

# Study Skills Handbook

The Greater University Tutoring Service is a student run, volunteer, peer tutoring program which provides free tutoring assistance to University students who wish to improve their academic performance or conversational English skills.

For more information, visit our website or stop by our office.

Website: <http://guts.studentorg.wisc.edu>

E-mail: [guts@rso.wisc.edu](mailto:guts@rso.wisc.edu)

Phone: (608) 263-5666

## Academic Match

- Consistent weekly small group tutoring based on class throughout the semester.
- Tutors available in a variety of subjects.
- Past math, chemistry, and physics exams on file.

## Drop-In

- Immediate, short-term tutoring
- Individual assistance in various subjects
- Available at College and Steenbock libraries.

## Study Skills

- Individual counseling sessions on various study strategies.
- Workshops for large groups based on specific/general strategies.

## Conversational English

- Improve your own English fluency or help someone else improve their English fluency.
- Promote interaction between cultures through conversation and gatherings.

## TABLE OF CONTENTS

1. Survival Tips for College	3
2. Time Management	4
3. Note Taking in Class	5-7
4. Motivation	8
5. Concentration	9
6. Reading	10-11
7. Memory	12-13
8. Tips for Participation	14
9. Study Methods	15-18
10. Exam Preparation	19
11. Test Taking	20
12. Tips for Specific Tests	21-23
13. Test Anxiety and Stress	24-25
14. Specific Course Resources	26-30
*Math, Chemistry	26-27
*Physics, Economics	28
*Foreign Language	29-30

*Revised Fall 2008*  
*A. Asad, R. Neymark*

## Survival Tips for College

- Don't be afraid to ask for help.
- Make going to class worthwhile by paying attention.
- Manage your time efficiently and don't procrastinate.
- Schedule breaks from studying.
- Establish a routine time to study for each class.
- Find a good place to study.
- Study a little bit every day.
- Try not to stress out about exams.
- Start studying early.
- Always back up your papers!
- Make use of study resources on campus.
  - Labs
  - Tutors
  - Computer programs
  - Alternate texts
  - Professors
  - TAs
  - Advisors
- Find at least one or two students in each class to study with.

# Time Management

## General Time Management Tips:

- Be aware of how you spend your time. Try logging whatever activities you do for a couple days to visually see where your time goes.
- Specify the particular course and the work you will study rather than just marking "study" on your schedule.
- Bring extra work wherever you go for unexpected down time. For example, carry a class reading ~~to read in order~~ to knock off a couple pages while waiting for the bus or for a class to start. Every bit of time you study during the day helps.

### HOW-TO: Use Your Time Management Grid

- Fill in your classes and any other activities you participate in every week (work, sports, clubs, etc.). Don't forget to allot time for meals and free time each day!
- Figure out which times you can study during each day by viewing all leftover open times.
- Schedule in your homework and studying. Be specific with time and subject.
- Use the grid to divide up large assignments and readings by filling in the To-Do box at the bottom of the sheet.

### HOW-TO: Use Your Semester-at-a- Glance Sheet

- Set out your syllabus for each class.
- Fill out all major due dates for projects, papers, and exams for the semester.
- Post the calendar somewhere that you can see it everyday. This will allow you to look ahead and avoid surprises.
- Plan out your weekends by looking ahead in the calendar.

## Note Taking

### General Note Taking Tips...

- Place question marks in your notes for information you missed or did not understand during lecture. As soon as possible after class, try to make your notes 100% complete by filling in any gaps, looking up definitions to difficult words, and/or underlining the key information from the lecture.
- Listen more than you write. Students who try to copy down everything the lecturer says frequently understand less information than if they actively listen and process the information.
- Stay organized. Label each page of notes with lecture titles, dates, and numbers. Leave spaces of blank lines in-between topics- it's easier on your brain.
- Listen for cues. Note key words (ex. not, only, always). Take more notes when the lecturer emphasizes a specific idea or concept.
- Shorten down your notes. Write your notes in phrases, not sentences. Use consistent acronyms, abbreviations, and symbols when possible.

### Note Taking with an Outline...

- Stay organized.
- Add in details and examples; summarize main points in your own words.
- Highlight or underline only key information.
- Record example problems and solutions that the professor covers during lecture.

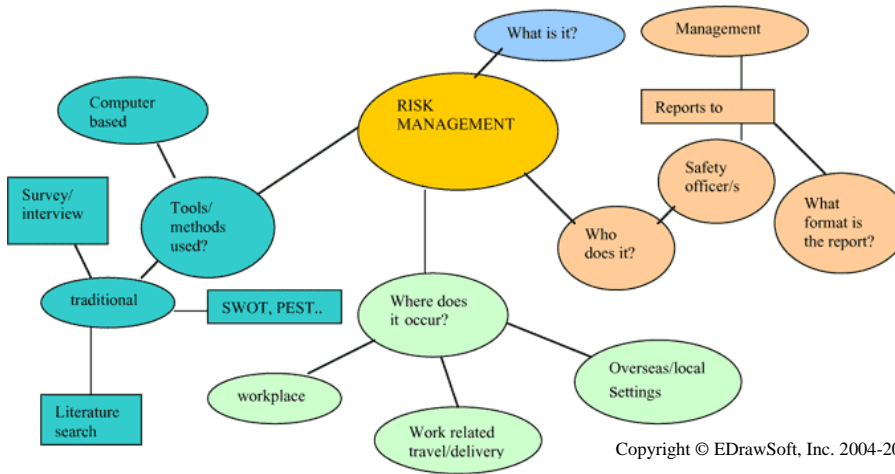
### Note Taking without an Outline...

- Pick out main points and actively listen.
- Be a flexible note taker. Choose your method based on the lecturer's style. Keep in mind that each lecturer has a different style, so you may have to use different methods for different classes.
- If you feel like you missed some information from the lecture, compare notes after class with a classmate.

# Methods

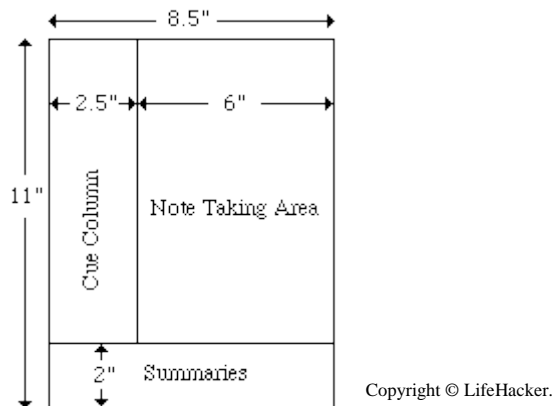
## 1. Mind Map Method

- Helps you visualize the connections among different concepts presented in lecture.
- Helps to organize papers because you can easily draw connections among topics.



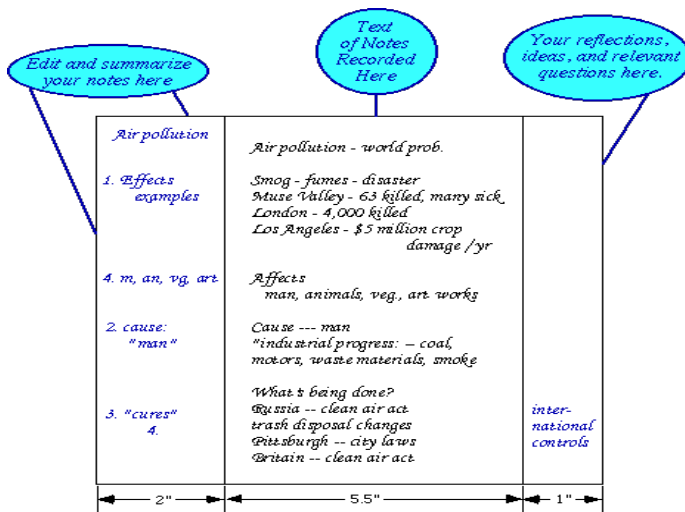
## 2. Cornell Note Taking System

- Helps emphasize important facts and ideas.
- Can be used to study for exams by covering the recording area and testing your knowledge.



### 3. Periodical Method

- Answers can be easily found in the center column.
- Great for reviewing main ideas and emerging topics.
- Take notes in phrases (not in full sentences) in the middle column.
- Summarize your notes in the left hand column.
- In the right hand column write ideas and questions.



## Motivation

### Remember to set SMART goals!

<b>S</b>	Specific
<b>M</b>	Measurable
<b>A</b>	Attainable
<b>R</b>	Realistic
<b>T</b>	Timely

### Set Your Goals:

- Set realistic goals, within timelines.
- Post your goals somewhere you will be able to see them frequently.
- Goals should be specific and clear.
- Determine the purpose of your goals and their achievement benefits.
- Set specific strategies for accomplishing each goal.
- List potential obstacles to attaining the goal.
- List strategies for overcoming the obstacles.
- Reward yourself when a goal is met!

### HOW-TO: Use your Goal-Setting sheet

- Choose an academic or personal goal for the week or semester.
- Write it on the goal setting sheet or on a post-it note.
- Don't forget to fill out the most important part- the reward!
- Put your goal somewhere you can see it everyday to motivate yourself to achieve the goal for yourself, not only for a good grade.

## Concentration

- **Look over notes before class.** This will refresh your memory about what was discussed in the previous lecture and get you in the mindset.
- **Resist distractions.** Sit towards the front of the room and in the center.
- **Practice active listening.** Try using these simple techniques: face the listener, maintain eye contact, minimize internal and external distractions and engage yourself thinking of questions/counterarguments.
- **Try the “shadowing” technique.** In your mind, repeat the lecturer’s last sentence in your mind until you are focused on the lecture again.
- **Stay awake!** Take advantage of lecture. It is the one time where you are directly taught the information.
- **Make studying interactive.** To avoid simply staring at your notebook, make use of other study methods besides just looking over your notebook. Try reviewing your notes with flashcards or a study group.
- **Take short breaks, frequently.** The average college student has a concentration length of only about 20 minutes. Make your study time more effective by taking 5-10 minute breaks when you feel yourself not concentrating anymore.
- **Find *your* place to study.** Do you prefer to study with music or dead silence? At a desk or in a comfy couch? Ask yourself these questions and then find 1-2 places that are comfortable for you to do your work.
- **Stick to a routine.** After you find your 1-2 best study places, stay consistent and only study in those places.
- **Set up your space.** Lay out your necessary books, notes, writing utensils, and other materials, so you do not stop in the middle of studying to find something and get distracted.
- **Study when you have the most energy and best level of concentration.** Research has shown that your mind is fresher during the day.
- **Study for your harder classes first.** You have more energy at the beginning of your study time to do your harder homework.
- **Break your larger tasks down.** You will be more focused if you have a mini-goal in sight, such as: read textbook chapter 13 or review one set of math problems.

## Reading

### **For General Note Taking...**

- Try to translate the main points of your reading into your own words. Take time to read each section and understand it before writing anything down.
- Beware of over-highlighting. This can lead to “passive” reading, which is characterized by you not absorbing the material fully and/or losing concentration.
- Focus on noting key terms and concepts rather than large chunks of information. This will help you to avoid simply copying the entire text.

### **For Textbooks...**

- Skim the chapter summary in order to get a preliminary idea about the chapter’s topics. Then, when you read the whole chapter you can already feel somewhat familiar with the main topics.
- When reading whole chapters in detail, try the “One Sentence Rule” where you write one summarizing sentence for every paragraph you read. This will consolidate the information and later serve as a good study guide.
- If you don’t usually take notes, consider putting the main topics and key terms onto flashcards instead.

### **For Essays and Articles...**

- Think about the context of the article, such as the author’s background, time period, etc. Also, think about the purpose of the article and why your instructor chose to assign it in particular.
- Summarize the article in your notebook in no more than a paragraph’s length and then reflect on the article by adding a few notes about your opinions or thoughts. If you do this, you will not need to re-read the whole article come test time because you’ll easily remember it from your notes.

*Many people rely too heavily on techniques to help pick out important information in their readings. Highlighting and underlining can only get you so far when trying to remember and understand information. Rather than focusing on taking in the material, make sure you are engaging with it somehow, and can show some sort of output. This can be done in a number of ways; follow the steps below to improve your reading habits.*

Step 1: Preview the reading. Identify titles, images, charts, etc... What do you think it will be about? Predict the main ideas.

Step 2: As you read, use the following symbols instead of just highlighting/underlining. All of these (except maybe 'agree') should have something written along with them in the margins.

<ul style="list-style-type: none"> <li>▪ Use each of these symbols at least twice while you read. Make sure to note <u>what</u> you disagree with, question, find perplexing, etc...</li> <li>▪ Modify these depending on the type of reading you're doing (a chemistry textbook may not have much to disagree with, but probably has many connections to make and places to get stuck).</li> <li>▪ Ultimately the goal is for you to engage with the reading and do something with the information, rather than just try to remember it.</li> </ul>	
<p>Confirm - ! Compare this with what you thought the reading was going to be about. Is it the same? Different? How?</p> <p>Agree - + Do you like what the author is saying?</p> <p>Disagree - - Do you dislike what the author is saying?</p>	<p>Question/Challenge - ? Are his/her arguments sound? Do you have counter-examples?</p> <p>Connect - * Have you learned something before that relates to this? That either confirms or refutes?</p> <p>Perplexing - ?? Do you understand the point? Identify where you got lost.</p>

Formatted: Font: 10 pt

Step 3: Summarize the reading. What were the main points? Then reflect on what you specifically took from it, i.e. Why was this meaningful to you? Write no more than a short paragraph. Hint: keep these in a separate part of your notebook to use for easy review.

# Memory

## General Memory Tips

- **Make sure you get the information right the first time.** False ideas can be remembered as correct information if they are not corrected immediately.
- **Associate new material with related facts you already know.** Tie in new class material from the concepts that you already have mastered in the same class or other classes.
- **Organize all information on paper or out loud.** Involving more senses, such as speaking out loud, will increase your memory retention. But overall, find the study method that works best for your study style and stick with it.
- **Chunk material together.** Information is best taken in small bunches. Separate large topics into related subtopics to understand them more easily.
- **Reinforce what you have learned.** Familiarize yourself with the material through repetition and usage.

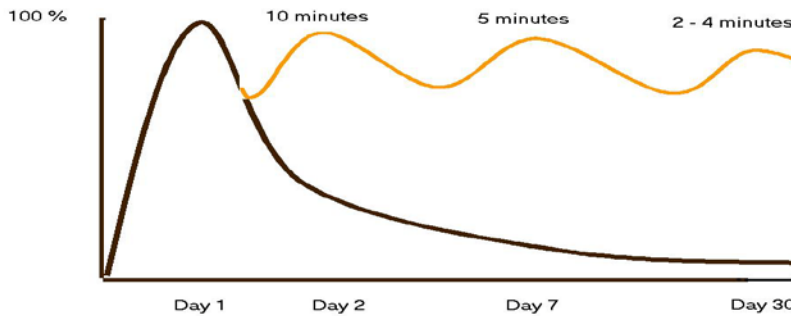
### Top 3 Reasons Why We Forget

1. Lack of usage.
2. Confusion with other info or conflict with past knowledge.
3. Not learning the information from the start.

## Memorization Tactics

- **Acrostics:** Create short phrases or poems where the first letter of each word serves as a cue to what information you are trying to remember. Ex. "Every Good Boy Does Fine" is the acrostic used to remember the musical note scale EGBDF.
- **Fill in the blanks:** Make flashcards with statements that are missing information. On the back, write the missing piece of information on the back and quiz yourself.
- **Seven is the magic number:** Repeat difficult information seven times a day for seven days. You may create flashcards for each piece of information or use your own method.
- **Relate and associate:** Form associations between the new ideas and information that you already know.
- **Acronyms:** Create words formed out of the first letters of a series of words. Ex. "Roy G. Biv" is a common acronym for memorizing the colors of the rainbow (red, orange, yellow, etc.).
- **Imagery:** If you are a visual person, draw images to represent certain concepts in order to remember them better.

## The Curve of Forgetting



### **BLACK LINE: Our natural curve of forgetting**

- Day 1 - You have retained 100% of what you learned at the end of lecture.
- Day 2 - You have lost 50-80% of what you learned yesterday in lecture.
- Day 30 - You have only retained 2-3% of what you learned in Day 1 lecture. Then, when you have to start studying for a test, you will have to spend many extra hours relearning everything from scratch.

### **GRAY LINE: Our way to beat the curve of forgetting**

- Day 1 - Spend 10 minutes reviewing all your notes in order to keep 100% memory retention. "Review" does not mean read your notes in extreme detail. "Review" means skim over your notes and refresh your mind about the key terms, concepts, and/or examples.
- Day 7 (weekly) - Spend 5 minutes reviewing all your notes. Pick a certain day of the week to sit down and review your notes for each week.
- Day 30 - You will only need to spend about 2-4 minutes reviewing all your notes before you will be able to remember terms, concepts and examples from the beginning of the semester.

## Tips for Participation

- **Don't be afraid to voice your questions or opinions.** Participation in discussion often demonstrates your interest and effort to your professors and TAs.
- **Use evidence when sharing your opinion in discussion.** Providing support is an important factor in making a credible and successful point or argument.
- **Base your points** on the text, readings, other class discussions, library sources, professionals in the field of study, and your own experience.
- **Listen carefully** to what your professor, TA, and other students say during discussion. Better listening will increase your involvement in discussions and allow you to give your own responses and comments more easily.
- **Write down notes of the points you wish to discuss beforehand.** Coming prepared to discussion is important, which includes doing readings or other assignments for discussion on time.
- **Introduce your question or opinion** with your own short summary of the current discussion. This shows that you have listened to others' comments before contributing your own. For example: "As I understand..."
- **Always clarify** when you are summarizing the text or others' opinions. This is also important when you are giving your own opinion.
- **After making your own comments, ask for feedback.** Allowing others to respond will let you know if others understand you and whether they agree or disagree.

## Study Methods

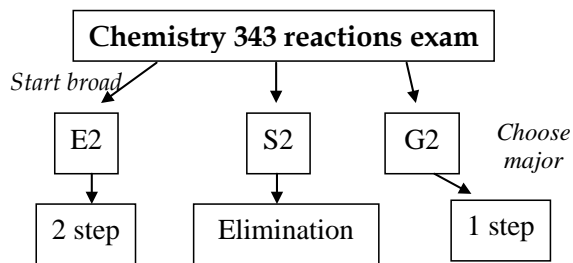
### 1. STUDY TREE/ STUDY WEBS

#### When to Use This Method:

- Recommended for scientific courses.
- You need to know a lot of information about a few main points
- You know the main ideas, but you need to learn the specifics.

#### How to Do It:

- Without looking at your text or class notes, pick out the main topics and branch out into specific details.
- Look at the branches you can't complete. Those are your "knowledge gaps".
- After finishing a tree diagram, go back to your text and class notes to fill in the gaps.
- After you have filled out the tree completely, make sure you are very familiar with each item. Repeat the tree again without looking at your textbook or notes or have someone quiz you on the material.



*Continue filling in more in-depth details about each subheading.  
For any subheadings lacking extensive details, go back and review*

#### Why This Works:

- By filling in the gaps, you are able to see what areas you don't have memorized. These may be main topics or details. If the gaps are details, review your notes, and see what is important.
- It helps you see how concepts fit together and gets you ready to apply your knowledge.

## 2. COMPARE AND CONTRAST GRID

### When to Use This Method:

- You need to know facts well enough to compare and contrast main ideas with supporting details.
- You will be writing responses on the test (i.e. short answer questions and essays)

### How to do it:

- Create the grid and fill in the appropriate information.
- Review the information. Try covering up sections and quizzing yourself.

### Why it works:

- Helps you to organize the information in a new way.
- Allows you to think through the connections of the information.
- Great way to quiz yourself.

Hamlet	<u>Hamlet</u> -thought, philosophical, prince, "feigned madness" <u>Claudius</u> - evil king, killed Hamlet Sr.,	Claudius unjustly becomes king, Hamlet must avenge his father's murder by killing Claudius.	Hamlet dies after killing Claudius and others.
Romeo & Juliet	<u>Romeo</u> - rash, innocent, "star-crossed lover" <u>Juliet</u> - sweet young, pure, beautiful	Families are enemies, but they fall in love. Romeo is banished. Juliet fakes her own death.	Both commit suicide because they believe the other is dead.

## 3. FLASHCARDS

### When to Use This Method:

- You will be taking Multiple Choice or Short Answer Exams
- You need to know facts well enough to compare and contrast main ideas with supporting details.

### How to do it:

- Traditional way - Vocabulary word on one side, definition on other.
- Color coding - Categorize the information using specific colors

### Why Flashcards Work:

The three methods mentioned allow you to:

- memorize bits of information,
- connect information with a color (which helps with memory)
- understand the information as whole not just individual parts

## 4. STUDY GROUPS

**When to use this method:**

- You will be writing responses on the exam, such as short answers or essays.
- You need to know facts well enough to connect ideas and explain them in detail.

**Why this works:**

- You will make your studying more interesting because you can interact with others.
- You will learn things from others and have the opportunity to teach information to others. If you can teach information to others, you know you have mastered the material.

**How it works:**

- Set up the structure of the group (time, location, what you will work on, etc.).
- Spend time reviewing concepts as a group and answer individual questions as you go along.
- Remember to stay on task. Focus on accomplishing a few problems or discussing a few concepts and then do something fun as a reward.

## 5. NOTE REVIEW

**When to use this method:**

- You need to know information from lecture, readings, and discussions and how they all correspond to one another.

**Why this works:**

- You will familiarize yourself with the lecture information. This is key for exam success.
- You can discover what information has been emphasized in more than one place (such as lecture and readings) and know what specific material to focus on for the exam.

**How it works:**

- Look over your notes.
- Read the information out loud in order to increase concentration and memory.
- Review your notes many times. Repetition is key!

## 6. HOMEWORK REVIEW

### When to use this method:

- You need to know processes of how to solve problems.
- Recommended for problem-solving tests in math, chemistry, physics, economics, etc.

### Why this works:

- You will be more confident with the problems on your exam by familiarizing yourself with the more difficult problems from your homework.
- Practice is the best study method when it comes to problem solving.

### How it works:

- Select 2-4 difficult problems to review from every homework assignment.
- Make sure you understand the concepts behind the problem and the entire process of how to get the answer.
- Practice these problems without referencing your notes in order to quiz yourself and prepare like you are in the exam.

## 7. PRACTICE EXAMS

### When to use this method:

- Recommended for problem-solving tests in math, chemistry, physics, economics, etc. and multiple-choice tests.

### Why this works:

- You will get into the mindset of taking the actual exam and be less stressed and more confident when you get to the exam.
- You will be encouraged to focus on problems or concepts that you don't understand completely.

### How it works:

- Take the exam. Consider taking the exam in the same amount of time allowed for the actual exam.
- Go over the problems that you got incorrect or had to refer to your notes for.

## 8. STUDY GUIDES

### When to use this method:

- Need to know lots of major topics.
- Recommended for multiple choice or essay exams.

### Why this works:

- It's an easy way to organize your information and make sure you understand it all.
- You will be able to focus on specific exam topics chosen by the professor or TA.

### How it works:

- Pick out the main ideas from lectures, readings, and discussions.
- Write out the key points for each idea, including vocabulary, definitions, or examples.

## Exam Preparation

**Plan Ahead.** Begin studying for an exam at least five to seven days before the test for 2-3 hrs per day. This will also allow you to go and see your TA/professor before the exam if you have any questions. Use our EXAM COUNTDOWN worksheet to schedule studying for exams.

### Ask yourself three questions.

*What do I need to know?*

Look at your syllabus, class notes, readings, difficult homework problems, and study guides if available. (Repeated topics are important!)

*What do I already know?*

Quiz yourself on what you feel comfortable with and then set these topics aside for a while.

*What don't I know and how should I learn it?*

There's no specific "right" way to study because everyone studies their own way.

See our section on Study Methods for a variety of ways to study.

Remember, you want to spend 80% of your time studying what you're not confident about and 20% doing overall reviews.

**Teach the information.** The best test of your knowledge and review is by explaining it to another person. If you can't, or find yourself unsure of how to explain some concepts go back and study that material.

**Prepare like you are in the exam!** Your tuition pays for campus buildings to be open, so feel free to take a practice test, study guide, or even just your notebook and study in the room where your test will be. If you can, recreate the exam by timing yourself and using the tools given to you in the test (i.e.- can you use a calculator?). This helps with memory and test anxiety!

**Don't just memorize facts!** The material is going to make more sense if you are able to understand how it all fits together. The majority of college level exams are not tests of your memorizing ability, but rather tests of your comprehension of the material and if you are able to apply it. Try a study tree to chunk information together and make it easier to remember and understand!

**Don't forget to stop studying!** Do not attempt to study the day of the exam. The material you study will only go into your short-term memory and confuse what you have already learned.

## Test Taking Tips

- **Mentally prepare yourself.** Before you start, know that you are going to have to think and work hard. Remain calm if answers don't immediately come to you.
- **Do a "mind dump."** When you first get the exam, jot down notes on the front page about details you know you might forget. Also, briefly outline your answers to questions that require a written response.
- **Scan over the exam.** Before you start, note the point values for each question and whether or not your exam is complete.
- **Do the easy problems first.** Working from easiest to hardest will build confidence and ensure you don't miss any easy points because you ran out of time.
- **Read each question carefully.** Make sure you answer all parts of the question.
- **Don't waste time on a question you don't know- move on!** It is not worth wasting time and getting frustrated. Make sure you get the points for the questions you do know. If you run out of time, make an educated guess to get partial points.
- **Generally, it is important to answer all the questions.** When you don't know the answer, make an educated guess based on what you know already and contextual clues.
- **Ask questions about anything unclear to you.** This includes anything from general grammar to the phrasing of a question to a specific concept.
- **Answer questions from the instructor's point of view.** Remember what he or she has emphasized over the entire course as important or necessary information to take away from the class.

## Tips for Specific Tests

### Problem-Solving Tests

- Show all your work to increase chances of getting at least partial credit.
- Don't waste time erasing. Draw a single line through the ignored work and move on. It will save time and may turn out to be useful to you later on in the problem.
- If you have extra time go back and check your work.

### True-False Tests

- Watch out for key terms, such as always, all, never, none, etc. Things are rarely always true.
- Be wary of longer statements. The longer the statement, the more things you are going to have to think about. Break it down into phrases and assess each component of it.

### Fill in The Blank Tests

- If there are two blanks, treat them as two different questions.
- Answers to fill in the blank questions are rarely vague, so be as specific you can.

### Matching Tests

- When first going through the list, only mark the matches you are absolutely sure of.
- When matching, go through all the choices before choosing an answer.

### Take Home Exams

- Give yourself plenty of time to complete it, don't wait until the night before it's due.
- Put in more details and pay attention to grammar and style.

### Open-Book Exams

- Make a note card of formulas for quick and easy reference.
- Fold down or bookmark important pages.
- If using notes, number each page and make a table of contents.
- Prepare thoroughly. Open-book exams are often the most difficult because the professor expects you to apply your knowledge even more than in closed-book exams.

### Oral Exams

- Practice possible questions that could be asked and answer them to a friend.
- Allow for plenty of time to practice.

## Multiple-Choice Tests

- You will need to do more than memorize for these types of tests - make sure you have an understanding of the material.
- Preview the exam and estimate how much time you should spend on each problem.
- Try to recall a concept from memory before looking at the choices (Cover up the answers and write down your own answer, and then match your answer with one of the choices).
- Read the question twice and then answer it. This helps cut down on stupid mistakes.
- Mark your first inclination on the question sheet. Usually your first guess is right.
- Only change your answer if you are absolutely sure.
- For opposite options one is usually correct.

- **The most important thing to do is to read the question carefully!**
  - **Know the vocabulary.** Be alert to terminology that links the question to key areas of the lectures or text.
  - **If you do not know what a word means ask for clarification or look at the context in which the word is used.** If you don't understand what the question is asking, ask the professor or TA to reword it. Make sure you understand before they walk away.
  - **Look at how choices differ.** Match up those choices to the stem of the question and see if any of them don't fit.
  - **Circle or underline key terms** (i.e. all, always, never, none, few, many, some, sometimes). These will often change the scope of the question. Also watch for prepositional phrases and details (the "fillers") in the question. This will help you get to the heart of the question.
  - **Be sure your answer encompasses both parts of the question.** Multiple choice problems test your applied knowledge, so think through the questions carefully.
  - **If you must guess, go with your gut feeling** and try to look at other test questions to see if you can draw connections between the materials.

## Essay Exams

### **Before You Start (5 minutes or less):**

- Read the question carefully and examine all parts of it.
- Develop thesis/argument/question
- Brainstorm all relevant arguments, authors, etc.
- Outline: Main points, sequence, and how much time needed for each section.

### **Start:**

- Make sure you introduce opposing arguments, and then counter them.
- Use EXAMPLES!!! Be specific. Draw from readings, notes, etc.
- Write down thesis and underline it.

### **End:**

- Restate thesis and describe how you proved it (can draw from outline)
- Do not re-emphasize examples

### **Example Questions:**

- Which of the events caused X to happen?
- What evidence do we have to support this hypothesis?
- What were the influences upon this person that made him/her do what he/she did?
- What was the long-term significance of these events?
- What can we who are living today learn from the past?
- How are event X and event Y similar? Different?

## Test Anxiety & Stress

### Before the Exam

- Be prepared. To get past the anxiety of taking a test, know what material will be covered on the exam in order to feel confident. Leave enough time to study so you do not cram.
- Get a good night of sleep. Never underestimate the power of sleep. Pulling an all-nighter will only increase your anxiety and hinder your ability to focus during the exam.
- Eat a snack or small meal about an hour before the exam, so you are not too sleepy or distracted.



### During the Exam

- Choose a comfortable seat for taking the test. If you get anxious when people are moving around you, seat near a wall or in the center of the room.
- Avoid cramming while waiting for the exam to begin. This will produce more anxiety and you will not learn any new information.
- Practice positive self-talk. Remind yourself of the time and effort you spend attending class, doing homework and studying. If you tell yourself you are going to fail, your negative attitude will simply bring down your score.
- Use physiological techniques to calm yourself. Close your eyes and breathe in for four counts and slowly out for eight. Pick a muscle group and flex it for 30 seconds then relax it. Picture yourself in a low-stress environment where you feel relaxed and rejuvenated in order to calm yourself.
- Take the exam step-by-step. If you get frustrated with a problem, move on and know you can come back to it later.



### After the Exam

- Take a deep breath and reward yourself. You're done!
- List what strategies worked and did not work for studying. Keep the good ones in mind for when you study for the next exam.
- Don't say "should [efhave](#), could [efhave](#), would [efhave](#)" and worry about what you didn't study. You cannot do anything about it now.

## Effective Stress Management Tips

*Strategies contributed by Rob Specich, counselor at UW Counseling and Consultation, who helps students with test anxiety and stress management.*

- Be aware of how you are taking care of all dimensions of your life, such as social, physical, emotional, career, intellectual, environmental, and spiritual.
- Give yourself some personal time every day to completely relax.
- Acknowledge your own choices. Instead of saying "I have to go to the library and study," it is more positive to say "I am going to the library because I want to succeed in my class."
- Visualize your test anxiety as energy for the exam, rather than simply anxiety.
- Identify your fears and try to move on. We have 50,000 thoughts everyday and 80% of those thoughts are fear.
- Make sure you have balance to your life. Don't overdo studying or play.
- Strive for excellence, not perfection. Know yourself and your own strengths and weaknesses. Don't attempt to go beyond what you can do, but still do your best.
- Don't be afraid to ask for help! Allow other people to make life a bit easier.
- Step outside. Take a walk to clear your head and relax.
- Accentuate the positive.
- Don't forget to treat yourself! Feel good about your accomplishments.

*If you want further help with test anxiety, the UHS Counseling & Consultation Services has specific counselors who provide free services that help students with anxiety and stress. Contact them at 265-5600.*

# Math

*Courtesy of David Camacho, Director of the Math Tutorial Program*

## What students need to know:

- Math in College is NOT like math in High School.
- You can NOT “catch up later” and expect to do well.
- Look over problems to find possible trouble areas and plan ahead to get help with them (there are lots of free tutoring options to help you!).

## Study Tips:

- **Do not just read the book, but work with the book.**

You will not see the same homework problems on the test, but similar concepts. So when doing your homework, concentrate only on what concepts you used to find that solution. Know the hypothesis and conclusion of a theorem. You also need to know when it is or is not applicable.

- **Prepare for lecture, and make sure you go to lecture!**

Skim and scan through the readings. You probably will not understand most of it, and that's expected. As soon as possible after lecture, go back and review your book again. Fill in any gaps in your notes.

- **Math takes time, and it will be difficult.**

The only way to succeed is to constantly work on practice problems. Make the extra effort to find more practice.

- **Make sure to visit TAs and professors if you are struggling, but do it before it's too late in the semester.**

# Chemistry

Courtesy of Dr. Agnes Lee, Chemistry Learning Center

## What students need to know:

- Use *flash cards* to learn the mechanisms
- Study and understand all the basic concepts first.
- Quizzes and homework assignments are helpful, so make sure you do them thoroughly.
- Read the book and *do a lot of practice problems*.
- Understanding the concepts is only good if you can apply them to problems on a test.
- Also *recopy your notes*. The more involved you are while studying chemistry (writing in addition to reading) the more you will retain what you are studying.
- Understand the main concepts and how to apply them. If you try to memorize everything, you'll end up remembering a lot less.

## Study Tips:

- Do as many problems as you can. Problems are often challenging because they are actually combinations of several smaller problems.
- Try to remember frequently used facts and numbers so you don't need to waste time constantly looking them up.
  - Names and symbols of the elements of the periodic table.
  - Metric and English systems. Be familiar with the prefixes of the metric system.
  - Names and structures of common compounds.
  - Common acids and bases—which ones are strong and which ones are weak.
- **Prepare for lab!**
  - You have to develop your own procedure showing all necessary steps
  - Read and prepare in advance
  - Do all the prep work. This includes pre-lab quiz, write out the intro, develop the procedure, set up data tables, and leave space for calculations, and discussion
  - Write-ups are expected to be completed by the end of the period that day.

## Physics

Probably the most beneficial study practice for physics is doing problems. Physics seems to rely on only a few equations, so there is not too much to memorize. The tricky part is knowing what equation to use, given the information presented.

Physics classes build on previous information. It is important to stay caught up with the material because it is difficult to catch up in a short amount of time.

Try to solve example problems on your own. Try to do the problems without looking at your notes first and ask questions if you get stuck.

Keep homework neat and organized: Messy diagrams are very difficult to interpret.

Showing all your work. Physics problems are often multi-part and the path to the solution is not always apparent. Always draw a picture, labeled well.

Check your answers. If you think you've messed up a problem check the units of each variable and check the units of your answer. Do they all make sense, do they match?

---

## Economics

A "study buddy" or study group can be a huge advantage.

Going to class, reading the book and keeping up with assigned problem sets.

Brushing up on math concepts, if you haven't taken math in a while is also very helpful in many econ classes (especially 301).

Stay on top of the coursework. If you are two chapters behind in the text compared to what the professor is lecturing, it is hard to do well.

Read the book. The text can cover issues more in depth, give extra examples and just act as an overall reinforcement of what you hear in lecture. Aside from attending class, the textbook should be your number one reference for an econ class.

## Foreign Language

- **Alphabets and Symbols**

Some languages have new symbols in the alphabet that must be mastered in order to learn the language. Think about using flashcards if this is the case.

- **Vocabulary**

Vocabulary is crucial to learning and studying any foreign language but you can't cram it in. Learning 10-15 words every night will help you remember them. Make flash cards for the translations, English on one side and foreign translation on the other. Color coding these cards may also be helpful (one color masculine, another for feminine, another for neutral or adjectives, nouns, verbs).

- **Singular-Plural**

The singular and plural forms of nouns may be learned using flash cards. Write the singular form on one side of the card and the plural form on the other side.

- **Lists**

Make flash cards for learning translations of lists of related words, such as numbers, colors, days of the week, etc. Learning them in order will help with memory.

- **Verb Conjugations**

Write the verb stem on one side and the various conjugations on the other side.

- **Exposure to the Language**

Set aside an hour or two per week for listening labs. It familiarizes you with pronunciation better. Also check the events on campus for conversation hours or videos being shown.

- **Study Groups**

Practice speaking the language with other students. You can make this fun by having, for example, a Mexican food night and speak Spanish the entire time.

- **Repetition and Practice**

Write translated word and phrases over and over again to gain recognition with the written language and practice pronouncing the words.

## Tri-Fold Technique

It is good to memorize the vocabulary in a foreign language class, but when it comes to test time, you need to know how to spell the vocabulary words as well. This is a technique to help students study their vocabulary words and practice spelling too.

Fold your paper into three sections (the black lines below denote where you are supposed to fold the paper).

---

<u>SECTION 1</u>	<u>SECTION 2</u>	<u>SECTION 3</u>
<p>For this section of the paper, write down your vocabulary words in the foreign language you are studying.</p>	<p>For this section, translate the vocabulary words into English without looking at your notes.</p>	<p>For the last section, fold over the first section so you can not see the vocabulary words and then try to spell each word in section two with the foreign language spelling.</p>
<p><b>Example:</b> Deutsch Español Français</p>	<p><b>Example:</b> German Spanish French</p>	<p><b>Example:</b> Deutsch Español Français</p>