You are also an example of strength and perseverance.

This document has been put together to help you get the most out of your time here. It is organized using the LASSI (Learning and Study Strategies Inventory) framework. It includes tips and guidance from world experts, information from Ohio University's website on learning strategies, and our original content. We've provided you with references wherever possible. Do let us know what works for you and what doesn't. And tell us what techniques have helped you in the past. While all students can benefit from these techniques, studies have shown that LD students with high abilities tend to profit from them tremendously.

Not everybody you work with here will understand you and your needs. Be patient and make allowances for their inexperience. Use their lapses of understanding as an opportunity to educate them about learning disabilities. Show them that your need is not an easy world, but a *fair* world. Explain to them that your disorder isn't a handicap when you have an environment in which you can thrive and flourish. The world they live in has always been tailored for the majority. Now, at IIMB, it's being expanded to make a place for you.

Best wishes,

Centre for Teaching and Learning (CTL)



A note on Digital Learning Strategies for Students with Learning Disabilities (LDs)

Digital learning was a long time coming even before the worldwide pandemic – COVID 19 – hastened its arrival. Students across the world, including you, find themselves in the midst of classes, assignments and exams which would be delivered in a digital format, exclusively. If you are mindful of the benefits which you can extract from this development, you can excel in digital learning.

LD students may suffer from a shorter attention span and may be easily distracted¹. In a physical classroom, they may find it difficult to keep up with the Professor and their peers as they process information at a different rate. This makes retaining and grasping a concept difficult. Digital class recordings, material and chat transcripts are available for perusal at the student's convenience. You can learn at your own pace and contact the course instructor or teaching assistant for clarifications from the comfort of your home.

A digital course is likely to include learning material in an array of media formats such as videos and audio clips in addition to the usual readings and assignments. It may require you to collaborate with your peers on online assignments through innovative tools. The variety would break monotony and keep you engaged and focused on learning.

There is more time to devote to learning as the time usually spent in preparing to go out, commuting to and from the institute and waiting around for other classes is saved. You can use this time to improve their understanding of the content. Students with certain kinds of LD may use this time to manipulate digital text (by changing their font style or size) with the help of certain software and IT tools, which helps them in processing the information effectively².

In a physical class, listening to the Professor and taking notes at the same time, may seem tedious. With recorded lectures, you can witness a live class and enjoy the benefits of peer learning by observing comments or chat responses of your course mates. You can also play, pause, and replay recordings as often as you want to reflect on a concept and consolidate it in your mind.

Digital classes, taken from home, may improve your focus and concentration. It is likely that you can focus better at home, in a known environment with fewer distractions. A physical class has a myriad of distractions in the form of more students and a cacophony of sights and sounds, not to mention the additional social pressure of being in a classroom full of people. At home, there is no embarrassment in using assistive technology as well, which may inhibit you in a physical classroom. A home environment can provide the privacy to access the course in whatever way works best for you³.

Digital learning provides a certain level of flexibility especially in relation to asynchronous content. Asynchronous content refers to course material which you can consume at a time that you decide unlike synchronous sessions where students must meet at the same time. Asynchronous form of digital learning allows you to take breaks as frequently as needed. If the stimuli become too much to process, you can rest, rejuvenate, and come back to the material when you are ready. There is no need to stick to a tight timeline as in physical classrooms.

¹ https://blog.learnfasthq.com/how-to-improve-accessibility-to-online-learning-for-people-with-special-needs

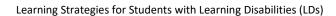
² https://elearningindustry.com/5-benefits-of-elearning-for-disabled-students

³ https://www.learndash.com/how-e-learning-is-better-for-special-needs-students/



Typically, by this time of the year, you would have met your peers and developed a sense of community with your batch. You should make a conscious effort to connect with your course mates by way of online tools such as chat and instant messengers as well as discussion forums and online communities. Peer learning is a powerful enabler of learning. You must not let the inability of meeting your peers face to face, prevent you from getting to know them.

We do recognize that despite the convenience, flexibility and accessibility that digital learning affords, it is a limited substitute for an on-campus experience. It is an imperfect stand in for the camaraderie that peers bring to a physical classroom or the networking that students often seek from an educational institution. However, given the overall situation, digital learning appears to be a savior. We are fortunate that we have the kind of technology that allows us to continue your education in a way that is as good as face to face classes.





An Introduction to Learning and Study Strategies

Your course at IIMB is a new and significant stage in your learning journey. While the learning skills that brought you here today were undoubtedly successful, the new challenges you face and the new environment you operate in may necessitate additional strategies. This ehandbook, which uses the LASSI (Learning and Study Strategies Inventory) model as its framework, will help you assess and restock your learning arsenal. The areas covered include Attitude, Information Processing, Concentration, Motivation, Selecting Main Ideas, Self Testing, Test-taking Strategies, Time Management, and Anxiety. Each section is designed to support strategic learning and balances detail with brevity.

The handbook offers tips from experts and includes both information from Cleveland State University, Ohio's <u>website</u> on learning strategies and our extensively researched original content.

Furthermore, with an aim to make you better informed, we have compiled a primer on 'Assistive Technologies for Students with Learning Disabilities' to assist you in choosing a technology to play to your strengths and work around your challenges. You will find this information in Appendix 1.

Note: Right-click on the headings (with twisties/triangles on their left) below to collapse the content in the entire document; for this, you simply need to click on 'Collapse All Headings'. You may also collapse selected headings by just right-clicking on them and clicking on 'Collapse Heading'. Please note that the document is expanded by default.



ATTITUDE

Why is a positive attitude important?



Attitude is everything. Your attitude is the cookie-cutter that shapes your life and the difference between having a bad day and a challenging day. By cultivating a positive attitude, you can achieve academic and personal goals and improve your physical and mental health. A positive attitude, in a nutshell, is key to your success⁴.

A positive attitude can:

- Usher in positive opportunities Your positive presence is likely to make your networking opportunities brighter. When you have a positive outlook, your social circle expands
- Get you hired Employers around the world are looking forward to employ people who will
 not only take the work forward, but will also add an uplifting energy to the workplace. No
 one wants negativity and drama in the office
- Help you recover quicker If you are suffering from an illness, and at the same time have hope and a positive outlook, you will make a faster recovery. Remember, your attitude makes a huge impact on your health
- Help you attract success Often people with negativity fail to overcome challenges and do
 what it takes to have a successful life. A positive attitude comes handy here; it will drive you
 to work hard and gain success
- Gain you friends People who bring a positive attitude to any conversation are the ones winning over people. A positive attitude can work as a magnet when making new friends

Developing a positive attitude

A person with a positive attitude is one who:

- is willing to learn
- derives joy from even the simple things in life
- doesn't run from challenges
- actively seeks self-improvement
- demonstrates enthusiasm towards tasks
- is open to new ideas
- has a sense of humor and laughs at himself/herself

⁴ http://www.plazacollege.edu/the-importance-of-a-positive-attitude/



Qualities that lead to the development of a positive attitude:

- Confidence: You may not consciously realize this, but when you believe in yourself, your brain makes a subtle shift from "how do I get by" to "how do I excel." And that fundamental change makes all the difference to how you approach life.
- Optimism: Likewise, having faith in people and situations shifts your mindset from one that accepts mediocrity to one that expects success.
- Punctuality: Valuing both your time and the time of others, trains you to make the most of every minute.
- Listening to personal dialogue: Changing a negative thought to a positive one, with a "I have tried my best and still couldn't get this done, but I have skills to get other things done".
- Patience: Everything worthwhile is the result of hard work and time. Nothing long-lasting is built in seconds.
- Dedication: Your attitude isn't just the product of confidence, optimism, prudence, and patience. The ability to dedicate yourself to the task at hand - whatever its importance or effect - is the platform upon which all your other qualities can stand.

It is also very important that you have fun. People who take themselves too seriously don't always attract other people. People who immerse themselves in their work to the point where their professionalism becomes their personality may find that the quality of their life suffers. Leisure time and activities can help you unwind and deal with stressful situations better. Never work yourself to breaking point - you'll help nobody, least of all yourself. Learn to enjoy life⁵.

Creating SMART Goals

Behind every successful person is a plan. Within every successful plan is a list of SMART goals. And since the fact that you are reading this means that you're amongst the best and the brightest, it's time you began making SMART (specific, measurable, attainable, realistic, timebound) goals⁶.

- 1. <u>Goals should be specific</u>. A specific goal is more likely to be achieved than a general one. To set a specific goal, try to answer six specific questions:
 - Who is involved?
 - What do I want to accomplish?
 - Where should this happen?
 - By when should this happen?
 - What are my requirements and constraints?
 - Why do I want to achieve this?
- 2. <u>Goals should be measurable</u>. When you're able to measure your progress, you're more likely to stay on track and achieve your target. You will also experience the highly-motivating thrill of achievement. You can make your progress measurable by establishing concrete criteria or noting

⁵ https://www.csuohio.edu/sites/default/files/Develop%20Positive%20Habits.pdf

⁶ https://www.health.harvard.edu/blog/get-smart-about-your-goals-this-strategy-can-help-you-stay-focused-and-on-track-at-any-age-2017090112113



specific milestones. It's important, when you consider this, that you ask yourself questions like "how much?", "how many?" and "how will I know I've done it?"

- 3. <u>Goals should be attainable</u>. You may already have a rough idea about how you plan to achieve your goal. You may need to develop certain attitudes and abilities and reach a specific financial capacity. The knowledge that your goal is achievable will help you climb over every obstacle you face.
- 4. <u>Goals should be realistic</u>. Talk to other people about your goal. They are likely to have an unbiased opinion about whether it's realistic or not. But remember that only you truly know what your limitations are and how strong your passion is. It isn't wrong to have high expectations, so go as high as you're willing to work. If you have faith in yourself and believe that you can achieve your goal, then there's a good chance that your goal is realistic

Contrasting Positive and Negative Thinking: Examples

In response to a challenge, a positive attitude is one that thinks, "this is an opportunity for me to test my ingenuity and excel." A negative attitude is one that would think, "why do bad things always happen to me?"

Before an examination, a positive attitude may think, "I've studied well. I can do this." A negative attitude might think, "Nothing is in my control. If I fail, it's because everything is against me".

In the face of a difficult class, a positive attitude thinks, "I must pay extra attention and stay alert." A negative attitude thinks, "This is boring, irrelevant, or too difficult for me to attempt." When given a task, a positive attitude says, "I'm willing. I'll work on it now". A negative attitude thinks, "It's not important enough, not worth the effort, or not interesting."

Just remember that at the end of the day you live in the life you make. Whether you make your life a positive place or a negative place depends a lot upon your attitude.

Developing Positive Habits

Attitudes and habits often go hand in hand. Positive habits often bolster a positive attitude. Likewise, negative habits can be the crutches that prop up negative attitudes. The only way to shift from one to the other is through change. Perhaps it's your perspective that needs changing. The way you experience life, after all, depends upon how you decide to perceive it. Maybe it's a situation to which you need to adapt.

The ability to change is crucial in an ever-changing world. The willingness to learn is vital in an ever-progressing society. In a corporate world of acquisitions, mergers, and buyouts, more and more organizations are realizing just how important change is. The organizations that do not change find that they soon fall behind. So do the people who refuse to change, learn, and adapt.

Strategies for Creating Positive Change



Negative habits can be unlearned, and the first step towards achieving that is committing, consciously, the necessary time and effort. The following strategies can help you eliminate negative habits and replace them with positive ones.

1. Be willing to change

If you have not made a conscious decision to change yourself or don't see any value in changing your habits, then you'll always find reasons to stay the same. Lasting change requires willpower, effort, and commitment.

2. Be positive

Goodness and beauty are in everything. When you expect to see positivity, you will find it. Train yourself to see the good in every person and every situation. It will soon come naturally to you. Look at everything as a learning opportunity - not even failure can be stripped off of valuable lessons.

3. Develop specific goals

Specific goals are not expressions of wishes and hopes. They are statements of fact that you are determined to see fulfilled. Do not say, "I should devote more time to my studies." Instead, say, "I will devote 40 minutes twice daily to my studies". Your goal should ideally be measurable.

4. Go slow

Change just one habit at a time. If you try to change too many things about yourself too quickly - or all at the same time - you can end up backsliding and feel discouraged. Master one change before you move onto the next.

5. Start small

While it would be nice to succeed in leaps and bounds, success is often the result of consistency. And consistency usually happens in small steps. Small steps don't necessarily mean small results. After all, a massive avalanche can be the result of a single snowball.

6. Use visualization and affirmations to imagine success

Being able to visualize your success or imagining yourself sailing effortlessly through a task can sometimes cut through any insecurities that would otherwise have held you back.

7. Watch and imitate other people

Observe the behavior of successful students and look at how they respond to different situations. What habits or viewpoints do they have that sets them apart? What attributes do they cultivate, prize, and possess? Forming study groups with good students can help you develop effective study habits.

8. Be self-aware

Pay attention to and reflect upon your thoughts and behavior. Knowing what your worries are can help you eliminate them. Once you have identified what typically stresses you out or slows you down, you can come up with ways to deal with them.

9. Reward yourself

Rewarding yourself for successfully making a positive change can increase your motivation. Make sure your reward comes after the results and that they are limited in duration. Savor the pleasurable



feelings you get when you make a positive change - mental rewards can be as effective as external ones.

10. Be patient and persistent

Lasting change is the result of behaving consistently over a period. This will take an abundance of patience and time resulting in the change being the new normal after a while. The transformation might not be evident immediately, so it is essential that the process is followed diligently, and time is allotted where it is due. If you fail on one day, make sure you get back on track the next day.

Practice Goal Setting. Link provided

https://www.csuohio.edu/sites/default/files/Practice%20Goal%20Setting.pdf.



Here is the document for your convenience:



INFORMATION PROCESSING



Memory: Tips, Tricks, Techniques

A deep understanding of the material, memorization, and recollection are integral parts of information processing and learning. If you have trouble memorizing things or are looking for ways in which you can improve your memory, the tips and techniques below can help you⁷.

Factors that affect Memorization

- Understanding: You must understand the material you're memorizing the knowledge you
 retain is useless if you don't know how to apply it. Understanding also aids memorization it
 takes far less effort to remember what you understand than to memorize what you don't.
- Routine: Be organized. Uncertainty and irregularity are often very stressful, and stress can impact your ability to memorize or recall things. Having a routine also teaches you discipline, and this discipline extends inwards when practiced.
- Repetition: It is advisable to brush up your learning on a subject that you had previously learned and memorized. This is essential because as you keep learning new things, you tend to forget the things you memorized previously.
- Sleep: Researchers have found that one of the essential elements to preserve memory is sleep. You need adequate sleep (about 8 hours) to stay healthy. It also helps strengthen and consolidate your memory. The brain needs time to recharge, and sleep is the downtime that helps it to absorb, process and consolidate new information. In simple terms, the act of sleeping makes information stick inside your head.
- The environment: When you are memorizing something, ensure the environment is conducive to learning. An ambience with noise and external distractions can result in disrupting your memorizing capability.

Memorization Techniques

A good memory is not necessarily something with which we are born. Most people with good memories use memory devices--knowingly or unknowingly⁸. These include:

1. Mnemonics

'Mnemonics' refers to several different memory devices. You've probably already used them in school. Popular ones include:

⁷ https://learningcenter.unc.edu/tips-and-tools/enhancing-your-memory/

⁸ https://media.lanecc.edu/users/kime/Ch6Cencoderetrieve.4.pdf



- word abbreviations (e.g., the word 'VIBGYOR' can help you recall the order of colors in a rainbow: V for Violet, I for Indigo, B for Blue, G for Green, Y for Yellow, O for Orange, and R for Red).
- music (e.g., singing the ABC song helps children memorize the alphabet faster than just reciting the letters).
- word expressions or phrases (e.g., the phrase
 My Very Educated Mother Just Served Us Noodles' supports recalling the order of the eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune).
- rhymes (e.g., the rhyme "*i* before *e* except after *c* or when sounding ike *a* in *neighbor* and *weigh*" aids in recalling a rule of spelling).

The examples above are of 'ready-made' mnemonics. You may have to create your own for the information you're trying to memorize.

2. Counting

Do you need to memorize a list of items or a set of facts? Knowing how many pieces of information you need to recall can help you recall them. 'Pinning' certain items to certain numbers in your mind can also help you remember them better. You can pin regularly spaced numbers—like the fifth, tenth, and fifteenth items on the list. Or you may choose to pin numbers of personal significance—like birthdays.

3. Method of Loci/Memory Palace

This method constitutes a visual filing system. Think of this system as an imaginary filing system that you will create in your mind. You create a journey path, in a known place and place the objects that you want to remember at different positions. Now while retrieving the information, retrace the path of the journey and find the objects that you have placed there. The journey can be simple: for example, it could be a clockwise stroll around your bedroom. The objects to be remembered can be placed or associated with different parts of your room⁹.

4. Assign Meaning

When you learn something new, relate it to something you know. A good way to do this is by thinking of real-life examples of whatever you've just learned. Every time you learn the definition of a new business strategy, for example, connect it to a company that successfully or unsuccessfully utilized it. Your knowledge of how the company fared and what challenges it faced will allow you to remember the details of the strategy at a later date.

5. Chain or associate facts

You can chain information together in the form of a story to help you remember facts. You can also associate them with words, phrases, or faces. It doesn't matter if the story chain is nonsensical or the associations are silly. What matters is that you're able to secure the information within the story chain or pin facts to associated objects in a way that helps recollection.

6. Memory Games

There are several memory games that you can play alone or with friends. Some require cards or everyday objects. Many memory games are just word games and can be played anywhere, anytime.

⁹ http://www.hcs.harvard.edu/brain/featured/Deng Mnemonics



This website lists and lays out several types of memory games: https://icebreakerideas.com/memory-games/

Memorization strategies can often be combined. You can also use multiple techniques to remember the same information. It doesn't matter whether you break the rules or create illogical patterns--all that matters is that you can recall the information you need at the right time and use it in the right way.

Annotating Made Easy

Annotations are comments, notes, explanations, or other types of external remarks that can be added to a block of text. Their purpose is to aid your understanding, instantly show you what are the key points in a document or add information that the text may not explicitly contain. Students often find it useful to annotate their textbooks. If this isn't something you've done before, try this practical exercise:

Choose a passage from your textbook to annotate. 10

- Find a short phrase that expresses the main idea of the passage. Draw a box around it.
- Find useful definitions for new or key terms. Underline them, circle them, or write 'def' in the margin.
- Use question marks (?) next to the text you do not understand or facts about which you need to follow up.
- Use exclamation marks (!) to indicate important information.
- Write 'e.g.' against examples or illustrations.

You may not need to do everything above. You may prefer highlighting to drawing boxes and underlining to circling. You may want to use multiple colors or symbols that feel more natural to you. The guidelines above are just examples. Think about what works for *you* when you study. You can also create possible test questions from your text readings. Just remember not to use pens or pencils that smudge or fade.

Effective Reading

If you have a large volume of material to be read, you need to use effective reading strategies that make optimum use of your time. You may decide to use just one strategy or a combination of more it depends upon what you need to get out of the written material. The rate at which you read depends upon several factors; the level of comprehension you require, the degree of difficulty of the

¹⁰ https://www.ramapo.edu/crw/files/2013/03/20-2.pdf



material, and the writing style or vocabulary of the writer. With the right strategy, you will save time while achieving your goal. Note: if you are using assistive technology (refer to Appendix 1), you may have to adapt some of these techniques to your style of learning.

1. Skimming

Skimming is the technique by which a reader focuses on keywords, main ideas, headings, and subheadings. It involves covering unknown material quickly by absorbing the central ideas. (Skimming is similar to the 'Survey' technique in the SQ3R method that you will be introduced to elsewhere in the document).

2. Scanning

While skimming consists of quickly covering all the material and taking note of the main points, scanning involves looking only for specific information. When you scan, you ignore the bulk of the material and keep your eye open only for the information you require. To scan efficiently, you must be clear about what you seek to find.

3. Notetaking

When used properly, note-taking is one of the most efficient ways of recalling things. Note-taking involves reading through the entire article to establish perspective and general understanding. Once you've done that, go back and note down the main points. Your notes should be direct, concise, and as detail-free as possible. Notes that are organized or assembled in a logical pattern and have been reviewed are the most effective in helping you understand and memorize information.

4. Pattern notes

Since thoughts often come into our minds in a random or unstructured manner (as you start, for example, planning on your assignment), it can be helpful to know how to give them structure. These steps may help you:

- Write the topic heading in the center of a large page
- Note down keywords related to the subject and link them to the subject at the center of the page
- This is likely to trigger ideas so write them all down on the page
- Now that you've spontaneously generated an abundance of ideas, edit the pattern. Link relevant points to the introduction, conclusion, and various themes of the topic. Eliminate irrelevant points if necessary

Turning unpatterned notes into logically-structured pattern notes will help you to remember key points. This form of note-taking uses the brain's ability to remember patterns as well as written material.

5. Practice active reading

When you start reading, read with questions in mind. Make connections with the new information and the information that is already in your mind through past reading/experiences. Critically identify whether the information you are going through is answering the questions you have, if the information is from a reliable source, and find out if you are coming up with new questions while reading.



Centre for Teaching & Learning

Learning Strategies for Students with Learning Disabilities (LDs)

Effective Evaluation Approach

Any written material can be studied in the following ways:

- Preview the material and establish its length and layout.
- Skim the material for the main ideas.
- Read the material from start to finish without stopping. This will allow you to establish perspective and give you a general idea of the material.
- Scan to find specific facts that require attention (especially information which is new to you).
- Make pattern notes of the relevant facts or ideas.
- Memorize the facts, quotations, and dates if necessary.

These steps depend upon your personal preferences and requirements, so feel free to focus on some or leave out others. While these steps are considered successful ways of absorbing the information, they're not the *only* ways to read and recall. Remember that the ideal learning style is the one that is tailored to meet your individual needs.

Main Idea Map

The Main Idea Map is a visual tool used for learning and organizing material and facilitating easy recall. See a sample here:

https://www.csuohio.edu/sites/default/files/Main%20Idea%20Map.pdf



CONCENTRATION



There are multiple techniques through which you can study effectively.

Learning Techniques

Learning Techniques can be divided into three main categories: visual, auditory, and kinesthetic.

Visual learning techniques include studying by using or making charts, maps, tables, notes, lists, flashcards, and drawings.

Auditory learning techniques include reading material out loud to yourself, recording lectures, watching videos, participating in group discussions, and listening to recordings of yourself reading notes, or apps that convert text to speech or vice versa.

Kinesthetic learning techniques include taking lab classes and using role-play, field trips, group participation, and memory games to absorb and retain information.

No study has proven one set of techniques to be superior to the others, so it's a good idea to select the options that are feasible or work best for you in your situation. A mixed learning approach that *you* create for yourself helps keep you focused and caters to your unique style of learning. The technique you choose may be dependent on the nature of the task to be learned (for eg., it is unlikely that you will master swimming by reading a book).

Improve Listening Skills



On an average, a human being spends three times the time listening to his surroundings when compared to reading. Sharpening your auditory skills, therefore, can have a significant impact on your academic performance. The main difficulty in listening is that people think much, much faster



than they can talk. Estimates suggest that we go through 125 words a minute when talking but 60,000 words a minute when thinking. These metrics show the importance of controlling your thoughts, otherwise you will often be distracted in class.

4 Steps: Becoming an Efficient Listener

It is possible to become a more efficient listener. The four steps involved are:

1. Tune in

Prepare yourself for the new information you're about to receive. Effective teachers usually let you know what they're going to talk about ahead of time. Reflect on the specific meaning of the title of the lecture, ponder on the fundamental ideas applicable to the topic from your experience in the past, and try to understand the value it brings to the table. If time permits, skim through the chapter the day before the lecture. ¹¹

2. Question

Ask yourself questions like, "Does this reinforce my knowledge? If yes, then how? Are there any testimonies to the assertions made?" Critical thinking and asking questions are two crucial elements of learning, as the more you explore, the more you get involved in a topic, the more chances of increasing your listening capability. Questioning at the right juncture helps you break down a piece of information in a manner that helps your thinking and retaining process and also improves your focus on what the faculty is saying.

3. Listen proactively

Find the core thoughts relevant to the question. Anticipate the professor's next core thought. Proactive listening helps keep your thoughts from wandering off-topic.

4. Review

Summarise everything that was said and match the details with your notion. Did the lecture match your expectation? Assess everything you have heard.

Factors Behind Poor Listening

External factors can cause poor listening. These include physical discomfort, distracting classroom environments, gestures or mannerisms of the lecturer or the volume, vocabulary, or pronunciation of the teacher. ¹²

Internal factors can also cause poor listening. These include illness, tiredness, difficulties with concentration, low motivation or interest, a fundamental misunderstanding of the subject matter, or even the wrong technique in listening (for example, concentrating too much on the details and not enough on the central message).

¹¹ https://www.csuohio.edu/sites/default/files/Listening%20Skills.pdf

 $^{^{12}\} https://2012books.lardbucket.org/books/a-primer-on-communication-studies/s05-02-barriers-to-effective-listenin.html$



Response preparation often becomes a barrier to listening. We spend too much time and attention in preparing mentally what we are going to say as a response, or come up with a question/doubt to the lecture being given, that we fail to concentrate on the actual speech.

Useful Tips

- Realize the need to adapt to various settings and presenters.
- Develop your auditory memory by listening to different types of words, sounds, or numerical records, and revisit them in the same order.
- Use keywords as clues.
- Be sensitive to the speaker's phrasing, emphasis, and inflection.
- Draw inferences and think between the lines.
- Look for patterns in the way messages are structured.
- Evaluate what you've heard by considering the speaker's goals, motives, reasoning, and proof.
- Be objective and differentiate between objective facts and emotions/value judgments about facts.
- If you have permission, record the lecture. But don't be a passive listener, take notes.

An ideal study environment: check out the link below:

https://www.csuohio.edu/sites/default/files/My%20Ideal%20Study%20Environment.pdf

The *Pomodoro* technique is a time management tool that helps you work against deadlines, and in the process, improves your concentration.

https://www.csuohio.edu/sites/default/files/The%20Pomodoro%20Technique.pdf



MOTIVATION



Our beliefs affect both the goals we set and the motivation that drives us to achieve them.

Understanding Your Beliefs

Evaluating your beliefs can help you generate the inspiration for a fruitful student life. Beliefs are categorized into three types, which are:

Self-efficacy beliefs

Your understanding of your task-readiness strongly influences your motivation. In general, it's easier to stay motivated for something at which you think you're good than for something at which you don't think you're good. Faith in your abilities is, therefore, important to cultivate.

Enabling vs. self-sabotaging beliefs

Students who can foresee or can visualize the big picture have enabling beliefs, where they understand the consequence of their actions on outcomes. Self-sabotaging belief is when the students believe the inconsequentiality of their actions on outcomes. Enabling beliefs are more motivating than self-sabotaging beliefs. You can't control all the factors that affect your life. However, at the *very* least, you can control how you react to these factors. Your actions and reactions influence where you go in life, how high you aim, and whether you can achieve your goals. Believing that your efforts are fruitful influences your journey and goals positively. Believing that your efforts are fruitless demotivates and discourages you.

Attributional beliefs

Do you hold anything or anybody responsible for your triumphs and losses? If you have thoughts like "I did well in this exam because I studied hard" or "I did poorly because I didn't study enough," then you hold yourself responsible. If you have thoughts like "I did well because I was lucky" or "I did poorly because the professor doesn't like me," then you hold external factors responsible. People who take ownership for the reasons behind their successes and failures are likely to be more motivated because they know that the outcome depends upon *their* work.



Locus of Control

These beliefs are related to the psychological concept of 'locus of control.' The locus of control can be defined as the degree or extent to which individuals consider they are responsible for their own actions, instead of attributing external unmanageable factors. People whose internal locus of control is strong, believe that their actions contribute to their fate and their life events. Researchers found that pupils with external locus of control fared poorly than pupils with internal locus of control¹³. The reason being, the students who belong to the latter group believe, that their focus and hard work are responsible for their fruitful academic development. They held themselves responsible for their performance and were, therefore, more motivated to work hard. ¹⁴

What does this tell us?

All of this tells us that our beliefs strongly impact our motivation. If you have faith in your abilities, believe that your actions and efforts matter, and hold yourself responsible for your successes and failures, you're more likely to stay motivated, and succeed¹⁵.

Here's an exercise you can try. Think about something you're 'just not good at.' Now ask yourself why you feel that way. Is it because somebody told you that you were bad at it? Did you have bad experiences with it or fail outright in the past? Once you have your reasons, think of how you're going to combat them. Your negative thoughts can discourage you and hold you back the next time you need to employ that ability. You may need to change self-sabotaging thoughts to enabling thoughts. You may need to practice more or relearn how to do something completely. Just remember that you *can* make a difference.



¹³ https://www.ncbi.nlm.nih.gov/pubmed/9653423

¹⁴ https://www.mcser.org/journal/index.php/ajis/article/view/7428

¹⁵ https://blogs.harvard.edu/sammy/2008/11/20/internal-locus-of-control/



SELECTING MAIN IDEAS



Note-taking: Cornell Method

The Cornell method is a note-taking system that organizes and reviews your lecture notes in a way that increases comprehension and critical thinking. This is usually linked with higher test scores¹⁶. Watch this clip to master this technique:

https://www.youtube.com/watch?v=tdTyy1b3mGQ

Step One: Record Lecture Notes

Draw a vertical line 2 ½ inches from the left side of the paper you have selected. Consider this section as your review/self-test column. Now you can utilize the large vacant side on the right to write down the lecture notes. The notes can be in the form of an outline or paragraph—depending upon what the material calls for and your personal preferences. Make sure that you include information displayed in diagrams or presented through problems and solutions. Include examples, questions/answers, and significant comments from the professor as well.

Step 2: Review Notes and Self Test

Within a day of that particular lecture, review your notes. Early and repeated reviews boost your memory significantly and eliminate the stress associated with last-minute cramming or the relearning of forgotten material. In your review/self-test column, summarise the main points of the lecture with select keywords or brief phrases. Write down potential test questions that might appear on the topic. Creating practice questions is a process known as 'self-testing.' It's a highly successful study strategy because it increases both your understanding and retention of the material.

Step 3: <u>Summarise Your Notes</u>

Summarising your notes helps you understand which bits of the lecture you find difficult. It highlights any gaps in your understanding and shows you what sort of clarification you should ask your professor or study group. Summaries help you think about what you've learned critically. There is no fixed format for a summary—you can use diagrams, illustrations, equations, problems, or just words. If you have a buddy in class, check to see if you have captured key points.

Step 4: Quiz Yourself

¹⁶ http://lsc.cornell.edu/study-skills/cornell-note-taking-system/



Once you've filled in your review column and summarised the lecture, test yourself by covering up your notes and looking only at the keywords and self-test questions in the left-hand column. This will help you identify the concepts you have trouble with and help you identify areas that need more careful study.

Stage 5: Rehearse--frequently

Until you have a complete understanding of the lecture material, revise your notes, and test yourself several times a week. Don't ignore your textbooks—it can provide you with more information and definitions of relevant concepts. Revising material on multiple days is more effective than cramming before an exam, both in terms of understanding and memory. Note that with every revision, you will take less time to recall.

Study Guide Map – Sample provided

Here is a sample of a study guide plan: https://www.csuohio.edu/sites/default/files/Study%20Guide%20Map.pdf

Taking Lecture Notes

Taking Lecture Notes Effectively

Taking lecture notes is important for several different reasons. Taking notes helps you listen carefully in class and allows you to gauge your understanding as the lecture progresses. Your notes also tell you what to focus on when reading textbooks. They may be easier to remember than text because you've put the ideas down in your own words and according to your pattern of thinking. But do you know how to take lecture notes effectively?

Lecture Clues

Writing down every word that the lecturer says isn't possible. It also isn't the point of taking notes. Your notes should be quick aids to understanding—they should contain key ideas and focus on the central message of the material. They should, in short, only contain what is important. If you're wondering how to recognize important information when you hear it use these clues: ¹⁷

- Material written on the blackboard/whiteboard is important
- Anything that the lecturer repeats or emphasizes is important. Emphasis can be judged by the lecturer's tone of voice and body language. Emphasis can also be judged from the amount of time the lecturer spends on the idea—or by the number of illustrations and examples he or she uses.
- Signal phrases. These include phrases like "there are two points of view on..." "the first/second/third reason is..." "in contrast..." "in conclusion..." etc. Information preceded by signal phrases is always important.

Reviewing at the beginning of the class and summarizing at the end of the class are also helpful, as are formulas, specific facts, and definitions.

If you have permission, take photographs of the board plan that the faculty has developed.

¹⁷ https://info.lse.ac.uk/current-students/Assets/Articles/10-Tips-on-note-taking-during-lectures



Keeping Notes Brief and Organised

Your notes should balance brevity with clarity. These tips can help you keep your notes short and simple without compromising coherence:

- Consider using an appropriate phrase, in place of a sentence. Consider using a suitable word if that can replace a phrase.
- Apply symbols or abbreviations if you deem necessary but maintain consistency.
- Make use of headings and subheadings to organize information.
- Use a numbering system. Indention can help you differentiate between key and trivial points.
- If you skip a point, leave a space for it and get the required information later. Use symbols, if necessary, to remind yourself that you've missed something.
- Leave room for additional notes or future rewrites.
- Date your notes, put them in order, and number pages. Don't write on scraps of paper.

Remember that we tend to forget very quickly. Just because you understand something in class doesn't mean you'll remember it. Take notes and rework (or rewrite) them immediately after class—it's possible to find, at a later date, that you can't understand something you've taken down. Don't worry if this doesn't come naturally to you. Taking notes effectively and being able to separate important information from superfluous detail is a skill that comes with practice¹⁸.

25 July 2020

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¹⁸ https://willamette.edu/offices/lcenter/resources/study-strategies/notes.html



SELF TESTING



Memory

Memory Power for Facts and Concepts

The Four-Step System is an easy-to-use, effective, and versatile memory system. It's an interactive method of learning, which means that it offers you no opportunity to daydream. It is highly effective, time-efficient, and allows you to test yourself even before your instructor does.

Step One: Selecting Information

The first step to studying is knowing what to study. Gather all your study material—this could include your lecture notes, course handouts, textbooks, course quizzes, and question papers. Select main ideas, important facts, definitions, and information you believe is likely to be tested in an exam. Use chapter titles and subheadings as a guide to ensure you don't leave out important material. Focus on the information in your textbook that is underlined, italicized, bolded, or boxed. Other places to look for important information include charts, graphs, diagrams, chapter outlines and summaries, chapter questions and problems, equations, formulae, and chapter keywords.

Find someone with whom you can select important material. Two heads are often better than one, and together you will be able to muster a comprehensive question bank that your instructors are likely to ask on tests.

Step Two: Making Up Your Memory Slips

The next step involves transferring your selected material onto your memory slips. Make a batch of conveniently-sized paper slips. Each card can be made of regular paper. Write or print your selected material on each slip. Use apps that convert speech to text if you find it too difficult to write down. The simple act of copying text on a piece of paper or writing it down strengthens your learning and memory. Write the crux of the information on one side and the details on the other. For example, Side A could have the word or concept, and Side B could have the definition. Or Side A could hold a subheading while B could hold brief facts in the form of bullet points. Recite the information aloud as you put it on the slip. Limit each slip to just one definition, concept, formula, or fact.

Tell yourself repeatedly, as you complete this step, that you intend to remember the information you're putting on the slip. The intent to remember is an important factor in remembering material successfully.



Step Three: Studying with Memory Slips

Limit yourself to 7 - 10 memory slips for your first study session. This is the number of new items people are typically capable of remembering at one go.

Test yourself on the information provided on each slip, one at a time. Look at the word, subheading, question, or concept on Side A and recite your answers on Side B aloud—or write them down on scrap paper. Verify your answer immediately. If you answered correctly, put a small tick on the corner of Side A (or a cross if you answered incorrectly/incompletely). If you do not know the answer, study the slip more carefully and commit the answer to memory using a memory aid if necessary.

Do this for all 7 - 10 slips and then switch tasks for an hour. You can still study, just do a different subject or tackle a different problem. You can resume studying from the memory slips after an hour, shuffling first if you find that useful. Record your success rate, again, with a tick or a cross. If you did well, move on to a different batch of slips. Again, limit yourself to 7 - 10 new pieces of information. Don't go beyond 14 - 20 new slips per day.

After you record three successful ticks on Side A, turn the slips over and test yourself by reading through the information on Side B and remembering what appeared on Side A.

Step Four: Reviewing with Memory Slips

The secret to effective learning is practice and feedback. Practice means doing it over and over until you get it right. Feedback means knowing that our performance is skillful or that it needs correction and more work to get it right. In simple terms, Step Four of the Four Step System is a matter of repetition and revision.

Carry your slips and a pencil with you wherever feasible and use brief pockets of free time during the day to review them, you may have just five minutes to spare—but those five minutes can be very useful to you. You may not be able to read much from your textbook or lecture notes in the time, but you can revise a batch of memory slips quickly. You can use them while waiting in queues, doing chores, during TV commercials, in the bathroom—whenever you have a few minutes to spare. Always verify the correctness or completeness of your answer immediately. Spend time both on Sides A and B of each slip and shuffle the slips so that you don't find yourself re-reading only the first few.

Repetition is the key to mastery. If you have a slip with two or more cross marks, give it special attention. Continue to review your slips until you've taken your test or have completed your course.

In short:

- Begin by focusing on the bigger picture. Your initial memory slips should focus on the organization of your textbook chapter or lecture notes.
- Remind yourself with every slip that you intend to remember the information you're writing down. This intent makes your memorization more effective.
- Don't exceed 7 10 slips (if the information is new) in a single session. Don't exceed 14 20 new slips in a single day.



- Shuffle your cards when you know the information thoroughly. Your teacher won't test you in the order of your study slips.
- Verify your answers immediately. If you don't know the right answer, flip over the slip immediately to check.
- Devote extra time to slips you have difficulty with (that is, slips with two or more crosses on them).
- Carry your slips everywhere—their small size should make that easy. Use brief pockets of free time throughout the day to revise them.
- Revise frequently right up to your final exam.
- Be confident. By testing yourself so many times, you won't forget the information you've studied during your exam.

Ten Tips for Self-Testing

- 1. **Attitude:** If you think what you're studying is boring or unimportant, you'll have more trouble remembering what you learn. To stay motivated, develop curiosity about your material.
- 2. **Order of study:** Read, recite, write in your own words, self-test, and review. Memorization is the last step and should come after you've thoroughly understood the material.
- 3. **Organize:** Use headings, subheadings, numeration, diagrams, study charts, mind maps—whatever works for you. Having your material organized into meaningful clusters will help you remember it better.
- 4. **Lecture review:** Review (and rework if necessary) your lecture notes immediately after a lecture. This could help you resolve issues about clarity that may arise later. Reviewing material frequently also decreases the amount of relearning you'll have to do before your exams.
- 5. **Multiple methods:** Read your material, hear your material, visualize it, or experience it. Expose it to multiple senses or learn it in different ways to help the memory stick.
- 6. **Imagery:** Trying to visualize your notes in your mind can aid recall. Remember where underlined words were and see where questions appear. You may not see every word of your notes in your mind's eye, but just remembering where certain words appear or knowing how many points were included under a certain subheading can jog your memory.
- 7. **Create associations:** It's hard remembering information in isolation. Connect it to real-life experiences or things you already know. This will both help you understand the relevance or implications of your material and allow you to remember it more clearly.
- 8. **Self-test:** Create a question bank and write down answers to questions/solutions to problems. Overlearning material makes it easier to remember.
- 9. **Recency-latency effect:** Memorise material in short intervals of time. Recite what you have memorized at random times.
- 10. **Use study aids:** Make note cards, participate in group discussions or forums, join study groups, try teaching someone the material (peer assisted learning), read related material. There's more to studying than just memorizing notes.



TEST-TAKING STRATEGIES



Different subjects—or types of questions—call for different test strategies.

Tips for Studying for Math Tests

The main difference between math and other subjects is that while other subjects focus on memorization, math focuses on application. You *do* have to memorize formulae and rules, but the most important part of math is knowing how to use them. The only effective way to study for math, therefore, is through practice.

- Don't miss any classes before your test. The problems tutors present in class are frequently similar to the problems that they set you during tests.
- Complete all the problems in your textbook multiple times so that the act of application becomes routine.
- Don't immediately look for the answer if you're stuck—try to work out answers by yourself as much as possible. The breakthrough moment of figuring out how to solve a problem yourself is a powerful boost to memory.
- Review homework problems and redo them to complete your understanding. Find and solve similar problems.
- Explain the steps you take to solve a problem to yourself using your own words. This helps you to get thoroughly acquainted with the problem-solving techniques.
- Look for identifying characteristics to help you distinguish between different kinds of problems
- Help others with their math problems. There is no better way to master a topic than by teaching the same to others(peer learning). 19
- If you have made a mistake, analyze it and find out what was done wrong. If you cannot find what you did wrong, ask the help of a teacher or a classmate
- Use flashcards to memorize formulae and rules. Understanding how a formula is derived can help you apply it more effectively. Reach out to your tutor for help.
- Refrain from using a calculator during practice, if that is not allowed in your actual test.
- Study actively by drawing pictures or diagrams of the problem-solving process.
- Study early so that your teacher can help clarify any questions you have.
- Request for extra time during tests/exams.

Remember that practice is the key to mastering math.

¹⁹ https://math.osu.edu/undergrad/non-majors/resources/study-math-college



Tips for Solving Multiple Choice Questions (MCQs)

- Go through all the answer options, before you select one. Sometimes your brain might be tricked by choices that are only half-right.
- When you read the question, come up with an answer. Then look at the options and use your initial answer as a yardstick to measure the options given.
- Remember that there's no pattern to the right choice—the last answer is as likely to be right as
 the first
- If you're presented with a particularly tricky question, try to eliminate the outright wrong answers. This way, you will remove the distractions, focus your thinking, and find the right solution.
- Search for two opposite answer options. There's a possibility that one of them is the right one
- The question itself sometimes carry hints about the right answer, search for them or find them in other answers in rest of the test.
- Search for options that contain the terms used by your textbook or the question setter. They are likely to be the right options.
- Find conclusive evidence before changing your original answer. Your first choice is usually the right one.
- Choose 'all of the above' only if you're certain that all the options are right. Don't choose it even if there's only one wrong option. The same applies to 'none of the above'.
- Be mindful of the risk you take if there is negative marking.
- Manage your time. Before beginning the test, look at the number of questions, and allot time to yourself for each section.

MCQs and True/False questions measure certain factual understanding. Your goal is to identify the facts when you are studying for these type of exams²⁰.

Tips for Studying for Essay Tests

Essay tests evaluate how you understand recurring themes and core ideas. Therefore, a useful method to prepare for an essay test is to retrieve core ideas in a structured manner. These steps can help you study for essay tests²¹:

- Assemble the material that will be covered in your test. This can be found in your textbook, lecture notes, class handouts, etc.
- Read the material to identify themes and overall ideas. Label an index card with a heading for that theme. Even if it appears multiple times have just one index card for each theme/idea.
- Carefully review your material and then write down details for each index card you've made. Use speech converter apps, create soft copies and print if writing is too time-consuming for you.
- Review your cards several times to become familiar with the material
- Thinking like your teacher, predict the questions he or she might likely include in the test. Pen down every question on a key card. Include direction words in the question like 'describe,' 'explain,' and 'compare'.
- Check with your buddies, seniors, and tutors on questions that are likely to be asked.

²⁰ https://www.macleans.ca/education/how-to-ace-multiple-choice-tests/

²¹ https://depts.washington.edu/pswrite/essayex.html



- Write a response to each question on the back of the card. Setting up your study card is now complete. You have a bunch of study cards, every one of them containing a probable exam question along with an answer,
- Take these study cards wherever you go and review them frequently—especially the day before your test

Answering an Essay Test Question

Answering an essay test piece involves more than recollection. You also need to arrange the data you have collected and express it in writing. Your response should be focused, structured, and supported by examples, if possible. Think about each answer before you begin to write.

Here are a few suggestions that will assist you in bringing out your best when answering an essay test item:

- Identify direction words (describe, explain, compare, etc.) that tell you how exactly to answer those questions.
- Write in a way that is easy to read, it saves your time in rewriting. If you have the option of using a scribe, use the support provided.
- While planning, in your scribble sheet, use idea maps if it helps you structure your answers.
- Budget your time so that you don't focus on one question at the cost of others. Prioritize the answers that carry more marks when you budget time.
- If the questions specifically ask for personal opinion, give it, otherwise refrain from it.
- Avoid padding your answer. Examiners do not like elaboration of the obvious; elaborate what you know and it should be relevant to the topic.
- Use approximations when you can't remember the exact number or the date of occurrence. Say, if you forget that the date is "1748," rephrase it as "in the middle of the 18th century".
- Strike out the information you no longer require instead of erasing it to save time.
- Proofread your answer and correct grammatical problems—but only after you've finished answering all other questions.

Organized Checklist for Binders and Notes - ideas

Here are some ideas to organize your binders and notebooks:

https://www.csuohio.edu/sites/default/files/Organized%20Checklist%20for%20Binders%20and%20Notebooks.pdf

Post-test analysis

Click here to access a three-part worksheet to reflect on your test performance and ways to get hetter:

https://www.csuohio.edu/sites/default/files/Post-Test%20Analysis.pdf



TIME MANAGEMENT



Time is a valuable resource. People buy time, spend time, waste time, pass the time, cherish time, and let time slip between their fingers. They try to be on time, they often work overtime, they run out of time, and they even turn back time. More than anything, however, they try to manage time. And they don't often succeed. Do you?

168-hour week

Try to make a list of all your activities each week. Then calculate the number of hours you spend on each item on your list each week. Categories should include sleeping, personal care, food preparation and consumption, chores, travel, university, leisure, shopping, and family time. Once you've done that, add up all the hours you've spent on each item. If the number you end up with is 168 hours or more, than you may have a problem with time management.

The good news is that identifying a problem is the first step towards solving it. For practical tips on time management, check this article from <u>Purdue University</u>.

Use this sheet to track the hours that you spend on each of your daily activities

https://www.csuohio.edu/sites/default/files/168%20Recorded%20Hours.pdf

Get familiar with Covey's Time Management Matrix, and learn to be more productive. Click to watch the clip:

https://www.youtube.com/watch?v=ODyG5IKbH08



ANXIETY



Anxiety can be defined as an emotional state marked by stressful thoughts, tension, disconcerting thoughts, and bodily changes such as an increase in blood pressure. It can be experienced by anybody and under different circumstances.

Reducing Anxiety

If you experience high levels of anxiety, then we have great news for you: it can be controlled.

<u>Short-term coping mechanisms</u> include relaxing and doing breathing exercises, taking a break and/or leaving the room, attempting only urgent tasks and scheduling the rest of your work for later, and evaluating the stressful situation. If the situation that's upsetting you doesn't require emotional investment, then remain relaxed and overlook it. If you think the problem needs attention, then tackle it immediately, discuss with a supportive companion, or write down the issue in an email that <u>you save as a draft and refrain from sending.</u>

Long-term coping mechanisms include:

- Striving for quality inside your boundaries
- Choosing your personal objectives and staying true to them
- Becoming part of a support system that includes family, friends, tutors, and helpful classmates
- Thinking positive
- Making decisions and avoiding uncertainty
- Having realistic expectations
- Anticipating potential worrying circumstances and either avoid these situations or prepare for them
- Living in the moment. Use past situations for learning and leave them behind
- Managing your time through prioritizing and planning
- Exercising, eating a balanced diet, sleeping enough, and avoiding alcohol, smoking, and drugs
- Accepting changes beyond your control
- Taking time for yourself. Make yourself a priority even if it's only for a few minutes each day

Stress Management Strategies

A lot of the strategies below may look like regular, common-sense activities that people do every day anyway. Yet, *very* few people do these every day.

The right attitude



Your attitude is the filter through which you experience life. If you approach life with a positive attitude, you are more likely to experience positive things. You'll also be more likely to handle challenges or stressful situations in a productive manner.

Eat healthy, stay fit, and sleep well

The fact that a balanced diet is associated with increased physical and mental endurance and a stronger immune system is well-known – but some university students tend to favor fast food and instant meals. Eat healthily and exercise regularly - both activities reduce stress. Exercise also contributes significantly to the quality of your sleep, and that's important because quality sleep leads to better mental health, greater productivity, and more energy.

Have healthy relationships and socialize

Open up to family members and friends and allow them to support you. Create and maintain relationships with people who bring positivity into your life. If you have trouble with your classmates, talk to them about it and try to work out your differences sooner rather than later. And remember to socialize - people are fundamentally social beings, and we need relationships to thrive and survive. If you are nervous about social interactions, join a recreational club with a relaxed ambience. Just remember to balance your social life and academic work.

Drugs & Alcohol

Drugs can have terrible physical and mental effects ranging from moderate to severe. Since individual experiences vary, you may not know which category you fall into until it's too late. Stay away from drugs and alcohol - both lead to more stress.

Plan: your time, budgets, and assignments

Be organized and plan how you spend your time each week. Setting weekly plans will give you focus and lower stress levels.

Exam Anxiety

If you are nervous before exams, take a few deep breaths and imagine you have done very well in your exam. Positive thinking and relaxation are essential otherwise exam anxiety may disrupt your thinking abilities.

Quiet Time

Having quiet time for yourself is essential. Find a quiet place--somewhere that's easily accessible - and go there when you need to clear your head. This place could be in your home, the library, a park - anywhere you can unwind.

Successful Strategies to manage Test Anxiety

Experiencing anxiety before a test is normal. It can even be beneficial because a little anxiety motivates us. But too much anxiety can have the reverse effect and interfere with our performance²². If you suffer from unhelpful levels of test anxiety, try following these tips:

Before the Test

- Be prepared. Don't wait until the last minute, but study in advance.
- Get plenty of sleep, eat a healthy, moderate breakfast, and avoid alcohol and drugs (unless they've been prescribed to help you manage a medical condition).
- Exercise. Movement can increase your alertness.
- Arrive early and choose a seat at a location that offers few or no distractions (like seats in the front, if that's allowed).
- Use abdominal breathing. Put either of your hands on your stomach, right below your rib cage. Breathe in through your nose till your stomach is filled like a balloon. Inhale, hold the breath and count to three and then slowly exhale and count to four. Feel your stomach tightening as you exhale
- Be positive. Keep things in perspective and tell yourself things like "I've done this before, and again I can do this" or "I know how to get through this."
- Go into the exam room, just a few minutes early (not too early though) before the start of the exam. This will help you avoid anxious examinees.

During the Test

- Read all the questions quickly and the instructions thoroughly.
- Complete the simplest sections of the test before you go to the more complicated portions.
 Leave difficult questions for later.
- Memory dump the points you think you will not remember on the back of the test once you get the test paper.
- Read through all the choices for Multiple Choice Questions. Make short outlines for essay questions. Start and finish essay questions with a synopsis.
- Pace yourself, take brief pauses to stretch and loosen your muscles, and take breaths for abdominal breaths or remember the positive thoughts.
- Remain focused and remind yourself that finishing the test early brings no reward.

After the Test

- Don't ponder on your errors
- Explore something soothing if you are anxious.
- Remember that regardless of the exam results, you've made an effort and done your best that deserves a reward.

Checklist

You can control or eliminate text anxiety by creating a checklist. Ticking items or crossing them out can help you feel more in charge, your checklist could include:

²² https://www.lib.sfu.ca/about/branches-depts/slc/learning/exam-anxiety/reducing-exam-anxiety



- I have taken notes in each class session, and I understand them.
- I am satisfied with my notes.
- I have gone over my notes with a study partner.
- I have reviewed my notes repeatedly according to my study schedule.
- I know what material the test covers, and I have gone over it.
- I have prepared and reviewed study cards especially for challenging sections.
- I have completed a practice test that covers at least one-third of the material covered in class
- I have discussed this material with someone or have developed an outline or visual representation of important facts.
- I have a sense of what questions will appear on the test.
- I know details about the questions: how many there will be, how many marks they carry, what types of questions they will be, and how many of each type there are.
- I know how much time I will have for the test.
- I have a plan for how much time I will spend on each section of the test and the time is according to the value of each section.
- I have envisioned my success at taking the test.
- I feel like both my study preparation and the things I have checked on this list have placed this test within my control to the maximum extent possible.

Click here to access more information on test anxiety and successful strategies to overcome test anxiety:

https://osu.app.box.com/v/testanxietypp



Closing Note

You may find that some of these tips work better than others--and some may not suit you at all. Do write to us at CTL@iimb.ac.in and let us know what helped you and what didn't. We're also very interested in techniques that you *do* use and that haven't been included in our guidebook.

Campus Resources:

Reach out to the Office of Disability Services (ODS), located on the Ground Floor of Block B, for any help you may need- including classroom accommodation, support on assistive technology, and additional time for assignments, coursework, and testing.

Appendix 1

Assistive Technology (AT) or Enabling Technology refers to any technology used by people with disabilities to perform a task or action. While students with physical disabilities require life skills assistive technologies, students requiring assistance in the learning context will find curriculum assistive technologies beneficial. Students with LDs depend on the use of these specialized technologies to improve their functional capabilities.

When pursuing higher education, you may need access to:

- technology that facilitates access to and use of words in text
- technology that facilitates access to and use of words spoken
- technology that helps compensate for cognitive deficits ²³

Assistive Technology by domain: Here is a list of AT tools that facilitate learning for students with learning disabilities.²⁴[Adapted from Young, G., & MacCormack, J. (2014).

Assistive Technology for Students with Learning Disabilities

Domain	Low-Mid	Mid-High	Mobile Apps
	Technologies	Technologies	
Receptive	Notepads help	Students may	Audiobooks are pre-
	students record	purchase audio	recorded. They offer
	information. They can	recorders to store	relevant information
	color-code the details	several hundred hours	on a particular subject
	based on the subject	of lectures.	that the student is
	and learning purpose		studying. Recordings
			are available in
			different formats –
			MP3, CDs, audio
	Alternative keyboards	Talking dictionaries	cassettes.
	are programmable	also make for a good	
	keyboards excellent	investment. This is a	
	for students with LD	great low-cost tool to	
	and typing issues. The	help students verify	Students also have
	keyboard can be	spellings of words and	options to subscribe to
	customized with	their definitions	electronic libraries
	overlays which are not	easily. Students can	online, like <u>Sugamya</u>
	present on a general	conveniently carry	<u>Pustakalaya</u> .
	keyboard. Students	these devices in their	
	have options to add	pockets/pencil cases.	

²³ http://blogs.onlineeducation.touro.edu/8-assistive-technology-tools-for-students-with-disabilities/

²⁴ https://www.ldatschool.ca/assistive-technology/



	graphics (for comprehension) and group keys using separate colors. Frequency Modulation (FM) systems reduce background noise and help students with attention deficit and LDs. The tool helps address language processing concerns.	The free online dictionary, VisuWords helps students look up words and their meanings. Students can also look up their association with other words.	Google Meet and Microsoft Teams (Office 365) come with autocaptions for students to follow a live conference better. Microsoft PowerPoint also has option of subtitling/captions.
Speaking	Cue Cards are composed to organize the information to be presented beforehand. It offers students helpful clues on the lecture.	Prezi is a free 3D graphic organizer tool. This is used for creating presentations that students can comment on and utilize the information to build on other Prezis.	ShowMe Interactive Whiteboard is a recorder that allows students to record presentations on their iPads and also record videos, which can be uploaded on YouTube/a private platform.
Reading (Dyslexia)	Sticky notes are used by students to summarize ideas from a chapter they read and stick it directly on that page. This makes learning and revision very convenient. Highlighter strips are color rectangles	Text-to-Speech software like Kurzweil 3000 reads aloud the printed/digital text. The text is scanned, synthesized and read out in a voice that students can easily understand. Bookshare Web Reader is a free tool students may use.	GoodReader is a PDF reader enabling students to take notes, highlight text and add sticky notes. Speak Selection is available to Apple device users. The application reads aloud digital text.
	that highlight only the text being read at that time while blocking out the rest of the	Wikipedia has a <u>Simple English</u>	aloud digital text.

²⁵ http://islrtc.nic.in/sites/default/files/Indian%20Sign%20Language%20Interpreters%20directory.pdf.



	text. This reading guide makes reading easy by wiping out the clutter. Pentop computers like LiveScribe smart pens can help with reading disabilities. The tool helps translate text-to-speech	function which translates the content into very simple/plain English making it easier to comprehend. Computers with screen readers like NVDA or JAWS for Windows and voiceover for Mac.	Free Books has over 23,000 free books. Students can highlight/bookmark text and pages. It also comes with an in-built dictionary. OCR (Optical Character Recognition)/ reading software like EYE-D Pro app
Writing (Dysgraphia)	Pencil grips make it easier for students facing difficulty with handwriting. There are also computerized pens transmitting handwriting into electronic text. Some of these also come with audio-recording features. Pentop computers are hand-held tools digitizes written words supporting students in taking notes and	Word processing features facilitate students with writing issues. The functions include spell check, synonyms, dictionary tools, and word prediction. Writing Support software, like Grammarly, Reverso, LanguageTools, ProWritingAid, etc. helps students who cannot write grammatically correct sentences with no semantic problems.	Pages help students to write, edit and share. The app has spell check, word prediction and speech-to-text features. iWordQ not only helps in writing with functions like word-choice and proof reading, it also is a good app providing reading assistance. Dragon Dictation is a voice recognition app. Students can speak and immediately see
Reasoning (Cognitive)	Graphic organizers work with outlining software to help students with organizing and	Inspiration is a software letting students visually organize ideas; no need of handwriting	their text/email messages. SimpleMind+ is apt for organizing ideas. Concept maps are converted to outlines automatically.



	outlining problems. It gets easier for students to connect ideas.	or dealing with spellings. The whole content is translated into essay outlines automatically.	
	Audio recorders help students record lectures for going through later. It provides better clarification on the subject discussed.	Spark-Space uses idea mapping essay writer feature supporting visual learner students to write.	
		Audacity lets students record and edit sounds. This software is free.	
Math (Dyscalculia)	4-function calculators help students with LDs without giving them disproportionate advantage over students with no learning issues.	Graphing calculators assist students in solving complex equations. Students can verify results before actually putting the solution on paper.	ShowMe and ScreenChomp offer interactive whiteboard interface for solving calculation issues The solution steps on screen can be recorded along with the audio and shared as a video file.
	Pentop computers help provide strategic auditory feedback during math activities ²⁶ .		

While greater knowledge of each technology is important in providing practical support, Assistive Technology tools and devices are benefiting students with disabilities globally. You will find several of the aforementioned tools and software available for free in case you do not want to or cannot spend a fortune on them.

²⁶ https://www.ldatschool.ca/assistive-technology/

